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Wisconsin Horticulture

COLLEGE OF AGRICULTURE
UNIVERSITY OF WISCONSIN
MADISON

SEPTEMBER

1942

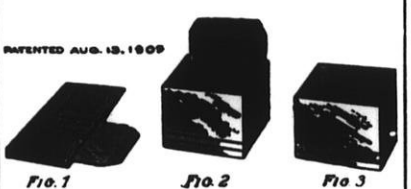
WHY NOT A VICTORY GARDEN?

Why not a victory garden
In red and white and blue?
The gay and cheerful blossoms
Will bring much joy to you.
When this world in all its trouble
Begs for God to bless,
He will send us flowers
To add to happiness.

Marion F. Haugseth, Hayward.

LIKES TAYLOR RED RASPBERRY

A LETTER from Mr. Carroll Krippner, Secretary of the Jefferson County Fruit Growers Association states, "We have just finished harvesting the heaviest red raspberry crop we have ever had on the farm. We still think the Taylor raspberry is tops in flavor, also an excellent producer, and it has a fine appearance in the box."



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Crates, Bushel Boxes and Climax Baskets

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CUMBERLAND FRUIT PACKAGE COMPANY

Dept. D, Cumberland, Wis.

Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

ESTABLISHED 1910

Entered at the postoffice at Madison, Wisconsin, as second-class matter. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1918.

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
424 University Farm Place
Madison, Wisconsin

H. J. RAHMLOW, *Editor*
Secretary Wisconsin State Horticultural Society

Office: Old Entomology Bldg., College of Agriculture
Tel. University 182

Volume XXXIII SEPTEMBER, 1942 No. 1

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PLEASE DO NOT SEND STAMPS

613228
JUL 2 1947

The 1942 Apple Crop

Report from Wisconsin Growers

THE 1942 season has been an unusual one for fruit growers. Plant Pathologists state that in some sections the average temperature was most ideal for the growth and spreading of scab, the most favorable temperature for scab being in the neighborhood of 60 degrees. Yet we find that good growers who sprayed carefully were able to control scab sufficiently well for practical purposes.

The following reports from growers were received about the middle of August.

By A. K. Bassett, Baraboo

Our own crop is about 5% larger than last year. McIntosh are heavier this year, but Wealthys are light.

We have very little scab ourselves, but there is much scab in this community. There is but little codling moth injury.

We will market our crop locally. We sell mostly by the bushel, packing the apples in bushel baskets.

By D. E. Bingham, Sturgeon Bay

The apple crop here is about 50% of last year, and 75% of normal.

Scab control has been very difficult and there is a lot of it in the community. Codling moth control has been good.

Our apples are sold packed in bushel baskets.

By Wm. Connell, Menomonie

The apple crop here is about 40% of last year, and 70% of normal.

Scab was difficult to control and there is lots of it in this neighborhood. There is no codling moth injury.

Our crop will be sold in baskets and a certain percentage will be sold at the orchard.

By Dawson Hauser, Bayfield

The apple crop at Bayfield is light with a few exceptions, being about 60% of last year, and 75% of normal.

The control of scab is only fair in our orchard, and many failed entirely. There are a few clean orchards. We have no codling moth injury

Apples will be trucked out in new or used baskets. A few boxes may be used for later apples that will hold about 20 lbs. Our crop is light as most of the orchard was in full bloom the night the temperature went down in the lower twenties.

By Ralph Irwin, Lancaster

The crop here is about 75% of last year.

Scab has been most difficult to control. Caught only a few moths in bait traps.

Our crop is sold locally in bushel and half-bushel baskets. We also use paper bags, burlap bags, and sell in bulk.

By Elroy D. Honadel, Hales Corners

The crop here is about 50% of last year.

We have some scab this year but have it quite well under control. There seems to be more scab in this neighborhood than there has for the past five years. There is very little codling moth injury, far less than last season.

Most of our crop is sold retail at city markets and home roadside stands in bushel baskets and peck baskets.

By N. C. Jacobs, Sturgeon Bay

The apple crop in Door county is about 70% of last year and about 80% of normal.

We have a little scab and most orchards have some this year. Orchards not well taken care of are badly infected. There has been little codling moth injury in the county.

Our apples are marketed in bushel baskets and shipped to market by truck.

By Forrest B. Kelsey, Delavan

There is a normal apple crop here this year. The biennial trees seem to alternate just right.

There is very little scab in spite of lots of wet weather. It is worse on the McIntosh and Red Astrachan. The usual sprays were used. Scab is bad in some neighboring orchards. There is very little codling moth injury.

Our sales will be retail at the farm. Containers are bushel baskets and peck paper bags. Early apple sales have been the best we have ever had.

By C. P. Krippner, Fort Atkinson

We have an above average crop of apples this year, 20-25% of last year and about 5% over normal. The farm orchards around here are not doing much.

Although scab is worse than in many years, in our orchard it is not serious. We used lime sulphur only. There is a lot of it in our community. Codling moth infection is light.

As traffic is lighter, we will sell more apples to the stores this year.

From Jos. L. Morawetz, West Bend

The apple crop is about 40% below last year.

Scab is bad on some varieties but on the average it is about 50% clean. It is very bad over the county this year. There is no codling moth injury.

This year's crop will be sold at the orchard in bushel and one-half bushel baskets. We are getting a fair price and sales are good.

From Arnold F. Nieman, Cedarburg

The crop in this community is about 33% of last year's crop, and 50% of normal.

We have very good scab control by nine well-timed sprays, so 98% of our fruit is free from scab. Some growers in the neighborhood have quite a little scab due to the omission of some sprays because of small crop prospects.

Codling moth injury is about 1%.

Due to the light crop and good demand, we expect to market the crop at the orchard and retail green-markets. The rest will be sold direct to fruit stores. We expect to use paper bags and bushel baskets.

By Charles Patterson, Franksville, Racine County

The apple crop in this locality is way below average due to hail and scab. Scab on Snow and McIntosh was not controlled even with eight

sprays. Codling moth injury is light.

Our apples are sold at the Municipal Markets by the pound and in bushel baskets.

By J. C. Schubert, Gays Mills

The crop is about normal, except Wealthy which is about 30% of last year.

We have good scab control by regular spraying with a 1 to 50 lime sulphur solution. There is plenty of scab in a few orchards that failed to spray on time.

We have had good control of codling moth, in fact, almost perfect.

The apples are sold in bushel baskets by truck loads. A large part of our McIntosh and Snow will go into cold storage for late selling.

By Swartz Orchards, Waukesha

The apple crop here is about 85% of last year.

We have been able to control scab with six sprays. There is not much codling moth injury.

We sell about 50% of our apples retail, and the rest wholesale in paper bags and bushel baskets.

By Ellery Teach, Gays Mills

The apple crop here is about normal.

We have controlled scab almost 100% by frequent and thorough sprays, especially in the early sprays. There is hardly any codling moth here this year.

About 85% of the crop is sold direct to wholesalers, and the balance at roadside stands. The apples will be packed in bushel baskets.

By C. J. Telfer, Green Bay

The apple crop here is 65 to 75% of last year, probably a little less than normal.

There is plenty of scab in this section, but no codling moth injury to speak of.

The crop will be marketed in baskets, a few going into boxes.

From Olaf Selfors, Bayfield

The apple crop here will be about 40% of normal, and 60% of last year. We have been able to keep the Wealthy 100% clean. Other varieties are fairly clean in our orchard.

Weather conditions were very favorable for scab. Only consistent and well timed spraying was effective. We sprayed nine times this season.

Codling moth do not appear to be a problem, but apple maggots are prevalent in spots.

The crop will be sold as usual, that is, to truckers direct from the farms and through the Association. Some may be packed in 18 lb. boxes as an experiment.

By Theo. Bakke, Gays Mills

The McIntosh crop will be 75% of normal, Snows 100%, Wealthy 35%, Greening 25%, and Dudley 75%.

Scab was controlled where sprays were well timed. Otherwise there is very much scab. Most orchards here have a good crop. There is very little codling moth damage.

Prices are satisfactory this season, and the demand is very good.

By Arno Meyer, Waldo

The crop here is about 75% of last year.

We have been able to control scab with lime sulphur, but there is lots of scab. No codling moth trouble this year.

Our crop will be sold largely in paper bags at the roadside market.

We have been seeing many apple maggots and flies around this year.

By S. S. Telfer, Ellison Bay

The apple crop here is 75% of normal. McIntosh, Wealthy and Greening have good crops. Delicious are light.

Scab has been controlled fairly well when the recommended spray program has been followed and a thorough job done. Orchards not well sprayed have severe scab infection. There is no codling moth injury.

Bushel baskets have been used principally in marketing the crop and will no doubt be used almost exclusively this year.

By Eugene Wood, Peshtigo

The apple crop here is 40% of last year and 50% of normal.

We have about 90% scab control in our orchard but fruit in unsprayed orchards is a total loss. Codling moth injury is light excepting in unsprayed orchards.

We will sell our apples to local stores packed in one bushel baskets.

First Farmer: "Potato bugs ate my whole crop in ten days."

Second Farmer: "They ate mine in two days and then roosted in the trees to see if I'd plant some more."

Seed Merchant: "That's nothing; there's a couple over there now, looking through my books to see who has ordered seed for next spring."—*Bagology.*

TOO LATE TILLAGE OF A DRY YEAR MAY BE COSTLY TO ORCHARDS

The orchardist is often confused by the widely different theories and suggestions upon soil management of orchards. This is often due to the fact that the two persons or the two parties are not discussing the treatment of the same kind of soil under the same climatic conditions. A certain strong loam soil with a favorable profile may retain so much moisture that it almost never experiences a deficiency even when left untilled. In contrast, a loamy sand underlaid by an equally coarse strata may experience a deficiency of moisture nearly every year. It is quite clear that proper soil management for one environment may be quite improper for another.

Late tillage and the growth of either weeds or a cover crop in late spring results in the withdrawal or loss of a large quantity of moisture which trees upon a dry soil need themselves. One may add more organic matter to a soil by delaying tillage in early spring and allowing a cover crop or weeds to grow. Theoretically it should in time improve the waterholding capacity of the soil, but the deficiency of moisture which results from such a procedure may in the meantime damage the trees more than the extra organic matter is worth. Be careful how late you delay tillage of orchards upon relatively dry soil.

—M. A. Blake in New Jersey Horticultural News, July.

RIPENING TEMPERATURE VITAL IN PEAR SHIPPING

SHIPPING tests during the past season with California Bartlett pears have shown that ripening temperatures have a tremendous influence on the quality of the fruit after it arrives on the market. This was brought out in a report by the California College of Agriculture, United States Department of Agriculture, and the California Tree Fruit Agreement. Boxes of both late and early pears from every producing district in the state ripened best at 65-68 degrees Fahrenheit. Pears from the same shipments ripened in New York at 75-85 degrees turned dull green, lost flavor and texture, and often broke down completely.

—*From Better Fruit.*

Your Harvest Labor

By Carroll R. Miller, Manager, Appalachian Apple Service, Inc., Martinsburg, West Virginia

HARVEST help for Apples is a serious problem for most of our growers. There are 4 main sources of Labor. We briefly analyze these, and present practical steps by which YOU can get considerable harvesting help.

In general, the Labor Problem is a county-by-county affair. Growers in each county must make their own arrangements with county officials—of W. P. A., the Schools, etc., as explained herein.

Labor Source No. 1: Your own neighborhood, and nearby people who have worked for you or other orchardists before. Book all these definitely, quickly, for the harvest period. Don't be too particular. Cripples, women and children, rightly placed and supervised, can do a lot of work. Get all your **regular and former** helpers to hunt additional help for you. A bonus per person reporting for work will help in this. End-of-season bonuses for those who stay with you is excellent policy, also.

Labor Source No. 2: W. P. A. and National Re-Employment Offices:—Considerable help is available here; usually several hundred in each county. This needs sympathetic, careful handling, from start to finish; and don't expect too much. Few energetic, able-bodied men are left on WPA rolls now. But with sympathetic approach, they are Help. National and State WPA chiefs have assured us, unequivocally, that projects will be closed down where growers will definitely assure work to the men: without injury to the man's return to WPA. Arrange this in advance. See your County Re-Employment Office manager. Tell him definitely how many people you want, and exactly when you want them; for how long; and about transportation to your orchard. **Anyhow,** talk this over with these officials.

Labor Source No. 3: Transient Labor Camps, Federally-arranged. Several of these are being placed in these 4 states. We are advised that it is too late now to apply for additional camps. Experience indicates them "doubtful."

Labor Source No. 4: The Schools. This seems by far the most important source. In each county are probably close to 1,000 youngsters, active and capable, in High School alone. If opening High School is postponed until October 15th (or Nov. 1st.) this source alone would provide huge aid.

The nation is fighting for its life. Every one of us is or should be active in this fight. Food ranks next to munitions in importance in this war. To waste food now is treasonable; to have it is helping the nation. In such an emergency as this, High School youngsters should take part. They will benefit much more, as future American citizens, from this participation in the War Effort than from six weeks of study.

There is every reason for this help from the Schools, except that in most counties, the School Boards hesitate strongly to order it. Frequently, schools receive their funds from the State Capital, based upon average attendance per day. They balk at postponing school, fearing this attendance time cannot be "made up" and that their income will fall short of expenses.

The Job, then, is to convince County School Boards that the public wants the school youngsters to help in saving the farm food crops. School Boards generally are sympathetic but refuse to take the responsibility until shown public sentiment.

—From The Eastern Fruit Grower, June.

THE APPLE EXHIBIT AT THE STATE FAIR

THE apple exhibit at the Wisconsin State Fair this year was unusually good. It was almost as large as in previous years and the quality was excellent.

The Winners

In the 40 tray class, which is the most important in the fruit section, consisting of 10 trays each of four varieties, the winners were: 1st, A. K. Bassett, Baraboo; 2nd, Ed. Stoeber, Madison; 3rd, Meyer Orchards, Hales Corners; 4th, Arno Meyer, Waldo Orchards, Waldo; 5th, Theo. Kurtz, Cedarburg.

In the 25 plate exhibit: 1st, A. K. Bassett; 2nd, Ed. Stoeber; 3rd, Wm. E. Aeppler, Oconomowoc; 4th, F. B. Sherman, Edgerton; 5th, Arno Meyer; 6th, Meyer Orchards.

In the 5 varieties of summer or fall apples: 1st, Wm. E. Aeppler; 2nd, Ed. Stoeber; 3rd, A. K. Bassett; 4th, Waldo Orchards; 5th, F. B. Sherman.

In the other leading classes the winners were much the same as above.

Other well known fruit growers who exhibited were: Milton Cooper, West Allis; W. H. Milward, Madison; and George M. Tehan, Milwaukee.

Lady: "You look strong enough to work and earn your living."

Tramp: "Yes, madam, I know it, and you are beautiful enough to go on the stage, but we both prefer the quiet, happy home life."

Nitrogen for the Orchard

Can We Grow Our Own

During these times when the nitrogen supply is limited, farmers are being advised to grow their nitrogen by use of legume covers. We know that certain bacteria attach themselves to the legume roots and build up nitrates which are stored in nodules. This nitrogen is of value to both the plant and the bacteria and when the roots die, the nitrogen thus stored is available to the soil, after being broken down by other bacteria. The soil is literally alive with bacteria which break down organic materials releasing their nitrogen. So we have bacteria in the soil which are either building up or tearing down nitrogenous material. The ammonia-bearing fertilizers or organic materials usually are built up into nitrate form before plants assimulate them. Nitrate of soda is quick-acting because it is in nitrate form.

When a heavy strawy crop is turned under, the orchard trees may show some yellowing due to low nitrate supply. This is caused by the bacteria which break down the turned-under material. As they must have nitrogen in order to work and live, they simply rob the soil of nitrogen. Later, after they work over the material, and nitrogen is released, the trees again take on a greener color. That is why we are told to apply nitrogen fertilizer to trees even though a cover crop has been turned under. Even where fresh straw mulch is applied to trees, it is well to apply nitrogen fertilizer for benefit of both the tree and the bacteria which will break down the straw mulch in contact with the soil.

Nitrogen is plentiful. There are 34,500 tons of it in the air above every acre of soil. It plays an important part in every body function. Deep-sea divers and underground workers may develop "Bends" disease due to pressure causing nitrogen bubbles in the blood stream.

Without nitrogen, agriculture would not exist and neither would be. From nitrogen we obtain smokeless powder, nitroglycerine, TNT, plastics, dyes, ammonia, lacquers, nitric acid, sulfate of ammonia and nitrate of soda, among the many other products.

Our country is no longer dependent upon imported nitrates. During the last war a naval battle was fought with Germany off the Chilean coast to guard our nitrate shipping. It would require about 300 ships to bring our natural supply to us. Luckily the chemical industry has built and is building more factories where nitrogen is obtained from the air, so possibly we will never suffer a serious shortage.

We would return to battle axes and catapults in war if nitrogen were not plentiful. A 600 pound bomb uses 85 pounds of nitrogen; a 24 foot torpedo uses about 100 pounds; every time a 16 inch gun is fired, 120 pounds of nitrogen are released back into the air. Nitrogen both sustains life, and properly harnessed, it destroys life in a rather tragic and widespread way.
—From Maryland Fruit Growers' News Letter, July.

NO CHEMICAL NITROGEN AVAILABLE THIS FALL

THE War Production Board has requested all dealers not to sell or distribute any fertilizer containing chemical nitrogen for the balance of 1942.

That means that ammonium sulphate and other chemical nitrogen will not be available for the orchardist, at least for fall distribution. What the decision will be next spring, we don't know.

This presents a number of problems which are somewhat serious for the fruit grower. Organic nitrogens are slowly available and relatively high in price and cannot be obtained without being combined with phosphorus and potash. The latter two elements are excellent to help improve the fertility of the soil for growing cover crops, but not so essential for tree growth. It may pay in many orchards to use a complete fertilizer at this time to improve the soil for the growing of cover crops.

Orchards on fertile loam soil may do well for the duration without any additional fertilizer, but on the light, sandy soils orchardists have a different problem. It might be well to consider the growing of legumes such as red clover, especially in cherry orchards, and handle it in such a way that it will provide the nitrogen needed.

APPLE MARKETING SUGGESTIONS

THE following suggestions for marketing apples was made by Mr. C. L. Kuehner, extension horticulturist, in his Orchard News Letter for August. The suggestions are very timely.

1. To help more orderly marketing, each variety should be pushed in its own best season. There is little question but that apple consumption could be appreciatively increased in mostly all communities if growers as well as dealers adopted a more strict policy of "offering each variety in its own best season."

2. The slogan "An apple in every lunch basket and dinner pail" should be a good one to adopt at this time when hundreds of thousands of dinner pails are packed every morning.

CONSERVING PACKAGES

THE National League of Wholesale Fresh Fruit and Vegetable Distributors and the Quartermaster Corps in the Army are setting a good example for other marketing agencies. They are encouraging the salvage and return of packages used for marketing of vegetables delivered to the many camps about the country. Growers and local organizations ought to see to it that packages are not wasted in our cities. The time to gather them up is during the season when things are shipped in. When local produce is most abundant, outside shipments are materially reduced and the number of containers available is meager. In many cases packages are still being used for grocery deliveries to households, are broken up, or are put out with the garbage.

—From Market Growers Journal, July.

APPLE VARIETIES AFFECT STORAGE SUCCESS

COLD storage is not a cure-all in the marketing of apples, C. O. Bratley of the U. S. D. A. emphasizes in a memorandum prepared for members of the National Association of Refrigerated Warehouses. "Success of storage depends in large measure on the quality and condition of the apples delivered to the warehouse."

There are wide differences in the storage life of different varieties of apples, and almost equally wide differences with a single variety when grown in different orchard regions. McIntosh, for example, grown in New York or New England can be stored until midwinter, but McIntosh from orchards in the Middle Atlantic states are early apples, storable for only a few days. Northern grown Baldwins, Rhode Island Greenings, and Northern Spies may be stored all winter, but the same varieties grown farther south are suitable for only brief storage. For safe storage the warehouseman needs to know not only the variety and condition of the stock, but also where it grew.

—*Ice and Refrigeration, April.*

RING PACK VERSUS JUMBLE PACK OF APPLES

WITH labor conditions ahead, growers are wondering if they will ring-face their bushels. Remember the work done at Rutgers University last fall? Using 3 inch Rome apples it was found that a tub bushel jumble-packed contained 115 apples; a ring-faced tub bushel contained 121 apples, and a Western bushel box held 100 apples. Some of the growers at the National Apple Institute conference felt that *all* growers should pack only jumble pack bushels. The question has many sides and is not as simple as it may seem.

—*Fram Maryland Fruit Growers' News Letter.*

Beautiful Apple Float Shown In State Fair Parade

A float featuring apples and bearing the names of the Wisconsin State Horticultural Society and the Southeastern Wisconsin Fruit Growers Association was shown in the Dairy Day Parade at the Wisconsin State Fair at 11 a. m. and again at 1:30 p. m. Friday, August 28th.

The float was designed by Alfred J. Meyer and Son Orchards, Hales Corners, Route 1, at the request of the two organizations. Apples were furnished by the fruit and flower department of the State Fair.

Fruit growers greatly appreciate the work done by Meyer and Son Orchards to give publicity to apples.

Whether you need a box approved for interstate shipment by the Federal Food and Drug Administration, or whether you plan to ship locally in old style boxes, you can be safe and save money too, by assembling either type box with the fast-working Neva - Clog stapler. Get everything you need for fruit or truck shipments at Sheboygan—as leading growers have for 63 years.

Write, now, for low prices and **free** facts on new shipping regulations.

Sheboygan Fruit Box Co.

572-CT **Sheboygan, Wisconsin**

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WAUKESHA, WISCONSIN

Lester Tans, Secy.-Treas. **Telephone: Big Bend 2821** **Route 3**

Better Root Development by Spaced Strawberry Plants

DEVELOPMENT of a larger portion of the root system in the deeper layers of soil may partially account for the greater drought resistance of strawberry plants in thinned or spaced rows, according to the results reported by Prof. A. L. Schrader, of the University of Maryland. Prof. Schrader studied the pattern of root development of Blakemore strawberry plants in matted rows and in rows in which the plants were spaced 7 and 11 inches apart.

In mid-April, 60 per cent of the total root system of the plants in the matted row was found in the upper 3 inches of the soil, while under both a 7 and 11 inch spacing of plants only 42 per cent of the root system was found in the surface 3 inches. Much of the root development, particularly in the deeper layers of soil, occurred between September 10 and April 17 under the conditions existing in Maryland.

Increased Yield

Indiana growers who have spaced Aroma strawberry plants have obtained yield increases averaging about 20 crates to the acre. In one test the yield increase from spacing totaled 70 crates. The season of 1942 has been ideal for the formation of new runner plants. Undoubtedly many patches will develop too many plants for best yield and quality of berries in 1943 unless the plants in these patches are thinned in August or September.

Through use of a spike-tooth harrow run crosswise, and if necessary lengthwise of the planting, an acre of strawberries may be thinned in two hours or less time. The grower should wait until a sufficient number of the earlier formed plants have rooted deep enough that they will not be pulled out by the harrowing. Soil conditions also must be taken into consideration, and if the patch is harrowed while the soil is quite moist even deeply rooted large plants may be pulled out by the operation. Grower experience indicates that when Aroma strawberry plants are grown under an average spacing of 5 to 7 inches they can be expected to produce highest yield and best quality of fruit. If the plants are growing closer than 5 to 7 inches apart, heavier losses may occur from rots and small size of berries in rainy seasons, and from reduction in yield and quality as a result of shortage of moisture in dry seasons.

The thinning of the plants in the row by practical methods, such as the use of the harrow, can be expected to reduce labor requirements at harvest time as well as to increase yield and quality of fruit. —*From Hoosier Horticulture, August.*

FALL CARE OF THE STRAWBERRY BED

Virgil Fieldhouse, Dodgeville

If the new strawberry bed is in good condition for this time of the year, it will consist of wide, straight rows of healthy plants spaced several inches apart.

Hand work is scarce this year, so the horse cultivator has been doing most of the work. If the ground is loose enough, a Planet Jr. harrow tooth is used with a large sweep in the middle, at the rear, and a four inch sweep at each outer rear position. At each cultivation, at about ten-day intervals, the cultivator is narrowed so as to line up a new set of runners two inches or so outside of those recently set. The cultivator is run in the same direction each time. The sweeps help to push dirt toward the row so that it can be kept higher than the aisle. This helps prevent mildew and rot.

An application of nitrate or complete fertilizer at or before this time of the year is of great benefit to the bed, whether it is an old or a new one. Apply on a quiet, dry day, brush off the leaves with a broom and if possible follow with overhead irrigation. We use a good handful of fertilizer to each yard of row.

A spraying or dusting of bordeaux and some good insecticide will be of great benefit in the late summer time.

Special attention should be given toward directing runners to fill the gaps in the rows. If grubs are doing the damage, sacrifice any wilting plant, and with a sharp hoe shave off thin sections of the ground. The grub will often reward your search.

As the rows become wide, usually do any intensive weeding while seated over the row on a low, four wheeled cart with a burlap sunshade. A board, which is underslung between two Model T wheels, takes most of the weight. The other wheels are small.

If the weather is dry, a much better stand of plants can be obtained by overhead irrigation.

If the plants have a tendency to become too thick, a rolling coulter should be used late in fall. It may pay to rake the late runners out into the aisle before this is used.

RASPBERRY LEAF SPOT
Defoliation Weakens Canes and Subjects Them to Winter-killing

IN AN Illinois experiment several years ago it was found that nearly 80% of the canes of Latham raspberries in unsprayed rows were either killed outright or had only a few live buds in the spring. The rows sprayed twice after harvest had only about 10% of the canes killed by winter weather.

The anthracnose leaf spot often accompanies the well--known oval spots on the canes and laterals, writes H. W. Anderson, Department of Horticulture, University of Illinois, in the Illinois State Horticultural Society News Letter for August.

Another leaf spot called Septoria occurs later in the season, usually about the time the fruit is harvested. Both of these diseases may cause the leaves to drop.

This year due to the unusual amount of rainy weather, leaf spot and anthracnose, as well as cane blight, are likely to be more serious than usual. Spraying with Bordeaux mixture or lime sulphur is therefore very important to prevent injury this coming winter.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

OFFICERS

Walter Diehnelt, Menomonee Falls, President
S. P. Elliott, Menomonie, Vice-president
H. J. Rahmlow, Madison, Cor. Secy.
Mrs. Louise Brueggeman, Box. 60, Menomonee Falls, Recording Secretary-Treasurer

DISTRICT CHAIRMEN

Robt. Knutson, Ladysmith
Newton Boggs, Viroqua
C. C. Meyer, Appleton
Ivan Whiting, Rockford

SEPTEMBER BEEKEEPING

SEPTEMBER is one of the most important months on the beekeeper's calendar. Ordinarily we think that it is the month during which to extract honey, and that the bees will take care of themselves because they are probably through swarming and need no further attention.

As a matter of fact, it is during August and September that the young bees are produced which will determine whether the colony successfully survives the winter and comes out in the spring so as to become a profitable colony next year.

The Brood Chamber

A good queen will require nine or ten frames in a standard 10-frame hive body for brood rearing. In addition, the colony should have at this time 50 and 60 lbs. of honey to last until the honey flow next spring. That will require another standard 10-frame hive body. In addition, there may be considerable pollen brought in which may fill a number of combs. Then too, the colony should never be crowded. For example, in using the two hive body brood chamber if we have one hive body full of honey, and the second hive body with four or five frames of pollen, that would leave only four or five frames for the queen which would result in few young bees being produced for winter. Consequently many beekeepers are using three standard hive bodies for brood rearing and food storage in the fall.

Remember you can't have a strong colony in spring from a weak colony in the fall.

Those Weak Colonies

Some beekeepers tell experiences of having weak colonies build up fast and produce more honey than did those that came out strong in the spring. Such observations are common, but they don't prove that it is a good thing to have weak colonies. Obviously something happened to the strong colonies. Perhaps they swarmed; perhaps the brood chamber became crowded during the time that young bees were produced to be field bees during the honey flow. Perhaps the colony developed Nosema. At any rate, we must look for the real cause before we can come to any conclusion. Every beekeeper knows that strong colonies produce the most honey.

FACTORS WHICH INFLUENCE THE YIELD OF NECTAR

A YEAR ago a prominent Michigan beekeeper made the statement, "Conditions last spring were never more favorable in central Michigan for a good honey flow, yet we have only a small crop."

You will remember that last spring we were saying the same thing about Wisconsin, and this has been a disappointing season.

The factors which control nectar secretion are many. It is well to remember that sugar is produced in the leaves of plants. Sunshine, leaf first breaks down and then reacting upon the chlorophyl in the combines into sugars the moisture from the soil, with various elements obtained from the soil, and carbon dioxide from the air. If there is an excess of sugar produced, it comes out as nectar in the flowers.

One of the factors we may overlook is the quality of the plant itself. If there has been considerable rainy, cloudy weather, and unfavorable growing conditions during the months of May and June, then the clover may be rank in growth and not produce the nectar or sugar in the leaves it would produce under normal conditions. Excessive moisture in the soil or high humidity may produce nectar of such low sugar content that the bees will not gather it, or if they do, will make only small gains of honey due to the large amount of evaporation necessary.

ANNUAL CONVENTION, WISCONSIN STATE BEEKEEPERS ASSOCIATION

Appleton, October 29-30

THE 64th annual convention of the Wisconsin Beekeepers Association will be held in the City Hall, Appleton, on October 29-30.

The Board of Directors is now busy preparing a program for the event. Our conventions have been attracting more and more beekeepers each year so we anticipate a large attendance. Appleton has good bus connections.

Reserve these two days now and plan to take your vacation at that time. Beekeepers deserve a few days of vacation. How better can they be spent than at a convention where one meets old friends and brother beekeepers?

This is Not the Time to Get Excited

Do We Need More Beekeepers Associations?

BEE journals are full of articles by beekeepers advocating all sorts of new organizations to "protect the industry". Oftentimes the proposal is simply to protect some pet idea of the writer. The question is, "What is a sound policy under the present emergency?"

On reading some of the articles and editorials we get the impression that beekeepers are against everything the government tries to do. Now is the time to have confidence in the men who are running our affairs in Washington and analyze their proposals and plans very carefully before condemning them. We cannot help but feel that most of them are honest and that they have information at hand with which to make their decisions which the average beekeeper does not have.

For example, a writer in one bee journal on Production Order No. M-118, which limits the use of honey to those who used it last year, states that "The honey industry has received a death sentence" by this order. What proof is there that this is the case? Some of the best men we have still think that M-118 will greatly help the future of the honey industry.

As a result of these differences of opinion, and sometimes opinions based on lack of accurate information, there is a demand now for more national beekeepers associations. One writer proposes an "Independent Beekeepers Association," or an "Independent Honey Producers Association." What will such an organization accomplish if it can be organized? Probably not any more than can be accomplished by the State and County Associations we now have.

What we need is intelligent action on the part of the leaders in the industry and the organizations which have been built up and not a lot of fly by night schemes.

Strong State Associations Needed

The Wisconsin Beekeepers Association is recognized today as one of the strongest in the nation. Every state should have a strong State Association, and that is the place to start organizing. If we want a national organization, then the practical and logical way to go about it is to join together the State Associations. Let the State Associations in turn be composed of District and County Associations. Then we have an organization of those who have carried the burden thus far and need not start all over again.

MONROE COUNTY BEEKEEPERS ELECT OFFICERS

THE Monroe County Beekeepers Association met in Tomah on August 9th, with a very nice dinner at noon.

The President, Mr. L. Schultz, was re-elected for another year. Mr. H. Anderson was re-elected Vice-President, and Mrs. Edw. Scheppa, Jr., Kendall, Secretary-Treasurer.

A number of members joined the State Association and plans were made to exhibit at the Fair next year.

CAN WE USE AUSTRALIAN HONEY TRANSPORTATION A BIG PROBLEM

An item in the Australian Bee Journal for June states that the apiarist of the Australian Department of Agriculture reports that honey is needed by Australia's allies as a substitute for sugar and that rationing of sugar has been introduced in the United States and Canada. He believes those countries would take all the honey they could get.

What the apiarist didn't point out was that there is plenty of sugar, but the reason rationing is in effect here is because there aren't ships enough to bring it to us. If we could get the honey from Australia we could get sugar from still nearer sources. When ships are available to bring sugar, then the demand for honey will drop and we are under the impression beekeepers in the United States will have trouble enough selling their honey without bringing in any more, so we can't offer our Australian friends much encouragement.

We have appreciated receiving the Australian Bee Journal published by the Victorian Apiarist's Association, Melbourne.

CHECK FOR QUEENLESS COLONIES NOW

WITH honey bringing a good price, it is more important this year than for years to check all colonies to see if they have a good laying queen. The reason is that with the present price of honey, it will not pay to winter over poor colonies. The amount of honey poor colonies will consume during the winter will be worth more than the price of a 2-lb. package with young queen next spring. Furthermore, a good 2-lb. package will build up and produce more honey than a weak wintered colony.

Consequently it is good practice to unite or destroy all poor colonies at once. However, in doing so, be sure to save combs of honey and pollen from such colonies to be used as feed for the packages next spring. There is every indication that packages will build up much more rapidly if they are fed honey and pollen than if fed sugar syrup. Consequently it is like putting money into the bank to save frames of pollen and honey for feed. Of course check carefully for A. F. B.

ENTER THREE FLOATS IN STATE FAIR PARADE

HONEY producers were well represented in the Dairy Day Parade at the Wisconsin State Fair with three floats.

A float featuring a large honey container with the Wisconsin State Association label was entered for the Wisconsin Beekeepers Association by Honey Acres, Menomonee Falls.

A Milwaukee County Beekeepers Association float was built and shown by L. G. Figge, Milwaukee.

A Waukesha County Beekeepers Association float entered by Edwin Association float was entered by Edwin J. Mintzlaff, Pewaukee.

Thousand of people in the grandstands saw these beautiful floats in the parade at 11 a. m., and again at 1:30 p. m. on Friday, Aug. 28.

Beekeepers appreciate the efforts of these men in advertising their product.

THERE IS A BEE SUPPLY SHORTAGE

Established Producers Should Order Early To Fill Their Needs

There is a definite shortage in bee supplies. Manufacturers have been limited to a percentage of their 1940 output. In the case of hives, etc., this is 133% of 1940, and of metal goods 100% of 1940. It would seem that inasmuch as they can produce one-third more than they did that year, that there would be plenty to go around, but that is not the case, The reason for this is that there are thousands of beginners starting in the business. All of them want hives, smokers, hive tools, extractors, uncapping knives, etc., so that the supply is soon exhausted and the manufacturers cannot get materials to produce more.

Don't blame the manufacturer. He would, of course, be glad to sell you equipment if he had it. The thing to do is to order early before the beginners get onto the market. It is more important that established, experienced beekeepers get the needed supplies than to equip hundreds of beginners who may not get a good crop from the standpoint of food production.

Placing orders now for next year's supplies would be good business.

WOMAN'S AUXILIARY FOR NORTHWESTERN DISTRICT ELECTS OFFICERS

AT THE Northwestern District Beekeepers meeting at Ladysmith in July the following officers were elected for the coming year by the Woman's Auxiliary.

President, Mrs. Vernon Homer, Menomonie; Vice-President, Mrs. E. A. Collins, Bloomer; Secretary-Treasurer, Mrs. Lyle Knutson, Ladysmith.

The Auxiliary held an interesting meeting at Ladysmith.

HELP WANTED

Wanted: Man with beekeeping experience for balance of season. State age and experience. good wages. Room and board included. John Kneser, R. 1, Hales Corners, Wisconsin.

THE BEE AND HONEY EXHIBIT AT THE STATE FAIR

THE Bee and Honey exhibit at the Wisconsin State Fair this year was if anything, more beautiful than ever. In our opinion, Wisconsin can challenge the world in the quality of its honey exhibits at the State Fair. Furthermore, the Bee and Honey Building is a convention hall for honey producers. All exhibitors are in attendance every day of the Fair and visiting beekeepers make the building their headquarters. Many friendships are formed and much information exchanged.

The Winners

Individual booth exhibits. Ratings of **Excellent,** blue ribbon, to G. O. Schultz of Reedsburg, and Honey Acres, Menomonee Falls. **Very Good,** red ribbon, to Ed. Ranum, Mount Horeb; Frank Johnson, Milwaukee; John Kneser, Hales Corners; and L. G. Figge, Milwaukee. Ratings of **Good,** white ribbon, to Marjorie Rahmlow, Madison; V. G. Howard, Milwaukee. Ratings of **Fair,** pink ribbon, to John Eickstedt, Cedarburg, and Brown Brothers, West Allis.

Display of Comb Honey

1st, L. G. Figge, Milwaukee; 2nd, Ed. Ranum, Mount Horeb; 3rd, G. O. Schultz, Reedsburg.

Display of Extracted Honey

1st, Ed. Ranum, Mount Horeb; 2nd, Honey Acres, Menomonee Falls; 3rd, L. G. Figge, Milwaukee; 4th, G. O. Schultz, Reedsburg.

12 jars of honey. 1st, Ed. Ranum; 2nd, G. O. Schultz; 3rd, Honey Acres; 4th, L. G. Figge; 5th, John Kneser; 6th, John Eickstedt.

3 extracting combs of honey. 1st, G. O. Schultz; 2nd, Ed. Ranum; 3rd, Marjorie Rahmlow.

3 cakes beeswax. 1st, John Kneser; 2nd, Frank Eickstedt; 3rd, Honey Acres; 4th, Marjorie Rahmlow.

Display beeswax. 1st, Marjorie Rahmlow; 2nd, Honey Acres.

PAINT HIVE TOOLS

IT IS practically impossible to secure metal for hive tools. We suggest that all beekeepers keep their hive tools well painted. Use a bright color. This will not only help preserve the hive tool but will enable beekeepers to find the tool when dropped in the grass near the hive. Paint the hive tool yellow or white.

—*From The Bee Hive, July.*

HONEY WANTED

Cash paid for cars and less than cars comb and extracted honey. Mail sample and best price. C. W. Aeppler Company, Oconomowoc, Wisconsin.

HONEY CONTAINERS

Wisconsin Beekeepers Association

Order Through Your State Association where all profits go to further the work of the industry.

Modernistic glass

Tin pails and cans

New Association labels

For complete price list

write

HONEY ACRES

Menomonee Falls, Wisconsin

HONEY CONTAINERS:

We have a complete stock of all sizes glass and tin containers for packing honey:

TIN CONTAINERS:

5 lb.—10 lb. pails — 60 lb. cans,

GLASS CONTAINERS:

5 lb.—2½ lb. Glass Pails, ½ lb. 1 lb.—2 lb. Masterline jars, ½ lb.—1 lb.—2 lb. Bee Hive jars.

WRITE FOR NEW PRICE LIST ON CONTAINERS:

Remember—We also carry a complete line of other honey packages, including Shipping Cases, and comb honey cartons.

AUGUST LOTZ COMPANY

BOYD, WISCONSIN

Editorials

BOARD OF DIRECTORS WISCONSIN HORTICULTURAL SOCIETY HOLD SUMMER MEETING

THE annual summer meeting of the Board of Directors of the Wisconsin Horticultural Society was held at Oshkosh on August 19th. Fourteen members of the Board were present. It was one of the best meetings held in many years and considerable business was transacted.

Some of the matters discussed and adopted were as follows: It was decided to ask all affiliated organizations of the Society to hold their annual convention in conjunction with the 75th or diamond jubilee convention of the Wisconsin Horticultural Society to be held in the fall of 1943, if conditions permit. Arrangements are to be made by the Executive Committee to have a brief history of the 75 years of the work of the Society written by one of our older members and printed in a special issue of the magazine.

Mr. Arno Meyer, Vice-President of the Society was accepted as a life member of the Society.

Two prominent and well known persons were elected to receive the honorary recognition certificate of the Society at the annual convention which will be held in the city of Fort Atkinson in November. The dates are to be set later.

It was decided that the Society participate in a float for the Dairy Day Parade at the Wisconsin State Fair, Friday, August 28th.

Many of the best jobs are held by men who couldn't name three good left-handed pitchers to save their lives.

WISCONSIN HORTICULTURAL SOCIETY HONORED BY NEW ENGLAND GLADIOLUS SOCIETY

THE Wisconsin State Horticultural Society has been honored by having presented to its Secretary the Bronze Medal of the New England Gladiolus Society.

The following letter was received from Mr. James Odell, President of the N.E.G.S. on August 25th.

"The New England Gladiolus Society Board of Trustees is awarding H. J. Rahmlow, Secretary Wisconsin State Horticultural Society, the N. E. G. S. Bronze Medal in recognition of his local and national cooperation to help raise the standards of gladiolus through Wisconsin Horticulture especially.

"This is the first time to my knowledge that the N. E. G. S. has given such recognition to an officer of a horticultural society since Mr. E. I. Farringrton, Secretary Massachusetts Horticultural Society, was honored years ago for his valuable advice and support.

"The Trustees feel that the magazine and Mr. Rahmlow's personal efforts have done much for gladiolus and appreciate that the contributions have been made without bias or prejudice. You have a large state horticultural society and a great many other affiliated societies and interests besides the Wisconsin Gladiolus Society, all of which are being well served."

JAMES ODELL, PRES.,
For N.E.G.S.

LARGE ATTENDANCE AT FRUIT GROWERS MEETING

THE attendance at the Horticultural Society fruit growers' summer meeting at the Thompson and Marken Orchards, Kenosha, was beyond expectations, as 70 fruit growers and their wives attended the meeting.

Mr. G. C. Oderkirk of the U. S. Bureau of Biological Survey, stationed at Purdue University, demonstrated a very interesting new method of mouse control with the use of zinc phosphide. Tubes of zinc phosphide are inexpensive and are mixed with apples cut into slices. The slices are placed in the runway under the trees. Reason for the inerest in this method is because strychnine is imported and may not be available next year.

Mr. Conrad Kuehner gave an interesting discussion on new varieties of apples and plums from the University orchards, recommending several new kinds for increased culture here.

Prof. T. J. Maney of the Iowa Experiment Station, gave a most valuable demonstration on summer budding of apple trees. He recommended the use of Virginia Crab and Hibernal rootstocks for all tender varieties, especially Delicious and Macoun for Wisconsin. He stated that the Macoun apple was the most promising of the McIntosh crosses in his opinion, and that by topworking it would produce early and have better quality fruit.

Summer budding on hardy rootstocks was recommended in case the grower does not find time to do grafting in spring. If the buds do not set the trees may stilll be grafted the next spring.

Wisconsin Goes "All-Out" for Victory Harvest Shows

At the request of the National Committee for Victory Harvest Shows a Wisconsin committee was organized in Milwaukee during August. The following is the Wisconsin committee:

H. J. Rahmlow, Chairman, Madison; David Puerner, Secretary, Milwaukee. Committee members are: Dr. H. O. Hoppe, Wauwatosa, representing Wis. Dahlia Society; E. C. Hunkel, Milwaukee, Nurserymen; Mrs. Nora Leidiger, Milwaukee, Ladies Society Florists; Ray Pallett, Madison, Agricultural Extension Service; Mrs. Irving Seaman, Milwaukee, Garden Club of America; R. C. Swanson, Wauwatosa, Victory Gardens; Mrs. Chester Thomas, Milwaukee, Wis. Garden Clubs; and Henry Welke, Milwaukee, Society of American Florists.

The committee decided to contact all county agents, asking them to act as temporary chairmen to call a meeting of all heads of horticultural organizations in the county, and set up a permanent county committee. Mr. R. B. Pallett, State County Agent Leader, contacted the county agents.

Mrs. Chester Thomas wrote to each garden club president, asking each to cooperate with the county committee.

As we go to press, couny meetings are being held with every indication that many Harvest Shows will be held throughout the state.

A large show will be held by the Milwaukee County committee, Mrs. Chester Thomas in charge, in the Wauwatosa Recreational Building, on September 18-19-20.

WASHINGTON ISLAND GARDEN CLUB FIRST TO PLAN VICTORY HARVEST SHOW

ON AUGUST 15 a letter from Mrs. Arthur Wickman, Washington Island, President of the Washington Island Garden Club, announced that the club is planning a Victory Harvest Show on Washington Island, on August 25, and that they were registering the show with the national office of Victory Harvest Shows, 230 West 41st St., New York City.

This is the first show definitely registered by a garden club.

The Wisconsin Gladiolus Society voted to include their show in Lake Geneva on August 8-9 under the plan, which was the first show registered in Wisconsin.

Racine County a Close Second

On August 19th Mrs. Arthur Schacht, President of the Racine Garden Club, wrote: "Our Racine County Victory Garden Harvest Show Committee has met and wish to cooperate in the Victory Harvest show movement. We will sponsor several small shows in different localities. Next year we may attempt a large show."

NURSERYMEN HELP VICTORY HARVEST GARDEN SHOWS

THE American Association of Nurserymen has donated $10,000 to the nationwide Victory Harvest Shows program, which will aid the armed forces and emergency needs of their families. In addition the Association has pledged its entire membership of 700 to assist in every way to make possible the realization of the goal of 20,000 registered shows.

Part of the money will be used to maintain the national office in New York, underwriting 15 key shows throughout the country, and hold demonstrations on canning, dehydrating, and correct winter storage of foods from coast to coast. This is interesting in view of the fact that members of the Association neither grow nor sell vegetables.

The exhibitions will range from the Cincinnati gala six-day affair in the heart of its Fountain Square business district on September 22-27 to hundreds of modest one-day shows from coast to coast.

THE OTHER SIDE OF BEE-KEEPING

"I am going to buy a hive of bees," exclaimed a Madison resident after reading a very interesting article about the simplicity and thrill of beekeeping in a national magazine. There have been a number of such articles recently. Thousands of new beekeepers have developed as a result.

From many years of personal experience we wish to make these comments in regard to going into beekeeping.

First, remember that it is difficult to keep bees in the city or near dwellings. When people hang wash on the line, especially during the spring months, bees fly over and spot the washing. Result: much trouble with neighbors.

Second, if one wishes to keep only one or two colonies of bees, the investment per colony is exceedingly high because considerable equipment must be purchased which would do as well for more colonies. One must purchase veils, hive tools, and if running for extracted honey, an extractor, an uncapping knife, a honey tank, equipment for handling the wax and cappings, as well as smokers and hives. Equipment of metal is almost impossible to obtain now, so don't plan too seriously on being able to get it at all.

If one wishes to produce only comb honey, then the investment will be less, but the problems of beekeeping will be much greater. There will be trouble with swarming, and queenlessness. Only an expert beekeeper can successfully produce comb honey.

As a matter of fact, experienced beekeepers will tell you that there is no branch of agriculture more difficult to master successfully than that of beekeeping. All in all, the interest on the investment alone for one or two colonies would buy all the honey the family would use in a year.

Old time beekeepers predict that when this first excitement is over a few years hence, there will be lots of equipment for sale by disappointed beginners as there was after the last war.

Gladiolus Tidings

By the WISCONSIN GLADIOLUS SOCIETY

OFFICERS

A. S. Haugen, Stoughton, President

Dr. Geo. Scheer, Sheboygan, Vice-President

H. J. Rahmlow, Madison, Cor. Sec.

Otto Kapschitzke, Rec. Sec.-Treas.
1710 Illinois Ave., Sheboygan

REGIONAL VICE-PRESIDENTS
Rev. August Dusold, Manitowoc

Paul Haase, Columbus

Fred Hagedorn, Sheboygan

Edwin Ristow, Oshkosh

Notes from the Gladiolus Show

IF YOU attended the State Gladiolus Show at Lake Geneva you probably already know this. If not, you will be interested to hear that:

Illinois growers almost took all the high honors at the show, with Mr. L. E. May, Chicago, being the highest point winner; A. S. Haugen, Stoughton, 2nd; and Dr. F. X. Graff, Freeport, Illinois, third highest. Wisconsin growers, however, didn't let it worry them. They said they welcomed the out-of-state exhibitors and that it made the show more interesting to have strong competition. That's the right spirit.

Illinois growers have been exhibiting at their State Fair, but this year the Fair is not being held and so they do not have a gladiolus show for Illinois. That's why so many of them came to Lake Geneva.

Glads from Pennsylvania

The biggest excitement of the show came when C. D. Fortnam's glads arrived by air express from Tyler Hill, Pennsylvania, Saturday morning. All the exhibitors clustered around the shipment to see how it was packed A group of exhibitors entered the blooms and later saw them take top prizes.

Mr. J. R. Hopkins of Deerfield remarked that Wisconsin hybridizers have come into national prominence. He said that White Gold and Diane are good varieties because such a large percentage of the bulbs planted produced good flowers.

Several remarked that the show was staged without much excitement or seemingly much effort. This was due in part to the expert help of the Lake Geneva Gardeners and Foremen's Association, and of course to the fact that so many of our exhibitors are experienced and know just how to go about their work.

Miss Olive Longland, President of the Lake Geneva Town and Country Garden Club had no trouble in inducing club members to prepare a very fine exhibit of artistic arrangements, and in getting the members of the club to help the judges.

The great value of a State Gladiolus Show is the convention held in connection with it. We don't mean an organized meeting, but the fact that the boys all get together and talk things over during the show. It is a great meeting place, where the merits of all the new introductions are thoroughly discussed. For that purpose, the show is indispensable.

Grand Awards

Point winners: L. E. May, Chicago, Illinois, 1st, 140 points, receiving the Ella Hopkins silver trophy; A. S. Haugen, Stoughton, 2nd, 104 points; Dr. Francis X. Graff, Freeport, Illinois, 3rd, 93 points.

Best Decorative Spike, Walter C. Krueger, Oconomowoc, on Badger Beauty, receiving the N. E. G. S. bronze medal.

Best Exhibition Spike, C. D. Fortnam, Tyler Hill, Pa., on Laddie, receiving the N. E. G. S. silver medal.

Best 1942 Introduction from Sections C and D, Dr. F. Graff, Freeport, on Golden State.

Most Beautiful Spike, J. R. Hopkins, Deerfield, Illinois, on High Finance.

Best Exhibition Seedling Sections A and B, Chester Harrison, Waldo, Seedling 437 (Otto Hagedorn).

Best Decorative Seedling Sections A and B, L. E. May, Chicago, on 5-2-3.

Large Commercial Exhibit: Harold Janes, Whitewater.

20 Spike and Artistic Arrangement Table: A. S. Haugen, Stoughton, receiving Wisconsin Gladiolus Society pewter flower vase.

25 Spike Table: A. S. Haugen, Stoughton, receiving silver loving cup donated by Walter Miller, Sun Prairie.

Commercial Growers Exhibit: 1st, Harold Janes, Whitewater; 2nd, A. S. Haugen, Stoughton; 3rd, Walter Krueger, Oconomowoc.

Colonial Gardens Trophy for best basket or vase: A. S. Haugen, Stoughton.

Division Champions

Late Introductions, 1 spike, Archie Spatz, Wausau, on Bingo.

Late Introductions, Section D, Walter C. Krueger, Oconomowoc, on Badger Beauty.

Open Classes, 3 spikes, Section E, A. S. Haugen, Stoughton, on Algonquin. Section F, L. E. May, Chicago, on Bit O'Heaven.

Open Classes, 1 spike, Section G, C. D. Fortnam, Tyler Hill, Pa., on Laddie. Section H, L. E. May, Chicago, on Bit O'Heaven. Section I, Mr. L. Batterton, Springfield, Illinois, on Orange Butterfly.

For Lake Geneva Foremen's Assn., Section J, W. C. Grunow, Lake Geneva, on Vagabond Prince.

Novice Section, Section K, Harlow Jones, Milton Junction, on Bagdad.

The Horticultural Society trophy for winner of largest number of points in arrangement classes was won by Miss Olive Longland, Lake Geneva.

Other exhibitors in the artistic arrangements classes were: Mrs. Frederick Taggart, Lake Geneva; Miss M. C. Danehy, Manitowoc; Mrs. G. F. Baumbach, Lake Geneva; A. S. Haugen, Stoughton; Mrs. G. H. Scheer, Sheboygan; Mrs. Chas. Radtke, Lake Geneva; Mrs. Wm. C. Grunow, Lake Geneva; Harlow Jones, Milton Junction; and Mrs. Robert Keefe, Lake Geneva.

Some New Glads at the State Show

Dr. Geo. Scheer, Sheboygan

THE following notes are based upon the new glads seen at the State Show. Because of the early date of the show, these may be assumed to be mostly the early bloomers since the mid-season and late varieties are not yet in bloom.

Greta Garbo. A very chaste, delicate, pale pink, merging into a very light cream throat. This one makes a tall spike with long flower head, with 7-8 good sized florets open; petal edges rolled back.

Rosa van Lima. A bright rose-pink with lighter throat. Opens 6-7 round, plain petaled florets on a straight spike. It seems to please the public.

Buckeye Rose. An interesting, purely decorative variety. Burnt-orange ground with red blotch, shading to gray and brown on edges; very informal, with lower florets in single row; quite different and rather interesting.

Pinocchio. A small decorative, striking because of its contrasting colors; flesh ground, flaked pink and light red with green-yellow throat blotch; heavy substance with petals ruffled and crinkled.

Vulcan. A new red-purple with deep magenta ground, flashed and splotched with deep crimson, with red-violet blotch; florets large with very wide, plain petals.

Mohawk. A glowing, velvety, deep crimson blending into deeper edges. Medium size but noticeable for its color.

High Finance. A large light smoky, ground color salmon flesh, blending into chamois, with a soft flush of gray overall and gray and faint violet flaking on edges, with large cream dart on lower petals, running out into cream lines in petal centers.

Diplomat. Rose-red, with chamois undertone toward bases of upper petals; light violet-carmine throat mark; petal edges rolled back.

Crinkle Cream. A promising looking new yellow by Ellis. Large, lightly ruffled, wide petaled florets, of pale lemon-yellow without a trace of other color.

Golden State. A new clear, medium yellow of medium size, with florets of heavy substance with ruffled petals; makes a tall spike with 8-10 open.

Seedlings

Several interesting seedlings were shown. Among them was a tall light cream decorative by Almey, with 8-10 widely staggered florets of heavy substance, highly ruffled and keeled; florets rather small, but a striking variety, nevertheless. Walter Krueger had a very promising Solveig seedling with very large, heavily ruffled petals; it resembles its parent Solveig strongly but the feather in this one is on the violet-carmine order, rather than the carmine of Solveig. A very brilliant large orange-scarlet seedling by Otto Hagedorn was voted the best exhibition seedling in the show. It makes a very imposing, tall spike with well placed, large florets. It was runner-up for the grand championship.

Among the conspicuously blotched varieties mention should be made of Sir Galahad, Candyheart, June Bride, and Edith Grace. The last named is the latest addition to this list and is interesting because of the color of its blotch which is decidedly different from that of all the other blotched varieties, a bluish carmine-violet.

While the connoisseur usually frowns on the strongly contrasty blotched varieties, it was quite obvious that the general public is greatly attracted by them, no doubt because they **are** conspicuous.

SHOW REACTIONS

The 1942 exhibition at Lake Geneva, with its high quality of bloom, brought about many reactions in my thinking, but I must confine my comments to one area of thought, since others have been requested to make comments on varieties, etc.

It was a pleasure to receive an invasion from "south of our state border," namely, from our Illinois members, even though it cost me (and perhaps some others) some blue ribbons. The bloom brought by our Illinois friends, fellow gladiolus enthusiasts, definitely raised the quality of our exhibition, and in this particular year when quantity of bloom was lacking, because some of our state members had only a few bloom to bring to the show, their entries kept the show from being smaller than it would have been. They brought many new varieties for us to see. They brought themselves to widen our acquaintanceship of glad friends.

The better the quality of bloom, the better the reward for a blue ribbon. The wider our circle of friends, the richer we are in experience. Come again Wisconsin members from Illinois!

—Walter C. Krueger, Oconomowoc.

SUBSTITUTE FOR TARTAR EMETIC

A SUBSTITUTE has been found for tartar emetic for spraying gladiolus to control thrips. It is Sodium Antimony Lacto Phenolate. It may be obtained from a number of chemical companies, including Merck & Company, Inc., Rahway, N. J.; Mallinckrodt Chemical Works, 3600 No. 2nd. St., St. Louis, Mo.; and the Apex Chemical Co., Inc. 225 West 34th St., New York City.

A number of glad growers have found it difficcult to get tartar emetic this year. It seems that there has been so little call for it that it is practically off the market. Those who have difficulty should write to Mr. E. A. Lins of Spring Green.

WISCONSIN DAHLIA SHOW JOINS VICTORY HARVEST SHOW PLAN

THE Wisconsin Dahlia Society will hold its annual show at the Recreational Building, Wauwatosa, on September 5 and 6.

The Board of Directors of the Society voted unanimously to give 85% of the proceeds to the relief of the armed forces and emergency needs of their families.

We are glad to welcome the Wisconsin Dahlia Show as one of the Victory Harvest Shows.

The Milwaukee County Park Board gave the use of the Recreation Building rent free for this purpose.

Store Manager: "What's your first name?"
Young Applicant: "Scott."
Store Manager: "And your first name?"
Young Applicant: "Walter."
Store Manger "That's a pretty well known name."
Young Applicant (proudly): "It ought to be. I've been delivering groceries around here for two years now."

Home and Garden

Mrs. C. E. Strong

I dream of flowering gardens,
Of lily-ponds in shade
A drift of golden butterflies.
A curving walk I've made.
The scent of roses in the air,
The leafy stir of trees,
Drowsy moons and moonlit nights
My picture's made of these,
But what I've got—
Is a pot
Of red geraniums.
—M. C. Tomlinson from
Sunset Gold.

Observations in California

It isn't always a pot of red geraniums, but there are very few homes in California, be they small or large that do not have at least a few potted plants on the steps, porch, patio or window sill. These potted plants add much to the decorative effect, because they are always well cared for. Plants beginning to look shabby are whisked away and others put in their place. You see also many of the hanging baskets of plants on the porches, ivy geraniums, fuchsias, ferns and the trailing begonias.

Garden Clubs

There are many garden clubs—all are keeping up the interest in gardens, though in many different ways. Some of the clubs are sponsoring a series of Tuesday night lectures on the things a good gardener should know. These lectures are well attended because questions on personal problems of the gardeners are answered, if they have not been answered during the talks. Other clubs are sponsoring a school where high school students are taught by capable instructors what to do, and how to do the work on farms much as the children in England are taught.

There are schools also for the younger children — where they are taught to weed and water plants properly. I have seen small boys of ten and twelve working in small nurseries, very proud of the responsibility of cleaning up beds and watering.

These schools are proving very helpful, solving two problems—how to help the farmers, and how to keep the young folks helpfully busy. Besides these very worthwhile things, many of the clubs continue with their regular work, stressing the beautifying of homes, streets, parks, donate money, as well as trees and shrubbery for streets and parks, try out new plants that will help to beautify their state. The climate of Australia is very similar to that of California and many of the most admired trees and shrubs came from there.

A fine exhibit was shown at one of the large parks in Los Angeles very recently. There were some unusual berried shrubs to add to the already fine collection that is used so freely and effectively. Members of garden clubs who are the owners of large and unusually beautiful gardens give "teas" to which many guests are invited and a very substantial fee exacted from each guest. This is turned over to the Victory Fund. Sometimes the public is invited through the newspapers—war stamps and bonds admit you to the premises.

Nurseries

The majority of nurseries visited are so very different than those at home. Of course there are rows and rows of trees, shrubs and plants, but what you see first is a beautiful building where everything you can think of pertaining to gardening is sold, along with the lovely pottery which this section is noted for. There are tables set for every occasion with unusual flowers, fruits and vegetables, bowls, baskets and vases of flowers, all sorts of plants in bloom as well as decorative foliage. Then from this building radiate the show greenhouses and lath houses where everything in the line of plants is ready for selection and considering their perfection, at a very moderate price. As you leave the cut flower section, you step out on the patio and there before you is the show garden. No cover on a catalog could possibly come anyywhere near equaling that display. Lucky for me that I had no plot of ground in which to plant, else I would have been immediately bankrupt with not even a penny to buy a crust of bread. Beyond this garden is the tin can plot. In one and five gallon cans are plants and shrubs of every description ready to take home. You can imagine how that would appeal to a visiting garden club. Their cars would look like nurseries on wheels.

All is yet wonderfully cared for, but the labor situation is becoming more and more acute. What is going to happen to these wonderful gardens? It takes a small army of help to water alone, and weeds grow. So do bugs and worms. Even a few weeks of neglect would mean an immense loss.

Even the parks are beginning to feel this shortage of skilled gardeners, and in some of the towns garden club members give their aid, both in watering the grounds and keeping the plants in a cared for condition.

Have you ever had just enough perfect flowers for an exhibit, then have one get a kinked or broken stem? Try this. Insert a wooden toothpick below the break and push upwards in the stem beyond the break. The flower will last as long as others in the bowl or vase.

Have as yet seen no phlox to equal that grown in Wisconsin, neither color, size nor foliage.

SUNSET

God smiles upon
this earth below,
In every sunset's
golden glow.
Marion F. Haugseth, Hayward.
In The Friend Magazine.

Another thing people are seeing for the first time is the last 3000 miles in an old tire.

Iris Awards for 1942

By the American Iris Society

DYKES MEDAL

Variety	Originator
Great Lakes	Cousins

RUNNER-UP

Golden Majestic	Salbach

AWARD OF MERIT

American Varieties—Tall Bearded

Variety	Originator
Spun Gold	Glutzbeck
Golden Fleece	J. Sass
Deep Velvet	Salbach
Melitza	Nesmith
Golden Spike	Whiting
Balmung	H. P. Sass
Caroline Burr	Smith
Arctic	Kleinsorge

Other Than Tall Bearded

Variety	Originator
Helen Astor, Siberian	Whitney
Pink Ruffles, Intermediate	Smith

HONORABLE MENTION

Tall Bearded

Variety	Originator
And Thou	Graves
Blue Shimmer	J. Sass
Captain Wells	P. Cook
Cedar Rose	Whiting
Chicory Blue	Douglas
Copper Pink	Kellogg
Copper Rose	P. Cook
Coral Mist	Grant
Daybreak	Kleinsorge
Display	Grant
Flora Zenor	J. Sass
Franconia	Graves
Golden Eagle	Hall
Indiana Night	P. Cook
Lady Naomi	Fay
Late Sun	DeForest
L. Merton Gage (L-8)	Lapham
Mary Vernon	McKee
Mellowglow	Whiting
Persian Prince	H. P. Sass
Pink Reflection	P. Cook
Prince of Orange	Kleinsorge
Raejean	Whiting
Snow Carnival	Graves
Snow Velvet	H. P. Sass
Tapestry Rose	D. Hall
Tishomingo	Caldwell
Winter Carnival	Schreiner
Yellow Glory	Smith

INTERMEDIATES

Variety	Originator
Black Hawk	Schreiner
Ruby Glow	Schreiner

SIBERIAN, HYBRIDS, SPECIES

Variety	Originator
Mountain Lakes, Siberian	Gersdorff
Elmohr, Hybrid	Loomis

The Best of the Inexpensive Peonies

The numbers indicate the rating of the American Peony Society — 10 is perfection.

Albert Crousse	8.6
Alice Harding	
Baroness Schroeder	9.0
Cornelia Shaylor	9.1
Edwin C. Shaw	9.1
Festiva Maxima	9.3
Kelway's Glorious	9.5
Lady Alexandra Duff	9.1
Laura Dessert	8.9
Le Cygne	9.4
Longfellow	9.0
Martha Bulloch	9.1
Minnie Shaylor	8.9
Mons. Jules Elie	9.2
Mons. Martin Cahuzac	8.8
Mrs. Edw. Harding	
Nancy Dolman	9.1
Philippe Rivoire	9.2
Phyllis Kelway	9.0
President Wilson	9.3
Richard Carvel	8.8
Solange	9.2
Therese	9.5
Tourangelle	9.4
Walter Faxon	9.3

In addition to the well known double peonies, the singles and Japanese are well worth including, especially for garden effect.

The Best of the Single Peonies

Albiflora	8.2
Le Jour	8.6
L'Etincelante	8.4
Nellie	8.6
Pride of Langport	8.9
Silvia Saunders	
Vera	8.8

The Best of the Japanese Peonies

Akashigata	8.7
Ama-No-Sode	9.2
Fuyajo	9.2
Hari-Ai-Nin	9.1
Isani-Gidui	9.3
Mikado	9.6
Nippon Beauty	9.2
Yellow King	

—From Garden Club News Letter by Victor H. Ries.

I certainly hope they won't suspend Christmas on account of the war; what would we do for card-party prizes for next year?

NURSERYMEN MEET AT HOLTON AND HUNKEL NURSERY, BROWN DEER

THE Wisconsin Nurserymen's Association held an enjoyable and profitable summer meeting on the Holton and Hunkel Nursery grounds, Brown Deer, on Wednesday, August 5. The Holton and Hunkel Company furnished a very tasty outdoor luncheon at noon, which was followed by a short program.

Reports were given on the National Nurserymen's meeting by Mr. Tom Pinney of Sturgeon Bay, and Mr. Wm. G. McKay of Madison.

Mr. E. L. Chambers, State entomologist, discussed the changes in insecticides and fungicides due to the war, and among other things stated that **snarol** is a good material to kill slugs. It is an metaldehyde arsenical bait, and is on the market now. It will kill snails, sow bugs, cut worms, and ear wigs.

Mr. H. J. Rahmlow, Secretary of the Wisconsin Horticultural Society, spoke briefly on the work in hardy rootstocks for apples and the experience of city home owners with the new dwarf apple trees on Malling IX rootstock. He stated that they seemed adaptable to our small backyards in southern Wisconsin, and that the variety Melba bears very young, there being some apples the second year after planting.

A number of visiting nurserymen from other states were called upon. The program was followed by recreation and games.

MADISON EAST SIDE HARVEST FESTIVAL JOINS VICTORY SHOW PLAN

Annually the Madison East Side Business Men stage a Harvest Festival with a large flower show. Mrs. George Harbort, District President, in charge of the flower show at the Festival on September 2nd and 5th has arranged to have the flower shows come under the plan of the Victory Harvest Shows and funds obtained will be sent for the benefit of our armed forces and emergency needs of their families.

GARDEN GLEANINGS

About poison ivy. Did you read the item on page 299 of the July-August issue of this magazine on poison ivy? It is worth filing. We didn't know for example, that medical science had no real remedy for healing poison ivy skin poisoning and that "the ointment of time cures all cases in from 7 to 14 days, or slightly longer in severe cases." And that ordinary starch baths and calamine or Pink Lotion, with one-fourth to one per cent phenol seems to be as good treatment as any.

Now that a satisfactory chemical for killing the plant, ammonium sulfamate also known as DuPont Weed Killer is available, horticulturists should wage a strenuous campaign to rid the countryside of this dangerous pest.

Victor Ries of Ohio makes the excellent suggestion that meetings be opened with a contest to identify varieties of flowers, fruits, vegetables, trees, etc. We can even make them work for their meal, he says, by putting a different flower at each place at the table and giving each person the name of one of those flowers. They must identify the flower to find their place.

One reason why some organizations do not have better and more educational programs for their meetings is because the program committee doesn't like to do much work. That's a common fault with many of us. We know one organization, for example, that could have had some interesting programs with the use of lantern slides, but when the committee found that they would have to darken the room, provide the projector, etc., they preferred to plan something easier.

Too often we judge the quality of a meeting by whether or not we have had a good time rather than by what we have learned.

What about more **Victory vegetable gardens** for next year? Perhaps we can best judge at this time, while we are passing through the season during which vegetables are being grown, whether or not we need more of them in another year. Of course the situation may change, but if it is the same, do we wish to recommend more vegetable gardens in cities? Reports are that there is a sufficient supply of seasonable vegetables—that is, the kind we can grow in our own gardens. They are available in all the stores, and the farmers are peddling them from house to house. There may be a more serious labor shortage for growing vegetables next year. That problem should be solved by better organization so that children of school age can help in this important work. Many folks have not yet given serious consideration to helping food producers by sending out those who are not steadily employed.

Lawns. Why do our lawns do so poorly during mid-summer? One of the reasons is that bluegrass becomes practically dormant because its roots stop all growth when the soil temperature gets up around 70 degrees F. So if our lawns look brown or the grass does not grow during extremely hot weather, all we can do is to be patient and soon we will have some nice rains with cooler weather and the lawns will flourish again. Nitrogen fertilizers however, help the grass to make its best growth.

Dwarf apple trees. The most interesting feature in our garden this year was a small two-year old Melba apple on dwarfing rootstock which produced 14 apples. They grew to a good size and excellent color. The Melba is the only variety, however, which produced fruit the first and second year after it was planted. Dwarf fruit trees may find a real place in the small city back yard garden.

Watch your perennial phlox. If you find many dead leaves on the lower part of your perennial phlox plants, it may be because the clump needs to be divided. Of course the leaves may be injured by red spider or leaf spot, but on older clumps it is very likely to be due to the fact the stems grow from buds on last year's stems just under the ground, and therefore produce a weak growth which cannot stand the hot summer weather so that the lower leaves turn brown. Phlox should be divided every two or three years.

—H. J. Rahmlow.

BEST STORAGE TEMPERATURE FOR RIPENING FRUIT

WHY do old horticultural books tell of putting pears away in the bureau drawer to ripen? Because the pear fruit is a living thing which is killed by certain practices, as too long cold storage. The natural ripening processes in some varieties, as Kieffer, take place best at about 60 degrees Fahrenheit, and the bureau drawer more nearly approaches this condition than some other place, such as common storage or the cellar.

Any insipid, dead Bosc pears that may appear on the market are there only because of neglect of scientific findings, for it has been shown clearly just how long a Bosc pear can be kept in cold storage without "killing" it.

Further, peaches develop better quality when stored at higher temperatures than now commonly employed, and Jonathan apples stored at 36 degrees Fahrenheit do not develop the internal breakdown they do at 31 degrees.

—H. B. Tukey in The Rural New-Yorker.

How to Arrange Roses

Emma C. Schipper

"EVERY rose is an autograph from the hand of God on His world about us. He has inscribed his thoughts in these marvelous hieroglyphics which sense and science have, these many thousand years, been seeking to understand."*

Because of its dignity as queen of flowers it is said that a rose needs no arranging—it is in a class by itself. This statement seems to imply that roses are not subordinate to design, and consequently **they** should be considered "first, last and always."

Roses Should Dominate

While roses are combined with other flowers most people prefer to use them alone. In combining them with other flowers the rose, because of its status as queen of flowers, should be predominant and hence should not be subordinated by flowers which in quantity, size or intensity of color eclipse it, or share equal attraction. A quaint old English writer in giving instructions for painting pictures containing royal personages, well expressed the idea of dominance and subordination, when he said: "Let the king have first place, in a good light, and next his retinue or other proper persons. Then if there be yet other persons of lesser importance to be included, put them in the shade; and the less important they are, the deeper the shade."

Roses of the short-stemmed, shrub variety are best arranged in mass effects—either loosely massed with some of the foliage pruned out, or tightly massed with all of the foliage eliminated. They have no linear quality and, therefore, the **emphasis** in this type of arrangement is on form and color. A few curved sprays of rambler roses might set the scheme for a lovely crescent-shaped arrangement. Hybrid tea roses because of their longer stems offer possi-

bilities for a greater variety of arrangements, especially when **gradation** or **sequence** of bloom or form is used, which is essential in creating a pleasing silhouette. A perfect example of the principle of **gradation** or **sequence** is to be found in a single stalk of foxglove.

To use only full blown flowers in an arrangement is monotonous, and to combine tight buds with full blown flowers gives **contrast** only. But by using **sequence** of bloom we achieve **unity** through **variety!**

* Theodore Parker as quoted by **The New Dictionary of Thoughts** (Classic Publishing Co. New York 1931) p. 201.

A GOOD EDGING PLANT

TEUCRIUM chamaedrys or Germander is being used very effectively in the formal garden on the Maytag Estate, Lake Geneva, by Phil Robers, superintendent, as an edging plant around flower beds.

Germander is an herb. When planted closely and clipped however, it makes a very attractive looking dwarf edging plant. It is considered quite hardy in Lake Geneva by Mr. Wm. Longland, who has used it for many years.

Both gardeners agree that **Sultani** is an excellent flower for the shady garden. In fact it does well in full shade and is a beautiful flower. This is a good suggestion for those who have shady gardens. The seed of this annual is catalogued as **Impatiens sultani.** It is also an old favorite house plant.

NEW BULLETIN ON FORESTS AND LAND USE

WISCONSIN Forests and Land Use is the title of a new bulletin No. 229 just published by the Wisconsin Department of Agriculture, State Capitol, Madison, prepared by the Division of Land Economic Inventory and Land Use, Mr. John S. Bordner in charge.

It is a bulletin all interested conservationists should study. It covers the period of 1840 to 1940. It has illustrations of the history of land use in Wisconsin, and chapters on the present and proposed land use, trees, forest soils, forest yields, insect disease enemies, fire control, tree surgery, and many others.

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Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

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2135 Ridge Ave., Evanston, Illinois

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Box 147, Waupaca

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Mrs. R. H. Sewell, 2nd Vice-Pres.,
957 N. 70th St., Wauwatosa

H. J. Rahmlow, Cor. Secretary
Madison

Mrs. Fred. Marquardt, Rec. Secretary
R. 1, Box 63, Hales Corners

DISTRICT CHAIRMEN

Mrs. F. E. Willard, Oakfield
Fox River Valley District
Mrs. Geo. Harbort, R. 61. Madison
Madison District
Mrs. H. J. Anderson, 317 West Blvd., Racine
Milwaukee District
Mrs. Leland Dietsch, Fairview Dr.,
Plymouth, Sheboygan District
Mrs. R. J. Stumpf, Edgerton
South Central District

LETTER FROM THE PRESIDENT

Dear Garden Club Members:

This letter, my last to you as your president, will serve as my report to you of this year's work. I wish I might tell you of thrilling new accomplishments but that is not possible since our job this year has been to cut down our program rather than expand it. Early in the year the board realized that extensive travel and numerous meetings were impossible. To meet this emergency the year's work was outlined and then put into the hands of capable committees with power to act. I am pleased to report that the work has gone along smoothly under this setup.

In February, under the direction of Mrs. Roy Sewell, General Committee Chairman, we had three splendid regional meetings. At this time the state chairmen personnally presented their programs to the officers and chairmen of the local clubs, whose job it is to put these programs into effect. This is the best means possible for bringing the Federation program to the attention of the local clubs and it is hoped that the war situation will not limit travelling facilities to the exent that we will have to give up these meetings. Our state chairmen have functioned effectively as their individual reports will show.

You all know that our state flower show was a huge success with Mrs. Chester Thomas acting as general chairman. I am sure you will be pleased with the financial report which Mrs. Thomas will give at the convention.

Our five district presidents have attended all of our board meetings. Very successful district meetings have been held in all of the districts. A brief report of district activities will be given by each district president on the first morning of the convention.

Arrangement at State Flower Show by Mrs. R. J. Stumpf, Edgerton.

PETITION

I do not want a mansion, Lord,
A small white house will do;
With frilly curtains hung inside
And shutters painted blue.
Balmgelian trees within my yard
Pink phlox—and then just this—
A little girl with dark brown curls
To greet me with a kiss.

Marion F. Haugseth, Hayward.
In The Friend Magazine.

H. J. Rahmlow, General Chairman of the "Growing for Victory" harvest show project, and Mrs. Chester Thomas, our Federation's representative, are working with many other organizations and agencies in the state to make these shows a success. Your help is greatly needed.

Our state convention in Milwaukee on Oct. 1 and 2 will climax the year's work. We urge you to attend this meeting. In the opinion of some of our members this may be the last convention we will be able to have until the war is ended. The program which has been arranged by Mrs. H. S. Bostock and Mr. Rahmlow appears in this issue. We know you will want to hear every speaker. Mrs. E. A. St. Clair is serving as local convention chairman which is assurance of a smoothly running convention.

During the past year the big job has been to retrench as much as necessary without weakening the Federation. Your board has tried to make the necessary adjustments, wisely. It is not always easy to be wise but we have done our best. Next year you have fine, capable people coming into office. If the war continues, and there is every indication that it will, the work of the board will be increasingly difficult as it tries to carry on the work of the Federation. Give your new board your loyal support and understanding cooperation. For a few years we may have fewer meetings but if we can extend helping hands to the thousands of new gardeners in our own communities, show them how to have garden clubs of their own, show them how the Federation can help them to be better gardeners, we will be doing our patriotic part in the war effort.

Thank you for the privilege of serving as your president. I shall anticipate seeing you all at the convention in October.

Cordially,

—WILDA GRIM QUIMBY.

Wisconsin Gardens Clubs Will Go All Out for Victory Harvest Shows

PROGRAM

WISCONSIN GARDEN CLUB FEDERATION

FIFTEENTH ANNUAL CONVENTION

Pfister Hotel, Milwaukee—October 1-2, 1942

MAIN PROGRAM-
Thursday, October 1

Mrs. Frank Quimby, President, Presiding

9:30 a.m. Invocation. Rev. A. H. Otto, West Bend.
Address of Welcome by Mrs. H. J. Anderson, Racine, Milwaukee, District President.

10:00 a.m. Five-minute reports by District Chairmen. Mrs. Roy H. Sewell, Wauwatosa, General Committee Chairman, Presiding.

10:30 a.m. Reports of standing committee chairmen.

11:40 a.m. Victory Gardens and Victory Garden Shows. Speaker to be announced.

12:00 M. Luncheon in Red Room, 7th Floor. Guest of Honor, Mrs. Joseph H. Brewer, Grand Rapids, Michigan, National Council President.

Afternoon Program

Mrs. H. S. Bostock, 1st Vice-President, Presiding

1:30 p.m. Possibilities of Roses in Wisconsin. Mr. E. S. Boerner, Jackson and Perkins Company, Newark, N. Y.

2:15 p.m. Conservation Fundamentals in Wisconsin. Prof. Aldo Leopold, Department of Wildlife Management, University of Wisconsin, Madison.

3:00 p.m. Breeding Hardy New Chrysanthemums and Hemerocallis, illustrated. Dr. E. J. Kraus, Chief, Department of Botany, University of Chicago.

THE BANQUET

6:30 p.m. Music and entertainment auspices Milwaukee District. Crystal celebration 15th Anniversary. Past President Recognition. Presention of Awards.

PROGRAM

Adventures with Wisconsin Birds. Lecture with colored movies by Cleveland P. Grant, Covington, Kentucky.
Mr. Grant is America's most outstanding lecturer on wildlife.

Friday, October 2

Board of Managers Meeting, Rose Room, 7th Floor

8:30 a.m. Annual meeting Board of Managers Wisconsin Garden Club Federation. Official delegates only.

The Board of Managers consists of one delegate from each affiliated garden club with a membership of less than 50. Two delegates per club having more than 50 members. This Board acts on all matters of business and makes recommendations on all important matters to come before the convention.

General Program—Meeting on the Roof

9:30 a.m. How to Harvest and Store our Victory Garden Vegetables. Suggestions for Next Year's Victory Gardens. O. B. Combs, University of Wisconsin, Madison.

10:15 a.m. Trends in Landscaping During the Present Emergency. Prof. Franz Aust, University of Wisconsin, Madison.

11:00 a.m. Annual business meeting Wisconsin Garden Club Federation.

Afternoon Program

12:00 M. Luncheon in Red Room. Informal.

1:30 p.m. What New Perennials Shall We Grow Next Year. Mr. E. S. Boerner, Jackson and Perkins Company, Newark, N. Y.

2:30 p.m. Visit Whitnall Park. Demonstration on covering the garden and protecting roses for winter. Mr. Alfred Boerner, Milwaukee County Planning Department.

Notice: This program is subject to change due to war conditions.

REGISTRATION FEE

The registration fee will be 50 cents per person.

ANNETTE H. FLANDERS TO SPEAK AT MILWAUKEE DISTRICT MEETING SEPTEMBER 10

THE Brookdale Garden Club, the Hales Corners and the Hawthorn Garden Clubs will be hostess clubs to the Milwaukee District at the fall meeting on September 10. The program will begin at 10 a.m. with a business meeting. There will be a basket picnic at noon and a talk "Planning a Garden in War Time" by Mrs. Annette Hoyt Flanders. This will be followed by a tour through Whitnall Park Gardens.

At 3:30 there will be an herb tea.

VICTORY HARVEST FESTIVAL
Recreational Building, Wauwatosa
September 18-19-20

A HARVEST Show will be held in the Wauwatosa Recreational Building on Sept. 18-19-20.

The show is being held for the purpose of raising funds for the benefit of the men of our armed forces and emergency needs of their families, and has been registered with the National Committee as a Victory harvest show.

The show will be called the Milwaukee County Victory Harvest Festival. It is sponsored by the Wisconsin Victory Harvest Show committee with Mrs. Chester Thomas, Milwaukee, State Chairman of Victory Harvest Shows for the Wisconsin Garden Club Federation, in charge.

All members are urged to attend this show.

All garden clubs, florists and nurserymen, and other horticultural organizations in Milwaukee county will take part. Eighty-five per cent of all the funds will be turned over to relief.

RADIO GARDEN PROGRAM
State Stations WHA, Madison, and WLBL, Stevens Point
10 to 10:45 A. M.

September 1. Belladonna from Wisconsin. Mrs. Kitchell Sayre, Edgerton.

September 8. Living From Our

Garden. Mr. and Mrs. C. H. Sorum.

September 15. Our Rare Perfumes. Mrs. Marius Hansen.

September 22. New Chrysanthemums This Fall. H. J. Rahmlow.

September 29. Autumn's Wayside Beauty. J. S. Elfner, Horticulture Department, Madison.

October 6. Time to Gather Winter Bouquets. Mrs. Agnes Leindorff.

October 13. A Thought of Storage. Violet Blodeau and Group.

October 20. Work in the Fall Garden. H. J. Rahmlow.

October 27. Decorations for Hallowe'en. Edna Baumann.

NORTH CENTRAL REGIONAL MEETING

National Council of State Garden Clubs

St. Louis, October 19-20-21

THE North Central Region of the National Council of Garden Club Federations will meet at the Chase Hotel, St. Louis, on October 19-20-21.

An interesting program has been arranged. The program and full information will be published in the October issue of the National Council Bulletin.

Anyone in Wisconsin is welcome to attend this meeting and for further information as to registration fee and program should write Mrs. H. S. Bostock, 15 W. Main St., Madison, First Vice-President.

FLOWER EXHIBIT AT THE STATE FAIR

The flower exhibit in the Horticulture Building at the Wisconsin State Fair was up to its usual high standard. The garden clubs were missing this year, but their place was taken by gladiolus growers, and the shadow boxes and dinner tables were open to all the first three days of the Fair.

The quality of the gladiolus and dahlias was exceptionally good this year and made a wonderful display. The shadow boxes and tables indicated considerable ability in arrangement on the part of exhibitors. In fact, a remarkable improvement has been made in flower arrangement during the past ten years among Wisconsin exhibitors.

The Horticulture Building at the State Fair is one of the most beautiful on the grounds and attracts a large attendance, the aisles being crowded with Fair visitors throughout the day and evening.

ANNETTE HOYT FLANDERS OPENS OFFICE IN MILWAUKEE

ANNETTE Hoyt Flanders of Oconomowoc, announces the opening of a permanent office at 524 E. Mason Street, Milwaukee. Mrs. Flanders is closing her New York office and moving all her equipment to Milwaukee. The new office is directly behind the Art Gallery.

Wisconsin horticultural organizations will be glad to know that Mrs. Flanders is so near to us and available for consultation and lecture work.

MASTER JUDGES

The following were omitted from our list of Master flower show judges printed in the July-August issue:

Mrs. E. R. Durgin, 1815 Park Avenue, Racine.

Miss Edna Robertson, 515 Broad St., Menasha.

Mrs. Ida Watkins, 515 Broad St., Menasha.

SLIDE LECTURE APPRECIATED BY GARDEN CLUB

MRS. R. E. KARTACK, Program Chairman of the Baraboo Garden Club writes, "The slides on Perennial Phlox received from the Wisconsin Horticultural Society made a very interesting and instructive garden club program. The specimen bloom slides were very much worth seeing for they brought out so plainly the improvement made in perennial phlox in recent years. I hope the slides have stimulated an interest in these newer kinds and that we will see some newer varieties in our gardens here in the future."

When it is becoming more and more difficult to obtain speakers from out of town it would seem that lantern slide lectures available free of charge from the Wisconsin Horticultural Society would be of special interest to garden clubs at this time.

NEW HANDBOOK ON FLOWER SHOW JUDGING

A NEW "handbook of flower show judging" has just been issued by the National Council of State Garden Clubs. The bulletin has been greatly amplified and revised over earlier pamphlets. It is an aid in planning and staging shows and the suggestions for judging are the result of long experience.

Requirements for judging schools are given, and the famous Fischer Color Chart issued by the New England Gladiolus Society is included this year. This chart standardizes colors and color nomenclature.

The handbook may be ordered from the National Council of State Garden Clubs, Hotel Roosevelt, New York, at $1.00 per copy.

EXTENSION COURSE IN LANDSCAPING

THROUGH the University Extension Division, University of Wisconsin, Madison, any home owner may take a course in landscaping the home grounds without leaving home.

The Extension Division announces a correspondence-study course in landscape design prepared by the staff of the Department of Horticulture and directed by Prof. F. A. Aust.

The course comes in 16 assignments, and includes such topics as the survey plan, design plan and planting plan. It deals with the construction of a beautiful lawn, plant materials, and special features. The course is available to any person in the state. Write the Extension Division, University of Wisconsin, Madison, for information.

Farmer (after lightning struck the tree under which his hired man had sought shelter): "How close did it come to you, Sam?"

Hired Man (still trembling): "I — I d-d-dunno, but it lit my pipe."

GARDEN NEWS

TO KILL SLUGS IN THE GARDEN USE NEW INSECTICIDE

A NEW product is on the market called Snarol. According to Mr. E. L. Chambers, State Entomologist, it is a metaldehyde arsenical bait, and is very good for killing slugs in the garden. The manufacturers also state that it will kill snails, sow bugs, cut worms, and ear wigs.

The control of slugs in the garden has been quite a problem and perhaps this material will be of help to gardeners.

NEW BULLETIN ON STORING VEGETABLES AT HOME

A BULLETIN of interest to all gardeners, entitled "Storing Vegetables at Home," Circular No. 322 has just been issued by the Wisconsin College of Agriculture, Madison. It is written by Prof. J. G. Moore and O. B. Combs. It discusses storage temperatures, ventilation, moisture supply and has instructions on storing special crops such as cabbage, onions, potatoes, and others.

The bulletin may be obtained free by writing the Mailing Room, College of Agriculture, Madison.

DO NOT REMOVE GRAPE LEAVES

AT THIS time of year inquiries are frequently received about the advisability of removing grape leaves so the sun can reach the fruit in order to cause it to mature more satisfactorily. Grapes will ripen even in a black bag, showing that light is not necessary for the development of color in this fruit, although it is a well known fact that it is necessary for the development of color in apples and some other tree fruits.

The ripening of grapes is dependent on the presence of an adequate leaf surface which synthesizes sugars as well as the carbohydrate compounds which go to make up the color pigments. Removing the leaves, therefore, will cause the grapes to ripen more slowly and to have a lower sugar content. The result will be the same whether the leaves are removed by summer pruning or because of the activity of Japanese beetles, leaf hoppers, or some of the leaf diseases. Every effort should be made to maintain ample and vigorous leaf surface throughout the growing season.

—By J. Harold Clark in New Jersey Horticultural News, July.

NEW FLOWERS WITH X-RAY

DAVID BURPEE, Philadelphia plant hybridist, has produced two new varieties of flowers, originated by the use of X-rays. Both are calendulas. They are derived from seeds exposed to X-rays at the University of California in 1933. Six generations of the resulting flowers were grown to test the new strains. The X-ray treatment, according to Mr. Burpee, brings about greater changes than the drug colchicine, which has long been used to alter plant forms. Colchicine is derived from the Autumn crocus and is known to increase the number of chromosomes of a plant, thus disturbing or intensifying certain traits of the flower. X-rays are more effective because they smash the genes or break up the chromosomes.

—N. Y. Times.

TEST CHEMICALS IN CONTROL OF ELM DISEASE

CHEMICAL injections may some day conquer Dutch elm disease, experiments by Dr. George Zantmyer, Connecticut Experiment Station, indicate. Dr. Zantmyer suspected that wilting of leaves, first noticeable symptom of Dutch elm disease, might be caused by a toxin secreted by the fungus, as is the case in certain other plant diseases like tomato and cotton wilts. He grew the disease fungus under laboratory conditions, made a filtered extract from it, and dipped cuttings of various plants into the extract. The characteristic wilt developed. The same reaction, as well as staining of the wood (another symptom of elm disease) was observed when the filtrate was injected into small trees growing outdoors. Preliminary tests have been made with counteracting chemicals. Dr. Zantmyer is not satisfied, however, that he has found the real "cure" for Dutch elm disease. Further research is necessary.

—From Science Service.

BEAUTY FROM ENGLISH IVY

THERE is not much beauty to an English ivy whose long stems are bare except for a few leaves at the tips but, you know, the way to avoid such a condition seems to be to give the plant plenty of light and not too much heat at this time of year. Of course, you understand, I am assuming that the plants were strong and well-branched when they were moved into the house.

Some of the trouble may come from the make-up of the plant itself. It is wise to avoid coarse-growing ivies, the ones with big leaves. The English ivy has dozens of varieties and for home decoration one should stick to one of the forms with small leaves and free-branching not-too-vigorous stems. In fact, some of the difficulty can be avoided if one uses philodendrons, instead of English ivy, in places where the light is dim.

—From Rambling Observations of a Roving Gardener, in Horticulture.

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APPLE MAGGOTS SERIOUS IN STATE

MR. ARNO MEYER, Vice-President of the Society, Waldo Orchards, writes: "From my experience with the apple maggot this season and I believe that others have had the same sad experience we will want to learn more about the control of this insect at our convention. There were swarms of the flies working from July 28th to the first week in September. Both Wealthy and Snow were seriously infected."

Dr. C. L. Fluke will speak the first forenoon of the convention on control of the apple maggot. Members in Southeastern Wisconsin especially should attend this session.

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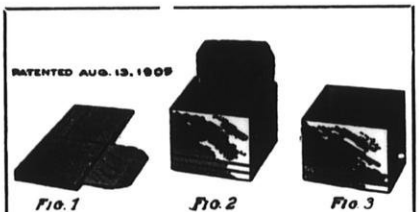

FIG. 1 FIG. 2 FIG 3

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The Official Organ of the Wisconsin State Horticultural Society

ESTABLISHED 1910

Entered at the postoffice at Madison, Wisconsin, as second-class matter. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1918.

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
424 University Farm Place
Madison, Wisconsin

H. J. RAHMLOW, *Editor*
Secretary Wisconsin State Horticultural Society

Office: Old Entomology Bldg., College of Agriculture
Tel. University 182

Vol. XXXIII OCTOBER, 1942 No. 2

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PLEASE DO NOT SEND STAMPS

New Fruit Varieties

Minnesota, North Dakota and Morden, Manitoba Fruit Breeding Farms Creating Many Promising New Varieties

THE annual trip of the Fruit Testing Committee of the Wisconsin Horticultural Society was cancelled this year due to tire rationing. Instead the Executive Board authorized the Secretary to visit the Fruit Breeding Farms at Minnesota, Fargo, North Dakota, and Morden, Manitoba, by train or bus.

The Secretary spent Labor Day at the Minnesota State Fair with Dr. W. G. Brierley, fruit specialist at the University Farm, St. Paul, discussing the new varieties on exhibit. Following are some of Dr. Brierley's remarks relative to apples.

Early Apple Varieties Popular

Early apples are gaining in popularity in the Twin Cities, and growers may be planting more good early varieties in the future because of market demand.

The Beacon apple is still popular with Minnesota growers and is considered superior to Duchess because of better keeping quality. Its color is good and while the quality is not high, it is a good cooking apple.

A new variety, No. 714 which matures just before Wealthy, has good flavor and is better than Duchess. It has a nice shape, is of good size, and may be worthy of introduction.

A large sized crab, No. 240, is gaining in popularity. It has good quality and may be preferred by the housewife because of being larger in size than most crabs. Many housewives do not like to handle small crab apples.

The new Minnesota variety Minjon introduced this past year was on display and is quite attractive. It somewhat resembles Jonathan and for that reason is called Minjon, an abbreviation of Minnesota

Jonathan. It has a solid red color, and is of good quality, but of small size. There has been a prejudice against small sized apples, but for many purposes they are ideal, especially for school children's lunches. The variety Patricia, for example, is one of the best eating apples we have known, but because it lacks size it has never become popular with the growers. Minjon being hardy, is worthy of trial at least in the central sections of Wisconsin because of its attractiveness and quality.

Hardy Pears

Dr. Brierley rated the hardy pears in order of his preference as follows: 1st, Parker; 2nd, Patten; 3rd, Bantam, with Tait as a pollenizer. These varieties are all hardy and should grow anywhere in Wisconsin. The Bantam is a small variety, but of good quality, and can be grown in the coldest parts of the state. It is considered to be quite blight resistant.

Hardy Plums

Minnesota, of course, is outstanding for the number of large sized and high quality hybrid plums introduced. Dr. Brierley stated that many people like a blue plum. The Mount Royal is perhaps the best in quality of the domestica type. It is of medium size, a bright blue, and very hardy.

Krikon is very hardy and can be grown anywhere. We found both these varieties doing well at the Morden Experiment Station. However, Krikon is rather small and therefore not as good as Mount Royal.

The Sapa plum is the only one of the older domesticas that is still popular in Minnesota. The marketing problem on plums is somewhat difficult and only those especially equipped for it are successful in selling any quantity. Brown rot is another danger, especially with the domestica plums, and a good spray program must be adopted to grow them successfully.

Dr. Brierley made some interesting comments on new discoveries on winter hardiness of plants and covering strawberries which may be found elsewhere in this issue.

Dr. L. E. Longley was in charge of the rose exhibit at the Minnesota State Fair, and his comments on roses will be found in this issue.

At the Fargo, North Dakota Experiment Station

At the North Dakota Experiment Station at Fargo, Prof. Harold Matson conducted us through the orchards and gardens. Because of the difficulty of obtaining high yields on tree fruits, they have turned their attention to vegetable crops, especially potatoes and tomatoes. These crops were doing especially well at Fargo. Mr. Matson pointed out that an acre of tomatoes will produce a higher income there than an acre of tree fruits. Much work is being done in breeding improved varieties resistant to disease.

Caraganas have been used extensively in North Dakota for hedge purposes. This year they were seriously defoliated by insects. Hardy Honeysuckles, on the other hand, seemed to have no enemies and made a very attractive hedge.

The Northwest Nursery at Valley City

Mr. E. C. Hilborn, proprietor of the Northwest Nursery at Valley City, North Dakota, invited the Secretary to spend some time inspecting the many varieties of hardy shrubs, trees and fruits in his nursery. He also very kindly provided a car for the trip to Morden, Manitoba because rail and bus connections were not good.

Valley City is a gem in the prairie. It is surrounded by low hills which may be the reason why some varieties of ornamentals and fruits can be grown better than on the open prairie. Nevertheless, Mr. Hilborn has been doing an excellent job of selecting hardy varieties, both the native kinds and from experiment stations working along that line, especially at Morden.

Mr. Hilborn spoke very highly of No. 1166 everbearing strawberry from the Minnesota Experiment Station. He stated that it bears an excellent crop in June and also is a good fall bearer.

He has crossed the Chinese Elm with the American Elm and has some very interesting hybrids which may have some advantages over either parent in certain locations and may be resistant to the Dutch elm disease.

Mr. Hilborn also selected some fine types of Silver Junipers from the Bad Lands of North Dakota and the foothills of the Rocky Mountains. One specimen in his yard he called the Grisley Bear Silver Juniper because it resembled a bear sitting up at full height. Silver Junipers are excellent for ornamental purposes and very hardy.

The Morden Experiment Station —A Garden in the Prairie

The Morden Experiment Station at Manitoba, about 80 miles south and west of Winnipeg, is a veritable garden of Eden on the prairie. Surrounded by the typical flat wheat lands of Manitoba and the Dakotas, here we find a station of 600 acres, 200 of which are in garden. All kinds of tree fruits, small fruits, ornamental trees and shrubs, as well as flowers are grown. For anyone interested in hardy material it is a wonderful place for study.

Apple Coffee

A noon luncheon as guest of Superintendent and Mrs. W. R. Leslie was a delightful event. Present also were Mr. Ralph Ure, Secretary of the Manitoba Horticultural Society, Winnipeg, and Mr. G. B. Matthews, Superintendent of the Saskatoon Experiment Station, and several other guests. We were very much interested in the coffee which was served made from apples, and called Appletine. It was introduced in British Columbia and is quite popular throughout Canada as a substitute during coffee rationing. Apples are dried, roasted, and ground. One teaspoonful of the powder will make four to five cups of coffee, and the Canadian price is only 25c per lb. Coffee fans may notice the difference, but we thought it was good.

We were also treated to delicious preserves of various types of plums produced at the Station.

New Fruits

An entirely new fruit to us was Actinidia, a vine fruit tasting like a cross between a fig and a gooseberry. We will make an effort to obtain plants next spring to be tested in Wisconsin.

Many varieties of strawberries and raspberries under trial at Morden will be discussed in the small fruit section of this issue.

New Apple Recommended

Superintendent Leslie recommended that we test in Wisconsin the Jubilee apple. It is a cross between McIntosh and Grimes Golden, has a pleasing red color, and keeps very well in storage. The quality is excellent. We will introduce either trees or cions of this variety to Wisconsin next spring.

Hardy Apricots

The Scout apricot is hardy in the coldest of climates and is of good quality. One objection to it may be that in case of late spring frosts the blossoms may be injured and the trees fail to bear fruit.

The Scout apricot is now being crossed with the Sapa plum in an effort to obtain hybrids which will bloom later and be more reliable fruiters. In quality the cross is said to be very good. However, according to Dr. Kerr in charge of fruit breeding work at the Morden Station, one of the possible problems will be that of pollination. Hybrids are often pollenized only by certain varieties as in the case of the Minnesota hybrid plums.

A Large Fruiting Crab

Flowering crabs are popular because of their beauty during spring bloom. Most of the flowering crabs such as Hopa have very small fruits and are difficult to use in cooking. A new crab, the **Manito** originated at Morden, has large apples about the size of small Wealthies, and the quality of crab apples —excellent for jelly and preserves. It is also beautiful when in bloom. The housewife may prefer this type of fruit for culinary use.

The Ember Plum Popular

The Ember plum which is a large and well colored variety, is a heavy producer and one of the best of the Minnesota varieties at the Morden Station.

The Mount Royal, mentioned previously as an excellent blue plum for preserves, is resistant to leaf spot and received no sprays at Morden.

The Raynes plum is larger than the Mount Royal, but not quite as good in quality. The Grenville is somewhat like the Minnesota hybrids — very large and was originated by the Ottawa Station. It is worthy of trial.

Rhubarb Juice

Another treat provided by Mrs. Leslie was a drink of rhubarb juice. It was red in color and of excellent flavor, made from the Valentine rhubarb, which has red flesh. It is an excellent new variety originated at Morden.

Chemical Nitrogen Supplies

Available Only for Essential Use

ALTHOUGH supplies of chemical nitrogen for use as fertilizer during 1942-43 can be estimated only approximately at this time, the present prospect is that less fertilizer nitrogen will be available for 1942-43 than was used during 1941-42. This means that if limited supplies are to be distributed equitably, careful plans must be made and followed through the year. Those who have studied the nitrogen shortage problem agree that, in the main, the nitrogen assigned to mixed fertilizer can be distributed equitably and used most efficiently (1) by omitting chemical nitrogen from mixed fertilizers for nonessential uses such as lawns, golf courses, etc.; (2) by omitting chemical nitrogen from mixed fertilizers for use on fall-sown small grains, principally wheat of which there is a large surplus; (3) by scaling down the nitrogen content of complete fertilizers generally, in no case to less than 2 per cent, however; and (4) by very definitely linking fertilizer grades and ratios to crops and soil areas.

Why High Nitrogen Fertilizers Will Not Be Produced

If grades having a high nitrogen content are offered and sold in considerable tonnages, the limited nitrogen supply soon will be exhausted. The offering of high nitrogen grades, in view of the almost certain shortage of nitrogen for direct use, would almost inevitably reduce total tonnage. This would result in inequitable distribution and might even necessitate rationing to farmers on a card or ticket basis. This is what Federal agencies, State agricultural officials, and the industry are trying hard to avoid. A distinct advantage in reducing the nitrogen content of mixed fertilizers instead of producing fewer tons of mixed goods with a high nitrogen content is that the former would insure the use of normal applications of phosphate and potash both of which are expected to be available in normal or more than normal quantities. All chemical nitrogen except that taken by the War Department is being allocated by the War Production Board — that for fertilizer use on recommendations made by the United States Department of Agriculture, after consultation with the land-grant colleges. Fortunately, about 90 per cent of the nitrogen needed to produce our crops comes from the soil and from the air, and some of our shortage of chemical nitrogen can be made up by growing more legumes and by making more efficient use of farm manures. —*The Fertilizer Review.*

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How to Keep McIntosh Apples the Year Around

By R. M. SMOCK and A. VAN DOREN

APPLES can usually be kept for rather long periods of time quite satisfactorily in ordinary cold storage. There are instances, however, where cold storage alone has not proved entirely adequate. For example, McIntosh apples cannot be held much after March in ordinary cold storage with much assurance that they will have prime eating quality. With a new technique in storage "controlled atmosphere," McIntosh apples can be kept in good condition the year around.

This procedure is called "controlled atmosphere storage," because very careful control is had not only of the temperature but also the carbon dioxide and oxygen in the atmosphere of the room.

What Is Controlled Atmosphere Storage

Apples are living things, even though they are separated from the parent tree. Like all living things, they consume oxygen from the atmosphere and give off carbon dioxide. There are three ways in which this living process can be slowed down in its rate. One way is to lower the temperature, and this is the fundamental principal of cold storage. A second way is to allow the carbon dioxide given off by the fruit to accumulate around it up to a certain point. Controlled atmosphere storage involves all three of these principles.

One of the most interesting features of this process is that the apples do most of the work. Once they are placed in a gas tight refrigerated room and sealed up, they themselves reduce the oxygen down to the required level by their own life processes. They also give off the required carbon dioxide. The storage operator merely regulates the levels of these two gases. With a simple device for measuring carbon dioxide and oxygen he determines the percentage of these two gases in the storage atmosphere daily. If the oxygen level has dropped a little too low, he allows some fresh air to enter the chamber. If the carbon dioxide gets too high, the excess is washed out by passing it over a solution of ordinary caustic soda in a simple "atmospheric washer."

It has been found by careful experimentation that McIntosh apples seem to respond best to an atmosphere of five per cent carbon dioxide and two per cent oxygen at a temperature of 40 degrees Fahrenheit.

Varietal Response

McIntosh is probably the most outstanding of all the New York and New England varieties in its response to this new method of storage. As has been stated, this variety does not keep well much past March in ordinary cold storage (32 degrees Fahrenheit in ordinary air). With controlled atmosphere storage it can be kept the year around in good condition. McIntosh apples held in controlled atmosphere storage have been removed from storage in August and remained marketable at room temperature for 10 days if they were not allowed to shrivel. Apples out of cold storage in March will only remain marketable for a very few days. When held in controlled atmosphere storage, they have remained marketable for a month after removal in March.

There are other New York varieties, like Northwestern Greening, Golden Delicious, and Northern Spy, which also respond very favorably to this procedure but it is a question how much it would pay with these varieties at present market prices for apples. There are other varieties, like Cortland, which respond very favorably but because of their extreme susceptibility to storage scald are not adapted to controlled atmosphere storage. There are still other varieties, like Wealthy and Jonathan, which respond adversely to this technique of storage. They keep much better in ordinary cold storage than in controlled atmosphere storage.

Commercial Application

To date, controlled atmosphere storage seems admirably adapted to the variety McIntosh. This is a relatively high priced dessert variety which has a relatively short storage life in cold storage. Controlled atmosphere storage allows the apple grower to market this variety as late in the spring or summer as he wants to sell apples.

In no sense should this new storage method be considered a substitute for ordinary cold storage. It is a supplement to ordinary cold storage to lengthen the storage season. McIntosh to be sold before March or April are sold out of ordinary cold storage. McIntosh to be sold after that time are stored in a separate gas tight room which is not opened until about March or April. After the room is unsealed, the apples can be sold out of ordinary refrigeraed storage for a period of two or three months.

Actual cost accounts which have been kept in conjunction with commercial controlled atmosphere storages in New York have shown that it costs beween nine and eleven cents a bushel more per season. For example, if in ordinary cold storage the actual cost has been about 15 cents per bushel per season, the cost in controlled atmosphere storage would be about 25 cents. It should be remembered, however, that the season is two or three months longer, and that there is a slight saving in operating at 40 degrees Fahrenheit instead of at 32 degrees, which is the temperature used in ordinary cold storage.

—Condensed from September 5 Rural New-Yorker.

Mouse Control in the Orchard

G. C. ODERKIRK

Bait the Orchard Before Snow Falls

SNOW will fall in many orchards in a short time and cover the activities of field mice for the long period of winter ahead. In view of the fact that it is practically impossible to apply poisoned bait and obtain good results after snow arrives, it would be well for growers to treat the infested parts of their orchards now, and thus be relieved of any worry about winter damage to trees.

It is a good idea to make a late fall treatment of the orchard to destroy mice. Mice move into the orchard in the warm period during the fall and when fields adjoining an orchard are plowed late, substantial numbers of mice may migrate to the secure cover of the orchard. Thus, if bait has been applied early in the fall, it is, nevertheless, desirable to make another late treatment to reduce the overwintering population to as low a point as possible.

New Bait Available

Fruit growers may use a new poison, called zinc phosphide, this fall. This rodenticide is available as well as the prepared strychnine-treated oats bait. However, we are interested in having as many growers as possible give the new mouse poison a trial. It has given excellent results in experimental tests and it will likely soon displace strychnine due to the difficulty in obtaining the latter poison. The zinc phosphide rodenticide is very cheap and, hence, greatly reduces the cost of orchard treatment for field mice control. Full directions for preparing the bait will be furnished those who wish to use the new mixture.

How to Use Bait

Apples are recommended as the bait material. The poison is easily applied and should be placed in mouse runways in the same manner as in using oats bait.

BAIT PRICES

Prepared strychnine-treated oats bait is available through the Wisconsin State Horticultural Society, Madison, Wisconsin, at the following prices: $1.30 per 10-pound bag, $3.00 per 25-pound bag, F.O.B. Madison. Figure about a pound of bait per acre of orchard if the mouse infestation is about average.

Zinc phosphide rodenticide must be forwarded by express. One can will treat 10 quarts of bait, which is enough for 3 to 10 acres of orchard, depending upon the infestation. Price, one can 20 cents, more than one can 15 cents each with 10 cents per order handling charge. Express charge is 35 cents for one to seven cans.

One or two pieces of the apple bait placed **in runways** at two to four points within the drip area of a tree should destroy all the mice near the tree. In applying the bait, the man who performs the work should walk down a tree row, look sharply for runways and place baits in them at about 10-foot intervals, with additional placements in runways near the trees as mentioned above. Mice will readily find the bait if it is placed in active runways and, hence, spacing the bait placements is highly important. When a piece of apple or a spoonful of oats is placed in a mouse runway, be sure to cover the bait lightly with grass. Mice will not feed on the bait in the open.

Don't Use Stations

It is suggested that growers **discontinue the use of all types of bait containers now in use.** Spend the time and effort that it takes to handle these bait stations in **locating the mouse runways** and baiting them with a good poison preparation.

WHIPPED POTATOES LOSE VITAMIN C

WHIPPED, mashed potatoes lose their Vitamin C content during the whipping and mashing operation. Fortunately, American diets do not have to depend upon potatoes for their Vitamin C, but there are less fortunate countries where they do and to which this information becomes important.

—*By H. B. Tukey in the Rural New-Yorker*, September 19.

APPLES TO BE PURCHASED FOR THE SCHOOL LUNCH PROGRAM

THE Agricultural Marketing Administration announced on September 1 that it was ready to purchase apples at a straight price of $1.25 per bushel for U. S. 1 grade, 2¼" to 2½" size only, for the purpose of supplying the school lunch program. This was the announcement made by Truman Nold, Secretary of the National Apple Institute.

The quantity needed will be around two million bushels, and purchases will be made in the harvest season as far as possible.

Grimes Golden are expected to make up the bulk of early purchases, but the A.M.A. will buy other "dessert varieties of commercial importance."

The size limitation was decided upon because of its usefulness in the school lunches, and because there will be no disadvantage to the fresh fruit market where strong preference is indicated for the larger fruit.

More than 6 million children ate apples in the school lunches last year in the 93,000 participating schools. By eating more fruits and vegetables in fresh form, children —like all other consumers—can release more of the processed foods that are needed by our soldiers and allies, according to the A.M.A.

While the program will not affect Wisconsin apples, it will, nevertheless, be a big factor in providing a market for certain grades, and nationally.

FRUIT SHOW

WISCONSIN STATE HORTICULTURAL SOCIETY CONVENTION

Fort Atkinson, November 17-18, 1942

Committee in Charge: C. L. Kuehner, Madison, Chairman

NEW APPLE VARIETIES

Plate of 3 Apples

Judge: C. L. Kuehner, Madison

The following premiums will be offered on each class for varieties recommended for trial by the State Horticultural Society.

1st prize, $1; 2nd, 75c; 3rd, 50c; 25c for each additional entry of merit.

1. Milton
2. Orleans
3. Macoun
4. Cortland
5. Haralson
6. Secor
7. Kendall
8. Perkins
9. Any other variety

STANDARD VARIETIES

Plate of 5 Apples

Judges: D. E. Bingham, Sturgeon Bay; Jos. L. Morawetz, West Bend

Premiums on Classes 10 and 11 offered by the Niagara Sprayer and Chemical Company; J. Henry Smith, representative, Waupaca.

10. McIntosh
11. Delicious—any type of red

Premiums, Classes 10 and 11, each: 1st prize, $1.50; 2nd, $1.00; 3rd, 75c; 4th, 5th and 6th, 50c.

12. Grimes Golden
13. Jonathan
14. Northern Spy
15. Salome
16. Golden Delicious
17. Snow
18. N. W. Greening
19. Wealthy
20. Any other variety

Premiums on each variety, Classes 12-20: 1st prize, $1.00; 2nd, 75c; 3rd, 50c; 4th, 25c.

NEW PEARS

Plate of 3 Pears

Judge: C. L. Kuehner, Madison

21. Gorham
22. Phelps
23. Cayuga
24. Beierschmidt
25. Patten
26. Zachman
27. Mendel
28. Parker
29. Any other new variety

Premiums on each variety, Classes 21-30: 1st prize, $1.00; 2nd, 75c; 3rd, 50c; 4th, 25c.

Class 30, Gift package of Wisconsin fruit. Quality of fruit, 50%; attractiveness of package, 50%. Must be open so judges can inspect fruit.

Premiums: 1st, $3; 2nd, $2.50; 3rd, $1.50; 4th, $1; 5th, 50c.

SEEDLING APPLES

Plate of 5 Apples

Judges: Prof. J. G. Moore and C. L. Kuehner, Madison

Class A. Special ribbons will be awarded for the best seedlings which have never won a premium before.

Premiums: 1st prize, $3; 2nd, $2; 3rd, $1; five additional prizes of $1.

Class B. The same premiums as above will be given on seedlings which have won a premium at past shows.

Seedlings should be sent to the State Horticultural Society, 424 University Farm Place, Madison, not later than November 15, 1942. Seedlings may also be brought to the convention before 9:30 a. m., November 17, by the exhibitor.

SEEDLING NUT SHOW

Plate of 7 Nuts

Judges: Jason Swartz, Waukesha, and Chas. Patterson, Franksville

31. Hickory
32. Walnuts
33. Butternuts
34. Any other variety nuts

Premiums: 1st, $1; 2nd, 75c; 3rd, 50c; 4th, 50c; 5th, 25c.

Rules: An exhibitor may receive only one prize in one class, except seedlings. Only meritorious exhibits will be awarded prizes.

SUN COLORING vs. USE OF HARVEST SPRAY ON McINTOSH

McINTOSH apples harvested and sun-colored for a period of nine days developed much greater amount of red color than fruit which received harvest spray and were allowed to remain on the tree for the same period of time. At the end of nine days treatment 66.5 per cent of the sun-colored fruit showed more than 50 per cent over-color, while only 32.8 per cent of the harvest sprayed fruits were as well colored. The treatment was begun on September 3. On September 12 when the harvest sprayed fruit was checked the use of the pressure gauge showed a resistance of 12.6 pounds while the fruit which had been harvested on September 3 and sun-colored for nine days tested only 10.8 pounds. Fruit from both lots was stored and when tested December 19 there was no appreciable difference in the firmness of the fruits receiving the two different treatments.

—*Report in September Hoosier Horticulture.*

NEW BULLETIN ON HANDLING APPLES AVAILABLE

A NEW bulletin entitled "Handling Apples From Tree to Table," Circular No. 659, may be obtained from the Superintendent of Documents, Washington, D. C., at 15c per copy.

The author emphasizes the importance of harvest maturity. He points out that fruit harvested immature will not develop a good flavor, may wilt or shrivel, and is subject to scald or bitter pit during storage.

Over-mature apples are susceptible to water core, soft shell, scald, internal breakdown, and are more subject to stem punctures and other mechanical injuries through which the blue mold infection takes place.

Fruit ripens and softens about four times as fast at 50 degrees F. as at 32 degrees F., and twice as fast at 70 degrees as at 50 degrees.

74th ANNUAL CONVENTION
WISCONSIN HORTICULTURAL SOCIETY

Fruit Growers Program

Fort Atkinson, November 17-18, 1942

Municipal Building

Tuesday, November 17

8-10 a. m.—Setting up fruit exhibits. See premium list.
9:45 a. m.—Call to order by President S. S. Telfer, Ellison Bay.
Introduction by County Agent George L. Wright, Jefferson County.
Welcome to Jefferson County by Wm. Leonard, President County Fruit Growers Association.
10:00 a. m.—A New Method for Timing Apple Maggot Sprays. Better Maggot Control. Dr. C. L. Fluke, Chief, Entomology Dept., Wisconsin College of Agriculture, Madison.
11:00 a. m.—This Season's Experience with Apple Scab Control. Results with Ground and Tree Spraying. Dr. G. W. Keitt, Chief, Division of Plant Pathology, Madison.
12:00 M.—Luncheon announcements.

Afternoon Program

1:30 p. m. — Relationship of Pruning, Spraying and Fertilizing to Tree Growth and Production. Dr. W. G. Brierley, Division of Horticulture, University Farm, St. Paul.
2:30 p. m.—What Eastern Fruit Growers Are Thinking and Doing. Discussion of Varieties, Culture, Spraying and Marketing of Apples. Dr. H. B. Tukey, Experiment Station, Geneva, New York.
3:30 p. m.—Demonstration of the Use of Zinc Phosphide in Orchard Mouse Control. An inexpensive method. Tubes of the material will be available at 15c each.
Question and Answer Period.

The Banquet

6:30 p. m., Methodist Church—Price 85c

Special features auspices Jefferson County Fruit Growers Association.
Honorary Recognition Services. Certificates awarded to two outstanding horticulturists.
Presentation and Observations by M. B. Goff, former President Horticultural Society.
Colored Movies of Trip to the Hawaiian Islands by Karl S. Reynolds, Sturgeon Bay.
Some Pioneers in Wisconsin Horticulture. Prof. J. G. Moore, Chief, Horticulture Dept., Madison.

Wednesday, November 18

10:00 a. m.—Fruit Growing in the Major Horticultural Sections of America as Seen on a 25 Thousand Mile Trip Last Year. Dr. H. B. Tukey, Geneva, New York.
11:00 a. m.—New Discoveries on Winter Hardiness and Winterkilling. Suggestions for Control of Winter Injury. Dr. W. G. Brierley, Minnesota.
12:00 M.—Luncheon.

Afternoon Program

1:30 p. m. — Annual Business Meeting Wisconsin Horticultural Society. Hardy New Fruits as Seen on Trip to Minnesota, North Dakota, and Morden, Manitoba.
Committee Reports.
2:15 p. m.—Observations in Wisconsin Orchards During the Past Season. Suggestions for Next Year. Dr. R. H. Roberts, Madison.

Apples in Open Baskets Cool Fast

The bulletin points out that "apples in an open basket as they come from the orchard without liners, wrap, or shredded oil paper, cooled from 63 degrees F. to 32 degrees F. in 18 hours, whereas fruit packed in lined baskets with a pad under the lid and shredded oiled paper distributed throughout required about ten days to cool from 70 degrees to 32.5 degrees.

DOES WISCONSIN GROW GOOD APPLES?

ON SEPTEMBER 14th we received from Mr. M. B. Goff, orchardist of Sturgeon Bay, now in Chicago, a former President of the Wisconsin Horticultural Society, a copy of the fruit marketing report by the U. S. Department of Agriculture for the Chicago fruit market. Mr. Goff made this notation:

"I thought this strong preference for Wisconsin apples might interest the members."

In looking over the report we find Wisconsin N. W. Greening, 2¾" minimum, listed at $1.50 per bushel in Chicago, which is higher than Greenings from any other state. Wolf Rivers, 2¾" minimum, $1.60, also higher than this variety from any other state. Wisconsin McIntosh were listed at $2 - $2.25 which is considerably higher than McIntosh from any other state on the Chicago market for September 11th.

Here is the answer to the folks who ask, "Does Wisconsin grow good apples?"

SWEET DELICIOUS FOR WINTER

SWEET Delicious is probably the best **sweet** apple for winter use, This variety, originated at the New York Experiment Station, now has been tested sufficiently to have established its value. It is an excellent apple for baking, for eating; also is satisfactory for making homemade apple butter where the recipe calls for sweet apples.
—*Country Gentleman, September.*

BEHAVIOR OF HONEYBEES

Even if you are not a beekeeper you will be interested in the article in this issue by Dr. O. W. Park of Iowa on the behavior of honeybees. It is most interesting. It will be found in the Beekeeping section.

VOTE TODAY

Don't forget to vote. See ballot on page 40.

In the Berry Patch

SMALL FRUIT VARIETIES AT THE MORDEN EXPERIMENT STATION

IF A VARIETY of strawberry or raspberry is hardy at Morden, Manitoba, 80 miles southwest of Winnipeg, it might be considered to be hardy anywhere in Wisconsin.

On a trip to the Morden Station early in September we were very much surprised to find practically all varieties of raspberries on trial. There were new kinds from the Ottawa Experiment Station, from Geneva, New York, from the Minnesota Fruit Breeding Farm, and also the standard varieties. However, most varieties are covered in the fall.

Mr. F. V. Hutton in charge of small fruit work conducted us through the plots and stated that the Wayzata everbearing strawberry is the best quality variety and does very well, especially under irrigation. The following are his comments on other varieties:

The Rudy red raspberry from the Fargo Experiment Station, while well adapted to the prairie, would probably not do well in Wisconsin because of more damp weather conditions.

Minnesota No. 1118 strawberry is very good. It is a heavy plant maker and one of the best for canning and a good producer. It is a variety which should be tested in Wisconsin.

The Bristol and Dundee were the favorite blackcap raspberries at Morden.

The Taylor red rasperry was being grown and Mr. Hutton considers it the best quality raspberry we have. However at Morden it must be covered during the winter as it is not sufficiently hardy for that climate.

Some new everbearing strawberries have been originated by Mr. E. J. Porter of the Honeywood Nursery, Parkside Saskatchewan, Canada. The Sparta and August Beauty everbearing are very good.

STRAWBERRY WITH A BLOSSOM

Nature does odd things. Shown here is a ripe strawberry with a flower at its tip. The berry was picked in the field of Mr. Earl J. Randles, Alma Center. The photo was taken by Mr. J. D. Winter of the Minnesota Horticulture Department.

WHEN TO COVER STRAWBERRIES

New Work on Hardiness Shows Danger of Too Early Covering

MOST Wisconsin horticulturists are familiar with the work of Dr. R. H. Roberts indicating that strawberry plants must be covered to protect them from any early heavy freeze. This has usually been considered to be about November 10th to 15th in southern Wisconsin, and a week or so earlier in other sections of the state.

How to Cover

A covering of about three inches of good clean straw or marsh hay is the usual recommendation. The strawberries should be allowed to go through a light frost in order to stop growth. However, a temperature of from 15 to 20 above zero lasting for several days, especially if there is a wind and with no snow covering is likely to injure the roots and crowns of the plants, causing what has been known for many years as black root and black crown.

The strawberry growers should therefore watch the weather reports, but of course with large acreages it will be necessary to cover so that the work can be completed before a severe cold spell.

Danger of Too Early Covering

Work at the Minnesota Experiment Station, largely by Dr. W. G. Brierley, indicates that plants may not go into the rest period under a mulch if covered too early and are killed by a severe cold later on. The usual time of covering in the latitude of St. Paul is the first week in November, according to Dr. Brierley.

Indications are that light frosts stop plant growth. If this is followed by a low temperature as for example 15 to 20 degrees F. the dormancy is broken and high temperatures thereafter will start plant growth. Uncovered strawberries, therefore, are subject to injury if high temperatures would prevail in late November following a temperature of 15 to 20 degrees in mid-November. There may be more danger of this in southern sections than in the north. Covering, however, will overcome this trouble by protecting the plants from high temperatures.

The above applies not only to strawberries but to raspberries as well.

LATE POTATO PROSPECTS DECLINE IN WISCONSIN

POTATO production in Wisconsin is expected to be smaller than in 1941, and only about two-thirds of the average crop, according to our Crop Reporting Service.

Early potatoes turned out well, with good yields. In August, however, late blight became widespread and prospects for the late crop in a sharp decline. Severe blight damage was reported in central and northern Wisconsin. The estimate in September was that the crop will be 1¼ million bushel below the crop harvest of last year.

Cost of Establishing the Raspberry Plantation

PROF. R. E. LOREE, Michigan State College

MANY growers do not realize how expensive it is to bring a raspberry plantation into bearing. Usually, the plants do not bear until the second year, and full bearing is not reached until the third year after planting. In other words, at least a full year is spent in establishing the plantation and bringing it up to bearing age. In the meantime, there is interest charged on the investment, taxes must be paid, and the enterprise must be properly supervised. To this must be added the cost of plants and planting, land preparation, and subsequent care of the plantation during the time when it is coming into bearing.

Studies in 28 raspberry plantations in southwestern Michigan during 1925 and 1926 showed that the planting and first year care of the fields required an investment varying from $59.06 to $84.10 per acre. The average for the 28 fields was $69.80.

The first year costs were computed as follows: Plowing, $3.00; discing, $1.20; harrowing, $1.20; marking and furrowing out for the plants, $0.90; planting, $8.00; hoeing three times, $9.00; cultivating nine times, $8.10; cover crop seed and sowing, $2.80; supervision, $5.00; interest on land investment, $5.25 to $14.00 depending on its valuation, and taxes, $1.75 to $3.00 depending on conditions. The cost of plants per acre varied with the planting distance from $6.80 to $18.67. The average was $13.42. Man labor was figured at 30 cents per hour and horse labor at 15. A charge for supervision was made to cover the time spent by the owner as laborer and superintendent in the plantation.

Owner Labor Saves Cash Outlay

Where all of the labor of planting and care of the plantation is given by the owner, the actual cash outlay would be much less than the figures given, and probably would not exceed over $15 to $20 per acre. This cost may be still further reduced by growing cultivated crops between the rows the first season thus reducing to some extent the tillage costs for the berry plants.

Yields and Profits

Yields in Michigan raspberry plantations are relatively low. While the acreage in the state has steadily increased during the last two decades, total production and yield per acre have as steadily declined. Yield per acre has decreased from 60 16-quart crates in 1909 to 48 crates in 1919 and to 38 crates in 1929. Acreage and production figures for the 10 leading raspberry producing states show that this is far below the average for the country as a whole and considerably below that of many other states.

No Profit on Poor Sites

Detailed studies in Michigan plantations have shown conclusively that even with the best of care and management raspberries grown on poor sites and soils are seldom profitable. If there is any hazard or any doubt regarding the suitability of land intended for commercial raspberry production, the area should be devoted to some other crop which can be grown to better advantage, or only a small acreage of raspberries should be planted until the grower is more certain regarding the suitability of the land for their culture. Diseased plants, poor management, few canes per hill, relatively few plants per acre due to wide spacing of the plants or to vacancies caused by disease or other agencies, non-bearing plants, and old age of plantations are also factors contributing to low yields.

Profit Depends on Yield

Profit or loss in raspberry production depends primarily on yield per acre. Hence, in order to make the business profitable relatively large yields must be obtained. This can be realized only by a judicious selection of soil and site and by skillful management in establishing and maintaining the plantation.

Although the average yield is given as 38 crates per acre, that quantity is much less than is obtained by some of the better growers. Yields of 80 to 100 crates are not uncommon and, in well managed plantations on good soil, it should not be unreasonable to expect yields of 125 to 150 crates per acre.

—*Condensed from Bulletin, Raspberry Growing in Michigan.*

"GREEN PASTURES"

The question in the physiology examination read: "How may one obtain a good posture?"

The country boy wrote: "Keep the cows off it and let it grow up awhile."

Whether you need a box approved for interstate shipment by the Federal Food and Drug Administration, or whether you plan to ship locally in old style boxes, you can be safe and save money too, by assembling either type box with the fast-working Neva - Clog stapler. Get everything you need for fruit or truck shipments at Sheboygan—as leading growers have for 63 years.

Write, now, for low prices and **free** facts on new shipping regulations.

Sheboygan Fruit Box Co.

582-CT **Sheboygan, Wisconsin**

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

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Walter Diehnelt, Menomonee Falls, President
S. P. Elliott, Menomonie, Vice-president
H. J. Rahmlow, Madison, Cor. Secy.
Mrs. Louise Brueggeman, Box. 60, Menomonee Falls, Recording Secretary-Treasurer

DISTRICT CHAIRMEN

Robt. Knutson, Ladysmith
Newton Boggs, Viroqua
C. C. Meyer, Appleton
Ivan Whiting, Rockford

FEEDING SYRUP TO BEES WITH SPRINKLING CAN SAVES TIME

DURING a busy season the problem of feeding light colonies is not only a matter of obtaining sugar these days, but a matter of getting the time to do the work. Feeding with the 10 lb. pail with perforated top has become quite common, but it is nevertheless a very slow and laborious task. First, it requires a stock of pails which are difficult to store and keep from rusting. Second, hive bodies must be emptied of frames and hauled to the yard and they must be removed and replaced afterwards. In fact, this method is perhaps the most laborious of any.

A Fast Method

In feeding light colonies this spring (for the first time in many years beekeepers found it necessary to feed when clover was in bloom), the sprinkling can method was not only fast, but convenient. Here is how it was done.

Mix a sugar syrup, 1 part of sugar to 1 part of water. Place in 60 lb. cans and haul to the yard. Have a sprinkling can such as is used for watering plants and fill it three-fourths full of sugar syrup. Open up the hive, take out an empty comb from the side of the hive body, shake off the bees, have one person hold the frame on its side directly on top of the colony. The other person sprinkles or sprays it full of syrup. Turn the frame over and complete the other side. Replace it quickly. The job is done in about one minute or before the bees know what has happened and there is any danger of robbing being started. One frame will hold from one to two pounds of syrup. It won't hurt at all to have some of the syrup fall over the frames and on the bees as they will clean it up quickly.

WOMEN'S AUXILIARY MEETING
WISCONSIN BEEKEEPERS ASSOCIATION

City Hall, Appleton

October 29-30, 1942

PROGRAM

Thursday, October 29

9:30 a. m.—Enter Honey Canning Exhibits. See Premium List.

10:00 a. m.—Welcome to Appleton by Mayor John Goodland.
Response by Mrs. A. H. Seefeldt, President Women's Auxiliary, Kewaskum.

10:15 a. m.—Honey in Holiday Baking. Adjusting our Cooking to Meet certain Food Shortages. Mrs. Harriet Grace, American Honey Institute.

11:15 a. m.—Demonstration on Making Honey Frosting and Ice Box Dessert. Mrs. A. J. Schultz, Ripon.
Discussion of honey frostings led by Mrs. Seefeldt.

12:00 M.—Special luncheon. Plans to be announced.

Afternoon Program

1:30 p.m.—Attend men's program. Talk by Mrs. Harriett Grace, on Recent Discoveries About Honey. Does Honey Have Vitamins?

2:15 p. m.—Trop to Points of interest in Appleton. Lawrence College Museum, local Newspaper Press Room, and Crepe Paper Factory. Complete plans to be announced.

The Banquet

6:30 p. m., Price 75 cents.
Eagles' Hall, 119 E. Washington St.
See men's program.

Friday, October 30

10:00 a. m.—Annual business meeting, election of officers Women's Auxiliary.

10:30 a. m.—Demonstration by Mrs. Walter Diehnelt, Menomonee Falls, and Mrs. A. H. Seefeldt, Kewaskum, on using honey for chocolate and butterscotch sauce.

11:15 a. m.—Use of honey in canning. Mrs. Harriett Grace.
Discusssion.

12:00 M.—Luncheon.

Afternoon Program

1:30 p. m.—Attend business meeting Wisconsin Beekeepers Association.

UNIQUE

"Why is it that you go steady with her?"

"Well, because she's different from other girls."

"How's that?"

"She'll go with me."

HONEY CANNING EXHIBIT PREMIUM SCHEDULE WOMEN'S AUXILIARY MEETING WISCONSIN BEEKEEPERS ASSOCIATION
City Hall, Appleton
October 29-30

PREMIUM SCHEDULE

Class 1. Pint of canned fruit.
Class 2. Honey fruit jellies in jelly glass.
Class 3. Honey pickles and relishes.
Prizes: 1st. prize $1.00 2nd., 75 cents; 3rd., 50 cents.
Jars will be opened for judging.

HEAVY BROODREARING THIS FALL

A LETTER from G. M. Ranum, well known beekeepers of Mt. Horeb, gives the following interesting discussion of conditions with bees this fall. Writes Mr. Ranum:

"Our honey crop was somewhat below expectations. After the main flow was over, beginning about July 26th, our scale hive made no further gain until August 22. On an examination of colonies August 18th-25th it was disclosed that two body colonies had 8 to 12 frames of brood in all stages with stores abundant. Those in one body had 5 to 8 frames of brood. Now on September 17th our hives are overflowing with bees. The scale hive has lost 14 lbs. in weight since August 22nd, which however, may not necessarily be alarming if broodrearing stops soon. However, there is danger of scant stores for wintering in many hives this fall."

Editor's note: Heavy broodrearing always means heavy use of stores. However, there is no more profitable use for honey than in raising young bees in the fall. Young bees winter best. Strong fall colonies with plenty of stores mean strong colonies in the spring, and no winter losses other conditions being favorable.

SAVE AND PRODUCE BEESWAX

THE present beeswax situation is serious, according to announcement by the government. The army, navy and medical uses require at least 2,000,000 lbs. of beeswax annually. Importations of beeswax from Africa and Brazil have been cut off. It is estimated that this country produces 4,000,000 lbs. of beeswax and imports during the last few years have been about 5,000,000 lbs., a total of 9,000,000 annually. Only about half of that amount will be available this year.

Beekeepers are urged to save all the beeswax possible and produce all they can. Pick up every bit of beeswax that you can find.

64th ANNUAL CONVENTION
WISCONSIN BEEKEEPERS ASSOCIATION

City Hall, Appleton

October 29-30, 1942

PROGRAM

Thursday, October 29

9:30 a. m.—Registration. Call to order by Walter Diehnelt, President, Menomonee Falls.

10:00 a. m.—Welcome to Appleton by Mayor John Goodland.

Source of Infection of AFB. How It May Be Brought Into An Apiary. John F. Long, Madison.

10:45 a. m.—Summary of Inspection Work During The Past Season. James Gwin, Chief, Division of Bees and Honey, Madison.

11:15 a. m.—Observations While Inspecting Bees. 10-minute discussion by S. P. Elliott, Menomonie; Robt. Knutson, Ladysmith; Newton Boggs, Viroqua; Max E. Vircks, Dorchester; A. H. Seefeldt, Kewaskum.

12:00 M.—Luncheon. Business meeting Board of Managers. The Board consists of officers of the State Association, and one delegate from each affiliated County Association. The Board acts as a nominating committee.

Afternoon Program

1:30 p. m.—Recent Discoveries About Honey. Does Honey Have Vitamins? Mrs. Harriett Grace, American Honey Institute, Madison.

2:15 p. m.—How To Increase Colony Yields. Colony Requirements and Improved Beekeeping Practices. Discussion of Pollen, Stock, Food Requirements, Organization of Equipment, and Methods of Queen Introduction. Dr. C. L. Farrar Central States Bee Laboratory, Madison.

3:15 p. m.—Late Developments in the Honey and Beeswax Price Situation. Value of Bees as Pollenizers. Huber H. Root, Medina, Ohio.

The Banquet

6:30 p. m., Price 75 cents.
Eagles' Hall, 119 E. Washington St.

Music and entertainment by the Fox River Valley District Association. Cornelius Meyer, Chairman.

Beekeeping Movies by Huber H. Root, Medina, Ohio. Outstanding movies in color of Bee Behavior and Activity.

The Geological History of the Honey Bee. Dr. R. M. Bagg, Geologist, Lawrence College, Appleton.

Friday, October 30

10:00 a. m.—Nosema Disease, Its Relation to Winter Losses and Queen Supersedure.

Our Present Knowledge of AFB and Disease Resistance. Dr. C. L. Farrar, Madison.

Question Period.

11:00 a. m.—The Importance of Beeswax Today. The Use and Conservation of Wax. Huber H. Root, Medina, Ohio.

11:30 a. m.—Preparing Honey For Market. Methods of Packaging Honey. Walter Diehnelt, Menomonee Falls.

12:00 M.—Luncheon.

Afternoon Program

1:30 p. m.—Annual business meeting and election of officers. Reports of committees.

Report of delegates from County Associations on Beekeeping Conditions and Practices.

Registration Fee 25c.

Division of Labor in the Honeybee Colony

By O. W. PARK, Ames, Iowa

DIVISION of labor in the honeybee colony has been accepted as a fact for centuries.

Various fragments of knowledge on this subject have been in our literature for years, but to Dr. G. A. Rosch of Germany goes the credit for having supplied a number of the missing links and for having confirmed various conceptions based upon the reports of previous observers of bee behavior.

Rosch found, as had previous observers, that during the busiest period of the year, workers live about five or six weeks and that approximately the first half of the worker's life is occupied by duties **within** the hive, while the latter half is spent in **field** work. Rosch found also that during the first 13 days after emergence, the worker normally performs but two kinds of work, but that from the 14th through the 20th day she may vary her occupation, to a considerable extent within certain fairly well-establised limits. Furthermore, no hard and fast time limits are given for the various duties since an excess of bees for any given duty may lead to the performance of other duties by such excess; or a shortage of help in a given line may bring about a departure from the normal sequence of duties. A colony containing no workers more than eight days old is capable of performing all the functions performed by a normal colony.

Work Done by Young Bees

Rosch observed that bees 1-3 days old clean themselves upon emergence, take food from other bees but none from the cells of the comb, clean out brood cells and loiter on the brood, thereby helping to keep it warm. Their loitering upon the brood appears to be of considerable importance since the duties of other bees take them away from the brood in the busy season. The only work performed during this period is that of cleaning brood-cells. Workers of this age were never seen helping themselves to any food stored in the hive.

Nurse Bees

At 3-5 days of age they act as nurse bees, but feed only the older larvae that are not more than two days under the age for sealing. These they feed pollen and honey which they take from the cells. But when the glands which secrete brood-food become functional, which occurs at the age of about five or six days, they then feed principally the younger larvae. This they continue to do until about the 13th day.

Orientation flights often begin during the latter part of the nursing period which may extend slightly beyond the 13th day in case of lack of nurse bees, or it may be cut short by a heavy honey flow, since the second and final period of hive duties begins with relieving incoming nectar-gatherers of their loads and storing them away. The stowing away of pollen is performed at this age also. Once these duties are begun, the job of nursing is left to others.

Wax Workers

With the decline of the brood-nursing, glands, which starts somewhat before the 13th day, the wax glands begin their functioning and are at the height of their development in workers 12-18 days old, and as might be expected, it was found that comb building is done largely by workers of this age.

Still other tasks performed during this, the second and last period of hive duties, include cleaning and carrying out debris and finally at 18-20 days of age, guarding the entrance. According to Rosch, bees of this age often sit idle on the combs or perform all kinds of incidental work, which may be carried on for a short time only. Thus it will be seen that no definite statements can be made as to the behavior of a worker during the third week of her life.

Gathering, Ripening, and Storing

According to Gaston Bonnier, field bees may be divided into searchers and collectors. Searchers act as scouts, searching out sources of pollen and nectar. When a suitable source is found and other bees come to the source, they all become collectors, including the searcher. During a good honey flow, searchers go out only in the early morning and soon all berome collectors, but during a dearth, searchers are out all day. It seems probable that we have here a plausible explanation of why robbing tendencies are lacking during a good honey flow and so severe during a dearth.

Bonnier also carried out experiments which indicate that nectar-carriers, pollen-carriers, water-carriers, or propolis-carriers do not leave their respective duties and will not stop even to collect honey placed before them. He reported also that certain bees confined their visits to a certain limited portion of a row of plants which were all in bloom.

Communication Among Honeybees

Bonnier observed also that only a sufficient number of collectors come to a given group of flowers to gather the nectar or pollen as the case may be. When the number of flowers was increased, additional collectors came, whereas, when the number of flowers was reduced, fewer collectors appeared. This he observed but was unable to explain, and no satisfactory explanation was forthcoming until 1921 when Von Frisch published his work on the

"Language of Bees." Observations and experiments carried on during 1919 and 1920 without any knowledge of Frisch's work enable me to confirm his conclusion that the "dance" performed at times by loaded fielders just returned to the hive is a means employed to inform other bees that food is to be had for the getting.

This method of communication, however, is inadequate to give the location of the food unless that be already known to the recipient of the message, so that the bees which respond to the dance must individually search out the source of supply. There is some evidence to indicate that in some instances at least, they are aided in their search by the odor of the booty dispensed by the dancer.

The Dance

As long as the supply continues abundant, most of the returning bees perform the dance, but as soon as the supply becomes depleted, the returning bees cease to perform the dance and in many cases do not themselves return to the source, until some searcher finding the supply renewed returns with a load and performs the dance.

—*Condensed from Journal Paper No. J-969 of the Iowa Agricultural Experiment Station, Ames, Iowa. Printed in Gleanings in Bee Culture, September.*

(To be continued in our next issue)

EVER TRY THESE?

ONE inspector complains that in his territory the worst bees to pin your shirt on are a second or third generation of crosses between the Italians and Caucasians. Ever try them? Well, don't! Whatever you have or intend to keep, keep them pure, one or the other. As for me, give me Italians that are both gentle and honey getters.

—*Jas. Starkey in Indiana News Letter.*

HONEY PRODUCTION FOR 1942

By U. S. Department of Agriculture

A CROP about 13 percent smaller than last year was expected by 5,000 honey producers reporting in late August to the U. S. Department of Agriculture. A total crop of **179,653,000 pounds** of honey this year is indicated compared with 206,591,000 pounds produced in 1941.

Expected yields of honey per colony were down 21 percent from 1941, averaging 36 pounds compared with 45.4 pounds last year, but an increase of about 10 percent in the number of colonies limited the decrease in total production.

Yields Per Colony Low

The expected decrease in yield per colony is most severe in the North Central States, falling from 60.3 pounds in 1941 to 38.8 pounds in 1942, a decrease of about 36 percent. This group of States usually produces almost half of the Nation's crop of honey. But a large increase in the number of colonies of bees, about 15 percent, limited the decline oin total production to only 26 percent, or from 98,007,000 pounds in 1941 down to 72,708,000 pounds this year.

Colony yields in the North Atlantic States declined from 52.1 to 34.9 pounds, but a 13 percent increase in number of colonies held the production decline from 22,468,000 pounds last year to 16,990,000 this season. The Far West reveals an increase in yield from 56.0 up to 57.6 pounds per colony, and a 5 percent increase in colonies. California, the leading honey State, shows an increase of 11 percent in number of colonies, but 14 percent decline in yield per colony.

Prices

Wholesale prices reported as being received by these producers in August for extracted honey in large cans, kegs or barrels, averaged 11.4 cents per pound, compared with an average seasonal price of 6.5 cents received during 1941 and 5.7 cents during 1940. The average prevailing August price this year was 11.9 cents in the North Central States, 10.3 in the South, 10.7 in the West and 12.2 in the North Atlantic States.

Wholesale prices to producers for comb honey in one pound sections averaged 16.5 cents per pound for the United States, compared with the average season's price in 1941 of 13.8 cents and in 1940 of 12.1 cents.

Prices received for beeswax averaged 40.3 cents per pound for the country as a whole and did not vary greatly in the different areas.

—Condensed from Report of Bureau of Agricultural Economics, Washington, D. C.

HONEY WANTED

Cash paid for cars and less than cars comb and extracted honey. Mail sample and best price. C. W. Aeppler Company, Oconomowoc, Wisconsin.

HONEY CONTAINERS

Wisconsin Beekeepers Association

Order Through Your State Association where all profits go to further the work of the industry.

Modernistic glass

Tin pails and cans

New Association labels

For complete price list write

HONEY ACRES

Menomonee Falls, Wisconsin

HONEY CONTAINERS:

We have a complete stock of all sizes glass and tin containers for packing honey:

TIN CONTAINERS:

5 lb.—10 lb. pails — 60 lb. cans,

GLASS CONTAINERS:

5 lb.—2½ lb. Glass Pails, ½ lb. 1 lb.—2 lb. Masterline jars, ½ lb.—1 lb.—2 lb. Bee Hive jars.

WRITE FOR NEW PRICE LIST ON CONTAINERS:

Remember—We also carry a complete line of other honey packages, including Shipping Cases, and comb honey cartons.

AUGUST LOTZ COMPANY

BOYD, WISCONSIN

Editorials

OFFICIAL BALLOT

FOR THE ELECTION OF OFFICERS

of the

WISCONSIN STATE HORTICULTURAL SOCIETY

For President

Arno Meyer, Waldo ---------- ☐

---------- ☐

For Vice-President

Don Reynolds, Sturgeon Bay ---------- ☐

---------- ☐

For Director to Succeed Ralph Irwin, Lancaster

Theodore Bakke, Gays Mills ---------- ☐

Virgil Fieldhouse, Dodgeville ---------- ☐

---------- ☐

For Director to Succeed Don Reynolds, Sturgeon Bay

H. A. Dvorak, Casco ---------- ☐

Nick Jacobs, Sturgeon Bay ---------- ☐

W. L. Thenell, Sturgeon Bay ---------- ☐

---------- ☐

For Director

Alfred J. Meyer, Hales Corners ---------- ☐

Peter Louis Swartz, Jr., Waukesha ---------- ☐

---------- ☐

Instructions: Mark an X after the name of the person for whom you vote, for each office. You may fill in the name of a new candidate on the blank line if you desire. Cut out the ballot and mail to Mrs. A. E. Steinmetz, Wisconsin Horticultural Society, 424 University Farm Place, Madison, Wisconsin, acting as Secretary for the Nominating Committee.

ALL MAIL BALLOTS MUST BE MAILED ON OR BEFORE NOVEMBER 12th. Voting may be done the first day of the annual convention at Fort Atkinson, November 17th, where extra ballots will be available. Voting closes at 5 p. m.

Notice: YOU MUST SIGN YOUR NAME, as only members may vote. Your name on the ballot will not be divulged by the Nominating Committee Secretary. The names will be cut off the ballot before being turned over to the committee. Both the signatures and ballots will be examined by the committee.

Sign name ----------

WHO ARE THE NOMINEES FOR OFFICE

THE Nominating Committee for the election of officers for the Wisconsin State Horticultural Society, consisting of Mr, S. S. Telfer, Ellison Bay, Mr. Lester Tans, Waukesha, and Mr. Ralph Irwin, Lancaster, submit the ballot for officers and members of the Board of Directors as shown on the ballot on this page.

The following is a brief introduction to the candidates.

For President

For President, Mr. Arno Meyer of Waldo, who has been Vice-President for the past two years. Mr. Meyer is a graduate of the Horticulture Department of the Wisconsin College of Agriculture, and has been a prominent fruit grower at Waldo for many years.

For Vice-President

For Vice-president, Mr. Don Reynolds of Sturgeon Bay, also a graduate of the College of Agriculture, and manager of the extensive orchards of the Reynolds Preserving Company, Sturgeon Bay. Mr. Reynolds has been a member of our Board of Directors.

Directors

Mr. Theo. Bakke, Gay Mills, is a fruit grower of considerable experience, having been manager of the Kickapoo Development Company, and is now manager of the Rosa orchards in Gays Mills.

Mr. Virgil Fieldhouse, Dodgeville, is well known to the readers of this magazine, having contributed articles on the subject of small fruits, frequently. He is owner of the Fieldhouse Nursery, Dodgeville, and is a leading grower of small fruits, plums, apples and nursery stock.

Mr. H. A. Dvorak of Casco is a well known orchardist of Kewaunee County. He has developed one of the most productive orchards in that section.

Mr. Nick Jacobs, Sturgeon Bay, is well known to our readers, having been on our Board of Directors a few years ago, and a member of our fruit testing committee for several years. He is much interested in the development and trial of new varieties, and is a leading grower of both strawberries, apples and cherries.

Mr. W. L. Thenell, Sturgeon Bay, is manager of the Martin Orchard Company orchards, the largest cherry or-

WOMAN'S AUXILIARY EXHIBITS PREMIUM SCHEDULE

ANNUAL CONVENTION, WISCONSIN HORTICULTURAL SOCIETY

Fort Atkinson, November 17-18

Mrs. Helen Feind, Jefferson, and Mrs. Arno Meyer, Waldo, co-chairmen

Canned Fruit

Either pint or quart jars

1. **Strawberry sauce.**
2. **Raspberry sauce.**
3. **Cherry sauce.**
4. **Apple sauce.**
5. **Pear sauce—halves.**
6. **Any other kind of sauce from home grown fruit.**

Jams

Any size or shape of container

7. **Apple butter.**
8. **Raspberry jam.**
9. **Strawberry jam.**
10. **Grape jam.**
11. **Cherry jam.**

Jellies

Standard jelly glass

12. **Apple jelly.**
13. **Cherry jelly.**
14. **Currant jelly.**

Pickles

15. **Apple pickles. Any size container.**

Premiums on each of above classes: 1st, $1; 2nd, 50c; 3rd, 25c.

Gourd Exhibit

16. **Gourds — exhibit various types of gourds on tray.**

Premiums: 1st, $2; 2nd, $1.50; 3rd, $1; 4th, 50c.

Exhibit open to any member Woman's Auxiliary, or family of a member of the Wisconsin State Horticultural Society.

chard in the world, and also grows apples and strawberries.

Mr. Alfred J. Meyer, Hales Corners, is secretary of the Milwaukee County Fruit Growers Association, and a successful orchardist at Hales Corners.

Mr. Peter Lewis Swartz, Jr., Waukesha, is rapidly taking the place of his father, the late Peter Swartz, who was so well known to all horticulturists. He is Vice-President of the Waukesha County Fruit Growers Association.

WOMAN'S AUXILIARY PROGRAM ANNUAL CONVENTION WISCONSIN HORTICULTURAL SOCIETY

Fort Atkinson, November 17-18, 1942

Municipal Building

Tuesday, November 17

10:00 a. m.—Call to Order by President Mrs. S. S. Telfer, Ellison Bay.
Welcome to Fort Atkinson by Wm. Leonard, President Fort Atkinson Garden Club.

10:15 a. m.—Keeping on the Alert for Garden Enemies. E. L. Chambers, State Entomologist, Madison.

11:10 a. m.—Home Storage of Vegetables and Fruits by Prof. O. B. Combs, Horticulture Department, Madison.

12:00 M.—Luncheon announcements.

Afternoon Program

1:30 p. m.—Honey in Holiday Baking. Adjusting our Cooking to Meet Certain Food Shortages. Mrs. Harriett Grace, American Honey Institute, Madison.

2:15 p. .m—Horticulture in the United States, Mexico and Canada, as Seen on a 25,000 Mile Trip Last Year. Dr. H. B. Tukey, Experiment Station, Geneva, New York.

3:00 p. m.—Tour. Visit to Jones Sausage Plant and Better Sox Knitting Mills. Auspices Fort Atkinson Garden Club.

The Banquet

6:30 p. m., Methodist Church—Price 85c

See Fruit Growers Program for details.

Wednesday, November 18

9:30 a. m.—Annual business meeting and election of officers Woman's Auxiliary.

Comments on judging of canned fruit exhibits. Mrs. Helen Feind, County Home Agent, Jefferson and Mrs. Arno Meyer, Waldo.

10:30 a. m.—Recent Discoveries on Winter Hardiness and Protection of Plants. Dr. W. G. Brierley, Minnesota.

11:15 a. m.—Considerations in Planning Our Gardens for 1943. Prof. J. G. Moore, Chief, Horticulture Department, Madison.

12:00 M.—Luncheon announcements.

1:30 p. m.—Attend business meeting Wisconsin Horticultural Society.

2:15 p. m.—Observations in Wisconsin Orchards During the Past Season. Suggestions for Next Year. Dr. R. H. Roberts, Madison.

MOUSE BAIT PRICES

The Wisconsin State Horticultural Society, 424 University Farm Place, will handle at cost for the benefit of members, two types of mouse bait this fall.

Zinc Phosphide Bait

A small can of zinc phosphide, enough to prepare bait for ten acres of orchard, will be sold at the following prices:

1 can ---------- 20c

More than 1 can, 15c each plus 10c handling charge. All poison bait must be sent express collect because it cannot be sent by U. S. mail. Minimum charge on 1 package by express is 35c.

Strychnine Rolled Oats Bait

We are stocking a small supply of rolled oats bait. There will probably not be any strychnine available after this year, so we recommend all growers test the zinc phosphide bait. Our prices on the rolled oats bait, while it lasts, are as follows:

25 lb. bag ---------- $3.00
10 lb. bag ---------- 1.30

This bait must also be sent express collect as it cannot be sent by mail.

The navy says in order to transport troops and supplies we need to launch more bottoms. We need to kick some, too.—*Judge.*

Gladiolus Tidings

By the WISCONSIN GLADIOLUS SOCIETY

OFFICERS

A. S. Haugen, Stoughton, President

Dr. Geo. Scheer, Sheboygan, Vice-President

H. J. Rahmlow, Madison, Cor. Sec.

Otto Kapschitzke, Rec. Sec.-Treas.
1710 Illinois Ave., Sheboygan

REGIONAL VICE-PRESIDENTS

Rev. August Dusold, Manitowoc

Paul Haase, Columbus

Fred Hagedorn, Sheboygan

Edwin Ristow, Oshkosh

Some 1942 Discoveries

WALTER C. KRUEGER

EACH year at this time I recount my gladiolus discoveries of the past growing season to anyone who reads the gladiolus pages of Wisconsin Horticulture. As usual my comments will exclude my own introductions and new seedlings.

No variety has really been tested until it has been grown in your own or my own garden for more than one year, and from bulblet grown stock, and by at least a dozen bulbs. Sometimes it is just as much a sad accident to find a startling new single bulb bloom as it is to obtain a poor one. Neither may represent the true performance of the variety. The reader should bear in mind that at least 100,000 bulbs are planted for florist work for every bulb planted for show awards. The habits of regular performance interests the trade, the startling giants interest the hobbyist. The latter may frequently be quite temperamental and still win in the shows.

Vulcan Outstanding

Bearing the above comments in mind, I would rate **Vulcan** as the find of the season (1-year test) besause it is a much needed color in a weark color class, purple. I saw it at several shows and in another planting as well as in my own. Briefly, it is the largest and most beautiful purple.

Bingo, shown by A. Spatz, Wausau at State Show.

Pink Radiance, a pure pink, that opens a long ribbon of bloom has an exceptional strong spike. It promises to be a ribbon getter and a commercial success.

I hope that a second year of test will not make it necessary for me to modify or reverse my opinion of **Crinkle Cream,** a self-colored light yellow that has a larger floret than other yellows.

Those fans on the lookout for giants would do well to try **Lois,** a gigantic light apricot.

King William was heralded to be the successor of Picardy. It is of the same salmon-apricot color of the latter, but with a clear light cream throat. I had about 100 bulbs and the spikes from #5 bulbs attained flower heads of 25".

One flower that disappointed me last year did much better with a new stock of bulbs. The variety, **Elizabeth the Queen,** is the largest ruffled lavender. It has a throat mark, but it is beautiful in spite of this minor fault.

Two others did very well for me, **White Gold** and **Centennial.** If they continue their fine performance they will rate high in my estimation.

The variety **Ethel Cave Cole** came to my attention in Harold Janes' planting at Whitewater. It is a light pink that flecks. You will find it easy to forgive this variety its flecking trait, when you become acquainted with its growing habits. It is also capable of spikes of grand championship quality.

At the show I found two varieties that I will surely try next year. One, **Leading Lady,** a creamy white, sport of Picardy, and two, **Golden State,** a fine medium yellow.

VOTE TODAY

Don't forget to vote. See ballot on page 40.

NEW VARIETIES AT THE WISCONSIN GLADIOLUS SHOW

Harold E. Janes, Whitewater

NEW varieties in abundance and quality were featured in all classes at Lake Geneva. Probably the two varieties exciting the most interest were Leading Lady shown by Dr. F. X. Graff, and Crinkle Cream, displayed in the commercial exhibit of Harold E. Janes. The former is a creamy-white sport of Picardy and the latter a truly lovely ruffled yellow by Ellis.

Golden State by Wheeler won first in the yellow class, but was hardly up to this writer's expectation. Other Wheeler new introductions shown were Pacifica, a very tall cream, and Gayway, a bright orange with yellow throat.

Three new purples were shown, and a worthy trio in Vulcan, Purple Classic and Parnasses, the latter Mr. Ristow's 1942 release. The Salbach patented varieties were well represented by Sir Galahad, Helen of Troy and June Bride, truly all giants.

The Krueger originations were in abundance in both baskets and single spike classes. Diane was particularly lovely, winning first in both 1 and 3 spike classes, as well as having several baskets in commercial display.

Cooney Lass, shown by three different exhibitors, swept its class, winning all three ribbons. Some beautiful baskets of King Bee and Badger Beauty not in competition, were in Mr. Krueger's display.

Dr. Scheer's originations were represented by several baskets of White Gold and a lovely spike of his 1942 release Phoebe. Lady Jane was another worthy example that some outstanding cream glads have at last arrived.

Wilson varieties at the show included High Finance which was later judged the most beautiful spike, and Bride's Delight, a lovely delicate creamy-pink.

New varieties released by Champlain View Gardens were Snow White, Corona and Mermaid, the latter two particularly attractive in both color and spike. Golden Teton was not very attractive to the writer.

Two baskets of Ethel Cave Cole, the new light pink from Canada, showed it to be all the originator claimed for it. Other varieties represented by lesser number of spikes included Alsace, buff; R. B., smoky; Stella Antisdale, pink; Silentum, somewhat on the order of M. Beaton, and Baron Munchasum, which again was hardly up to expectation.

A CENTURY OF GLADIOLUS PROGRESS

Carl Fischer, Noweta Gardens, St. Charles, Minnesota

ONE hundred years ago — on August 31, 1841 to be exact— Van Houtte offered the first summer flowering gladiolus hybrid ("Gadavensis") to the Horticultural world; **1842** was, therefore, the first year that the modern gladious in its earliest form was disseminated throughout the gardens of Europe. **1942 is, therefore, the proper year to celebrate the centennial of the gladiolus.**

Origin of Modern Glads

Where do our modern gladiolus come from? The following is a brief descriptive summary of the appearance of each of these wild glads (**all from South Africa**) showing the quality which each contributed to the production of the modern gladiolus:

psittacinus—scarlet with yellow throat, opening 8 small blooms.

oppositiflorus—white sometimes tinted pink, 6 ft. tall, 40 buds, opposite flowering.

purpureo-auratus—light yellow with purple botch, small flowered.

papilio—lavender with yellow throat, small flowered.

saundersi—scarlet with white throat, large wide open flowers.

cruentus—blood red with white throat, large, round flowers.

primulinus—light yellow, with small hooded blooms and wiry stem.

Looking back, we can trace all our modern red glads to psittacinus, saundersi and cruentus; all our whites to oppositiflorus, all our blotched to purpureo-auratus; all our yellow to primulinus and purpureo-auratus, and all our lavender and violet to papilio. Yet practically all of our modern glads contain the blood of their ancestry. Thus height of plant, any color, may be traced to oppositi-

(Continued on page 45)

Special Get-Acquainted Sale of Gladiolus

3L King Bee—salmon scarlet— 75c value for 50c
3L Variation—light pink— 75c value for 50c
3L King William—salmon pink— 75c value for 50c
3L Badger Beauty—new lavender— $3.00 value for $2.00
2L Criterion—light pink— $3.00 value for $2.00

Minimum order $1.00. Prices apply only to orders booked and paid for in full prior to December 1, 1942. Fall delivery, prepaid!

WALTER C. KRUEGER
657 E. Wash. St., Oconomowoc, Wis.

Gladiolus of Distinction

You don't have to wait for spring cleanup sales to get bargains from my 1943 catalog.

I offer the finest selection of new and outstanding originations catalogued by any grower in America today.

I believe also that I have the largest or second largest stock of **Diane, Cooney Lass, Ethel Cave Cole, Elizabeth the Queen, Lady Jane, White Gold** and **Leading Lady.**

I feature the Krueger originations and offer all his 1943 releases, as well as **Criterion, Badger Beauty, King Bee,** etc.

My 1943 catalog, out October 1st, will gladly be mailed to all interested in securing the better varieties of gladiolus at money saving prices. YOUR WAR STAMPS WILL BE ACCEPTED AS CASH.

SPECIAL OFFER

15 large bulbs of **Diane, Cooney Lass** or **Ethel Cave Cole** for $2.00 prepaid. All three for $5.00.

Wholesale growers send me your list of requirements for quotation.

HAROLD E. JANES
WHITEWATER, WISCONSIN

Home and Garden

Mrs. C. E. Strong

WE in Wisconsin are beginning to think about preparing our beloved gardens for their long winter's sleep, but out here in California they are working up the ground, sowing seeds, talking to nurserymen and florists about dozens or flats, according to their need, of Stocks, Snapdragons, Winter Marigolds, Calendulas, Verbenas, etc. In fact, everything we usually think of planting in February, March or April.

Sweet Peas are several inches high. They will be nicely in bloom at Christmas. Roses are being pruned and fertilized, though they are still blooming, but they have been rather neglected.

Nearly everyone has been culivating Dahlias, both as a display in the gardens and to exhibit at the flower shows.

A California Flower Show

We went to the Inglewood Dahlia and Floral Society show at the High School. Usually this show used the large buildings at the race track, but Uncle Sam occupies most of these places. The show had to be curtailed considerably—no dining tables and other special exhibits. Display tables were closer and single exhibits were rather crowded. But the qualiy was there and the setup was excellent. All tables were covered with black oilcloth and all flowers showed up beautifully.

Dahlias were shown singly in vases, artistic arrangements, general display, separate color displays, baskets of dahlias — every color, every shade, every size, from tiny pompoms to "whoppers" flat on a tray.

There were commercial exhibits and amateurs and the amateurs did themselves proud. Everyone of these dahlias were beautiful, but "Pink Giant" was awarded the blue

ribbon as "Best Flower in the Show," and looked as though it had received only due honors. Sir Galahad, a flame with yellow tips, a two-toned pink seedling, texture and color most exquisite. A yellow seedling easily 12 inches across with long strong stems, a truly magnificent flower, will be a 1943 introduction, were some we went back to look at once more, and yet again.

There were displays of Asters, Zinnias, Gerbera, Marigolds, Petunias, Carnations, Gaillardia, Tuberous Begonia blossoms, artistic displays of any of these, arrangements for living and dining room, patio, in the modern manner, Victorian, unusual, Torch, of dry material, arrangements in white, shades of pink, of yellow, violet and blue, of red. There were miniatures under five inches. We were quite in love with some very fine displays of blooms from the Ginger Lily, the most equisite perfume. The individual blooms are used to make leis by the natives in Hawaii and other tropical countries. They seem to enjoy it here and bloom beautifully. They can be grown in large pots.

Unusual Arrangements

A most unusual arrangement consisted of a large gold covered cardboard base, center pole of green bamboo, with blue and pink ribbons extending to the figures. These were made of fuchsia blossoms, heads from buds, with flower caps, body and skirt, legs and arms white corded wire. A very clever and unusual May Pole. There was an arrangement of Banana leaves, flowers and small fruit on a pewter plate.

Another was a large round cardboard base of clear yellow, with an arrangement of brown fish net, some creamy tan coral, amber bottle, and bits of driftwood, with one spray of cream-white ivy. This was very effective.

There were blue Delephinium with distinctive forms of driftwood.

The use of coral and driftwood with flowers in rather large low containers is very effective and seems to be quite popular.

No Prizes Given

Neighboring florists sent in courtesy exhibits of Rex and Tuberous Begonias, many varieties of foliage plants. Hanging baskets of Fuchsias and unusual plants helped to make a complete show.

No prizes were given, only ribbons awarded, and were the winners proud. It was a real flower show where the pleasure of raising perfect blooms was reward enough.

Making a Garden

I am having the pleasure of making a garden. Am fascinated with the purchasing of plants, shrubs and trees in tin cans, setting them around until you get the effect desired, then digging holes, watering. They really do not know they have been moved.

DARWIN TULIPS

100 Splendid Large Darwin Tulips. $4.75 postpaid. Winnebago Seed Co., Fond du Lac, Wis.

VOTE TODAY

Don't forget to vote. See ballot on page 40.

THIRD WISCONSIN GOURD SHOW

Radio Hall, University Campus, Madison—November 2-9

THE third WHA Gourd Show, presented under the auspices of the Wisconsin Gourd Club, the Wisconsin Horticultural Society, and Radio Station WHA, will be held at Radio Hall, November 2-9.

Excellent growing weather has enabled the more than 200 members of the Wisconsin Gourd Club to grow many beautiful varieties of gourds and the show should be better than ever before.

Any member of the Wisconsin Horticultural Society, as well as the Wisconsin Gourd Club is invited to exhibit at this show. A special premium schedule will be sent upon request. However, we give the premium classes below. Entries may be mailed to Radio Hall, University of Wisconsin, Madison, at any time during the last week in October, and they will be entered on November 2 in the show.

Names of all winners will be read over W.H.A. and W.I.B.A. at 10 A. M. — Homemakers Hour — on Tuesday November 3.

Schedule of Classes

Ribbons will be awarded on the following classes:

Classs 1, Apple shaped; Class 2, Bird's Nest; Class 3, Bottle-large; Class 4, Bottle-small; Class 5, Carabosse; Class 6, Crown of Thorns; Class 7, Dipper; Class 8, Dish cloth, towel or sponge; Class 9, Emperor's Hat; Class 10, Green snake; Class 11, Hercule's Club; Class 12, Maranka or Dolphin; Class 13, Nest Egg; Class 14, Orange; Class 15, Ornamental Pomegranate; Class 16A. Pear shaped-bi-color; Class 16B, Pear shaped, white; Class 16C, Pear shaped, any other kind; Class 17, Powder Horn; Class 18, Spoon; Class 19, Sugar Trough; Class 20, Turk's Cap; Class 21, Worted sorts.

Displays

(Combination of gourd specimens in baskets, trays or boxes with leaves or decorative material.)

Class 22. Arrangement of less than 15 in container.

Class 23. Arrangement of 15 or more gourds in container.

Class 24. Collection of less than 15 gourds — no container.

Class 25. Collection of 15 or more gourds — no container.

Class 26. Gourd strings, natural state (not to exceed 48 inches in length, other material permitted.)

Special Awards

Class 27. Largest gourd.
Class 28. Longest gourd.
Class 29. Smallest gourd.
Class 30. Most beautiful gourd.
Class 31. Most unusual gourd.
Class 31. Most colorful gourd.

Handicraft Exhibits

Special ribbons will be given for displays of decorated gourds, useful articles, and novelties made from gourds. These may have been grown in previous years. Owner's name and address will be attached to each exhibit.

Displays will be entered in two classes: 1. Amateurs who grew and decorated their own gourds; 2. Gourds decorated by professionals or purchased by exhibitor.

A CENTURY OF GLADIOLUS PROGRESS

(Continued from page 43)

florus; large number of buds, also to oppositiflorus; grace and stretchiness of flowerhead, to primulinus; size of bloom to saundersi and cruentus; the much desired roundness of flower principally to cruentus. Each of the species has contributed some valuable quality to almost any modern glad you might name.

Early Originators

From the four corners of the earth have come the contributions to our modern gladiolus of today. The following is a brief tabulation.

1. Lemoine—France—much of the early work in gladiolus breeding.
   Noted for blotched varieties.
2. Kelway — England — strength and vigor.
3. Pfitzer — Germany — "blue" glads.
4. Errey—Australia—size.
5. Kunderd—U. S. A.—ruffledness.
6. Palmer—Canada—the variety Picardy, the progenitor of many of our new modern glads.

In our great land of surpluses and plenty, the plant breeders of our beloved United States are now in the lead.

Picardy

Picardy, introduced in 1931, has parented as many fine flowers in glads as Man O'War has done in race horses. It was the salmon Picardy that threw the national spotlight of garden interest on the gladiolus. It was Picardy that helped make the gladiolus our national flower. The progeny of Picardy have appeared in any size or description. There are rose-reds. reds, scarlets, whites, creams, pinks of any hue, smoky, purples, yellows, oranges and a brown. A few of the best known of Picardy's children are: Aladdin, Algonquin, Barcarole, Beacon, Chamouny, Diane, Greta Garbo, Jalna, King Lear, Legend, Redwin, Rima, Shirley Temple, Sensation, Vagabond Prince and Zuni.

Minuet Best Lavender

Although the public is keenly aware of the beauty and performance of Picardy, there are many others that are recognized as superb varieties. Introduced just 20 years ago, lavender Minuet is without a single poor in its color. This unexcelled variety will very likely be grown still for 20 years to come. Scarlet Dr. F. E. Bennett, also an old-timer, (introduced in 1921) is still one of the best and a leading cut flower in its color. Others that have proved their worth in the gladiolus hall of fame are: Betty Nuthall (1924), Aflame (1927), and Mother Machree (1928). Others that have enjoyed at least ten years of popularity and are still leaders are: Commander Koehl, King Arthur, Maid of Orleans, Bagdad, Dream O'Beauty, Mary Elizabeth, Margaret Fulton, Mildred Louise and Wasaga. Some of the outstanding varieties of the past ten years are: Beacon, Arethusa, Camellia, King Lear, Greta Garbo, Rima, American Commander, and Barcarole.

One can scarcely imagine what the next hundred years of gladiolus breeding will bring us. The possibilities and potentialities are many.

GARDEN GLEANINGS

HAVE you ever wondered why home grown pears have a better flavor and are sweeter than those purchased in stores shipped in from other states? We demonstrated the answer this fall. We picked our Bartlett pears just before they began to turn the light yellow color which indicates maturity. We placed them in a box indoors where they were kept at room temperature of around 65 to 70 degrees. In a short time they ripened and the quality was superb.

Too often pears picked commercially are stored under refrigeration. It is then too cold for them to ripen and attain the proper quality and sweetness. Buy Wisconsin pears and ripen them yourself, remembering that they are somewhat perishable and must be used when at the right stage of ripeness.

What is true of pears is not, however, true of grapes. They do not ripen after picking. Grapes will not attain additional sweetness once they are picked, so leave on the vines until fully matured. There may be some trouble in preventing birds from picking holes in them, so paper bags may be put over the bunches when they begin to ripen. This may also prevent rot from spreading, and the bags may be left on the bunches after being picked. Remember, honey bees do not puncture holes in grapes but suck the juice after punctures by birds or skin cracking.

This has been a good year for growing gourds, and the annual Gourd Show at Radio Station WHA, University of Wisconsin, Madison, should be outstanding. Remember in picking gourds to leave several inches of stem on each fruit. The harvest season may last for several weeks, as not all the fruits on the gourd vine are the same age.

One of the real **popular flower shows** of 1942 was the exhibit of the Madison Gladiolus Club in the lobby of the First National Bank, Madison, during August. Thouands of people saw the exhibit who would not otherwise have seen it, because it was well advertised by the bank and admission was free. The bank gave the club enough funds to pay all expenses, and in addition furnished the lobby which provided an ideal setting.

A good argument for planting the right kind of **shade trees** on the lawn is the fact that it has been found that **crab grass** does not grow as well as June grass in light shade. The Tennessee Valley Authority is advocating the planting of black walnuts on the blue Kentucky Blue Grass does well and provides much better pasture than where the hot sun shines on the soil all day. Blue grass cannot stand high temperatures during midsummer and becomes dormant, enabling the crab grass to get ahead. Trees producing heavy shade like Maples, however, should not be used.

Interest in honey and the **honey bee** has reached a new high throughout the country. Articles on beekeeping have appeared in some of the leading national magazines, and thousands of new beekeepers have been developed. We were recently invited to speak on the subject of "The Honey Bee in Nature" before the 4-H Club Leaders Conference under the direction of Prof. Wakelin McNeel, Asst. State 4-H Club Leader, at the annual camp meeting at Wisconsin Dells. We found the young folks wonderfully receptive to both the discussion on the honey bee and on the movie on how plants grow and are pollenized and fertilized. A number of the young folks stated afterwards they wished they had had an opportunity of seeing this picture while they were studying Botany. The value of getting these young people together for study on conservation and nature cannot be overestimated. Prof. McNeel has attained a high reputation as a camp director and leader of young folks.

We have been considering the desirability of giving a 15 or 20 minute discussion on the subject of honey bees, illustrated with colored slides during our talks to garden clubs next spring. We would appreciate suggestions as to whether or not it would be of interest to our affiliated organizations.

Gladiolus thrips continue to be the most serious pest of that beautiful flower. Gardeners who have close neighbors growing glads without control of thrips simply cannot produce good flowers because the thrips will fly for some little distance to otherwise clean patches.

Now is the time to induce all of your neighbors to treat their bulbs after digging, with naphthalene flakes. Place each variety in a paper bag, leave the bag open until the bulbs are dry. Then throw in a tablespoonful of the naphthalene flakes for every 25 bulbs. Close the bag to make an air-tight container and place in the root cellar. About Christmas time, or after January 1st, take out the naphthalene flakes as the thrips will have been killed and the flakes might injure the new buds if allowed to remain too long.

Be sure to read the article in this issue on covering roses. The mound of earth made late in October to a height of from 12 to 14 inches about the stems of the plants is very important. It will keep the mice from injuring the buds which will produce next year's flowers.

—*H. J. Rahmlow.*

How to Cover Roses

Proper Protection Means Success

HYBRID Tea roses can be wintered successfully in Wisconsin if they are properly protected during the winter.

Proper covering is not difficult, but the problem must be well understood by the rose grower if he is to be successful. As soon as our gardeners have learned how easy it is to cover and just how it is done, rose growing will become very popular in this state.

What To Use

Hybrid Tea roses must be covered first with a mound of soil and then with a covering of at least three to four inches of marsh hay or straw. There is no substitute for the mound of soil. Of course such more expensive materials as glass wool may be used instead of marsh hay.

The object of the mound of earth is to protect the lower buds from the severe cold of winter. The covering of straw or hay provides a blanket over the soil so that it can retain its heat. Under such a covering the temperature in the mound will probably not drop much lower than 25 degrees F. during the winter. Usually all branches not covered with soil are killed. This mound of soil, therefore, should be several inches above any buds that it is desired to save — usually a mound of 12 to 15 inches in height is sufficient.

Experiments In Minnesota

On a visit to the Minnesota Experiment Station in September, Drs. L. E. Longley and W. G. Brierley told the editor of new work on the hardiness of plants and winter protection carried on at that station. Their recommendation for covering roses was to prepare the mound of soil around the stems of the plants in late October, but to allow the leaves to be exposed so that the plants might continue to grow as long as possible. Light frosty nights will then stop plant growth. It is desirable to allow the ground to freeze slightly before the mulch covering is added. Light frosts produce a rest period in the plants. A temperature of 20 degrees F. however, will break this rest period. If, following such a temperature there is a warm spell during which the temperature rises to 50 degrees F. growth is started in the plants, and this may later result in winterkilling when cold weather comes.

The first and second weeks in November then are critical periods. We should watch the weather and as soon as there is indication of a heavy frost with temperatures as low as 20 degrees F. the straw or hay mulch should be applied. This will later protect the plants from both severe cold and high temperatures.

Best Rose Varieties

Crimson Glory was pronounced the best of the Hybrid Tea roses at the Rose Trial grounds at Minneapolis by Dr. L. E. Longley of the Minnesota Experiment Station. The color is a deep, dark red, the size is excellent, and it is considered slightly hardier than the average Hybrid Tea. It is fairly resistant to black spot.

Other good varieties mentioned by Dr. Longley were Pink Princess, Break O'Day and Lily Pons, all of the hardy Brownell Hybrid Tea varieties.

Good Chrysanthemums

Prof. Longley also mentioned the Chippewa chrysanthemum as one of the best introduced by the Minnesota Station. It is a purple, and double, blooming in September. Minnesota has introduced ten varieties of chrysanthemums all of which show promise.

CONTROL OF COLUMBINE BORER

Tests at Morden, Manitoba Experimental Station Point the Way

COLUMBINES are popular herbaceous perennials. They will grow in the open border and they also will tolerate shady locations. Unfortunately, many gardeners have lost all of their prized plants due to borer injury. The caterpillar first attacks the stems. It bores inside the plant and down into the large tuberous root. It eats the inner part. Fully grown, the borer is an inch and a half long, salmon color on the back with a pale stripe down the middle. All parts of infested plants are removed as soon as injury shows.

Early Dusting Effective

Derris dust of 1.0 per cent rotenone content is applied in 4 applications over a period of two weeks commencing about May 5. This is to kill the eggs and is made during the time the eggs are hatching. The dust is applied as a covering film to the soil about the plants and to the foliage of the columbine. Once the larvae have gained entrance to the plants, further dusting is useless. A plot, 8 feet by 9 feet, growing 20 columbines, would be dusted with increasing quantities of dust as the foliage becomes larger. The control was about 90 per cent.

Newly hatched larvae can crawl but a short distance, certainly not more than 15 feet.

—*From Weekly Letter by Superintendent Leslie.*

PEONIES

5 Giant Named Peonies you'll be proud of, $2.00 postpaid. Winnebago Seed Co., Fond du Lac, Wis.

VOTE TODAY

Don't forget to vote. See ballot on page 40.

Arranging Flowers is an Art

EMMA C. SCHIPPER

EVEN in this day and age of "flower arrangement," in spite of the many excellent books written on the subject, we occasionally meet garden club members who declare that they do not believe in rules, principles, or whatever you wish to call them, in flower arrangement. They fear restrictions to their creative ability. Their work springs from the heart, unconsciously and instinctively; all of which is reminiscent of what Miss Ruth Randolph, commentator at one of the early Milwaukee flower shows, pointed out. "There are two kinds of flower artists," she said, "the emotional and the intellectual. The emotional flower artist goes into her garden and gathers her flowers in a happy-go-lucky, carefree sort of way, and quite as nonchalantly places them in her container. The intellectual flower artist, on the other hand, chooses her flowers carefully, according to color harmony, shape, size and texture, and in general, has a reason for everything she does."

The emotional flower artist, in her way of doing, often achieves some very lovely effects, but literally she is not at all concerned about "arrangement." The word "arrangement" has implications, as we shall see.

"When you attempt to make an 'arrangement,' you have committed yourself to something; you have placed your feet on the firsts rung of the vast ladder on which are to be found all the artists, in all their different media or expression and stages of progress," explains Mr. John Taylor Arms in his book **Design in Flower Arrangement.** "You are striving to achieve a work of art, and on your understanding of the basic principles which obtain in all art will depend, not only your success, but your joy in the effort and in the result. You may not have thought of yourself as in this category but, whenever you have an idea which demands development in some form then it is your rightful place. It matters not what material you choose with which to clothe it—paint, clay, lines, musical notes, words, or flowers—each and all of them are built on the same essential foundation of a solid structure. This is not a personal theory that I am propounding, but a fact known for too many centutries to admit of doubt. You who are reading this have chosen blossoms or leaves, dried grasses or seed-pods, fruit or branches, as the language for the expression of your ideas. My message to you is brief. It is not the material you have selected that matters, but the way in which you put it together—design, first, last, and always."

Arrangement by Mrs. W. F. Becker, Wauwatosa, at Spring Show.

BRIGHT DREAMS

Customer: "Do you happen to have a book called 'Victory Gardens for Amateurs'?"

Clerk: "That will be in the fiction department, sir, down this aisle."

HARDY CHRYSANTHEMUMS —THE FLOWER FOR OCTOBER

THE hardy chrysanthemum has no rival in the garden for late September and early October, or until frost.

The name comes from the Greek, and means **golden flower.**

Our hardy garden varieties come to us largely from China, India, Japan and Korea.

The large beautiful flowers sold by the florists are usually grown on single stems and must be securely tied to stakes. It would be impractical to grow them in the garden because of the danger of injury by wind and rain.

Usually the garden varieties are grown in bush form. If pinched back in the summer they will send out a number of shoots and produce a large number of flowers. If not pinched back they usually grow so tall that there is a tendency to droop over, resulting in crooked stems unless they are carefully tied to a stake.

Now is the time to inspect gardens to select varieties for next year. Among the finest of the new varieties are those created by Dr. E. J. Kraus of the University of Chicago. Michigan State College at East Lansing and the Minnesota State College at St. Paul have originated some good new varieties. There are, of course, many good varieties known to the nursery trade.

Visit Wychwood, Lake Geneva, before frost and inspect the fine seedlings originated by the University of Chicago.

Chrysanthemums should be grown on well drained soil and should be covered with about three inches of marsh hay or straw before a heavy frost in November. In the latitude of Madison covering about November 10th or just before the temperature drops to 15 to 20 above zero is correct. Further north it might be a week or so earlier.

GARDEN NEWS

GRASS SUBSTITUTES INSTEAD OF GRASS

JUST as we have been using substitutes for so many things, we should learn to use substitutes for grass. Not that grass is scarce, but it is difficult to grow under certain conditions. To reduce the labor and expense of caring for your yard, to get better effects, and eradicate bare spots, each and every one should try to use one or more of these grass substitutes or ground covers, as they are commonly called.

There are, roughly, two sorts of places where you should use them; those places that because of shade or tree roots are difficult to keep in grass; and those areas, possibly very small like the space between the drive and a hedge, that are difficult to mow, or banks and terraces that are both hard to mow and difficult to keep in good sod. Grass substitutes usually succeed because we do not insist on mowing them as we do grass, also because many of them are better adapted to shade than are lawn grasses. We should give them the same consideration, however, that we do grass, by thoroughly spading the ground and incorporating humus and fertilizer before planting. All of these plants may be set out very advantageously during September. If the expense of planting the entire area is too great, plant part of it and then use the natural spread of the plants to finish the job a year from now.

Grass substitutes that you can grow from seed: Crown Vetch, Maiden Pink; Hardy Candytuft, Teucrium, Common Violet, Canada Violet.

Grass substitutes that are always evergreen: Arabis procurens, Hardy Candytuft, Japanese Spurge, Moss Pink var. Lilacina, Periwinkle, Sedum Acre, Sedum Album, Wintercreeper, English Ivy.

Grass substitutes for shade: Ajuga, Lily-of-the-Valley, Creeping Buttercup, Violets, English Ivy, Wintercreeper.

Grass substitutes that prefer sunny locations: Crown Vetch, most of the Sedums, Moss Pink, Thyme, all of the annuals, such as Verbena erinoides, Sanvitalia, Anagallis, and Morning Glories.

—*By Victor H. Ries in September Farm and Home Garden Club News Letter.*

MINNESOTA HARDY MUMS

THE Minnesota College of Agriculture has been breeding hardy chrysanthemums for several years. The work is under the direction of Prof. L. E. Longley and Prof. Louis Sando. Six varieties are now being listed as a result of this work. They bloom from about August 15th to September 20th, which is early enough to escape frost in most of Minnesota and Wisconsin. These varieties have survived at least one winter and one variety Duluth, has gone through three Minnesota winters. All have therefore, some degree of winter hardiness but should be given some protection in the fall.

The following are the varieties:

Moonglow, a low bushy type, very early, with double deep lemon-chrome flowers.

Duluth, a rather tall, upright type with semi-double lemon-yellow two inch flowers.

Harmony. As its name indicates there are several tones of color. Early it is yellow, but later becomes strawberry pink and then a deep Brazil red. Like Amelia in form, but taller.

Red Wing. A low upright type with long stems. Very early. Semi-double Pompeian red. Very floriferous.

Welcome. One of the earliest to bloom. Low bushy, bright mallow purple flowers.

Boreas. An early double white; 2 inch flowers.

VEGETABLE DRYING TESTS IN PROGRESS

MODERN dehydration processes can reduce a batch of 80 pounds of peas to 15 pounds or 50 pounds of cabbage to 4 pounds within a period of six to ten hours according to specialists at the N. Y. Experiment Station at Geneva, where extensive investigations are under way on the drying of vegetables in an experimental dehydrator.

The station specialists have already made tests on different varieties of cabbage, peas, and beets and have also successfully dehydrated sauerkraut, Swiss chard, and sour cherries. Because of the large number of varieties of different vegetables availabale on the Experiment Station farm, the adaptation of varieties to dehydration is receiving special attention and already marked differences between varieies have been observed. Also, the degree of maturity best suited to the preserving of vegetables by drying is under study, as well as the effect of drying on the vitamin content of the dried product. While the station investigations have not yet progressed far enough to draw any definite conclusions, it is hoped that by the end of the growing season information will be available on the effect of dehydration on the palatability and nutritive value of vegetables and on methods of storing and packaging the dried products so as to preserve these qualities.

—*The Fruit Products Journal and American Vinegar Industry, August.*

ROSES

5 Choice Named No. 1 Grade 2 year field grown Roses. $4.25 postpaid. Winnebago Seed Co., Fond du Lac, Wis.

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

OFFICERS

Mrs. Frank Quimby, President
2135 Ridge Ave., Evanston, Illinois

Mrs. C. H. Braman, Hon. President,
Box 147, Waupaca

Mrs. H. S. Bostock, 1st Vice-Pres.,
15 W. Main St., Madison

Mrs. R. H. Sewell, 2nd Vice-Pres.,
957 N. 70th St., Wauwatosa

H. J. Rahmlow, Cor. Secretary
Madison

Mrs. Fred. Marquardt, Rec. Secretary
R. 1, Box 63, Hales Corners

DISTRICT CHAIRMEN

Mrs. F. E. Willard, Oakfield
Fox River Valley District
Mrs. Geo. Harbort, R. 61. Madison
Madison District
Mrs. H. J. Anderson, 317 West Blvd., Racine
Milwaukee District
Mrs. Leland Dietsch, Fairview Dr.,
Plymouth, Sheboygan District
Mrs. R. J. Stumpf, Edgerton
South Central District

HIGHLIGHTS OF THE 1942 CONVENTION

It was the opinion of everyone who attended the 15th annual convention of the Wisconsin Garden Club Federation at the Pfister Hotel, Milwaukee, October 1-2, that it was one of the most enjoyable, pleasant, and educational meetings we have ever had.

The attendance was a little smaller than usual. Total registrations were 167 and 159 attended the banquet. However, good will prevailed at this convention. Many stated what an enjoyable time they had, and how they liked the program. Our President, Mrs. F. Quimby has led us through a very successful and harmonious year.

A Few Highlights

The crowning feature was the talk by Cleveland P. Grant with colored movies on Adventures with Wisconsin Birds.

Excellent reports were given by the committee chairmen and district presidents. Some of these will be summarized in early issues of this magazine.

The flower show was again outstanding in quality, indicating that the great amount of work done in holding flower arrangement and judging schools in all parts of the state is having its effect. Wisconsin can challenge the nation in the quality of arrangements at flower shows.

Mrs. Chester Thomas stated that the Victory Harvest Show held in Milwaukee County will net between $750 and $1,000 for the army and navy relief fund.

Mr. Alfred Boerner, landscape architect with the Milwaukee County Planning Department, not only was called on for his own talk on Flowering Crab Apples, but to substitute for his brother of Newark, New York, who was unable to be present. He had some excellent slides on flowering crabs, roses, and perennials.

Arrangement by Mrs. Wm. Poepp, Wauwatosa at Spring Show.

Mrs. L. L. Kumlien of Dundee, Illinois, pleased everyone with her vivacious talk on evergreens and gave some very practical pointers on their pruning and care.

Prof. Aldo Leopold told us what was needed for the future of Wisconsin and America in conservation. It is up to us as citizens to be convinced of the need and demand results in conserving our resources.

Another highlight of the banquet was Mrs. E. L. Sevringhaus' reading of the past presidents' pageant, with many amusing incidents on what happened in the early days. All the past presidents with two exceptions, took part.

Miss Marian Roecker delighted her audience with her singing.

Awards were given to Mrs. Chester Thomas as manager of the State Flower Show. The National Council Award was given Mrs. H. J. Anderson of Racine for restoring the Hoyt Bird collection in Racine, and Mrs. Frank Quimby received the National Council Award for her work on the school children's forest.

Mrs. H. J. Anderson of Racine received the award of $20.00 for the Milwaukee District from Mrs. C. H. Braman of Waupaca, for having the most new garden clubs affiliated during the past year.

The Board of Managers Meeting

The Board of Managers held a very business-like meeting. There was considerable debate but it was all in good spirit. They voted to limit the term of any committee chairman to two years.

The **Merit System of judging** was unanimously endorsed by both the Board of Managers and the convention as having an important place in flower shows in judging certain types of exhibits. A special committee was authorized to write to the National Council expressing the opinion of the Wisconsin members.

Officers Elected

Officers elected for the coming year are as follows: President, Mrs. H. S. Bostock, Madison; 1st Vice-President, Mrs. Roy H. Sewell, Wauwatosa; 2nd Vice-President, Mrs. F. E. Willard, Oakfield; Recording Secretary-Treasurer, Mrs. Floyd Ballard, Madison. H. J. Rahmlow continues as Corresponding Secretary.

These officers will take over their duties in November.

Vegetable Storage

Mr. O. B. Combs of the Horticulture Department, College of Agriculture, said that the best temperature for storing vegetables was from 35 to

40 degrees F. Correct moisture conditions are also important. Washing vegetables in running water is better than rubbing them. Vegetables which dry out easily should be placed in metal or wooden containers lined with paper.

Prof. Franz Aust gave an emotional talk which brought tears to the eyes of many a garden club member. He stated that the trend in garden club work must be in the direction of better gardening. Vegetables can be grown in many gardens. Tomatoes on trellises can be ornamental and will help to fill our fruit jars. Carrots can be used as edging plants, their fine foliage being quite ornamental.

He also stated that at some of our flower shows there is a trend in the direction of interior decoration and such classes have been judged by interior decorators, which is a step in the wrong direction for garden club people. In this most gardeners heartily agree.

CONVENTION FLOWER SHOW FEATURES MANY LOVELY EXHIBITS

The flower show held in connection with the annual convention at Milwaukee was small, but the exhibits were of very high quality. The altars, tables and other displays were most pleasing. The garden club members showed superior ability in preparing exhibits of good taste and artistic design. One novel exhibit was an orchestra of members artistically made of vegetables and fruit figures by Mrs. James Quill of the Art Institute Garden Club. Even the musical instruments were made of horticultural products.

The Prize Winners

Tables

Christmas Dinner — Excellent: Mrs. Wm. Poepp, Wauwatosa Garden Club.

Autumn Table — Very Good: Mrs. J. R. Tancill and Mrs. Ned Dumdey, Ravenswood G. C.

Thanksgiving Dinner — Very Good: Mrs. A. W. Werner, Art Institute G. C.; Mrs. Harry Eaton, Community G. C. of Fond du Lac.

New Year's Day-Open House—Very Good: Mrs. W. Frankwicz and Mrs. S. J. Hirsh of Elm Grove G. C.

Altars

Christmas Altars — Excellent: Mrs. Max Schmitt, Wauwatosa G. C.; **Very Good:** Mrs. Irving Miller, Bluemound G. C.

Mirror Arrangements

Excellent: Mrs. A. W. Werner, Art Institute G. C.; Mrs. A. R. Leidiger, Blue Beech G. C.; Mrs. S. J. Hirsh, Elm Grove G. C. **Very Good:** Mrs. Albert Noerenberg, Art Institute G. C. **Good:** Mrs. Sidney M. Hyatt and Mrs. W. B. Bruhn, Hillcrest G. C.

Screen

Painted Plant Material — Excellent: Mrs. Roy Sewell, Wauwatosa G. C.

Artistic Arrangements

Flowers and Dry Material—Excellent: Mrs. Wm. Poepp, Wauwatosa G. C.

Dry Material—Excellent: Miss Celia Dix, Art Institute G. C. **Very Good:** Mrs. Conrad Biebler, Art Institute G. C.; Mrs. A. W. Werner, Art Institute G. C.; Mrs. A. R. Leidiger, Blue Beech G. C.; Mrs. Harry F. Eaton, Community G. C. of Fond du Lac.

Arrangement Gourds — Excellent: Mrs. Harry F. Eaton, Community G. C., Fond du Lac.

Garden Photographs

Excellent: Mrs. F. C. Marquardt, Hawthorn G. C.; Ravenswood Junior Garden Club, Mrs. Leo Hasenzahl in charge of Juniors.

Record or Scrap Books

Excellent: Kohler G. C.; Antigo G. C.; Kenosha G. C.; **Juniors:** Dorothy Beck, Robert Printup; Nancy Croal, all members of the Ravenswood Junior G. C.

Novelty Exhibit

Orchesta of Fruit and Vegetables—Excellent: Mrs. James Quill, Art Institute G. C.

Unusual Christmas Decoration — Good: Mrs. John T. Watry, Ravenswood G. C.

CHRYSANTHEMUM SHOW AT WYCHWOOD

WYCHWOOD Estate at Lake Geneva will be open to the public the first two Sundays in October—October 4th and 11th, for the chrysanhemum display, writes Miss Olive Longland.

All garden club members will be welcome to visit the Estate during this time when the famous University of Chicago hardy Chrysanthemums will be at their best.

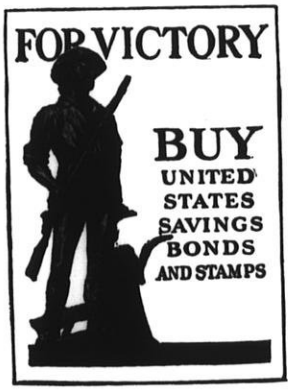
PLYMOUTH CLUB TO CELEBRATE 10th ANNIVERSARY

THE Plymouth Garden Club will celebrate its tenth anniversary on Saturday, October 17th with a banquet to be served at 6:30 sharp at St. John's Catholic Auditorium, corner Main and Pleasant Streets, Plymouth. Following the banquet Sam Campbell will show his films "Behind the Scenes of Nature." Tickets for the banquet are 85c per plate and reservations may be made with either Mrs. A. C. Erbstoeszer or Miss Elsie Lautenbach, Plymouth, not later than Wednesday, October 14th.

GARDEN CLUB MEMBERS TO ATTEND HORTICULTURAL SOCIETY AUXILIARY PROGRAM

GARDEN club members, especially those within easy driving distance, are invited to attend the program of the Woman's Auxiliary of the Wisconsin Horticultural Society annual meeting at Ft. Atkinson November 17-18.

It is a program which every garden club member will wish to hear because of its practical nature. Read the complete program on page 41.



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MILWAUKEE DISTRICT HAS EXCELLENT MEETING

THE annual meeting of the Milwaukee District of the Wisconsin Garden Club Federation at Whitnall Park was attended by 92 members during the business meeting in the morning.

Mrs. E. A. St. Clair told of plans for the coming state convention of the Federation, and read her list of committees. Mrs. Arthur Triller gave a fine report of the trial plants in her garden and showed specimens. She is especially enthusiastic about the rose Lily Pons and Viola Lavender Gem.

Twelve club presidents gave short reports on the work of their club during the year.

New officers were elected for the coming year as follows:

President, Mrs. Geoge Adami, 2466 N. 47th St., Milwaukee;

Vice-President, Mrs. Dale Schockley, R. 2, Thiensville;

Secretary-Treasurer, Mrs. H. W. Schaefer, 4416 Taft Rd., Kenosha.

The weather was beautiful and all enjoyed the picnic lunch in the park.

During the afternoon Mrs. Annette Hoyt Flanders gave a splendid practical talk on war time gardens, showing how a garden could provide both restful relaxation in the planning and scheduling of the work, and exercise in the execution of the plan. After her talk she took the group outside, pointing out many of the outstanding plants with regard to shape, texture and suitability.

An Herb Tea was served following the program at the Golf Club House by the Hales Corners, Hawthorne and Brookdale Garden Clubs who deserve credit for helping make the day one of unusual interest with their charming arrangements and displays of herbs both fresh and dried.

The total registration was 158.

—*Dorothy H. Miller, Secretary.*

FOX RIVER VALLEY DISTRICT ELECTS OFFICERS

THE Fox River Valley District Garden Clubs met at Whispering Pines, Waupaca, on Wednesday, August 26th.

There was a large crowd — in fact, the largest attendance the district has had at any meeting.

The Waupaca Garden Club was hostess, and served a delicious luncheon to the guests.

New officers elected were:

President: Mrs. F. J. Fitzgerald, Menasha

Vice-President: Mrs. Chas. Engebretson, Stevens Point

Secretary-Treasurer: Miss Bessie Pease, Oshkosh

Miss Eunice Fenelon, Weyauwega, was speaker of the day, and gave a most interesting talk.

—*Mrs. F. E. Willard, Oakfield, District President.*

CAN ALL THIS HAPPEN HERE

DR. T. B. RICE, speaking before the Indiana State Horticultural Society about health through the use of fruits and vegetables says: "One time I discovered the neighbor's pigs in my turnip patch. They had eaten some of the tops off. That wasn't so bad because the turnips themselves were not injured. So I dug up quite a few. What tops the pigs had not destroyed, I pulled off. In throwing away the turnip tops, I threw away all the Vitamin A, most of the Vitamin B, most of the Vitamin D, and all the Vitamin E. I threw away all of the lime, all of the iron, and all of the roughage. Then I took them home. My wife peeled them and that destroyed the Vitamin B. Cooking them destroyed the Vitamin C. Cooking made them soft and so failed to give the teeth the exercise they might have had in chewing and also failed to put the proper amount of roughage into the digestive system.

After the cooking even the pigs would not eat them. The right attitude from the health standpoint is to put the food on the table and yell, 'Come and get it.' Emily Post would not agree with this."

—*By H. B. Tukey in The Rural New-Yorker.*

HOW TO REMOVE RUST FROM GARDEN TOOLS

HEAVY deposits of rust can be easily removed by the use of a paste made as follows:

Glycerine	1 part
Oxalic acid	2 parts
Phosphoric acid	2 parts
Ground silica	5 parts

Coat the tools with the paste and allow to stand in a warm place for about 20 minutes. After that the paste and rust can be washed off.

Oxalic acid is harmful to the skin of some people so it is best not to get any of the paste on the hands.

When tools are put away they should be covered with an oil to prevent rust.

MOUSE BAIT FOR ORCHARD AND GARDEN

AMATEUR gardeners who are troubled with mice destroying flowers, plants, or shrubbery, should read the article on the control of mice by Mr. G. C. Oderkirk in this issue, and also notice the article giving the prices on two types of bait available from the State Horticultural Society, to members only, as given on pages 31 and 41.

LONG TIME NO SEE

A torrential shower came on suddenly, so the woman in the sable coat boarded a street car.

"I don't think I've ridden on a street car for nearly two years, she said to the conductor, as she tendered her fare. "I ride in my own car, you know."

He looked solemn and said: "You don't know how we've missed you!"

VOTE TODAY

Don't forget to vote. See ballot on page 40.

Our Largest Victory Harvest Show

Milwaukee County Stages Beautiful Exhibit

"A PERFECTLY marvelous show" is the description given by show visitors and aptly described the Victory Harvest Show staged by the combined horticultural interests of Milwaukee county, including the garden clubs, florists, nurserymen, and victory garden groups.

The entire Recreational Building in the Wauwatosa park was filled to capacity for the three days, September 18-20. As one entered the main door the Woodland Trail, staged by the Milwaukee County Park Commission, a trail full of native shrubs and flowers such as wild Asters, Goldenrod, and Bittersweet vine made an attractive setting. Then came the very artistic booth arrangements by florists. Florists represented were as follows: Semler Leidiger Company, Milwaukee; Tom Jack, Wauwatosa; Wolf's Majestic Flower Shop, Milwaukee; Schuster's and Froemming Bros., South Side; Holton and Hunkel Company, Welke's House of Roses, Hillman's, Inc., Wechtel's, Blue Mound Road; and August Kellner, who had two exhibits, a horn of plenty and a waterfall.

Other attractive exhibits were as follows: A roadside stand of fruit and vegetables by Mrs. Martin Fladoes of the Green Tree Garden Club; a large formal garden by the Master Landscape Gardeners Association, Milwaukee county.

The Victory Garden Exhibit of fruits and vegetables was staged in an attractive setting with a canopy covering. This was under the supervision of County Agent R. C. Swanson and Mr. Joe Shaughnessy of Milwaukee county. The exhibit contained many unusual varieties of vegetables.

Garden Club Exhibits Outstanding

The garden club exhibits at this show were outstanding. In fact, the quality among the highest we have ever seen. The table settings were especially beautiful and showed real art in design, with many beautiful fruit, flower and vegetable arrangements.

Striking too was the hat shop at one end of the Lecture Room on the second floor, staged by the Green Tree Garden Club. There were many models wearing hats made of vegetables, fruits, and flower arrangements, all in the best of style and most attractive.

A Della Robbia of fruits and vegetables outlining the art above the front of the stage made the setting most attractive. The Della Robbia was made by Mrs. Fred Niedermeyer. Shadow boxes by garden club members were also very attractive.

Beautiful Dahlia Show

The dahlia show was most attractive with many beautiful specimen exhibited. Among the winners, the variety Governor Heil won the prize as the most perfect flower over 8" in diameter, while Snowball, a white, received the award as the best bloom under 8". The largest dahlia was Maffie.

Committees

The Executive Committee in charge of the show was as follows: Mrs. Chester Thomas, Chairman; Mrs. Irving Seaman, Mr. Ed Hunkel, Mr. David Puerner, Mr. August Kellner, Mr. Henry Welke, Mr. R. C. Swanson, Mr. Alfred Boerner, Mr. Antony Wuchterl, Dr. H. Hoppe, and Mrs. A. R. Leidiger.

Chairmen of various committees staging the show were: Mrs. E. A. St. Clair, Mrs. R. H. Sewell, Mrs. Peter Cooper, and Mrs. H. J. Overholt.

All proceeds of the show went to the benefit of the men in our armed forces and emergency relief of their families.

All committees, especially Mrs. Chester Thomas, chairman, who worked very hard, deserve a great deal of credit for their efforts in staging this beautiful show for a patriotic cause.

VALUE OF VICTORY GARDENS

SOME idea of the effect that Victory Gardens may have on American diet is suggested by reports from England where home war gardens have been in operation for several years, showing that vegetable gardens definitely increased the desire for and consumption of fresh vegetables. Families with gardens consumed 28 ounces of greens and other fresh vegetables per week, 12 ounces of root vegetables, and 4.8 ounces of fresh fruit per person.

Families without vegetable gardens consumed per person per week only four ounces of greens and other fresh vegetables, 6.9 ounces of root vegetables, and 0.7 ounces of fresh fruit. On the other hand, the non-gardening families consumed more potatoes, namely, 67 ounces per person per week as contrasted with 55 ounces for gardening families.

The non-gardening families suffered definite deficiencies in Vitamins A and C, while the gardening group showed a much less deficiency in Vitamin A and none in Vitamin C.

—*By H. B. Tukey in The Rural New-Yorker.*

UNDERSTOOD FULLY

Lawyer: "Now, madam, I ask you, do you understand the nature of an oath?"

Witness: "Listen, mister, I just left my husband up on a stepladder trying to paper a ceiling with his hair full of paste."

Vitamin B1 and Plant Growth

By H. B. TUKEY

HISTORY was made in 1883 when the Japanese Navy found that sailors who had developed the skin disease known as beriberi recovered when in addition to polished rice and dried fish they were fed meats, vegetables, and milk. Apparently there was something more to foodstuffs than just quantity and wholesomeness.

Little by little in the years that followed, additional information accumulated that pointed in the same direction. English sailors on long voyages sucked the juice of limes to prevent scurvey and were dubbed "limeys." Sylvester Graham with his Graham flour, and a score of other faddists, claimed that "calories" and quantity were not enough. And though at first laughed at, they were later recognized as forerunners of the scientists who since about 1912 have proved the necessity in the diet of minute quantities of elusive materials, named vitamins. The vitamin craze was on its way.

All of this was with animal nutrition—nothing yet showed vitamins necessary for plant growth, except for a suggestion from the classical argument in Europe between Pasteur and Liebig a generation ago as to the necessity for some "impurities" in yeast cultures used in fermentation processes, and except also for the forerunners of agriculture scientists who extolled the virtues of barnyard manure and who insisted that something more than chemical fertilizers was needed in plant nutrition.

Then suddenly in the 1930's, word began to get about that minute amounts of rare organic compounds were producing profound effects upon plants, such as extracts from urine which were favoring root formation with cuttings. Stimulated by these researches a number of unusual and interesting compounds were isolated that were essential to plant growth, and then came the announcement in the late 1930's that vitamin B was essential to plant life as well as to animal life. And so was ushered in the vitamin craze for plants.

Now, there has been a lot of good information about vitamins and plant growth, much more information that is not according to fact, and too much which is downright misrepresentation and designed solely to take advantage of the public and fleece it. What, then is the present-day conception of vitamin B for plants?

Nature Of Vitamins

First of all, vitamin B is not just a single chemical compound as was at one time believed. Instead, just as a chunk of rock may contain lead, silver, zinc, and other minerals, so the substance which could be extracted from plants and which could be relied upon to prevent beriberi in humans has been found to consist of several compounds—perhaps 10 or more so-called "factors". And, since there are only 26 letters in the alphabet, and since they are being used up most rapidly by new discoveries it is only natural to call one substance B1, another B2, another B3, and so on, just like King Henry I, King Henry II, and so on.

Vitamin B1 has been definitely isolated as a chemical called thiamin or thiamin chloride; vitamin B2 is d-ribose (a sugar) plus flavin (a yellow coloring), and hence the natural name "riboflavin"; B6 is pyriodoxin; and B7 is nicotinic acid.

Now, B1 is generally acknowledged as an essential to every living cell whether animal or plant —from the most exalted man to the most humble bug, and from an orchid to a fungus or a mold spore. Without it there is poor development. Accordingly, if a piece of young root, about one-tenth the length of a toothpick is cut off from the mother plant and placed under sterile conditions in a culture chamber containing a complete nutrient solution but no vitamin B-1, it will not develop properly. But when B1 is included in the culture, everything else being provided, this isolated root tip will grow and develop into a mass of whitish roots and may apparently be kept growing indefinitely.

So much, then, for the importance of B1 to plant growth, as measured in the scientific laboratory.

Why No Response From Vitamin B

But, when B1 has been taken into the field and given practical field tests with agricultural crops in good agricultural regions, the response has been disappointing. Carefully done field tests with canning crops in the East have shown no favorable response; greenhouse and field tests with roses, apples, cherries, peaches, and pears have shown no favorable response; field tests with seeds have so improved the growth of fungi that germination has been reduced; and other tests in other states have provided no very enthusiastically favorable reports. The fact of the matter is that practically all of the carefully performed field experiments with B1 have been conspicuous in their agreement on lack of favorable response. How explain this conflict of evidence?

The first explanation seems to lie in the fact that with most plants, sufficient B1 is manufactured in the leaves or in the green parts of the plant itself. And from these points of manufacture, it seems to be transported to the parts that need it for development, as the roots. Further, it is stored heavily in seeds.

The second explanation lies in the fact that vitamin B1 is found freely in soil containing organic matter, in greenhouse soil, in garden soil, in good agricultural soils generally.

In short, then, where it does not occur, or in plants or plant parts which do not manufacture it, vitamin B1 may be a limiting factor in development; but in agricultural plants on good agricultural land, there seems sufficient for all practical purposes so far as now known.

Then how explain the many reports of success with vitamin B1 with which publications are filled? Some of them come from trials that have no check for comparison. That is, a man plants a bean field and uses B1 and has a fine crop of beans. He may say that B1 was responsible. But was it?

Again, greenhouse tests in Ohio with a number of flowering plants have shown no response. A national authority on B1, who was looking over the experiments, remarked that no one could expect to get responses from B1 with **such good soil!** Further, he said, the wrong plant was being used, since most plants manufactured sufficient B1 for their own needs!

As the conservative report from one reliable University puts it "The limited data now available do not warrant recommending this material (B1) in plant culture except for experimental purposes."

—*Condensed from May 30 The Rural New-Yorker.*

BRIGHT SCHOLAR

Teacher: "Do you know why the earth turns round the sun on its axis?"

Scholar: "Yes sir. Because it don't want to be roasted too much on one side."

A man ages quicker than a woman, but his clothes are not as old after three years as hers are after three weeks.

The Business Administration of Garden Club Meetings

By MRS. O. W. DYNES

DURING these troubled times it is particularly important that we do everything we can to hold our clubs together so that the work of many years will not be lost and one of the essentials is proper conduct of the club's business.

The regulation rules usually observed, such as reading of the minutes of the preceding meeting, the treasurer's report and the roll call, have a tendency to settle the minds of the listeners upon the purpose and theme of the meeting and to bring everyone up to date on the club activities. No one cares for a purposeless meeting with its attendant waste of time. An orderly, concise handling of the business session often sets the standard for the whole meeting and can inspire and hold the attention of all assembled throughout the program.

Condense Reports

Reports from various chairmen should be condensed to radio length and precision. Too many words about unimportant details ruin three-fourths of the reports members are forced to tolerate for the sake of politeness. Happy will be the day when alibis and trivial personalities are absent from reports of chairmen. Happy also will be the day when a chairman with a report for record learns to deliver the same in a voice that can be heard beyond the first row of seats, stating her name clearly, not apologetically, while still standing, at the closing of the reading.

Business Procedure

There are a few fundamentals in business procedure, which if observed, will eliminate the embarrassment of unpardonable ignorance on the part of presiding officers.

Read carefully the constitution and by-laws of the organization before and after being elected to office.

Be prompt in all things at all times.

Check with members of the Board of Directors to be certain they have the affairs of their departments in order.

Never appear before a meeting with a disorganized mind. Be ready to present and cover all topics neatly and with expedition.

Play fair with publicity intended for club members. The suppression or lack of interest in this phase of club work is the indirect cause of much criticism and unfair comment under the trite caption: "What do we get out of our membership in the State or National organization?" Remember the presiding officer is only the administrator of the club's estate and affairs.

On the other hand, the officers of a club have the right to believe that those who have placed them in office by casting votes for them will attend the meetings with sympathetic, receptive and open minds; not with critical minds.

—*From September, 1942 Garden Glories.*

CASTOR OIL IN RUBBER

CASTOR Oil may be used to ease rubber shortage. Castor Oil, popular remedy for the colic, may also soothe the pangs of the rubber shortage. One part castor oil to one part ethyl cellulose is the composition of the new plastic to replace rubber in many of its uses. The new material has not the bounce of natural rubber, but there are many things for which rubber has been used which do not need bounce, such as washers, gaskets, gloves, galoshes, garden hose, etc. Sixty thousand pounds of rubber have been used in these ways annually, it is estimated, simply because it was cheap and plentiful. For all of them the new plastic is just as good, and in some ways better, they say.

—*Science News Letter.*

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NOVEMBER 1942

BEEKEEPING LISTED AS CRITICAL OCCUPATION

Beekeeping Essential to the Support of the War Effort

THE Selective Service System, Washington, D. C., has issued bulletin No. 18 which lists beekeeping as one of the critical occupations under agriculture, and so beekeepers will be exempt if they can classify properly with their local draft boards. However, it must be remembered that there are no blanket exemptions from military service. Each case is considered individually, and so the draft board is to consider the following:

(a) The training, qualification, or skill of the registrant to engage in his occupation; and

(b) The availability of persons with his qualification or skill, or who can be trained to his qualification, to replace the registrant and the time in which such replacement can be made.

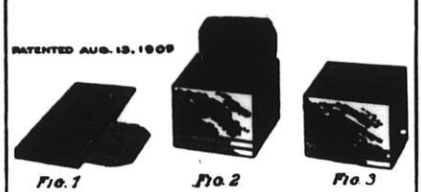

Fig. 1 Fig. 2 Fig. 3

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

ESTABLISHED 1910

Entered at the postoffice at Madison, Wisconsin, as second-class matter. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1918.

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
424 University Farm Place
Madison, Wisconsin

H. J. RAHMLOW, *Editor*
Secretary Wisconsin State Horticultural Society

Office: Old Entomology Bldg., College of Agriculture
Tel. University 182

Vol. XXXIII NOVEMBER, 1942 No. 3

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PLEASE DO NOT SEND STAMPS

Forecasting the Time of Fruit Harvest by Blooming Dates

Study of Records Over Long Period and for Many Varieties of Different Fruits Shows Remarkable Uniformity—Would Aid Fruit Growers in Planning Other Orchard Operations

H. B. Tukey, Geneva, N. Y.

A CLOSE approximation of the date when fruits will mature can be made at the time of full bloom. From a study of 61 varieties of apples, 15 varieties of pears, 46 varieties of cherries, and 14 varieties of peaches taken from the Station records for the years between 1903 and 1938, and centering mostly around 1911-26, it has been found that for each variety of fruit there is a **close similarity in the number of days which elapse between full bloom in spring and fruit maturity in summer and fall.**

The time of actual picking is, of course, dependent upon a number of very practical considerations, such as market demand, color of fruit, distance from market, availability of cold storage facilities, wind storms, sudden periods of high or low temperatures, tendency of the fruit to drop, and the like.

Yet it is an interesting fact that the study of the records for a period of years shows the interval of days between full bloom and fruit maturity to be remarkably similar from year to year for a given variety, and the practices commented upon do not materially alter the "ideal" which the figures show.

Days From Bloom to Maturity

To cite the number of days for a few representative varieties at Geneva,

Early Harvest requires 77 days
Oldenburg 98 days
McIntosh 127
R. I. Greening 135
Early McIntosh 90
Wealthy 109
Twenty Ounce 122
Cortland128
Delicious 132
Ben Davis 136
Northern Spy 143

Pears

Bartlett Pear 121 days
Clap 116
Seckel 137
Kieffer 147

System Quite Reliable

In some regions it has been the custom to pick fruit with reference to the calendar date, as just before or just after Labor Day, while in other instances actual calendar dates can be found listed, as the picking of Stayman Winesap, October 8, The records show that this system is far less reliable than the system based upon the count of the number of days between full bloom and maturity, and this applies equally well in an "early" season and a "late" one. Thus, the Early McIntosh apple at Geneva usually ripens about 90 days after full bloom, and again during the season of 1942 at Geneva in spite of the season being considered "early", 90 to 91 days were required for this variety. Further, the records show that Bartlett pear trees blossomed 15 days earlier one season than another and the fruit ripened 17 days earlier one season than another, yet the interval of days between full bloom and fruit ripening differed only 3 days in the two seasons.

Apples Most Consistent

The interval of elapsed time is more nearly constant for the apple than for the other fruits studied, followed by the pear, the peach, and the cherry in that order. If an explanation is needed it may lie in the fact that the time interval from bloom to maturity is greatest with most apple varieties and least with most cherry varieties, also that the blossoming season for cherries is earlier than for apples.

Thus, it appears that even within a given class of fruits there is a greater variation in total elapsed time from bloom to fruit maturity for early-maturing than for late-maturing varieties.

It is not surprising for early-maturing varieties to show greater variation than late-maturing varieties. In the first place, the earliest-maturing variety is one in which, with few exceptions, the period between full bloom and fruit maturity is shortest. Accordingly, variations from the normal temperatures which may occur for short intervals during the growing season are more likely to be reflected in the short season of early-maturing fruit, whereas they are more likely to be ironed out in a fruit having a longer period of development.

Keeping Records

This, then, suggests that fruit growers might well keep their own records of blossoming and harvest dates for the different fruits in their orchards and thus work out fairly accurate dates that would be of help in planning orchard operations.

The subject of time interval also calls attention to fruit and plant development and suggests that orchard operations such as fruit thinning, irrigation, spray coverage,

cultivation, and application of harvest spray might well be based upon the development of plant parts, such as the fruit, rather than upon calendar dates. Insect and disease specialists time their spray programs with reference to the life cycle of the insect or disease under consideration, yet horticulturists have done but little with the possibility of correlating orchard practices with the development of fruit and fruit parts.

The entire situation suggests the value of more complete data on the growth of fruits and of fruit parts and their application to horticultural practices, of which the time interval from full bloom to fruit maturity is one.

—*Condensed from October 1 Farm Research.*

FRUIT AND VEGETABLE NOTES

Popcorn may become too dry to pop well. It can be greatly improved by adding a tablespoonful of water per quart of shelled popcorn. Shake the corn well and set aside in a sealed container.

Apples and potatoes should never be stored together. If they are, the apples soon have a potato flavor which may be all right if you like it, but most of us don't. In fact, fruits and vegetables as a rule should never be stored together and many vegetables will impart an odor to fruit.

Parsnips are never poisonous in spite of occasional rumors to that effect. They may be stored like other root crops or left out in the garden and dug as needed. They begin to grow in late spring and become woody and of poor quality. Consequently in this state it may be best to dig the crop in the late fall before freeze-up.

DID THE APPLE MAGGOT RUIN YOUR APPLES THIS YEAR

Much Loss in Southeastern Wisconsin

PRINCIPAL TOPIC AT ANNUAL CONVENTION

GROWER after grower is sending in samples to the office of the Horticultural Society, the State Entomologist, and the Entomology Department of the College of Agriculture, asking us to identify the cause of one of the most serious troubles of apples this year—the apple maggot, sometimes called railroad worm.

Inasmuch as the insect has caused so much loss, especially in southeastern Wisconsin, it will be one of the most important topics at the annual convention of the Horticultural Society at Fort Atkinson November 17-18.

Dr. C. L. Fluke will talk on the insect in detail with methods of control at 10 a.m. sharp, Tuesday, November 17th.

LOOKING AHEAD AT FRUIT PROBLEMS

LOOKING ahead into problems which fruit growers must face, the National Apple Institute meeting in Washington, D. C., brought out some interesting facts, of which the following are a few: The Army will require from 8 to 10 million bushels of apples. The lend-lease program emphasizes dehydrated products. This applies largely to dried peaches, pears, prunes, and raisins, and somewhat to vegetables and apples. Dehydration will be substituted for canning wherever possible. Most dehydration operations will be on the Pacific and Atlantic coasts. Only a small amount of money will be available for direct relief feeding.

Reduction of truck transportation will present a problem which the railroads may have difficulty in handling. Some shortage of storage space is likely to be encountered. Types of containers are to be reduced but total amounts are likely to be sufficient to meet demands. Labor problems are likely to be severe and higher wages for fruit workers are a certainty. Growers should not underestimate the market prospects for fruit. Price ceilings cannot be placed on fresh fruits and vegetables. Europe will be "fruit hungry" after the war, due in part to high tree mortality during the worst European winter in 100 years.

—*By H. B. Tukey in The Rural New-Yorker, September 19.*

BLUEBERRIES REQUIRE VERY ACID SOIL

THE highbush blueberry will not grow well on soils having a pH higher than about 5.2, according to the summary of an article by Stanley Johnson of the Michigan Experiment Station in their Quarterly Bulletin based on tests growing blueberries in that state under various types of soil conditions.

Further conclusions are that a site having a deep and uniform surface soil is necessary for maximum yield.

Mr. Johnson also concludes as follows:

"Apparently the proper degree of soil acidity is more important for the successful growth and production of the blueberry plant than the clay content of the soil. Plants in one test grew successfully on a soil containing 31.8% clay, having a pH of 4.87 and failed on a soil having somewhat less clay but having a pH of 6.08."

In Wisconsin then, we are not only handicapped by low winter temperatures which kill the blueberry buds, they being probably no hardier than peach or sweet cherry buds, but we are handicapped as well by not having an acid soil suitable for blueberries because most Wisconsin soils would test higher than pH 5.2.

Attend the Annual Convention, Wisconsin Horticultural Society, Fort Atkinson Municipal Bldg., November 17-18.

Apples Go Back to School

THE National Association of Food Chains sent to its members a home economics bulletin with the slogan "Better Living at Lower Cost." Early in October we received a copy of the bulletin sent to the members, with the following interesting comments on apples.

The American Way—Eat Two Fruits Every Day!

Apples Go Back to School
From Kindergarten to College
Apples for the teacher
Apples at recess
Apples in the lunchbox
Apples when teacher isn't looking
Apples at the football game
Apples at class parties
Apples in the school cafeterias

Apples Merit the Head of the Class
Good to Taste
Appealing to the Eye
Nutritious to the Body
Economical in the Budget
Helpful in preparing a Balanced Diet
Healthful for the Entire Family
Most universally grown Fruit
Year-round Fruit

Apple News

There's a little bit of a great many good things wrapped up in **one of nature's finest packages—The Apple.** It has Vitamins A, B, C, and G; minerals, a long list of them; and that pleasing apple flavor. The youngsters know that a juicy apple tastes mighty good, any time, especially if it is one of those from our store, where we take particular care to see that they reach you in good condition.

An Apple for the Teacher still serves its purpose, but these days apples are playing more important roles—in the packs of soldiers on the march; in the lunchboxes of war industry workers; and in your own kitchen. There are plenty of apples, so use them generously. We take special care to bring them to you, orchard fresh.

After-School Kitchen Raid

Remember how you used to go straight to the kitchen when you came home from school? You raided the cookie jar, the ice box, the pantry! **Youngsters haven't changed any.** You can please them and aid their nutrition needs, too, by having some of these snacks ready for the **After-School Kitchen Raid.**

SAVE DOLLARS ON . . .

FRUIT PACKING SUPPLIES

Baskets:

Bushels — **Pecks**
½ Bushels — **½ Pecks**
Decorative Fringe — **Basket Caps**
Packing Forms — **Basket Bottom Pads**
Shredded Oil Paper

SPRAY MATERIALS

Arsenate of Lead — **Lime Sulphur**
Soy Bean Flour — **Calcium Arsenate**
Bordo — **C. O. C. S. Spray**
And Various Other Articles

COMMERCIAL GROWERS

Let us quote you prices on carloads of A 1 or No. 2 Bushel Baskets.

Write us for quotations on Sprayers, Spray Guns, and Hose.

WRITE FOR PRICES

SOUTHEASTERN WISCONSIN FRUIT GROWERS CO-OP, INC.

WAUKESHA, WISCONSIN

Lester Tans, Secy.-Treas. **Telephone: Big Bend 2821** **Route 3**

In the Orchard

CHERRY VIRUS EXPERIMENTS

STUDIES on the cherry yellows virus disease, so prevalent in New York orchards and also occasionally encountered in the nurseries, seemed earlier to indicate that roguing of diseased plants and selecting disease-free budwood would quickly and definitely eliminate the disease from the nurseries. This hope was abandoned a year ago when an experiment at Dansville was started, a cooperative venture between nurserymen, inspection service and the college. The Dansville experiment set out to assemble together in one test planting samples of all propagating materials brought into the nursery district, seeds or seedlings and budwood, for observation and study. A selected number of presumably healthy test plants were also included in the planting for use in the so-called indexing experiments, in which buds from the samples were placed for the purpose of locating hidden or masked viruses.

The results to date leave no doubt that the rootstock as well as the scion may be the source of virus contamination in nursery plantings. This venture has opened up problems of national scope because the source of rootstocks for fruit tree nurseries are far removed from where they are used.

—E. M. Hildebrand, Ithaca, in New York Nursery Notes, Sept.

LIKES MACOUN APPLE

PROF. T. J. Maney of Ames, speaking at the fruit growers meeting at the Thompson and Marken Orchards, Kenosha, in August, made the remark that in his opinion the Macoun apple was the best of the McIntosh crosses, and quite desirable. He said it keeps and handles better than McIntosh in Iowa. The fault that we find with it, namely that it does not bear young, can be overcome by top-working it on hardy rootstocks such as Hibernal or Virginia Crab.

In our opinion the Macoun is destined to become more popular in the future.

LARGE HEALTHY LEAVES ARE ESSENTIAL FOR GOOD APPLE CROPS

M. A. Blake

The importance of an adequate leaf surface upon apple trees has been often and widely stressed by pomologists in recent years. The leaves are the starch factory of the tree. Without a supply of starch and sugar there can be no growth and no fruit. When there is too large a proportion or number of apples to leaves the fruits are small and often lack color. That is the reason that thinning of fruits is practiced. A tree may lack a sufficient quantity of large leathery leaves because of insufficient moisture and nutrients in the soil. A good covering of leaves can also be burned and completely riddled by spraying.

The trees at the ends of the rows of an orchard are often striking demonstrations of how excessive spraying results in severe damage from arsenicals. If you are striving to increase the annual yields and the size, color and quality of your apple crop don't overlook the foliage condition factor.

—From New Jersey Horticultural News.

THE APPLE ORCHARDS' BEST YEARS

REPLIES from 140 Ohio orchardists indicated that 49.6 per cent considered their apple orchards most productive in the 15 to 25 year age period, 20 per cent from 15 to 30 years, 25.2 per cent from 15 to 35 years, and 5.2 per cent from 15 to 40 years. Of this same group, 75 per cent considered their orchards to produce fruit most economically in the 15 to 25 year period, 15 per cent at 15 to 30 years, and 9.7 per cent at 15 to 35 years.

—J. H. Gourley in Hoosier Horticulture.

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PEDIGREED FRUIT TREES

PEDIGREED fruit trees imply that the trees are superior to the ordinary run of stock. One may ask in what respects are they superior? Are the trees more productive or more disease resistant, or do they bear more highly colored or larger fruits? The fruit breeder will say that inherited changes in trees and fruits are rare and that before we can be sure that such changes exist and can be perpetuated we must grow such pedigreed stock alongside the ordinary stock for many years for comparison. This is the **older** concept of pedigreed stock and has been thrashed out over and over again.

A **newer** concept of pedigreed trees or stock is their trueness to name and freedom from disease, such as the viruses.

This raises the question whether it would be advisable to have mother trees of the standard varieties certified as to their trueness to name and freedom from all known ills. Trees propagated from such stock may well be called "pedigreed stock" but claims should be made simply for their trueness to variety and freedom from disease and not for their greater superiority in yield and other unknown characters.

—Richard Wellington, Geneva, in the June New York Nursery Notes.

Steel Substitute

A certain grocer was famed for selling tough meat. A man came into the store one day and asked for some beef.

"Do you want it for boiling or roasting?" asked the grocer.

"Neither," replied the man. "I want to use it for hinges on the stable door."

PERMANENT SOD COMPARED WITH COVER CROPS IN THE ORCHARD

THE results of fourteen years of experiments by the Pennsylvania Experiment Station can be summarized as follows:

"Cultivation and cover cropping **permitted soil deterioration,** as evidenced by a **reduction in the organic matter content,** and decreased granule stability and permeability to water. A more compact, easily dispersed surface layer resulted, giving rise to **increased erosion and run-off.**

"The permanent alfalfa sod increased the organic matter content, improved the soil structure, promoted infiltration, and decreased erosion and run-off.

"The **permanent bluegrass sod resulted in the highest organic content,** the greatest structural stability and the best permeability. It also prevented run-off and erosion more completely than alfalfa.

"The results are not interpreted as meaning or implying that orchards can be grown in bluegrass sod, in spite of its favorable effects upon the soil, without adding nitrogen. The bluegrass plats received 10 pounds of nitrate of soda per 40-foot square."

—*From October, 1942 Illinois State Horticultural Society News Letter.*

WHY WE DON'T GROW R. I. GREENINGS IN WISCONSIN

DURING the fruit growers meeting at the Thompson and Marken Orchards, Kenosha, in August, Mr. R. L. Marken remarked that the R. I. Greening is not hardy in Wisconsin. There are 300 of these trees in the orchard which were badly winter injured during the Armistice Day freeze of 1940. The trees are in bad shape now.

Growers have often wondered why the R. I. Greening is popular in Michigan and not in Wisconsin. Here is the answer.

ORCHARD MOUSE CONTROL DEMONSTRATIONS GIVEN

A SERIES of four demonstrations on how to control mice in the orchard with the new bait made of apples covered with zinc phosphide were given during the week of October 12th by Mr. G. C. Oderkirk in charge of rodent control work, Lafayete, Indiana, and H. J. Rahmlow, Secretary of the Horticultural Society, cooperating with County Agents at Green Bay, Kewaunee, and Sturgeon Bay.

At the first meeting held in the Dvorak Orchards at Casco Mr. Oderkirk demonstrated the use of the bait. Other meetings were held at Sawyer on the Martin Company orchard, Sturgeon Bay, and on the Eames Orchard, Egg Harbor. These demonstrations were given by H. J. Rahmlow, with the cooperation of Mr. G. I. Mullendore, County Agent of Door County.

Bait Not Expensive

Zinc phosphide is a much less expensive material to use than the oats previously sold by the Society. A tube costs 20 cents, and is enough to bait about 10 acres of orchard.

It was pointed out that at this time of the year mice gather in the orchard from surrounding alfalfa and grain fields. They dig runways under the trees and feed under cover if at all possible. Therefore, it is advisable to place the pieces of apple covered with the zinc phosphide in the runway and place over them grass or other rubbish.

Mice Plentiful

Indications are that mice will be serious this year and it is advisable for all orchardists to make a careful inspection at this time to determine the extent of the runways. If numerous, baiting should be carefully done at once.

Do not let the mouse population build up, but put out the bait every year to keep down the numbers.

WILL CINDERS AROUND APPLE TREES CONTROL MICE

QUESTION: Will a cone of cinders around apple trees keep the mice away and prevent damage?

Answer: I have never been very enthusiastic about this method in preventing damage by mice inasmuch as I have found trees quite badly damaged where cinders were used. This was entirely in southern Indiana, which may not be applicable in Wisconsin. Apparently, freezing of the ground and heaving caused the cinders to settle in such a manner that it left openings for mice to move through the cinders, thus permitting them to reach the trees. One might say that this is rather unusual, but I am describing what I have seen. I would say that cinders are of most value in preventing growth of grass immediately around trees and it is likely that a thin covering of cinders to a distance of perhaps 18 inches from the tree would be worthwhile.

Question: Can dirt be mounded around the trunks of the apple trees to keep the mice away?

Answer: I can not believe that the use of a mound at the base would be effective unless it was fairly high. There might be something to the thought that some mice approaching a mound would go around it. On the other hand, it has been my experience that mice frequently move into mounded areas to burrow, perhaps with the thought that the raised ground is high and dry and might offer a place for a nest site or a food cache. There are a good many things that we have to learn about the habits of mice and the above are just a few thoughts in the matter. I think it would be well worthwhile mounding the trunks of some trees to see if it has any real effect in keeping down damage by these pests.

—Answered by G. C. Oderkirk, District Agent, Division of Rodent Control, Lafayette, Indiana.

APPLE TREES GROW AND YIELD WELL ON SOIL LOW IN PHOSPHOROUS

APPLE trees on a California soil low in phosphorus seemed to grow and yield well, was the finding of research workers at the University of California, Davis,, California. In their discussion of their experiments the workers state, "Although phosphorus deficiency with fruit trees has frequently been demonstrated in sand culture, its occurrence in California orchards has not been established to date."

In summarizing this experiment, they state that Aiken clay loam as found at Paradise, California, is extremely low in available phosphorus as determined by chemical and biological tests in the laboratory and by phosphate trials with annual crops in the field.

Eighteen different annual crops were tested and failed to make satisfactory growth unless phosphate was added.

Established fruit trees, however, showed no response to phosphate in the same soil and their growth, yield and quality of fruit were comparable with those obtained on the more fertile soils in California.

This clearly shows that phosphate responses of annual crops cannot serve as criteria of the phosphate needs of fruit trees.

The workers then make the remark that it would be of interest to know whether the fruit trees failed to respond because they (a) need less phosphorus than annuals; (b) can extract greater quantities from the "unavailable" source (greater feeding power), or (c) can accumulate greater quantities annually due to their perennial growth and the longer duration of root activity.

It may be added here, however, that for Wisconsin conditions we should not minimize the value of phosphorus in obtaining a good cover crop yield.

LOSING FIFTY CENTS TO SAVE TEN CENTS!

FRUIT growers may put poor apples in good packages and get away with it—once—provided the buyer doesn't open the package! But to put good apples in bad packages means but one thing—loss of money far above the difference in cost of a new or old package.

This factor was strikingly brought out to the writer while visiting a large Eastern terminal market the past few weeks. In the store of one commission merchant were two lots of Delicious apples. Each lot was 2¾ up U. S. No. 1. One lot was packed in new packages—the other lot was in old packages which not only showed the results of wear but were dirty.

The Side Glance

When customers came in the store it was noticeable that their first glance was towards the display of apples in the new packages. Invariably the customer walked to this group and began examining the fruit. When the store owner called the customer's attention to the other lot of apples in second-hand packages selling at 50 cents a bushel less than the new package fruit, only a side glance was given. It was noteworthy that the commission merchant admitted that he was selling four times as much of the fruit in new packages as in the old packages, and at 50 cents a bushel more for the former.

There has been talk about the consumer never seeing the package. We grant this is true in many instances, but the grower must pack for the customer and not the consumer. The customer is the store buyer — the consumer is the housewife and her family. Frankly, we feel that every time an apple man packs his fruit in old unsightly packages that the net result is a loss many times the difference in cost between new and used packages.

—*From The Eastern Fruit Grower, October.*

CAN WE PRODUCE OUR OWN VEGETABLE SEEDS

IT IS easy to understand the present agitation in England for the home saving of vegetable seeds. Vegetable gardening over there has a much more serious aspect than it has in the United States, in spite of all of our talk about victory gardens.

But even under war-time conditions the laws of genetics are not suspended. Dr. F. W. Sansome, a British geneticist, has felt it necessary to point out to well meaning English gardeners in the Gareners' Chronicle that time and labor spent on collecting seeds in home gardens may be wasted unless some of the finer points of plant breeding and seed selection are understood. For instance, against the current advice that cabbage plants may be prevented from contamination by foreign pollen by enclosing them in a veil of muslin. Dr. Sansome states that pollen grains of cabbage may pass four abreast through linen.

After outlining other bits of technique, Dr. Sansome goes on to explain that selection is really a specialist's job and needs adequate experience, but the raising of seeds of an established variety for ones own use is often possible. His advice to gardeners is that they take seeds from those pods or fruits which contain the fewest seeds but are borne on plants having a good crop of normal pods or fruits. As he points out, a pea-pod containing two or three seeds on a plant having pods with eight to ten seeds will produce the best crop the next year. Similarly, a tomato containing 20 seeds will give better plants the next year than one containing 200 seeds.

—*By The Roving Gardener in October 1 Horticulture.*

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Fruit and Vegetable Container Confusion

By L. C. Carey

WE DON'T see any World War I airplanes any more. Faster types have been developed and the obsolete machines have been junked.

But the fruit and vegetable industry, when it comes to the crates, boxes, and cartons used for marketing produce, operates on a somewhat different basis. As new types of containers are developed—and not all of them are improvements—they merely add to, but do not replace, existing types. The result is a bewildering hodge-podge of packages that seriously interferes with efficient marketing at a time when efficiency is more needed than ever before.

It is almost unbelievable, but the Freight Container Bureau — the railroads' Supreme Court on packages—recognizes 414 sizes of containers for marketing fresh fruits and vegetables. To cite a few specific cases, exactly 47 different types of crates are used for marketing the celery crop, 36 for grapes, 28 for cantaloups, 21 for apples, 18 for asparagus, and 13 for peaches.

Many new containers come into being through the very understandable desire to some shippers to pack their produce in a distinctive carton—as they say, "a package that will knock the wholesalers' eyes out." Thus the number of shapes that are introduced are limited only by the shippers' imaginations.

And don't forget the short-measure container. A few shrewd packers have found that by slight modifications in the shape of the package, the cubical contents can be reduced substantially without noticeably affecting the appearance. Commodities sold in these containers can be offered at a lower price per package than those sold in the standard packages. There is no end to this procedure, for once the short measure becomes established, a still shorter one is put out by the unscrupulous minority.

Good Standards

However, it would be a mistake to infer that no simple standards exist for crates, boxes, and cartons. As a matter of fact, a few have become almost as well standardized through usage as they could be by national regulation. Good examples of what might be called "industry standardization" are the Northwest apple and pear boxes, the western cantaloup crates, and the California citrus box.

The States have taken a crack at the container problem by establishing standards by law or regulation. But the unfortunate lack of uniformity in the provisions of these laws and their permissive nature tend to make them ineffective and confusing from a national standpoint.

In casting about for something really constructive, it might be well to look at what has been accomplished by the Standard Container Acts of 1916 and 1928—Federal laws aimed at standardizing baskets and hampers. Enforcement of these acts has reduced the number of sizes of berry boxes from approximately 18 to 3, till baskets from 30 to 5, Climax baskets from 31 to 4, hampers from 42 to 9, splint baskets from 25 to 6, and round stave baskets from 20 to 9. A few of these sizes are not commercially important.

Federal Legislation Needed

Federal legislation covering containers of *all* the types used in marketing fruits and vegetables—legislation similar to the Standard Container Acts but broader in scope — would go a long way toward solving the problem of non-uniform packages and is probably the ultimate answer. Through such a law the standard sizes of each container type sold in interstate commerce would be defined, and adequate enforcement would tend to keep the small minority of wilful manufacturers or purveyors of illegal packages in line.

BREAD AND HONEY!
(To My Healthy Girlhood)

Before I go to bed;—
One slice of snow-white bread
Smeared generously with butter
rich and yellow;

Topped with amber sweetness!
I try to hold it level while I bite
and chew,
But spite of all a topaz drop or two
Will trickle o'er the crust onto
the floor.
And 'fore I know it there's the
sweetest spot
Big as a dollar near the pantry
door.
When the bread's all down
I spread another slice;
One slice will never quite suffice
An appetite for honey such as mine.
I eat it,——
Leave another dollar on the floor
Beside the other near the pantry
door.

No matter when or where a
lunch I eat,
Good bread with butter and
honey
It can't be beat!

Alvina Hansen Floistad.
Scandinavia, Wisconsin

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In the Berry Patch

STRAWBERRY VARIETIES AT MORDEN, MANITOBA

New Varieties Show Considerable Promise

EIGHTY varieties of strawberries were planted under comparable conditions in the spring of 1941 at the Morden Experimental Station, Morden, Manitoba.

Superintendent W. R. Leslie reports that the following varieties from four different sources were very promising in this year's ratings.

Two Minnesota Seedlings Show Promise

Minnesota 1192 and 1118. No. 1192 canned a full red, the fruit retained its shape and was very rich in flavor. It has been healthy, vigorous and esteemed for its long fruiting. The flowers are imperfect and it should be planted with a late pollinator.

Minnesota 1118 canned very well and was sweeter than 1192. Plants were hardy and free from disease. It matures earlier than 1192 and produces perfect flowers.

Sparta from the Honeywood Nursery, Parkside, Sask., has shown decided hardiness, good habit of growth, freedom from disease, and produced fruit which scored very well fresh and canned.

Glen and Glenmore, from Wm. Oakes, Miami, Manitoba, have shown considerable promise. Both are hardy, free from disease, have upright habit of growth, and the fruit compares well with the best.

Ralph and King, from the Central Experiment Station, Ottawa, again showed abundant winter hardiness, resistance to disease and quality of fruit. Both have a low habit of growth, with short fruit stalks, which is a disadvantage under some conditions.

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COVERING RASPBERRIES FOR WINTER

IS IT necessary to cover the canes of red raspberries during the winter months?

Whether covering raspberries is to be recommended would depend to some extent on the variety of raspberry grown. As a general rule, the Latham raspberry is not covered when grown in any section of the state. However, quite a number of commercial berry growers cover their raspberries with soil each year, as they feel that this pays. The trend in this state is toward more coverage rather than in the other direction. While covering of raspberries is not a necessity, it seems to be a desirable practice in many locations.

—By J. D. Winter, in The Minnesota Horticulturist.

NEW RHUBARB VARIETIES TESTED AT MORDEN EXPERIMENT STATION

THE Morden experiment station tested 25 of the leading varieties of rhubarb. The order of deepness of color was Canada Red, Ruby Select, Early Sunrise, Valentine, Coulter, Plum Hutt, Coulters Macdonald, and Advance. All gave a rich red sauce.

Valentine sauce was rated highest. The color was an even deep bright red. Texture was smooth and tender. Flavor was pleasing with a slightly tart after-taste.

The variety Valentine is an introduction from the Ontario Horticultural Experimental Station at Vineland.

TURN ABOUT

Pullman Porter—"At what hour does you wish to be called, suh?"

Passenger — "Don't bother — I wake up every morning at five o'clock."

Porter—"Then, suh, maybe you would be good enough to wake me?"

WESTERN RASPBERRY VARIETIES UNSUITED TO WISCONSIN

TESTS of raspberry varieties originated in the far West as for instance the Washington and Tahoma are unsuited to Wisconsin conditions. They are adapted to a mild section where some eastern varieties do not do well and when grown in Wisconsin do entirely differently from our own varieties.

It is wise for any grower to test varieties of this sort on a very small scale. Too often glowing reports of what a variety will do in the West leads growers to plant quite a large number of plants with poor results. This includes strawberries as well as raspberries.

We have had much better results in Wisconsin with eastern varieties, especially from the northeast, than with those from the far West.

DECREASE LIKELY IN BERRY ACREAGE

REPORTS from various parts of the United States indicate there is likely to be a severe decrease in the strawberry acreage in principal growing sections. The reason is largely shortage of labor for planting, cultivating, hoeing and harvesting.

There is no price ceiling on berries. With a shortage threatening in the national acreage, all farm families who have labor available should plan on increasing their berry acreage. This applies to farms where there are children or other labor not subject to war service. With a reduction in the crop and high purchasing power on the part of the laboring classes, berry prices for the duration of the war should be good. Profits from growing crops such as strawberries should therefore also be good. The per acre yield of strawberries is very high. Consequently growers will contribute greatly to the national food supply in growing berries.

The Tepee System of Tying Raspberries

SEVERAL Wisconsin raspberry growers tried out the Minnesota tepee system of tying raspberries last year with favorable results.

The illustration shows how the canes are tied together in two places. Growers interested further, might write to the Horticulture Department, Minnesota College of Agriculture, University Farm, St. Paul, for Extension Bulletin No. 199.

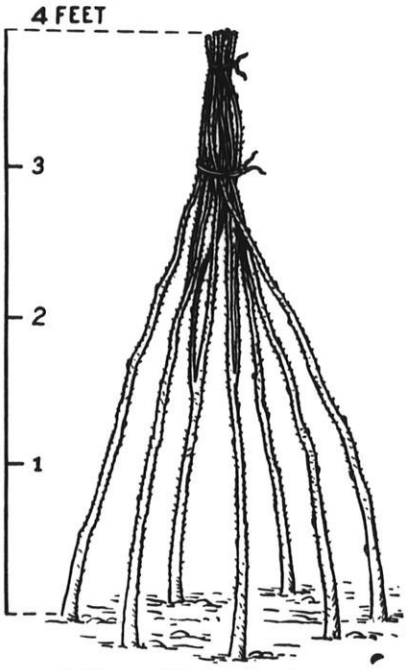
Advantages of Tepee System

With the tepee system, cross-cultivation is possible and the fruit can be picked conveniently. The plants dry quickly after rain and the system can be adapted to contour planting.

The plants should be tied in late fall because it will help to prevent snow breakage and wind whipping.

How to Tie Canes

The canes must be tied in two places as illustrated. If tied in only one place the results will not be good. The cluster should be held firmly and tied as tightly as possible. The two ties should be about eight inches apart which prevents twisting and bending. There is no danger of girdling as the canes increase in diamemter very little or not at all in the fruiting season.



A Tepee Of Raspberries

BERRIES PICKED WHEN RIPE HAVE LESS ACID

A FEW preliminary tests have been made to determine the relative acidity of the fruits of different strawberry varieties. An interesting observation is that berries picked just before they are fully ripe are considerably more acid than berries which ripen on the plant. Furthermore although the berries picked before they are ripe will color up normally after being picked, the acidity does not decrease but may even increase. Apparently the best way to get berries that are not objectionably high in acidity is to let them get fully ripe before picking them.

—By J. Harold Clark in New Jersey Horticultural News, July.

MEDIUM GROWTH BEST FOR CRANBERRIES

THERE'S a happy medium growth at which cranberries produce their greatest yield. When uprights grow either thicker or thinner, taller or shorter, than this medium, berry production suffers.

Those conclusions are drawn from recent research carried on by R. H. Roberts and Esther Struckmeyer at the University of Wisconsin, which indicates that the most productive cranberry bog has a blossom-time growth of about 2½ to 3½ inches, with 200 to 300 uprights to the square foot.

Poor yields on thickly-vegetated bogs appear to be due to shading and poor pollination.

The wind does much of the work in pollinating cranberry blossoms, the studies indicate. Blossoms open rapidly, and under favorable conditions may reach full bloom in as little as two hours. Jarring at that time releases the pollen into the air about the blossoms.

Bees Jar Blossoms

Air currents will not effectively carry pollen any great distances, the research work showed. As for the bee, his job in the cranberry bog seems to be mostly to jar the open blossom, and not to carry pollen from plant to plant.

Cranberry pollen does not shed readily when blossoms are in a damp situation, the observations showed. That may help to explain poor production of berries in thickly grown bogs. Thick vines may allow excess dampness or shading and at the same time discourage adequate jarring of the blossoms by insects or by the wind.

No fixed treatment will give the desired degree of vegetation throughout a marsh, the scientists pointed out. Thinning the stands by pruning may help temporarily. However, different areas of a bog demand different treatment, with some parts requiring a thicker growth and some needing fewer and shorter uprights to reach the ideal type of stand.

Get extra savings on Sheboygan fruit and berry boxes

Whether you need a box approved for interstate shipment by the Federal Food and Drug Administration, or whether you plan to ship locally in old style boxes, you can be safe and save money too, by assembling either type box with the fast-working Neva - Clog stapler. Get everything you need for fruit or truck shipments at Sheboygan—as leading growers have for 63 years.

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Ivan Whiting, Rockford

Annual Convention Draws Large Attendance

THE annual convention of the Wisconsin Beekeepers Association, held at Appleton October 29-30 was an outstanding success, both in the quality of the program and in the attendance. About 150 beekeepers and their wives attended.

Because this issue is ready to go to press and only limited space available, a detailed account will be published in the next issue.

The Association expressed its appreciation to the Fox River Valley District, the Outagamie County Association, and especially to Mr. and Mrs. Cornelius Meyer, Appleton, in charge of local arrangements, for their efforts to make the convention successful.

Officers for 1943

All the officers of the Woman's Auxiliary were reelected. They are: President, Mrs. A. H. Seefeldt, Kewaskum; Vice-President, Mrs. Wm. Michaelson, Arkansaw; Secretary-Treasurer, Mrs. Walter Diehnelt, Menomonee Falls.

Mr. Walter Diehnelt, Menomonee Falls, was reelected President in spite of his protest, and Mr. Cornelius Meyer, Appleton, was elected Vice-President. Mrs. Louise Brueggeman was reelected Secretary-Treasurer, and given a rising vote of thanks for her efficient work. H. J. Rahmlow continues as provided in the constitution, whereby the Secretary of the Horticultural Society is the Corresponding Secretary.

Not only did the speakers give us a great deal of information, but the question and answer hour which was most ably conducted by the President proved to be one of the bright spots of the convention. Many questions were brought up by the beekeepers and answered by the speakers and leading beekeepers in attendance.

The Wisconsin Beekeepers Association float in the Dairy Parade, Wisconsin State Fair. Prepared by Honey Acres.

The Wax Situation

Mr. Huber H. Root gave a most interesting talk on beeswax. He stated that we may be asked to reduce the amount of foundation used, but stated that twelve times as much beeswax is used in the manufacture of lipstick and face creams than in foundation. More than 3,000,000 pounds of beeswax is used to produce lipstick and face creams.

Invitations for the Next Convention

Invitations for the 1943 convention were received from Wisconsin Dells by one of the resorts, and from Plymouth through the Sheboygan County Beekeepers Association. It was brought out that the Wisconsin Horticultural Society may wish to celebrate its 75th annual convention in Madison next year if conditions permit. The beekeepers are invited to take part as members of the Society and hold their convention jointly.

APIARY SIGNS TO BE PRINTED

AVAILABLE TO BEEKEEPERS AT LOW COST

A SIGN measuring 10 x 12 inches introduced by Kansas beekeepers was shown at the convention by Mr. James Gwin, Madison. It is to be nailed in various parts of the apiary for protection against theft. As the magazine is ready to go to press, we do not have time to get quotations or prices, but it will be printed on heavy waterproof cardboard and may be paraffined for longer life by the beekeeper, using a brush and hot paraffine. The cost will probably be about 10 cents per sign. Orders should be sent to the Wisconsin Horticultural Society, 424 University Farm Place, Madison, for the number wanted at once. Prices will be sent to all those who request them.

The sign reads as follows:

DO NOT DISTURB

Sabotage Is a War Offense

These Bees Are a Vital Unit in National Defense

1. Bees **furnish wax** to coat guns and ammunition . . . there is No Substitute.
2. Bees **pollinate** fruits, clover and other farm crops.
3. Bees **insure** seed and fruit crop production.
4. Bees **increase** seed and fruit yields.

Bees earn 10 times more for farmers in seed and fruit production than they do for beekeepers in honey production.

DO NOT OPEN or Disturb these Bees. They DO NOT have honey for human use. ONLY Bee Feed is left.

HELP WIN THE WAR—PROTECT BEES

Increase Fruit, Farm Crops and Seed Production.

Hunters—Please Do Not Shoot

Apiary Inspection in 1942

Less A.F.B. Found This Year

APPROXIMATELY fifty inspectors were employed on a part-time basis in carrying on the inspection work during the season of 1942. During this season **5,404 apiaries,** containing live bees, were inspected, compared with 3,463 in the same period for 1941. The total number of colonies inspected up to October 10, 1942 was 58,298 of which 1,482 were infected with A.F.B. and destroyed. During 1941, 46,878 colonies were inspected and 1,781 colonies found infected with A.F.B. were destroyed.

Many Immovable Comb Hives Found

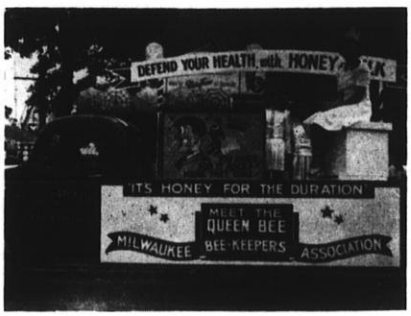
Also, 361 apiaries, containing 1,054 immovable comb hives were examined and orders given to transfer to movable comb hives. This is to be compared with 209 apiaries with 626 colonies of immovable combs in 1941.

Our inspectors found there is still a large amount of beekeeping equipment not in use. There were 1,633 owners listed as having bee equipment, but no bees, as compared with 1,397 in 1941.

Yards are being moved and the old locations no longer have bees or equipment. A total of 1,915 changed ownership or went out of business since the last inspection, as compared with 1,110 for 1941. The movement of bees and equipment is shown by the number of permits issued. To date, 825 have been issued for 1942 compared to 672 for 1941.

Thirty-one counties appropriated $4,682.25 for apiary inspection in 1942. Wherever personnel and weather conditions permitted, all of the county funds were used as well as an equal or larger amout of state funds.

A sincere effort was made to cover all territory lying south of a line beginning at Lake Michigan and following the north and west boundary lines of Manitowoc, Sheboygan, Fond du Lac, Dodge and Columbia counties to the Wisconsin River, thence to its mouth.



The Milwaukee County Beekeepers Association float, Wisconsin State Fair Parade. Prepared by Figge's Apiaries, Milwaukee.

BEEKEEPING NEWS

BOX hives and immovable combs are still with us. Will the time ever come when we will get rid of them all? The state inspector's report in this issue states that 1,054 immovable comb hives were found this year, and 626 were found last year. Perhaps one way to decrease the number would be for all beekeepers to use greater effort to prevent swarming. Many swarms are caught and placed into boxes which results in much work for inspectors later.

Buy bee supplies early has been repeated so many times that it is becoming rather trite. We do know this, however. The manufacture of bee suppies will be limited. Thousands of new beekeepers all over the country will be buying packages and getting a few more hives this spring. They may take much of the available supplies. Regular producers, therefore, should not wait long in ordering.

Reversing supers was the topic for two articles in the September and October issues of **Gleanings.** One beekeeper questioned whether reversing hive bodies was of any value in swarm control. Another beekeeper stated that it does help him. Such arguments can sometimes be almost amusing if they were not so serious. Certain methods may work for one beekeeper because he knows how to use them effectively. They may not work for another if he doesn't use them just exactly right so as to get results.

Reversing brood chambers will not only help prevent swarming as many beekeepers have proven, but will save a great deal of labor over methods we previously used, especially the Demaree system in which frames are moved.

TREASURER'S REPORT SHOWS WISCONSIN BEEKEEPERS ASSOCIATION IN EXCELLENT FINANCIAL CONDITION

The report of our Recording Secretary-Treasurer, Mrs. Louise Brueggeman, Menomonee Falls, shows that the Wisconsin Beekeepers Association is in the best financial condition it has been for years.

On October 1st, 1942 there was a balance in the General Fund of $344.32 There was also a balance in the Label Fund at this time of $356.52. In addition there was a balance in the Advertising Fund of $19.32. This balance was left after paying for the honey signs two years ago.

The Label Inventory amounted to $61.75; Office Inventory, $11.35. Total Assets and Net Worth of the Association is $773.94. Liabilities are none.

Dues were paid during 1942 by 436 members bringing in a total of $358.50 in dues.

Large Commission On Pails And Glassware

The commissions on pails and glassware sold to members by Honey Acres netted the State Association $112.68.

Profit on State Association labels sold to members during the past year amounted to $97.98.

It is our opinion that the Wisconsin Beekeepers Association has the largest paid membership of any State Association in the nation. We will be very glad to hear from any state who can show a larger membership and membership receipts.

The important thing here too is that the membership is increasing every year without any effort on the part of the officers of the State Association.

The Honeybee Colony

Behavior of the Incoming Nectar-Gatherer

THE nectar-gatherer upon arrival in the hive soon delivers her load to one or more workers which we may refer to as house-bees. Occasionally she gives her entire load to a single house-bee, but usually she distributes it among three or more.

If the nectar source is bountiful, the loaded nectar-gatherer usually performs the peculiar dance already mentioned. She usually is followed by several other bees and while she continues her dance, every now and then one of the interested followers may be seen to leave for the field, until by the time the dancer is ready to depart, a dozen or more may have left the hive to search out the source already discovered by the dancer. It is to be noted especially that most of the new recruits leave the hive before the dancer does. Obviously they **do not follow** the latter to the source of supply as has been assumed so commonly.

When the nectar-gatherer has disposed of her load, she may start directly for the field, but in most cases she first secures a small amount of food either from another bee or from a cell. Before making her final start, however, she almost invariably gives her tongue a swipe between her fore feet, rubs her eyes, and often cleans her antennae. Then with a quick look around, as if taking her bearings, she sets off for the field in great haste. The process of disposing of her load often is accomplished in less time than it takes to describe it.

Ten Minutes Between Trips

By marking individual nectar-gatherers and keeping time records on their goings and comings for several days in succession, I found that they seldom remained in the hive as long as 10 minutes between trips, and that when working under favorable honey flow conditions, the most frequent interval spent in the hive was less than four minutes.

Waukesha County Beekeepers Association float, Wisconsin State Fair Parade. Prepared by Edwin J. Mintzlaff, Pewaukee.

It was found also that as a rule a given marked bee continued to perform her particular type of work day after day throughout the period covered by the observations. Moreover, some evidence was found to indicate that a bee engaged in carrying pollen from a given plant species, does not readily give up her allegiance to that species. For instance, it was observed that marked bees carrying pollen from corn rarely left the hive after corn pollen ceased to be available for the rest of the day, normally at about 11 a.m., although pollen was available from other sources during the afternoon.

Role of the House-Bee in Ripening Honey

When the house-bee has received her portion of a nectar-gatherer's load, she meanders about the hive in search of a place where she will not be crowded. Here she usually takes up a characteristic position with the long axis of her body in a perpendicular position, head uppermost. She stands so very still that most observers consider her idle, but they have failed to notice that she is manipulating her load of nectar with her mouth-parts. During the course of these manipulations, which commonly lasts about 20 minutes, her load of nectar is exposed little by little in a thin film to the warm dry atmosphere of the hive in such a way that it loses moisture rapidly. This then accounts for the fact that nectar when first deposited in the comb is considerably more concentrated than when it was gathered from the flowers.

Our experiments have shown conclusively that when a nectar-gatherer arrives at the hive with her load, it actually is slightly more dilute than when she gathered it.

Storing New Honey

Upon completion of the foregoing part of the ripening process, the house-bee searches out a cell in which to deposit the drop she has been concentrating. Into the cell she crawls, ventral side uppermost. As stated by Arthur C. Miller, this position is rather characteristic of a bee depositing honey. If the cell is empty she "paints" the honey across the rear end of the upper wall of the cell so that it runs down and occupies the rear portion of the cell. But if the cell already contains honey, she dips her mandibles into the honey already there and adds her drop directly and without the "painting" process.

When nectar is coming in rapidly, and particularly if it is very thin, the house-bees do not always stop to put it through the ripening process, but deposit it almost at once. Under such circumstances, instead of depositing the entire load in a single cell, the house-bee often distributes her load by attaching a small hanging drop to the roof of each of several cells. A favorite place for such deposition is within the brood-nest where cells already occupied by eggs or small larvae frequently are made to do double duty temporarily. Thus with a maximum surface exposed in the warm and relatively dry atmosphere of the hive, evaporation proceeds while the house-bee continues to relieve incoming nectar-gatherers of their loads. Later these droplets are collected and it seems probable this nectar may then be concentrated further by manipulation, as de-

scribed above, before being deposited.

Evaporation After Deposition in Cells

We found by means of experiments that combs of newly-deposited honey screened from the bees and placed in the hive lost moisture at such a rate as to attain the concentration of ripe honey in three days. This is the lengh of time generally accepted for combs of green honey to become ripe when not screened from the bees. These results cast still further doubt upon the theory of honey-ripening by excretion.

We found also that the rate of evaporation from cells filled one-fourth full was three times that from cells filled three-fourths full. When comb space permits, bees make excellent use of this fact.

Need for Many Combs

Observations show that when adequate comb space is available, few cells are more than half-filled with green honey at the close of a day of heavy flow and many contain much less. If such combs are shaken, green honey flies out freely. Examination first thing next morning reveals important changes. The widely-scattered cells that contained small amounts the preceding evening now are empty while comb areas that were not quite full are now completely filled and cells in adjacent areas are fuller than they were. Scarcely a drop can be shaken from any comb. Surely no one can doubt the wisdom of providing an abundance of comb space to facilitate the ripening process. It is an important consideration in the maintenance of colony morale.

—*Condensed from Journal Paper No. J-969 of the Iowa Agricultural Experiment Station, Ames, Iowa. Printed in Gleanings in Bee Culture, September.*

Attend the Annual Convention, Wisconsin Horticultural Society, Fort Atkinson Municipal Bldg., November 17-18.

HAROLD J. CLAY IN NEW POSITION

MR. HAROLD J. CLAY, well known to beekeepers as the editor of the Honey Market News Report of the U. S. Department of Agriculture, has been transferred to the Department of Market Programs Division of the Fruit and Vegetable Branch of the Agricultural Marketing Administration.

In the future, Mr. C. D. Schoolcraft will edit the honey market news report, which we hope will continue as valuable to beekeepers as they have in the past.

"Mr. Clay had no peer in his particular field of marketing honey. Had it not been for the mass of information that he has accumulated on honey marketing, it is doubtful that the War Production Board and other agencies would have had the basis upon which to promulgate the various orders that have had such a direct bearing in maintaining a sound bee culture during these troubled times," is the opinion of Mr. Jas. I. Hambleton of the U. S. Bee Laboratory.

Letters and inquiries concerning the marketing of honey and beeswax can be addressed to Mr. Clay as in the past.

WHAT A FLOOD CAN DO

A LETTER from Mr. S. P. Elliott of Menomonie early in October states: "Mr. Harlan from Spring Valley lost 112 colonies in the flood. There were 7 feet of water in his bee yard, and 4 feet in mine.

"About half the bridges in the county went out. We had 3 inches of rain in 29 minutes, after a bad flood just two days before."

The track supervisor received the following note from one of his foremen: "I'm sending in the accident report on Casey's foot, which he struck with the spike maul. Now, under 'Remarks,' do you want mine or Casey's."

HONEY WANTED

Cash paid for cars and less than cars comb and extracted honey. Mail sample and best price. C. W. Aeppler Company, Oconomowoc, Wisconsin.

HONEY CONTAINERS

Wisconsin Beekeepers Association

Order Through Your State Association where all profits go to further the work of the industry.

Modernistic glass

Tin pails and cans

New Association labels

For complete price list write

HONEY ACRES

Menomonee Falls, Wisconsin

HONEY CONTAINERS:

We have a complete stock of all sizes glass and tin containers for packing honey:

TIN CONTAINERS:

5 lb.—10 lb. pails — 60 lb. cans,

GLASS CONTAINERS:

5 lb.—2½ lb. Glass Pails, ½ lb. 1 lb.—2 lb. Masterline jars, ½ lb.—1 lb.—2 lb. Bee Hive jars.

WRITE FOR NEW PRICE LIST ON CONTAINERS:

Remember—We also carry a complete line of other honey packages, including Shipping Cases, and comb honey cartons.

AUGUST LOTZ COMPANY

BOYD, WISCONSIN

Editorials

74TH ANNUAL CONVENTION
Fort Atkinson, Community Hall—November 17-18

GAS rationing will become effective the week **after** our annual convention at Fort Atkinson on November 17-18. A large number of fruit growers are expected to attend the excellent program presented in the October issue of Wisconsin Horticulture.

Dr. H. B. Tukey of the Experiment Station, Geneva, New York, proved a very popular and interesting speaker at our convention two years ago. Dr. W. G. Brierley, University Farm, St. Paul, is new to Wisconsin orchardists, but he has a very important topic, and is one of the leading research men in the country on the subject of winter hardiness and winter injury.

Apple Maggot Control

Dozens of letters have been received from various departments in Madison from growers whose apples are infested with the apple maggot. This indicates that maggot control will be a very important problem next year. Dr. Fluke's talk at 10 a.m., Tuesday, November 17th should be attended by everyone who is not familiar with the new methods of control.

Excellent Auxiliary Program

Garden club members and fruit growers' wives have a program of special interest for them. Such prominent speakers as E. L. Chambers, State Entomologist, Prof. O. B. Combs, vegetable specialist, Mrs. Harriett Grace, American Honey Institute, Dr. H. B. Tukey, Geneva, New York, Dr. W. G. Brierley of Minnesota, and Prof. J. G. Moore, Chief of our Horticulture Department, have topics of special interest for the ladies as well as men interested in flowers, vegetables and ornamentals.

BEES CAN FLY 25 MILES PER HOUR

Dr. O. W. Park and Dr. R. L. Parker report in the American Bee Journal that they timed the flight of bees by means of a stop watch.

The maximum speed was found to be about 25 miles per hour with 15 miles per hour the speed under normal conditions.

This probably accounts for the difference in the sound in apiaries during a good honey flow and when there is not much honey coming in. Beekeepers know there is an increase in the speed of flight when nectar is plentiful, and this increased speed results in increased sound.

At the maximum speed stated bees can reach a nectar producing location a little over two miles away in five minutes in direct flight. However, when nectar is not being produced abundantly by the flowers and the bees are flying leisurely around, hunting for sources of nectar, they probably take considerable time getting a "load" to carry back to the hive.

APPLE NUT BREAD

Cream together: ¼ cup shortening, 1 egg, ¾ cup sugar.

Add:

⅔ cup applesauce (unsweetened)
½ teaspoon baking powder
¼ teaspoon salt
2 cups flour
½ teaspoon soda
3 tablespoons sour milk
½ cup chopped nut meats

Place in greased pan and bake 45 minutes at 350° F.

GREETINGS FROM THE MINNESOTA HORTICULTURAL SOCIETY PRESIDENT

"GREETINGS to your grand Society, long may it prosper and give service. I enjoy your magazine a lot and have gleaned much good from it."

Signed, Benjamin F. Dunn, Rochester, Minnesota, President, Minnesota Horticultural Society.

We appreciate Mr. Dunn's greeting and we extend to the Minnesota Horticultural Society our best wishes for continued success.

MILTON RED RASPBERRY
New York Experiment Station Introduces New Variety

THE Milton red raspberry is a new variety just introduced by the Geneva, New York Experiment Station.

The plants of Milton are said to be vigorous, sucker freely and bear good crops. The canes are sturdy and need no support. Winter injury has been slight at Geneva, which, however, has a more favorable climate than most of Wisconsin because peaches grow well there.

The principal value of Milton seems to be in its resistance to mosaic. It has remained free of mosaic during the seven years of the test, though some other varieties were completely infected by the end of the second growing season.

The berries resemble Taylor in size and shape, as well as in quality. It is a late variety ripening a few days later than Taylor or Latham.

FRUIT BARS FOR THE ARMY

DRIED apricots, peaches, figs, prune pulp, and date pulp in palatable "candy bar" form has long been the objective of numerous researchers in the dried fruit field. Apparently the Agricultural-Chemical Research Division of the Department of Agriculture believes it has the problem licked as a result of experiments recently completed in its Los Angeles laboratories. The bars, developed to meet specifications of the Army, contain a blend of at least three fruits with apricots or peaches as a major element of each. Apricots are preferred because of the Vitamin A content. Each bar is about three inches long and 1⅛ in. wide and contains two ounces of dried fruits. Three bars daily (the proposed Army combat ration (supplies the equivalent of 1¼ lb. of fresh fruit.

Only first-quality fruit is used for the new bars although the original fruit naturally need not be top-grade in size. This means that, if any large amounts of the food bars are ordered for use of the Allied governments, growers will have a new outlet for the portion of their first-quality fruits that could meet top-grade marketing specifications in everything except size. Civilian commercial possibilities of the dried fruit bar aren't being entirely overlooked by the researchers who insist they have developed a palatable product which may compete with the more familiar bars on the candy counters.

—*Business Week, September* 12.

A famous and beautiful actress at a dinner party was placed beside a visiting African potentate. She exerted herself to the utmost to entertain her dusky partner. At the close of the dinner he sighed and said, "Madam, if only you were black and fat you would be irresistible!"

AMERICAN SOCIETY FOR HORTICULTURAL SCIENCE ANNOUNCES VAUGHAN RESEARCH AWARDS IN HORTICULTURE

Two $500 Awards to Be Made for Best Papers in Fields of Floriculture and Vegetable Crops

TWO awards of $500 each are to be given by the American Society for Horticultural Science for the two outstanding papers on floriculture and vegetable crops at their annual meeting this year. The awards are made possible through the generosity of L. H. Vaughan of the Vaughan Seed Store of Chicago. The 1942 awards will be given at the winter meeting of the Society in New York City on December 29-31, and will be selected from papers presented before the Society.

Preference will be given to papers that present new discoveries in these fields, showing promise of commercial importance or practical application.

The American Society for Horticultural Science was organized in 1903 to promote the science of horticulture. Its membership is composed of horticulturists and technical workers in horticulture in the United States, Canada, and other countries.

Dr. A. J. HEINICKE NAMED DIRECTOR GENEVA EXPERIMENT STATION

DR. A. J. HEINICKE, head of the Department of Pomology at the College of Agriculture at Ithaca, New York, will become the eighth Director of the Experiment Station at Geneva, New York, on September 1.

Prof. P. J. Parrott has reached the age limit for active service and will retire after 45 years with Experiment Stations.

Dr. Heinicke's special contribution to horticulture includes studies on fruit tree nutrition, pollination requirements of fruits, transpiration and water relations of fruit, and other topics.

NURSERIES CERTIFIED

True to Name Fruit Trees Now Obtainable

EXAMINATION of fruit trees growing in 23 nurseries in the Northeast for trueness to name has been finished for 1942 by men from the Massachusetts State College and the Vineland Ontario Experiment Station. Apple, pear, plum and cherry trees have been carefully examined, misnamed trees destroyed or marked and a full report given the nursery owner.

Among fruits, other than peach, no difficulty is found in identifying all varieties, excepting the so-called red bud sports in apples. No ex-examination of small fruit plants has yet been made, but there is little doubt that mixtures among such fruits could be detected as certainly as those among tree fruits.

This is the 22nd year of nursery examination for trueness to name. During this time the number of misnamed trees reaching fruit growers has notably decreased. In fact complaints from commercial fruit growers have almost completely disappeared. A list of the 23 nurseries examined will be sent to anyone requesting it from the Department of Pomology, Massachusetts State College, Amherst, Massachusetts.

—*By J. K. Shaw, Amherst, Mass.*

NEW VEGETABLE GARDENING MOVIE AVAILABLE

SWIFT and Company Fertilizer Works, Hammond, Indiana, announces a new Vigoro Kodachrome movie entitled "The Gardener Takes His Place." It is a complete victory garden movie, and tells the story of vegetable gardening. It includes shots of many fine vegetable gardens and many individual vegetable plants.

Reservations for the movie are now being made by Swift and Company. One of their representatives will bring the movie together with all equipment to the meeting. However, in view of transportation costs and limitations, bookings should be made only by fairly large groups.

Gladiolus Tidings

By the WISCONSIN GLADIOLUS SOCIETY

OFFICERS

A. S. Haugen, Stoughton, President

Dr. Geo. Scheer, Sheboygan, Vice-President

H. J. Rahmlow, Madison, Cor. Sec.

Otto Kapschitzke, Rec. Sec.-Treas.
1710 Illinois Ave., Sheboygan

REGIONAL VICE-PRESIDENTS

Rev. August Dusold, Manitowoc

Paul Haase, Columbus

Fred Hagedorn, Sheboygan

Edwin Ristow, Oshkosh

Good Program at Annual Meeting

Wisconsin Gladiolus Society Incorporates

MUCH was accomplished at the annual fall meeting of the Wisconsin Gladiolus Society held at Oconomowoc on October 4.

A profit of over $40.00 was reported on the State Gladiolus Show, 85% of which was sent in equal amounts to the Army Emergency Relief, and the Navy Relief Society through the committee on Victory Harvest Shows.

Affiliate With N. E. G. S.

It was unanimously voted to continue our affiliation with the New England Gladiolus Society. There was a discussion on the value of a national organization and the necessity of cooperating fully with such organizations. Some members expressed emphatically that we should not set up competing organizations with resulting friction between different sections of the United States. There is an advantage in having regional groups but they should affiliate with one national organization and work together.

Society Incorporated

A special committee of which Mr. Fred Hagedorn, Sheboygan, is chairman, presented articles of incorporation which had been filed with the Department of State, Madison, incorporating the Wisconsin Gladiolus Society. These articles call for an entirely new method of election of officers, in that they require that the committee call a meeting of all members by giving 10 days notice and that a Board of Directors of 14 members be then elected. This Board of Directors then elects the officers.

The meeting voted to adopt the articles of incorporation and adjourned the meeting to the call of the committee next March, at which time the election will take place. It was voted that all officers hold over until that time.

Interesting Program

The program following the business meeting proved to be very interesting because it developed considerable discussion on the growing of gladiolus. Mr. Walter Krueger opened the program with a brief talk on the topic that scientific breeding brings the best results. He emphasized that desirable characters can only be obtained by breeding along correct lines, which must be followed through until the characteristics wanted are obtained.

Mr. Noel Thompson stated that roguing of stock is very important in the control of diseases. All bulb stock should be gone over carefully now and diseased bulbs burned. There are far too many poor quality bulbs planted. Naphthalene flakes should never be put on glad bulbs until they are perfectly dry and cured. Adding naphthalene too early results in injury to the bulbs.

Corn Borer on Glads

It was brought out that the corn borer may attack gladiolus stalks in the fall. There is often a second generation of the corn borer in August and the moths lay eggs on any soft stemmed plants such as the gladiolus.

Mr. Harold Janes of Whitewater considers tartar emetic still the best spray for the control of gladiolus thrips, although he said it might be necessary to use arsenate of lead or Paris Green. He said there is no doubt that we can have good gladiolus blooms if we spray thoroughly and timely.

Midwest Show Report

Mr. E. A. Lins of Spring Green was elected chairman of the Board of Governors of the Midwest Gladiolus Society. He reported briefly, stating that L. E. May of Chicago is Show Manager and Secretary, and J. R. Hopkins of Deerfield, Illinois, is Vice-Chairman, and editor of the bulletin. All are Wisconsin members.

The Midwest Show will be held at Garfield Park Conservatory in Chicago on Saturday and Sunday August 14-15, 1943 unless later developments prevent. A small charge will be made for admission to cover expenses and the balance to be sent to army and navy relief.

Gladiolus Variety Symposium For 1942

MEMBERS of the Wisconsin Gladiolus Society were asked to give their preference of favorite varieties in each of the different color classes, as well as the best of all varieties and best seedlings seen in 1942.

We are discussing only the best varieties and the best seedlings in this issue, and would like to urge all members of the Society to return the postcard which was sent them, with at least their preference in a few classes if they are unable to make selections in all of the classes. This will give us a complete report which will be published in the December issue. Replies should reach the Wisconsin Horticultural Society by November 14.

Best Variety Any Color

While Picardy is still in the lead as the best variety of any color, it is getting plenty of competition. In fact, more each year. Varieties which received votes this year as the **best variety of any color** are as follows: Picardy, Rosa van Lima, Diane, Helen of Troy, High Finance, White Gold, Coral Glow, Alzarina, Sir Galahad, Wings of Song, Black Opal, Bingo, Rio Rita, Irak, Greta Garbo, Grand Opera, Vagabond Prince, and Laddie.

Best Seedling Seen In 1942

Votes for the best seedling of 1942 were quite scattered, no one variety receiving a majority. The following seedlings all received votes: Dr. Scheer's 35C166-10, pink; Krueger's Miss Wisconsin, 150-12; Harrison's 437C11, originated by Otto Hagedorn; Zimmer #405; Lade Toronto Cream, H2-21 Krueger's White seedling of Solveig; Hoppe's Alla; Almey, Midwest Champion; Dr. Graff, 4069; Krueger's 447-10; Scheer's 310; Lins' 3550B; Scheer's Eglantine; Hoosier Lady (Zimmer).

Comments

The large number of varieties which received votes in some of the color classes, to be published in the next issue, would indicate that in some of the colors at least there are no outstanding varieties. If there were, these outstanding varieties would receive a large number of votes which would cut down the list. This is notably true in the yellows. The leaders, Crinkle Cream and Golden Chimes each received 5 votes; Sir Galahad 4; Amber Glow 3; and the other votes divided between Golden State, Golden Goddess, Golden Cup, Golden Teton, Yellow Teton, Yellow Peril, Ruffled Beauty, Golden Poppy, Zillah, Royal Gold, and Jasmine.

This is not true in some of the classes where outstanding varieties show more popularity. For example, in the cream or buff class, White Gold received almost three times as many votes as its nearest competitor.

In the white, Maid of Orleans is the leader, with almost three times as many votes as Margaret Beaton which is second.

In Lavender, Minuet, an old variety, still leads over any of its new rivals, with three times as many votes as Badger Beauty, which is second.

Considering the large number of varieties at the top of the list, we are due for some ruthless discarding at the bottom.

CARING FOR GLAD CORMS

By Noel F. Thompson

WINTER storage and care of glad corms is of special importance this year due to shortages in spray materials and labor. The corms should be cleaned and sorted as soon as possible after they are dry. They are ready for cleaning as soon as the old corm snaps off cleanly. The dirty outer husk of the new corm may also be removed but most of the husks should be left intact. They keep the corm from drying out excessively and protect it from bruising.

As the cleaning is done, a careful watch should be kept for the various corm diseases, especially scab, hardrot, and the fusarium basal rot. Without peeling it is impossible to detect traces of the first two, but by feeling the corm, observing the base, and the old corm, the worst cases can be easily detected and these should be burned. Basal rot, on the other hand, is evident at the base. If the old corm does not snap off cleanly leaving a flat base it is suspicious and if, in coming off, it leaves a deep hole in the base of the new corm it is probably diseased. If such corms are cut in half, brown streaks leading up from the base indicate the presence of this disease. The best treatment is to burn them. Also, all trash should be burned periodically as the cleaning progresses so when you have finished there will be no place for thrips or other pests or diseases to live except the cleaned, sound corms. These should then be packed away in a cold place. Temperatures between 35° and 40° are best, and if such a temperature can be maintained for two months this in itself will eliminate the thrips.

Thrips are the small insects that are so destructive in the summer. They over-winter on corms, either the good ones or the culls in the trash pile if the latter has not been burned. Since most growers are unable to maintain a sufficiently cold temperature in the storage room, a treatment for thrips is advisable. Naphthalene flakes, at the rate of a pound to 2,000 corms, sprinkled over and among the corms, is effective. This should be applied as soon as the cleaning is complete and should be left on for about two months, after which time most of it may be removed by screening. If left on until growth starts in the spring, injury may occur. Many growers prefer a rotenone dust as a winter treatment as this does not

(Continued on Page 81)

Home and Garden

Mrs. C. E. Strong

The vineyards hold their honeyed scent
Of goodness where the sun has lent
Its ardent gift to ripening.
One breathes the grape and wants to sing
The age-old paean to the gods
Who offer men such fragrant odds.
The harvest wears its cloak of gold
And dreams are bought and dreams are sold,
Let's breathe the fragrance of the vine
And know the earth is yours, and mine.
—HELEN MARING, in *Sunset Gold.*

GRAPES

THERE are sections of California where you may drive for miles and see hills and valleys planted to grapes, and at this season of the year, the air is filled with their fragrance as men, women and children gather them for shipping, for the wineries, and for the roadside stands. The vines look like short stubby trees — need no supports, and the quantity of fruit on each vine is amazing.

At the stands you may buy in any quantity and variety—and may taste freely to decide which will be your choice—Tokays, red, Muscats, pale green, or the black Morocco. They were all so delicious, yet so different, we decided on some of each. So the smiling woman at the stand, filled a "lug" with the great shouldered bunches. By the way—that name is quite correct—as we discovered—when we "lugged" that box from the car to the house.

From the Old World

Most of the grapes grown out here are those that have been gathered from Persia, Turkey, Armenia, Anatolia and from the old

world vineyards of France and Germany. The first vine was planted at Misson San Diego in 1769.

Grape Products in War Industries

There are many wineries all through the state, and, as was pointed out in an article in SUNSET, "Wine is a very important industry. It adds its power to the war industry strength of our country. Wineries are the only source of tartrates, chemicals necessary for our daily bread as well as for modern warfare. Tartrates are needed in the manufacture of rayon, from which tents and parachutes are made. Tannic acid for burn treatment. Ethyl alcohol, for smokeless gunpowder and synthetic rubber, chemicals for photography and textile dyeing, and dozens of other important articles depend primarily upon wine making and its by-products.

"While ninety per cent of these materials once came from foreign lands—for our present supplies we must depend entirely on our own vintners. These men constitute the backbone of this great agricultural industry, and they look to the rest of the country for support, through the use of their product — wine. They urge you to remember that from biblical times, bread, oil and wine, constituted the three necessities of life, to remember that wine loses is slight alcoholic content in the heat of cooking—only its delicious flavor remains — in these days of war time cookery, this counts."

We find the grapes we brought home satisfy a craving for sweets, there is so much sugar in them. "Nice and sweet," said the woman who sold them. "No rain, and much sunshine, that makes grapes good to eat and for wine."

The Flower Parade

Flowers are still blooming. There are dahlias, chrysanthemums, hibiscus, scabiosa, hemerocallis, verbenas, petunias, geraniums, marigolds, calendulas, snapdragons, pentstemons, lantanas, fuchsias, candytuft zinnias, cassias, roses, celosias, acacasias and a seemingly endless procession of other plants getting ready to carry on the parade.

Evidently a gardener in this state has no time to curl up comfortably in his favorie chair—as they study the grist of catalogs that come through the mail at about New Years. They have to be out in the garden hunting cut worms and snails—covering up precious small plants with chicken wire so the mocking birds will not eat them up. Besides, a garden that refuses to go to sleep must be weeded and cultivated, also fertilized.

Its just as much fun gardening here as at home—strange to say, a big hat or a sunbonnet and a pair of very dirty slacks seem to be the proper garb. Am quite sure you would recognize me easily, should you drive by. We had the first of the fall rains last night—it was just a little rain, but the bare hills have taken on a misty green look—every one says, "everything will soon be beautiful—so fresh and green." Am looking forward to seeing some of

those mountains when they are green and covered with the bloom of wild flowers and shrubs. Weather is warm during the day—nights are cool enough to sleep under blankets. If I were a native Californian — I would brag about the climate too.

REPORT ON THE HANSEN FLOWERING CRABS

THE following report on the Hansen Flowering Crabs was given in the October issue of North and South Dakota Horticulture.

Hopa. Early spring bloom, pink. Fruit small. Hangs on the tree most of the winter. Is usable for a tart jelly to serve with meat. **Dolgo.** Probably the best commercial crab which Dr. Hansen has introduced. Blossom white. Fruit valuable for pickling and jelly. Has high pectin content. **Zelma.** Larger tree than Hopa or Dolgo; compact growth, very hardy. Fruit about an inch in diameter, highly colored and makes acceptable jelly and can be used for preserves or pie. Spectacular bloom. Tree has a nice compact habit of growth and does not require much pruning.

Red Silver. I regard this as Hansen's best flowering crab. Early spring, dark pink, semi-double flowers followed by usable small fruit which hangs to the tree. Its principal fault is that it is inclined to sucker profusely.

Alexis crab. Dr. Hansen tells me that this is one of his best, but I have had no luck with it. Does not seem to be completely hardy like the others. Probably worth a trial in a less exacting climate. Fruit much like Dolgo.

—By T. M. Bailey in Secretary W. A. Simmons' "Secretary's Corner."

Attend the Annual Convention, Wisconsin Horticultural Society, Fort Atkinson Municipal Bldg., November 17-18.

Gardening in the Far North

MOST of us think that gardening must be limited in the far North. We know that there are many fine gardens in Winnipeg, but when we hear that many, many miles north and west of Winnipeg there are still fine gardens, it is surprising indeed.

We were therefore much interested in the Weekly Letter of W. R. Leslie of the Morden, Manitoba Experiment Station in which he tells of making a trip to The Pas, (pronounced Pa) in September to obtain important native plants. He describes the gardens in The Pas, which is at the end of the highway, north of the Porcupine Mountains in Manitoba as follows:

Flowers In The Pas

"Gardens in The Pas were in fine array. Vegetables were of top grade. The town park on the south shore of the Saskatchewan River is attractive with trees, shrubs, hedges and flowers. Some of the private home grounds were worthy of entering competition with those of the Capital city. Lawns, shrubs trees, walks, dahlias, gladiolus, petunias, snapdragons, marigolds, and zinnias were of high order. Some gardeners were preparing exhibits for the garden show to be held at Flin Flon, the large mining centre.

"The Porcupine Mountains and the Duck Mountains were having a growthy season. Evergreen and deciduous trees all seemed to be developing nicely. Areas ravaged with fires a few years ago are again green with thousands of young saplings and fruit bushes.

Fruit In The North

"Swan River has many homes surrounded with pleasing gardens, thoughtfully planted and well groomed. About nine miles to the southwest, at the edge of Kenville, lies the orchard of A. A. Douglas. Much of the early fruit had been harvested. There remained a good showing of crab apples, plums, and some apples. It is encouraging to see two of the Morden Station's early dessert apples ripen typical fruits. These are Mantet and Mortof. Trail, Rosilda and Elkhorn are three of the Saunders second-cross apples that are profitable with Mr Douglas. Osman, Columbia, Bedford, Florence, Robin, and Dolgo were heavily laden crab apples."

—From Weekly Letter Dominion Experimental Station, Morden, Manitoba.

CAN WE PRUNE SHRUBS IN FALL

Question: Does it harm shrubs to cut them to the ground in the fall? They are large overgrown ones. **R. B.**

Answer: Shrubs, even overgrown ones, should not be cut to the ground in early fall. If growth starts after being so pruned the nourishment stored in the roots for growth in the spring is used up, weakening the plants. Any severe pruning should be done only after the leaves have dropped. A better way is to thin out the old canes by cutting them back to side branches or removing them to the ground but leaving some new shoots and then cutting these back.

Pruning shrubs severely in the fall that bloom early in the spring destroys the flower buds and therefore the spring flowers. Shrubs, however, like Snowhill hydrangea, Froebels and Anthony Waterer spirea and a few other late blooming shrubs may be cut back to the ground in late fall and still have bloom the following summer. A better way, though, is to wait until spring and cut out all but one year old wood.

—O. I. Gregg, Michigan State College, in Horticultural News.

GARDEN GLEANINGS

MANY novel ways of **controlling insects** have been proposed by amateur gardeners. In Horticulture Illustrated (Massachusetts Horticultural Society) a reader tells the editor about her method of controlling the iris borer. She says the simplest way is to drown them in water. In mid-summer she **digs the clumps** and places them in tubs half filled with water. After leaving them there for 24 hours she replants the clumps and then finds the handsome pink and white grubs on the bottom of the tub where they are gathered for fish bait.

We are inclined to think we will stick to our method of dusting with rotenone at the time the eggs hatch early in the spring, as being a much more simple method.

Earth worm enthusiasts continue to tell about the great value of earth worms for enriching the soil. Writing in a prominent magazine in October, one proponent makes the statement that soils without earth worms **are devoid of humus.** That may be true, but is putting the cart before the horse, because earth worms cannot live in soils that do not contain organic matter. However, the earth worms don't put it there. It must be put there by nature or by man. After the humus is there the earth worms feed on it. The worms add nothing to the soil but simply convert some humus to a more available form for plants. The castings are said to be perfect humus. However, soil bacteria and fungi also decompose and break down humus, making the plant food it contains available to plants.

The important thing is to provide the humus. The earth worms then, usually come and we won't have to worry about them.

Vegetable Celtuce, the new vegetable supposedly equal to both celery and lettuce did not appeal to many gardeners this year. Our

own vegetable specialist, Prof. O. B. Combs states that a number of gardeners who tried it were disappointed with it, and Prof. H. A. Graves of Fargo, North Dakota Horticulture Department, writes in North and South Dakota Horticulture: "Along with some other folks I was disappointed with the new vegetable Celtuce. In the early stages of growth it is a poor substitute for leaf lettuce, and the stalks which are supposed to be celery-like, did not appeal to us." He also remarked that "for greens we **prefer young beets for early use,** and New Zealand spinach or Swiss Chard for summer use. More of both of these fine vegetables should be used."

Vegetables for our flower gardens, will be a topic of special interest to garden club members this coming winter and spring. I will attempt to discuss this subject at garden club meetings during coming months. Prof. J. G. Moore and Prof. O. B. Combs of our Horticulture Department are working on the topic now. It is our opinion that we must wait for future developments to see what the situation will be as regards availability of seeds for certain vegetables, labor supply for truck farmers, and the availability of transportation for vegetables from large producing areas. It will be well, therefore, for gardeners not to make definite plans too early. In the meantime we will suggest proper varieties for the kind of vegetables that can be most satisfactorily grown in the back yard gardens.

The Scarlet Runner Bean was not as satisfactory in our garden as we had hoped. It was suggested last spring as a desirable climbing plant for ornamental use as a vine and that the beans were quite satisfactory in cooking. As usual, experience is a good teacher, so we tried them out. They were not very productive and we question their desirability as a vegetable variety. Therefore, in recommending varieties of beans to be grown as ornamental vines this year, we will select varieties that will produce more beans of higher table quality.

Late in October, U. S. Secretary of Agriculture Claude R. Wickard announced that it may be necessary to curtail the production of non-essential food crops in 1943. Head lettuce, growing in the West was given as one crop which might be Horticultre 4bosl 29 curtailed because of lack of transportation facilities.

Victory Gardens have their place he said, but we must not become so excited about them that gardeners will try to grow beans in a cinder bed.

In other words, let's keep our shirts on, and our feet on the ground..

—*H. J. Rahmlow.*

REAL CONSERVATION

IN SWEDEN there are sawmills that have been in continuous operation for two hundred years. The lumber is milled but the forest remains. The young growth comes on to maturity and is harvested in its time. Today, after two hundred years of large-scale lumbering there is more timber in Sweden than there was in 1700.

—*From Hoosier Horticulture.*

Appreciation of Flower Arrangements Requires Study

EMMA C. SCHIPPER

THE realm of the creative arts has its own vocabulary just as the world of business, the trades, and the professions have theirs.

Since flower arrangement is one of the creative, self-expressive arts it behooves us who are becoming so intensely interested in the subject to familiarize ourselves with its vocabulary. "Only by studying, observing, and familiarizing oneself with art's vocabulary and grammar can one ever learn to read it, to think in terms of it, to appreciate and enjoy it."[1] To accomplish this will most certainly, require time and effort. Proof of this was given us not so long ago by one of the experts in flower arrangement when she confessed that it took her one whole year to learn the meaning of **value** in color.

As a prelude to our study suppose we ask, what are the basic elements of an arrangement or a floral composition? The basic elements of all compositions are **line, mass or form and color.** We must learn to think of our material in these terms. For example: What are its line qualities? Are the lines or stems long, short, thick, thin, curved, straight, weak or strong? What is its mass or form (flowers, leaves, vase and accessories) quality? Are the masses large, small or of unusual form? What is the color quality? Are the colors warm or cool, light or dark, bright or dull? Only by discernment will we be able to use our material to its best advantage. Over and over again we are being told to study plant material for suggestions as to the type and kind of arrangement best suited to its habits of growth.

[1] Geo. H. Opdyke in **Art and Nature Appreciation,** p. 3.

Altar arrangement in blue and silver by Mrs. Irving Miller, Wauwatosa Garden Club, at convention flower show.

"Study of composition of line, mass and color leads to the appreciation of all forms of art and to the beauty of nature," says Prof. Arthur W. Dow in his book **Composition.** "Composition is the putting together of lines, masses and colors to make harmony. Composition, building up of harmony is the fundamental process of all the fine arts."

Besides the basic elements of **line, mass and color** we have the elements of **space, texture and mood.** Space or background is an important element because it determines the shape, size and kind of an arrangement to be used. Texture means the surface quality of our material. Notice the contrast in textures between a rose leaf and the leaf of a hollyhock. One is smooth and satiny, the other is rough. Mood is the quality that we ourselves put into the arrangement. It bespeaks our own creative self!

Attend the Annual Convention, Wisconsin Horticultural Society, Fort Atkinson Municipal Bldg., November 17-18.

MEN'S GARDEN CLUBS OF AMERICA SHOW RAPID GROWTH

THE Gardening World is proud of the achievements of the Men's Garden Clubs of America.

Organized in 1932, the national organization now has 41 member clubs in 18 states, with five more now joining.

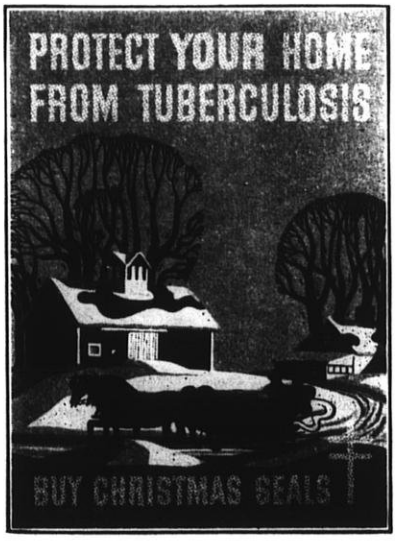
According to the organization slogan, they are "founded on the good old American tradition of democracy, friendship, and a love for the soil."

That's a good slogan for any garden club.

FOR SALE CHRISTMAS WREATHS

CHRISTMAS wreaths of fragrant balsam trimmed with cones and berries: 10 inch, $1.00; 12-14 inch, $1.50; 16 inch, $2.00; 20 inch, $2.50.

Boxes of assorted evergreen sprays with cones, 50 sprays, 12-18 inch, $2.00. Clear glass terrarium filled with partridge berry, $1.25. All postpaid. Mrs. Nels Nelson, R. 1, Hayward, Wisconsin.



NEW CLIMBING ROSES

By RICHARD S. WILCOX, Chairman Test Garden Committee, Minnesota Rose Society

THE old-type once-blooming climbers are likely to be replaced soon with the ever-blooming types like New Dawn. These climbers seem to give fully as much bloom in June and then repeat in periods throughout the summer. The variety which has been most widely tested is the silver pink New Dawn. This has thousands of hybrid tea type blooms to each plant, which grows to 10 or 15 feet high and will easily cover a trellis 12 feet wide and 10 feet high. It is a sport of Dr. Van Fleet but is a much more sure bloomer. It blooms the first year it is planted and every year thereafter. It has no off years.

New Climber by Brownell

A new climber which will be introduced by Walter D. Brownell this fall and which promises to give us another important ever-bloomer is Orange Everglow, an everblooming sport of Copper Glow. This rose has a deeper color than New Dawn. It opens a deep orange, flashed with red. The blossom is exactly the same as those of Copper Glow so that those of you who attended Rose Day last June and noticed the blossoms on Copper Glow, which attracted much attention, will know what to expect from Orange Everglow. While it has not been tested over winter here, Copper Glow has been found to be easy to protect and therefore there is no reason to believe that the everblooming sport will not be sufficiently winter-hardy. A one-year-old plant which I put in this spring has been blooming all summer, indicating that it is going to be a real everbloomer.

Another climbing everblooming rose, less vigorous than either New Dawn or Orange Everglow and with less disease-resistant foliage, is Birdie Blye, a deep pink with some magenta tones. It grows about eight feet high and blooms very freely. However, it must be carefully dusted or sprayed to protect from black-spots.

Lily Pons is one of the best.

Hybrid Teas in the North

C. M. Pesek, whose home is at Crookston, has been making some interesting experiments with roses in his severe climate. He has found the subzero hybrid teas easy to winter but so far has not been able to winter Crimson Glory. However, he is going to try again. It has been our experience in the Twin City area that Crimson Glory is hardier than most of the regular hybrid teas and although not as hardy as the subzeros it can be easily protected to go through the average winter.

We Must Cover Roses

Duluth rosarians have been in the habit of boasting about how easy it was to winter roses there. This is because of the fact that winter, when it once comes, stays until spring without any of the January thawing and with usually plenty of snow. Last year, however, there was not much snow and the first appearance of spring was followed by a severe cold snap in May. The hybrid tea roses which were not carefully covered all went.

This did not discourage the Duluth gardeners,who are a hardy lot. At the show of the Duluth Garden Club there was a splendid display of roses with the intense colors which seem to go with the Duluth climate.

Best Hybrid Teas

This season has confirmed the experience of past years that the two outstanding hybrid tea roses for Minnesota are the deep gorgeous crimson, Crimson Glory, and the beautiful very free-blooming deep pink, Pink Princess. Both of these roses are disease-resistant, the latter almost entirely so, and are easy to grow. Closely behind these two varieties in merit are Lily Pons, the subzero white with yellow center; Break O'Day, salmon, copper and pink, another subzero; McGredy's Scarlet, vigorous and striking; Charlotte Armstrong, 1941 All-American winner; Mrs. Henry Morse, a vigorous two-toned pink rose not new but desirable; Independence Day, deep copper gold and a healthy plant; Soeur Therese, strong-growing disease-resistant yellow; Mabelle Stearns, a **setigera** hybrid of Horvath's, salmon pink; and Dainty Bess, the single pink. Another hybrid tea which I like especially because of its brilliant fall colors and vigorous disease-free growth is Ann Vanderbilt, but its blossoms in summer do not last long.

—*From The Minnesota Horticulturist.*

Attend the Annual Convention, Wisconsin Horticultural Society, Fort Atkinson Municipal Bldg., November 17-18.

GARDEN NEWS

DWARF FRUIT TREES

THE recent interest in dwarf fruit trees springs from a combination of circumstances. First, perhaps, is the simple matter of cycles of interest, exactly as with dresses and with styles in flowers. It has been more than a generation since the dwarf fruit tree last commanded attention, so that by the nature of things it is to be expected that it would again soon clamor for appreciation. Next, is the fact that there are new and improved dwarfing rootstocks available which offer advantages not enjoyed in other days. Further, there is the better and easier control of pests that has come with the coming-of-age of control methods for insects and diseases. And finally, there is a reflection from the demand in commercial fruit circles for a slightly smaller than standard tree to better meet the need for higher quality fruit in the face of increased cost of production—a demand for trees more easily pruned, sprayed, thinned, picked — yes, even hand-pollinated—trees which are shorter-lived and which are to be replanted as needed with the steady stream of new and improved varieties.

Types for the Home Garden

For the small garden it is the very dwarf trees on the Malling IX rootsock which are most desired. Such trees may be set as close as 10 by 10 feet, or 6 or 8 feet apart in a row along a border or boundary. Such varieties as Melba, Early McIntosh, Jonathan, and Grimes, may carry some blooms the first year they are set, most will bloom the second year and will bear some fruit, and all should bloom and bear profusely by the third year. Even Northern Spy has borne fruit the third year. In general, the varieties which typically bear at an early age, as Early McIntosh, are most dwarfed and bloom and fruit earlier on the same rootstock than do varieties which are typically late bearers, as Northern Spy.

The total yield of fruit, though relatively high for the size of the tree, will not be great. Yet, at the New York State Agricultural Experiment Station at Geneva, Baldwin trees have averaged 13½ pounds of fruit as 2-year-old trees, Grimes 12 pounds, McIntosh 7½ pounds, R. I. Greening 12½ pounds, Stark 17 pounds, Northern Spy 5½ pounds, Early McIntosh 13½ pounds, and Wagener 5½ pounds. Individual trees have carried better than 500 blossoms and more than 20 pounds of fruit.

Quite aside from the appeal of the fruit is the attractiveness of the blossoms and the general interest that a small tree of this type occasions. All in all, they are a pleasing sight and a real satisfaction, and of especial interest just now when suburban plantings, victory gardens, and subsistence farming are being pushed to the front by the war effort.

—*H. B. Tukey in June New York Nursery Notes.*

FERTILIZING SOIL WITH A GAS

SQUIRTING jets of ammonia gas into the soil of fields and orchards is the underlying idea of a recently patented device. Anhydrous ammonia in pressure tanks has been used for some time by ranchers and orchardists in irrigated regions. The gas is released through a perforated pipe into the water, and goes in solution to the places where its fertilizing effect will do the most good. The present invention adapts that procedure to use in the soil. Jets, provided with suitable openings, are led down behind a series of small plow-like shares, and through them the ammonia gas passes into, and is captured by, the moist soil. Bacteria subsequently convert the ammonia into nitrates, which are absorbed by the crop plants.

—*Science Service Release, June 11.*

FENCES OUT OF STYLE

THE style trend is away from fenced yards according to landscape architects, declared the Louisville Times last month, urging that iron fences be torn down and turned over for scrap metal in the government's drive.

Police and public safety officials were quoted that fences were no longer necessary for protection or to keep persons off property, as well lighted streets and ample police forces fulfilled those functions.

One landscape architect was quoted as declaring: "Fences, such as the iron ones which are so numerous here, make already small yards appear much smaller. The looks of any yard could be improved a great deal by removing these fences and planting attractive shrubs and flowers. Fences are an ancient idea which the public finds it hard to grow away from."

—*From American Nurseryman.*

CARING FOR GLAD CORMS

(Continued from Page 75)

injure the corms and is quite effective. Rotenone, however, is difficult to secure at present.

Regardless of the winter treatment, a spring dip or soak just before planting is advisable. Bichloride of mercury, if available, or lysol may be used. Remember it is far easier to control thrips and diseases during the dormant period than during the summer. And don't neglect that trash pile. It should be burned promptly.

There is still another precaution that should be taken. If you buy new corms, these, also, should be treated for thrips. Do not assume that the grower has already done so. While most growers are very careful, it is not safe to assume that any lot of glad corms are entirely free of thrips.

If you don't get rid of this pest during the storage period, it will mean spraying next summer, and you may not get the spray materials.

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

OFFICERS

Mrs. H. S. Bostock, President
15 W. Main St., Madison

Mrs. R. H. Sewell, 1st Vice-President,
957 No. 70th St., Wauwatosa

Mrs. F. E. Willard, 2nd Vice-President,
Oakfield

Mrs. Floyd E. Ballard, Recording Secretary-Treasurer
Badger Park, Route 62., Madison

H. J. Rahmlow, Corresponding Secretary
424 University Farm Pl., Madison

DISTRICT PRESIDENTS

Mrs. F. J. Fitzgerald, 649 Broad St., Menasha
Fox River Valley District

Mrs. Martha Lowry, Lakewood, Madison
Madison District

Mrs. Geo. Adami, 2466 No. 46th St., Milwaukee
Milwaukee District

Mrs. Gilbert E. Snell, 414 Erie Ave., Sheboygan
Sheboygan District

Mrs. Bentley Dadmun, 604 Main St., Whitewater
South Central District

NEW GARDEN CLUBS JOIN FEDERATION

NEW Garden Clubs voted to membership by the Board of Directors of the Wisconsin Garden Club Federation at their meeting held during the convention are the following:

Milwaukee District

Burlington Garden Club

President: Mrs. Robert Wilson, Burlington.

Home Gardeners

President: Mrs. John Reinhecker, 2349 S. 78th St., West Allis.

Victory Garden Club

President: Mrs. Wm. Bauer, 2555 S. 77th St., West Allis.

The Federation and Wisconsin Horticultural Society take pleasure in welcoming these clubs to membership.

PLYMOUTH GARDEN CLUB FIRST TO SEND IN NEW OFFICERS

THE Plymouth Garden Club held their election of officers early this fall and sent the names of the new officers to the Wisconsin Horticultural Society early in October. This was the first club to list their new officers for next year.

If all garden clubs held their election in the fall we could publish the list of new officers in the January or February issues of Wisconsin Horticulture, and the new officers could then obtain instructions and information from the State Federation much earlier than is now possible by publishing the list in March.

"A Study in Brown and Tan" was this winning arrangement by Mrs. H. Eaton, Fond du Lac, at the convention flower show.

THESE PAGES NOT ELASTIC

The pages of Wisconsin Horticulture are made of paper—not rubber, and will not stretch. That's the reason why reports have been condensed.

The editor's job is to plan the magazine as a whole, covering each topic as briefly as possible, and trying to have something of interest to a membership whose interest varies widely.

VICTORY HARVEST SHOWS

THE following Victory Harvest Shows were held in Wisconsin this fall. They were registered, and checks for the proceeds were made out in equal amounts to **Army Emergency Relief** and **Navy Relief Society.** The checks were sent to National Headquarters in New York City.

Art Institute Garden Club, Milwaukee
Park Ridge Garden Club, Stevens Point
Edgerton Garden Club
Washington Island Garden Club, Washington Island
Dahlia Society of Wisconsin, Inc.
Wisconsin Gladiolus Society
Milwaukee County Victory Show, Wauwatosa
Troutwein Victory Garden Show, Racine
Mygatts Junior Garden Club, Sunset Heights, Racine
Brandon Community Garden Club
East Side Harvest Festival, Madison
South Side Harvest Festival, Madison
Dousman-Ottawa Garden Club
Oakfield Garden Club

The National Committee has been informed that if the plan is continued next year, there will be a great many more shows held. The information came out so late this year that many communities had already held as many shows as they could stage, and so found it impossible to have a Victory Harvest Show.

Additional Business Transactions at the Federation Annual Convention

IN addition to the business transactions at the annual convention of the Wisconsin Garden Club Federation held in Milwaukee October 1-2, as published in our October issue, the following transactions are of interest to the membership.

Greetings from Mrs. Walter P. Morton, Regional President, Indianapolis, Indiana, and from Mrs. Joseph H. Brewer, National President, Grand Rapids, Michigan, were read by the Secretary.

A report was made by H. J. Rahmlow on the services rendered to the Federation by the Wisconsin Horticultural Society. A comparison of the material contained in magazines and bulletins published by the various Federations was made with Wisconsin Horticulture, which showed that our magazine contains much more of both garden information and Federation business than any other State publishes.

A rising vote of thanks was given the Wisconsin Horticultural Society for services rendered the Federation.

Officers To Be Elected By Delegates To Board Of Managers

A resolution was adopted that voting for officers in this organization be done by delegates and not by the general assembly. This means that in the future the election of officers will be conducted at the Board of Managers meeting composed of delegates from each garden club.

Standing Committee Chairmen Term Limited To Two Years

The following section was added to the constitution, as Section III, Article 5, under "Committees" in the By-Laws.

Section III. Standing committee chairmen shall be appointed for one year. No chairman may serve as chairman of the same committee for more than two consecutive years..

It was voted that the Federation cooperate with the Wisconsin State Horticultural Society celebrating its 75th anniversary, regardless of what time it is decided to hold the convention, in view of the fact that we have worked together for so many years.

Mrs. Chas. Dean, Madison, Chairman of the Roadside Development Committee, reported that at the Roadside Development round table held in the morning, Mr. C. R. Dineen, President of the Milwaukee County Park Board offered his services in arranging for any changes to be made in legislation to further roadside development.

A rising vote of thanks was given the retiring President, Mrs. Frank Quimby for her services to the Federation during the past year.

A rising vote of thanks was also given Mrs. E. A. St. Clair, convention chairman, for her management of a very successful convention.

Endorse Merit System Of Judging

A committee consisting of Mrs. Roy Sewell, Mrs. E. A. St. Clair, Mrs. Chester Thomas was appointed to write the National Council to the effect that the Wisconsin Garden Club Federation at its annual convention unanimously endorsed our present system of judging which includes judging horticultural specimen bloom classes by the competitive system, and the **merit system** for other classes.

GARDEN CENTERS COMMITTEE REPORT

Condensed from Report of Mrs. F. J. Fitzgerald, State Garden Center Chairman

During the past year we had 53 garden centers in the state. Garden centers are very valuable, and many victory gardens were started through the centers.

The purpose of the garden centers is to create an interest throughout each community in promoting the love of gardening, and to give practical information. This year a letter was sent to all clubs with new suggestions for establishing garden centers. Reports on the results were most gratifying. The city of Milwaukee has established 18 garden centers. More than 2,000 people made victory gardens, working with the county agents.

The following are the number of centers in the districts: Madison, 1, Milwaukee, 31, Fox River Valley, 15; Sheboygan, 3; and South Central, 3.

This coming year we will have many victory gardens and harvest shows, so let us continue with garden centers to supply information on growing plants, vegetables, flowers, trees, and herbs, and with programs on conservation.

Garden centers can be established in cooperation with the county agricultural agent and the public libraries.

The three most important subjects to be considered in garden center programs during the war are conservation, horticulture and new uses for plants. There should be a greater knowledge of herbs and herb culture. There are three kinds at least that should be given consideration: edible herbs, medicinal and herbs producing fragrance.

The garden center is a clearing house for all garden clubs on gardening information.

Mrs. Will Lake, Fort Worth, Texas, National Garden Center Chairman, informs us that she is proud of Wisconsin. We are the banner garden center state this year, with 53 centers established.

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Report of Roadside Committee 1942

By MRS. CHAS. DEAN, Madison, Chairman

Condensed from Convention Report

SEVERAL papers on different subjects pertaining to Roadside beautification were sent to each garden club president to be used in the program of each club, or passed on to the Roadside Conservation or Civic Committee chairman. This year, with Mrs. N. S. Boardman as co-chairman, we have compiled a notebook for the use of each of the district chairmen which is the property of the Federation and is to be turned in to the District President at the close of each year with a report of the committee's work for the year. In a few years these notebooks will contain valuable information of the work done in the district, and by exchanging copies of the programs of clubs in other districts, and compiling them, will make a fine reference and help in the planning of programs and projects for each club.

It is hoped that each year the State Roadside Chairman will add to her notebook adding all the new information on all subjects pertaining to Roadside Development.

Billboard Removal

Mrs. W. F. Roecker, Milwaukee, kindly continued her study of billboards and has written a paper on her findings which will be typed and copies sent to each of the district chairmen.

I called the postoffice to learn if notices requesting land owners along a right-of-way to take down bootleg posters hung on their fences and not to lease their land for the use of billboards could be mailed without name, but was informed that the name and box number must be put on card or envelope before it can be accepted for delivery. The Highway Commission can order the removal of only those billboards that trespass upon the right-of-way and do so whenever one is discovered out of place.

Mrs. Gilbert Snell, Sheboygan, has continued the study and work on Roadside Parks and Waysides and will make a report on her work for this year.

Memorial Highway

The program planned for next year has been thought through quite fully though the original plan for a Memorial Highway has given way to Memorial plantings since the work could be scattered along the permanent highways and each district enjoy its part of the accomplishment close at hand.

In order to start the project correctly, Mrs. H. S. Bostock, Madison, and I called at the Highway Commissioner's office to confer with them on the plan the Board had in mind, and it was suggested to us that we begin a statewide beautification of highways by planting the many triangles at the intersection of our highways. There are some fine plantings in such places that I have observed in my trips about the state but there are many yet to be done. The cost is small, and when once planted are maintained by the Highway Commission. This could be done by individual garden clubs or any other organization wishing to sponsor such a project.

Should you be interested in such a project write me giving complete plans and the location and I will consult the Highway Commission to learn if the plan and place fit in with the plans they have set up. It is advisable that county trunk or State and Federal highways be selected because in most instances they are permanently located. Being in Madison it is not difficult for us to place your problems before some person in authority and in that way save your money, simplify the work and add immeasurably to your joy in accomplishment.

List Of Planting Material Available

Since the Highway Commission has a complete list of planting material suitable to all soils and locations in the state, they can give good advice as to what to plant and will buy for us what is needed through their department, and give us an estimate of the cost. Then the County Maintenance crews take charge and keep them in order.

BOOKS SUGGEST GARDEN CLUB PROGRAMS

MANY clubs have studied garden books, but the Three Village Garden Club (New York) has built a year's program on a book in a somewhat different way. The book selected was "Do You Know Your Garden," by Gladys M. Goshorn (Oxford University Press, 1941).

Twelve chapters from the book were selected as topics for the year's program, and these were varied enough to suit every single member's need. From an approach to a knowledge of the soil, through design, maintenance, study of lawns, trees, shrubs, methods of plant growing, early botanists, the year's work went. In addition to the book which was the basis of the year's work, a number of other books were especially recommended for the club members' reading. These included Richardson Wright's "Story of Gardening," "Green Laurels" and "Almanac for Moderns" by Donald Culross Peattie. At the end of each meeting a series of twenty questions relating to the day's topic were presented to the club members. All highly palatable food for any gardener's mind!

—By Dorothy Biddle in October Flower Grower.

A colored laborer, doing a hauling job, was informed that he could not get his money until he had submitted an itemized statement. After much meditation, he evolved the following bill:

"3 comes and 3 goes at 4 bits a went—$3."

Slide Sets Available Free
from Wisconsin Horticultural Society

Use These Sets to Fill Out Your Club Program During the Coming Year

TRAVELING will be much curtailed during 1943. Outside speakers will be difficult to get. Organizations should however make every effort to keep up the quality of their educational program, especially along horticultural lines. Therefore, the sets of lantern slides with complete lecture on topics listed below should be valuable to supplement club programs.

These slides were made by the Wisconsin Horticultural Society. A complete lecture goes with each set which may be read by any club member, describing not only the slides, but discussing the topic as well.

Reservations should be made well in advance and a second choice given. Sets will be free of charge, but return postage must be paid by the club.

A projector for showing the slides is also available at a rental fee of 50 cents and transportation both ways.

1. **Lilacs.** Many new varieties of French lilacs and other species. Pictures taken largely in the University of Wisconsin Arboretum.
2. **Tulips.** Views of tulip beds and many of the best varieties now being grown in the country. Pictures taken largely at the Tulip Festival held in Holland, Michigan.
3. **Iris.** Showing iris in the garden and close-ups of many of the newer varieties.
4. **Peonies.** Peony plantings in gardens and close-ups of many of the best varieties.
5. **Perennials.** Perennial borders and close-ups of many new and improved varieties.
6. **Annuals.** Annuals in beds and borders. Close-ups of the best varieties being grown in our gardens.
7. **Perennial Phlox.** Phlox growing in borders, in gardens and parks, close-ups of new and leading varieties.
8. **Delphinium, Hemerocallis and Tuberous Rooted Begonias.** Shows the use of these flowers in gardens and close-ups of improved varieties.
9. **Gladiolus.** Shows close-ups of the most popular varieties of gladiolus being grown today, as well as many new seedlings which show promise.
10. **Chrysanthemums.** Showing many of the seedlings originated by the University of Chicago, pictures taken at the Lasker Estate.
11. **Roses.** Pictures of new varieties of hybrid teas, Floribundas and Climbers taken at Whitnall Park and other rose gardens.

One Topic Enough for One Program

It is advisable to plan an entire program around one topic, using only one set of slides. This can be done by enlarging on the topic by having club members prepare reports on their experiences with the variety under discussion. Book and magazine article reports can be given supplementing the lantern slides and lecture.

CONSERVATION COMMITTEE REPORT FOR 1942

Mrs. Max Schmitt, Chairman

AT THE beginning of this year I sent out a short statement explaining the relationship of conservation to the war effort. In that statement I listed several books that would help you to become familiar with the need of conserving our natural resources.

THE BOOKS

Rich Land Poor Land, Stuart Chase
Behold Our Land, Russell Lord
To Hold This Soil, Russell Lord
Our Promised Land, Richard Neuberger
Preface to Peasentry, Arthur Raper

Many clubs have taken an increasing interest in the last year in conservation work. I have had many calls for advice and requests for speakers. Clubs throughout the state write that they have held at least one program a year on conservation. I have had the pleasure of speaking at many of their meetings, and the interest shown is very gratifying. I have every reason to believe that the work done by this Federation will take rapid strides in the next few years. I have attempted to bring home the fact that a study of wild flowers and birds may still have a place in our program, but they must play a secondary part for the duration of this war. We must now get down to the serious business of helping the Federal, State, and local governments to conserve those resources, without which we may become a decadent nation. The day of abundance is past. I have endeavored to point to the need for conserving all things.

In March the Milwaukee District held a Conservation School. Among our speakers were Mr. Wm. Aberg, Dr. Aldo Leopold, Mr. Basil Wales and a member of the Soil Conservation Department. Those who attended felt that we should have future schools of this kind.

I have found several clubs who are really outstanding in their efforts toward conservation. They never fail when Legislation needs support, to write those all important letters.

I have kept in touch with our Congressmen and Congressional Committees and the War Production Board on Forestry questions. Have also acted as representative of conservation minded groups on the Wisconsin Forest Legislative Committee.

I wish to make one more request of the Federation and each club. Will you write your Congressmen, asking them to vote in favor of the bills on Forest Conservation, which will shortly come before them for vote. These bills will put all of the forests under the Federal government. In other words, all cutting practices will be regulated under good conservation methods.

It has been a pleasure and an honor to have been your chairman for the last two years. In leaving you I wish to express my thanks for the generous cooperation of the Federation Board of Directors and all clubs.

Attend the Annual Convention, Wisconsin Horticultural Society, Fort Atkinson Municipal Bldg., November 17-18.

Report of Milwaukee District Garden Clubs

1942

Mrs. H. J. Anderson, Racine

Editor's Note—There are now 87 garden clubs in the Federation. It is impossible to report the activities of all these clubs. However, this report, sent in by Mrs. Anderson, is of value at this time because it may offer suggestions in arranging next year's garden club programs. Perhaps next year we can publish a similar report from another district.

WAYSIDE GARDEN CLUB, BIG BEND

Held a flower sale instead of annual flower show; attended Mr. Rahmlow's lectures at Whitnall Park; also a tour of Whitnall Park, and a visit to Mrs. Poepp's garden. Hold 12 meetings annually, 2 of which are social gatherings.

CEDARBURG GARDEN CLUB

Held flower show in June; had three entries in State Flower Show in Wauwatosa. Made corsages, used at luncheon at the convention. Donated a garden bench to the Cedarburg's Fire Department Tournament, used as a prize. Entertained the Port Washington Garden Club and had public speakers for the occasion.

DOUSMAN-OTTAWA GARDEN CLUB

Held a community flower show in June; had a garden club tour in September, also a Victory Garden Harvest sale, raising funds for Army and Navy relief.

ELM GROVE GARDEN CLUB

Civic project—beautification of the Leland school grounds; established garden center; edited first year book (to be a part of yearly program); adoption of a needy family at Christmas time, $15.00 expenditure. Contributed $5.00 to British Seed Fund; contributed $10.00 to American Red Cross.

This club nearly doubled its membership the past year because of its friendly atmosphere. Every member has his task to perform and feels that the club is his and takes personal pride in its accomplishments.

GREENDALE GARDEN CLUB

Our 1942 program consisted primarily of lectures and films on the planning and care of victory gardens of which there are 210 in Greendale, 50x50 allotment gardens.

The garden supply store, opened each spring, was operated by Boy Scouts of Greendale, and they did a splendid job. Part of proceeds received from the store (the club's only source of income) used to defray expenses of the annual Greendale Fair, sponsored by the garden club, held Sept. 2-3, and the Annual Home Beautification Contest for which a beautiful trophy was given for the best garden.

HAWTHORN GARDEN CLUB

May 1st made and distributed May baskets to the shut-ins. Entered a moonlight garden and specimen bloom at the State Flower Show at Wauwatosa. Assisted with Herb Tea, Whitnall Park for the Milwaukee District meeting. Exhibited at the Victory Harvest Show. Sold herbs from our herb gardens (could have sold more than we raised). Monthly meetings at homes with well rounded out programs.

KENOSHA COUNTY GARDEN CLUB

Two study groups of the Kenosha Garden Club meet one afternoon each month and do a lot of botanical research work. Made 250 wreaths at Christmas time and distributed them to hospitals, old people's homes and the Sanitarium. Had a garden tour in August. Exhibited at the State Flower Show; furnish flowers to the U.S.O.; donation to Red Cross.

MENOMONEE FALLS GARDEN CLUB

Sponsored a community Christmas tree and urged lighting of homes and business places in Menomonee Falls. Made additional plantings at Village Park, also started new flower beds in park. Planted flower boxes on the bridge in town. Held a flower show in August. Showed definite improvement in all departments. Had garden tours. Were active at the State Flower Show, also at the Fair. Had pot luck supper and other social functions. Bought a $100 bond (prospects of another in the near future). Contributed $10 to the U.S.O.

ART INSTITUTE GARDEN CLUB

Had several illustrated talks by members and friends. Also had speakers—Mrs. C. E. Strong and Mr. H. J. Rahmlow. Majority of members attended the Marc Leeds lecture. Assisted with the State Flower Show and contributed various floral arrangements. Assisted with Victory Harvest Show. Held Annual Flower Show in September.

BLUE BEECH GARDEN CLUB

Had 9 meetings with talks, on assigned subjects by members. During the summer months we have tours to outstanding gardens. Were hostesses in Mrs. LeFeber's garden to the Wisconsin Garden Club Federation in honor of Mrs. Joseph H. Brewer, National President.

GALECREST GARDEN CLUB

Concentrated on the study of flower arrangement. Participated in State Flower Show, also Victory Harvest Show. Held a miniature arrangement show, also a flower show by members. These two shows were also judged and criticized by members. Had charge of decorating tables at banquet for the convention at Hotel Pfister.

GREEN TREE GARDEN CLUB

Doing canning. Jars were purchased, distributed, and each member asked to fill 12 quarts to be given to the Red Cross.

Early in June had a most successful day of "Gardens on Parade." Results: $3,248.00 raised to purchase a canteen and station wagon for the Red Cross. This equipment was used day and night for three days in the recent Milwaukee disaster where a building collapsed.

Set up a "Hat Shop" at the Victory Harvest Show. Exhibited at the Federation Show in Wauwatosa. Conservation Chairman very active in working for Ridges Sanctuary. Assisted in furnishing flowers for U. S. O. Purchased $500.00 Defense Bond.

Contributed to Christmas greens for Army camps, Summer Outing Society. Seeds for England, Seeds for Children's gardens, and Conservation League of Wisconsin.

NORTH PRAIRIE GARDEN STUDY CLUB

Programs composed mostly of papers prepared by members on some subject pertaining to gardening. Contributed to Army and Navy Relief Fund, also Seeds for England.

LA BELLE GARDEN CLUB, OCONOMOWOC

Interesting and well rounded programs planned featuring demonstra-

tions such as planting of cold frames, transplanting and spading, etc. Artistic arrangement demonstration followed by a talk on the fundamentals of flower arrangement by Mrs. David Weart.

Mrs. Weart also talked to all the grade schools and showed the children how to make winter arrangements. Ten days later garden club members visited all the class rooms and judged the arrangements made during that period of time by the children. Field trip to Rogers Memorial gardens.

RACINE GARDEN CLUB

Aside from the regular monthly meetings we have two study groups. The flower arrangement group meets once a month, bringing their own containers and after a talk on some phase of arranging they practice with materials on hand. Take turns in arranging flowers at the U.S.O. rooms.

The nature study group meets whenever there is an urge to get out, especially during bird migration period. Sometimes it's a breakfast at Grant Park, Milwaukee, sometimes at Petrified Springs Park, Kenosha county, but usually our city parks serve as the study grounds.

Assisted with landscaping parts of the grounds at the Museum and also constructed bird houses and feeders for the museum grounds. Held our annual flower show at the Museum. Sponsored several Victory Harvest Shows throughout the county during September and October. Put on 15 minute radio programs every Saturday at 11:30 a.m. for 22 weeks on some gardening subject. We had Dr. Arthur A. Allen, Prof. of Ornithology at Cornell University on Hunting with a Microphone. Forty-eight members attended District meeting at Whitnall Park. Exhibited at State Flower Show.

SUM-MER-DEL GARDEN CLUB, WAUKESHA

Held a spring flower show. Had a picnic at Whitnall Park and tour of the gardens. Contributed $20.00 to fund to provide Seeds for England. Contributed garden books and magazines to the public libraries in Hartland and Delafield. Held a sale of plant material to raise money for the Army and Navy Relief fund in September. Held a "White Elephant" sale for the same purpose.

WAUKESHA TOWN GARDEN CLUB

Had several good speakers on our programs. Club exhibited at State Flower Show. Some of our members wrote articles on gardening in the Daily Foreman. Purchased a war bond. Will make contributions to the following: Red Cross, Army and Navy Relief, Salvation Army and Community Chest.

BLUEMOUND GARDEN CLUB

This club is a study group of dirt gardeners who make their own programs. All papers are filed for future reference. The October meeting is always a supper meeting with an outside speaker, when husbands are invited. Always take an active part in all district and Federation activities.

RAVENSWOOD GARDEN CLUB

Had special guest garden speakers at all open meetings. The July meeting was a tour and picnic at Whitnall Park Arboretum. August meeting was an all-day outing at the lake home of one of our members. A Junior Garden Club of 18 members was organized. A very successful Victory Garden resulted.

Raised money by sponsoring small bridge parties (about 6 tables) in the homes. All prizes were things strictly related to flowers and gardening. Exhibited at the State Flower Show, the Victory Harvest Festival and State convention.

WAUWATOSA GARDEN CLUB

Meetings are held in the evening—well thought out programs with many interesting speakers. Club has undertaken the restoration of the Damon House Gardens, with the aid of the County Park Board. The Damon House is to be restored as a Museum and old land mark of early Wauwatosa. One room in the Damon House may be set aside as a garden center. Have cooperated and assisted with all flower shows.

HILLCREST GARDEN CLUB

Keep a loose leaf "Year Book" to which valuable material is added each year, also have a scrap book which acts as a history of our club. Our project is to try to beautify a strip of land along the railroad tracks at 84th and National Street Viaduct. Hope to have all perennials and shrubs there in another year. Built one section of the Knot Garden at the State Flower Show. Assisted with the Harvest Show and State Convention. Contributed $1.00 to British Seed Fund and $5.00 to Red Cross.

WEST ALLIS GARDEN CLUB

Meet once a month, afternoons, at the homes of members. In April members assisted the county agent instructing the public in Victory Garden planting, also explained how to take advantage of liberal offer of the Allis Chalmers Company to have these gardens plowed free of charge.

Arranged one section of the Knot Garden at the State Flower Show.

Many of our juniors won blue ribbons in the Junior display at the State Flower Show. The West Allis and Wauwatosa Club made the Federation Garden at the State Fair. Assisted at the Victory Harvest Festival and again several of our juniors won blue ribbons.

Purchased $20 worth of Wisconsin Conservation stamps. Every member of our club planted a Victory garden, the size ranging from a city lot to a country acre, canning as much as necessary and donating the surplus to the not so fortunate.

BROOKDALE GARDEN CLUB

Newly organized. At our May meeting we invited our husbands and neighbors and heard Mr. Mathys on "Yard Planning." June meeting was a conducted tour of the wild trail in Whitnall Park with the husbands.

July-Flower arrangement demonstration. August—garden tour including a very interesting talk on bees by one of our members.

Set two tables for the Greendale Flower Show. Served as hostesses for the District Herb Tea. Our members were very thrilled with the first ribbons won at the Greendale Show. Assisted at the State Convention banquet. Consider it a privilege to belong to the Federation.

SPRING FLOWER SHOW HAS SUPPORT OF 72 GARDEN CLUBS

MRS. Chester Thomas, Flower Show Chairman for the Federation this past year, reports that at the spring State Flower Show at Wauwatosa 72 garden clubs participated in some way in the show this year, either in workers, committee members or exhibitors. Forty-nine clubs took part as exhibitors.

Mrs. Thomas reports total receipts for this show $1,064.55, or a total of nearly 3,000 ticket sales. Show profit without tax was $423.33, leaving net profit of $316.01.

Total amount in the flower show fund of the Federation at the present time is $609.72. This is an excellent showing for 1942.

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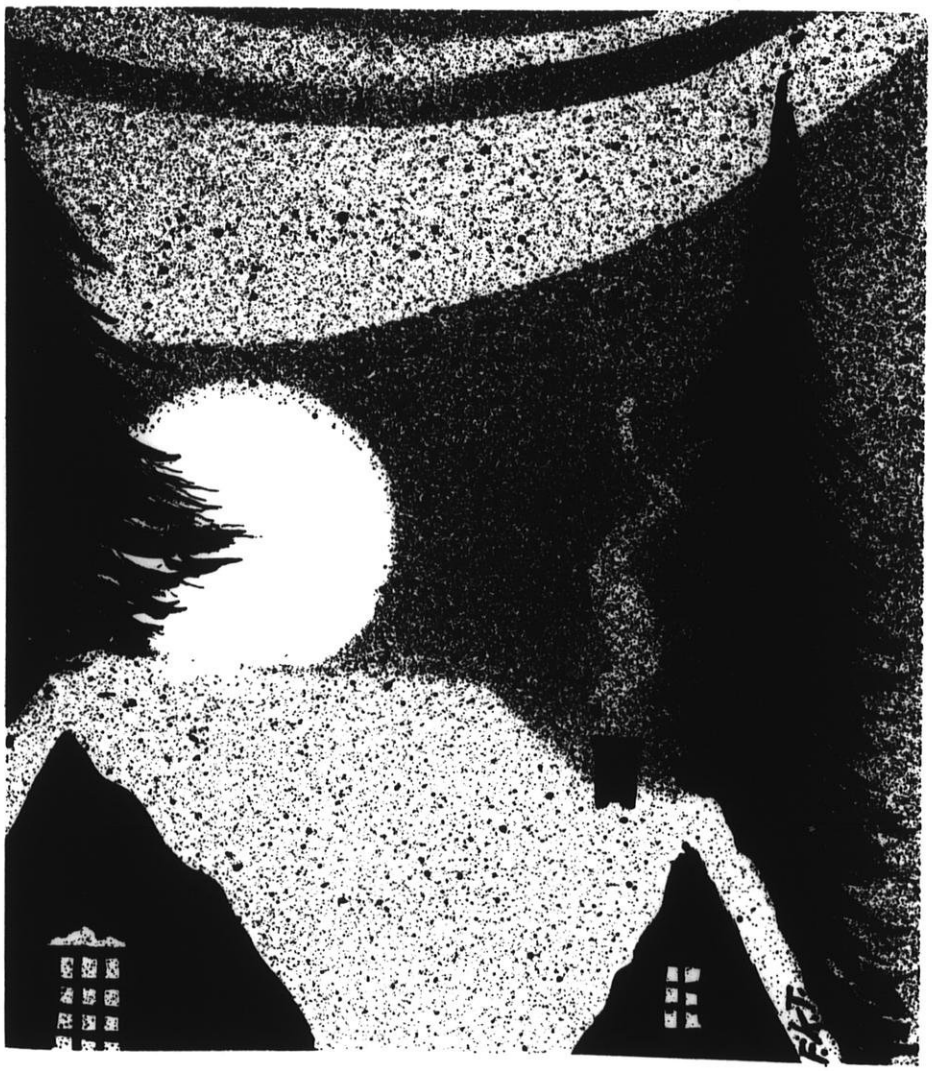

DECEMBER

1942

FARM AND HOME WEEK WILL NOT BE HELD

WISCONSIN Farm and Home Week, a tradition among Badger farmers for more than 35 years, will not be held this year.

Dean Chris. L. Christensen has announced that eight two-day district farm and home week gatherings will be held, and that the programs will be chosen to answer the farming needs of those separate regions of the state.

The meetings include sessions at Antigo, January 18-19; Green Bay, January 19-20; Fond du Lac, January 20-21; Whitewater, January 21-22; Platteville, January 25-26; La Crosse, January 26-27; Wisconsin Rapids, January 27-28; Rice Lake,, January 28-29.

Horse sense is something a horse has that keeps him from betting on people.

—MBS Broadcast

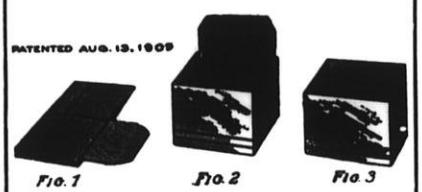

Fig. 1 Fig. 2 Fig. 3

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The Official Organ of the Wisconsin State Horticultural Society

ESTABLISHED 1910

Entered at the postoffice at Madison, Wisconsin, as second-class matter. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1918.

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
424 University Farm Place
Madison, Wisconsin

H. J. RAHMLOW, *Editor*
Secretary Wisconsin State Horticultural Society

Office: Old Entomology Bldg., College of Agriculture
Tel. University 182

Volume XXXIII DECEMBER, 1942 No. 4

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Subscription to Wisconsin Horticulture is obtained by membership in the Wisconsin State Horticultural Society for which the annual dues are $1 per year or $1.50 for two years. Garden Clubs, Horticultural Societies, and other Horticultural Organizations are affiliated at a reduced membership rate. Fifty cents of the annual dues paid by each member is for a year's subscription to Wisconsin Horticulture.

PLEASE DO NOT SEND STAMPS

What Fruit Growers Heard at the Annual Convention

Interest in Apple Maggot Control Keen This Year. Other Speakers Present Interesting Topics

DR. C. L. FLUKE, Chief of the Entomology Department, Wisconsin College of Agricuture, opened the convention program this year with a discussion on the control of the apple maggot. Many growers had come long distances to hear this topic presented because of the large amount of damage done throughout much of the state by the insect this year. The following are some of Dr. Fluke's statements.

To control the apple maggot this year it would have been necessary to spray with arsenate of lead at the rate of one pound of lead to 50 gallons of water much later than usual due to weather conditions this year.

The reason for the large population is probably because of the fact that during a dry season in the latter part of July flies do not all come out until the next year. As many as 69% of the flies may come out of the ground the second year after the larvae went into the soil. A year ago we had such a dry period in July. This year it was wet and so probably both the old flies and the one-year flies came out at this time.

Life History of Apple Maggot

The life history of the apple maggot is briefly as follows. The flies puncture the skin over a period of from two to three weeks in August, laying their eggs just below the skin of the apples. The eggs hatch into a slender white worm which bores through the apple in such a way that it has sometimes been called the railroad worm. At first the injury is not noticed. Later bacteria which follows the tunnels of the insect cause decay within the apple, making them unfit for food.

As the apple drops to the ground, or as the worms mature, they enter the soil and live there until the

next August, or as stated above, in case of dry weather, for another full year. The flies then emerge and repeat their attack on the fruit. However, they lap on the leaves and fruit of the tree and may therefore be controlled with the arsenate of lead spray. Dr. Fluke said that the strength of one pound of lead to 50 gallons of water is just as good as more lead.

Bait Traps Recommended

The important problem is to determine just when the flies emerge and begin to do their work. For this purpose the new bait trap originated at the University of Minnesota has been found quite successful in tests by the Wisconsin Entomology Department, and is recommended to growers for this coming year. The trap consists of 5-lb. honey pails into which has been placed one ounce each of glycine, which is amino acetic acid and one ounce of sodium hydroxide in 6 pints of water. This is hung in the lower part of the tree and is inspected daily during the time in which the flies are expected in late July or August. When the flies are caught in large numbers in the liquid it is time to spray. The use of this bait trap is very important in Wisconsin because of the difference in climatic conditions in various parts of the state which results in the flies coming out at different times in different sections.

It has been suggested that the Wisconsin Horticultural Society supply growers with the chemicals for this bait trap next summer. If there is demand for this it will be done.

Dr. G. W. Keitt Reports On Ground Treatment For Scab Control

The use of a ground treatment (Elgetol, ½%, applied 600 gallons per acre) as a supplemental spray for apple scab control gave excellent results in 1942. The generally wet and cool season during the critical period from bud-break until several weeks after petal-fall afforded an excellent test of the effectiveness of a ground treatment. In the Horseshoe Bay Orchards (Door County) experiment, spore discharge studies indicate the ground treatment **reduced the quantity** of ascospores liberated into the air **by 99%.**

Counts two weeks after petal-fall indicate unsprayed trees in the ground-treated part of the orchard had 87% fewer scab infections on leaves than unsprayed trees in the untreated part.

In the ground-treated part of the orchard about 450 yards from the untreated part, trees sprayed with lime-sulphur had an average of 11% of their fruit scabbed at harvest compared with 26% in the untreated part. Trees in the ground-treated part sprayed with lime-sulphur before bloom and Kolofog after bloom had 19% scabbed fruits at harvest compared with 77% in the untreated part.

The evidence to date is that no tree sprays should be omitted even though a ground treatment is applied.

Many Problems Involved In Fruit Growing

Dr. G. W. Brierley of the Department of Horticulture, University of Minnesota, gave two interesting talks. We have asked Dr. Brierley for a paper on the points discussed which will be run in an early issue.

He pointed out in his talk on the relationship of pruning, spraying and fertilizing to tree growth and production, that we cannot lay down definite rules for procedure in the orchard. The grower must become familiar with the fundamental principles underlying problems of spraying, pruning and tree growth in order to be able to determine what must be done at various times of the year. All commercial growers recognize this and it is what makes fruit growing so interesting. For example, it would be easy if we could spray at certain stated intervals with certain solutions, and could then get perfect control of insects and diseases. Unfortunately, however, this is not the case. If we have a lot of rain we must spray often for scab, and so on. Therefore the grower must learn all the principles involved or he cannot hope to grow good fruit.

Winter Hardiness and Winterkilling

Dr. Brierley's discussion on winter hardiness and winterkilling was most interesting. He pointed out that growth of the apple tree, for example, stops in July, and from then on the tree goes into a gradual state of maturity or rest period. In early winter a temperature of around zero will break this rest period. If after this time there is a warm period the plants may start to grow. This is particularly important in the case of raspberries. He said, for instance, that in the northern Minnesota raspberry section there has been considerable winter injury in recent years. After much research work, the findings pointed to the fact that there had been some relatively warm days with strong sunlight during winter, which no doubt started the buds to grow. This was followed by severe cold, which injured the raspberry canes, even on such a variety as Latham which is considered hardy. Other varieties suffered as much or even more than did Latham.

He pointed out that warm weather before a cold spell has broken the rest period is not dangerous.

Smothering Explained

There is no danger of smothering, he said, as long as the plant is kept dormant. Strawberry plants were kept in a refrigerator at 26 degrees F. for ten weeks under a complete covering of ice and remained alive. He gave an interesting observation on strawberries so covered with ice when set out in the sunlight. The sunshine, even on a cold day, immediately raised the temperature around the plants to a high degree. It is likely therefore that strawberry plants covered with ice on which the sun shines may start growth because of this rise in temperature. They will later be injured when the temperature drops to a low point, as it will under ice because ice is a good conductor.

Raspberry growers have been urged to lay down their plants in the fall by throwing soil over the tips in the hope that they will then be covered completely by snow to prevent winter injury.

Strawberry growers should not cover too early. Furthermore, the covering should not be allowed to remain on the plants too late in the spring, especially if it is wet and soggy. The soil temperature may rise under the cover, starting growth, and then the plants may be smothered under the wet covering.

Dr. Tukey Talks On Fruit Growing

Dr. H. B. Tukey of the Geneva Experiment Station, New York, gave two most interesting talks. He told first of the things that Eastern fruit growers are thinking about and doing.

We have asked Dr. Tukey to give us short papers covering his talks, which he has agreed to do. They will be published in early issues.

His talk on a trip through the fruit sections of North America was enlightening. The trip took him into the fruit section of British Columbia where conditions are considerably different than with us. In the northern section McIntosh and Wealthy are grown the same as here, and they do not have a codling moth problem because of cool weather. Marketing, however, is a big problem. This is also the case in the Oregon, Washington and California sections. In these sections cultural problems are relatively easy. It is not uncommon to see 30 crates placed under each apple tree at the beginning of the picking season, showing the tremendous yield obtained there. When one wishes to discuss fruit growing in these sections, the discussion soon develops around marketing, advertising, transportation, and related problems. Large cooperatives have been organized and they have developed strict control over the growers. He pointed out the tremendous acreages of citrous fruits, vegetables and other horticultural crops grown throughout California and the Southwest. Labor problems result.

He said that in each section, whether in the cold of British Columbia or in the heat of Texas, the grower would say, "Isn't this an ideal place? I wouldn't want to live anywhere else." Through it all we had the feeling that it's very nice to live in Wisconsin, which proves his point.

Dr. Roberts Talks To Growers

Dr. R. H. Roberts of the Wisconsin Horticultural Department gave his usual interesting discussion of various problems confronting Wisconsin growers as a final number on the convention program.

He stated that after some study this year as to why there was a good crop of Delicious in some sections, notably Indiana, and not in Wisconsin, resulting in a trip to Indiana,

he was still unable to give the answer. The Mississippi Valley, he said, is due for a large crop of early apples next year. All indications point to that fact, and growers should plan for it.

He said that a block of Wealthy and McIntosh trees sprayed with flotation sulphur throughout the season this year resulted in the foliage being much better than where lime sulphur was used. There was no crinkling of the leaf margins, or the injury so often noticed from lime sulphur sprays. Good scab control was obtained, but this was likely due to the fact that there was no severe source of infection present in this particular orchard. A ground spray of Elgetol, as outlined by Dr. Keitt will no doubt give similar results. It is entirely possible that foliage injury is the cause of some of our low production problems.

Fruit Bud Formation In June

Dr. Roberts stated that Dr. Esther Struckmeyer has found fruit bud formation for the next year is settled by June 10th to 20th, depending upon the season. He said that in experiments where one-half of the area of the two tip leaves were cut away the result was inhibition of blossom bud development. Leaf injury may cause the same thing.

Virginia Crab was reported not being a good stock on which to topwork Starking in S. W. Wisconsin because it has a dwarfing effect, according to recent experiences.

The Harvest Spray

Dr. Roberts stated that he had not himself seen good results from the use of Harvest sprays on the varieties Wealthy and McIntosh, although some growers have reported good results when repeated applications were made. The Harvest spray has given excellent results on Duchess and Snow, but there is little need for it on Duchess. This year the spray worked very well on Snows after the frost which caused that variety to drop. The spray was applied at a temperature of 43 degrees F. on September 20th and was very effective. He pointed out that it was not necessary to apply the spray during warm weather as has been stated as necessary in some articles, including one in this magazine.

The Fertilizer Problem

The problem of getting enough nitrogen fertilizer to keep up our orchards is a serious one, and it has not yet been settled. This was developed in the discussion which followed Dr. Roberts' talk.

At a recent fertilizer conference in Chicago it was stated that orchardists could expect to get about 2/3 of the ammonium sulphate they used last year. There will be no ammonium sulphate for grain growers, very little for corn, but the general policy will be to furnish some chemical nitrogen for fruit and vegetable growers.

Some Cyanamid Available

It may be possible to obtain cyanamid this year. Just how much is still undecided. If cyanamid can be obtained and growers should get in their requests at once, Dr. Roberts advised that only one-half of the nitrogen requirements of the orchard be given in the form of cyanamid, because spring applications are now necessary. This should be supplemented with other forms such as ammonium sulphate. The cyanamid should be applied four weeks before blossoming, or just when the frost comes out of the ground, to prevent tree injury from later applications.

SPRAY HOSE REQUIRE SPECIAL WINTER CARE

THE spray hose should be put away with special care this winter. It will help greatly to force warm, soapy water through the hose at regular spraying pressure. Afterwards rinse carefully and drain in large circles and in a room of thoroughly. Lay the hose on boards moderate temperature, and see that the sunlight does not strike it in storage.

THE ORCHARD MANPOWER PROBLEM

MR. TRUMAN NOLD, Secretary of the National Apple Institute, has submitted a memorandum to the auhorities in Washington in connection with the manpower problem for agricultural labor. There are indications that many permanent employees will soon be lost, and that fruit growers will face a serious labor shortage.

One of the pertinent statements made by Mr. Nold is as follows:

"For many months the conviction has been increasing among growers that a large measure of their manpower difficulties is unnecessary and avoidable.

"The hiring by industry of more workers than would be necessary to do the work, should not be allowed to continue. A large percentage of the extra workers required to conform with the 40 hour week have come from agriculture. The exodus continues. The type of man most essential to fruit growing also looks good to industry. We have reached the point where fruit production for next year, and maintenance of productive capacity for many years ahead, are in the balance."

DO NOT PLANT MORE PEACH TREES IN WISCONSIN

A GOOD suggestion comes from Mr. Walter Schultz, fruit grower at Lake Mills. He says that he planted some Polly and Sungold peach trees several years ago and that there has been winter injury on these trees. He suggests that growers do not plant more of these trees until the varieties have been thoroughly tested by the growers who purchased them this past spring and in previous years.

This is a good suggestion. It is beginning to look doubtful whether these varieties will survive our Wisconsin winters, or produce fruit, and it is well to wait until we get more reports from growers who are trying them. This report will be available in another year or two.

Our Convention Fruit Show

High Quality Apples Shown. New Varieties Create Interest

THE fruit show at the annual convention was of high quality, but there were not as many entries as in some past years. Notably lacking were pears, though this may be attributed to a shortage of pears and to the fact that they did not keep well unless under refrigeration.

Interest in new varieties centered around Macoun, Cortland, and Secor. Macoun is becoming increasingly popular and Cortland is now rated as a variety to plant with McIntosh. Secor is popular because it will keep so long under ordinary storage conditions.

There was only one seedling exhibit this year, and this was not of sufficiently high quality to merit a prize in the opinion of the judges.

THE PREMIUM WINNERS

New Varieties

Milton: 1st, Aeppler Orchards, Oconomowoc; 2nd, L. H. Stringer, Milton.

Orleans: 1st, Aeppler Orchards, Oconomowoc; 2nd, Jos. L. Morawetz, West Bend; 3rd, N. C. Jacobs, Sturgeon Bay.

Macoun: 1st, Ward Bros., Fort Atkinson; 2nd, John Kopp, West Bend; 3rd, Aeppler Orchards, Oconomowoc. Additional entries of merit: W. H. Steele, Pewaukee; Arno Meyer, Waldo.

Cortland: 1st, Aeppler Orchards; 2nd, A. K. Bassett, Baraboo; 3rd, L. F. Sherman, Edgerton. Entry of merit: W. H. Steele, Pewaukee.

Haralson: 3rd, Jos. L. Morawetz, West Bend.

Secor: 1st, Arno Meyer, Waldo; 2nd, Ward Bros.; 3rd, W. H. Steele. Entry of merit: John Kopp, West Bend.

Kendall: 1st, Aeppler Orchards; 2nd, N. C. Jacobs, Sturgeon Bay.

Perkins: 1st L. H. Stringer, Milton.

Any other variety: 1st, Aeppler Orchards; 2nd, A. K. Bassett; 3rd, N. C. Jacobs. Entries of merit: Arno Meyer, Waldo; W. H. Steele; John Kopp.

Standard Varieties

The special cash premiums offered by the Niagara Sprayer and Chemical Company on McIntosh and Delicious were won as follows:

McIntosh: 1st, Aeppler Orchards; 2nd, A. K. Bassett; 3rd, F. B. Sherman, Edgerton; 4th, Swartz Orchards, Waukesha; 5th, L. F. Sherman, Edgerton; 6th, C. J. Telfer, Green Bay.

Delicious: 1st, A. K. Bassett; 2nd, C. J. Telfer, Green Bay; 3rd, Swartz Orchards, Waukesha; 4th, A. F. Meyer, Green Bay; 5th, N. C. Jacobs, Sturgeon Bay; 6th, Aeppler Orchards, Oconomowoc.

Grimes Golden: 1st, C. J. Telfer, Green Bay; 2nd, John Kopp; 3rd, Swartz Orchards, Waukesha; 4th, Jos. L. Morawetz, West Bend.

Jonathan: 1st, Ward Bros., Fort Atkinson; 2nd, C. J. Telfer; 3rd, Jos. L. Morawetz; 4th, A. F. Meyer, Green Bay.

Northern Spy: 1st, F. B. Sherman; 2nd, Jos. L. Morawetz; 3rd, Swartz Orchards; 4th, W. H. Steele.

Salome: 1st, L. F. Sherman; 2nd, Leonard Bros., Fort Atkinson; 3rd, H. E. Pierce, Edgerton; 4th, Swartz Orchards, Waukesha.

Golden Delicious: 1st, L. F. Sherman; 2nd, N. C. Jacobs; 3rd, Ward Bros.; 4th, C. J. Telfer.

Snow: 1st, Swartz Orchards; 2nd, L. F. Sherman; 3rd, Ward Bros.; 4th, H. E. Pierce.

N. W. Greening: 1st, A. K. Bassett; 2nd, J. D. McIlquham, Chippewa Falls; 3rd, Leonard Bros.; 4th, John Guth, Bancroft.

Wealthy: 1st Aeppler Orchards; 2nd, J. D. McIlquham; 3rd, Swartz Orchards; 4th, John Kopp, West Bend.

Any other variety: 1st, C. J. Telfer; 2nd, A. F. Meyer; 3rd, Swartz Orchards; 4th, John Guth.

Gift Package Wisconsin Fruit

1st, Aeppler Orchards, Oconomowoc; 2nd, Arno Meyer, Waldo; 3rd, Swartz Orchards Waukesha; 4th, Jos. L. Morawetz, West Bend.

Seedling Nut Show

Hickory: 1st, Mrs. W. Barth, West Bend; 2nd, John Kopp, West Bend; 3rd, Jos. L. Morawetz, West Bend.

Walnuts: 1st, Kettler Nursery. Platteville; 2nd, N. C. Jacobs, Sturgeon Bay; 3rd, Dawson Bros!, Franksville.

Butternuts: 1st, Mrs. W. Barth, West Bend; 2nd, Jos. L. Morawetz, West Bend; 3rd, John Kopp, West Bend.

Any other variety: 1st, Kettler Nursery, Platteville, Giant Hazel seedling.

THE WINNERS

Sauce

Strawberry sauce: 1st, Mrs. Wm. Leonard, Ft. Atkinson; 2nd, Mrs. John McIlquham, Chippewa Falls.

Raspberry sauce: 1st, Mrs. E. L. White, Ft. Atkinson; 2nd, Mrs. Elias Kopp, West Bend; 3rd, Mrs. John McIlquham.

Cherry sauce: 1st, Mrs. Elias Kopp; 2nd, Mrs. John McIlquham; 3rd, Mrs. Arno Meyer, Waldo.

Apple sauce: 2nd, Mrs. John McIlquham.

Pear sauce: 1st, Mrs. Wm. Leonard; 2nd, Mrs. John McIlquham; 3rd, Mrs. Theo. Ward, Ft. Atkinson.

Any other kind of sauce: 1st, Mrs. John McIlquham, blackberries; 2nd, Mrs. E. L. White, groundcherries.

Jams

Apple butter: 2nd, Mrs. John McIlquham.

Strawberry: 1st, Mrs. John McIlquham; 2nd, Mrs. Arno Meyer; 3rd, Mrs. Elias Kopp.

Grape: 2nd, Mrs. John McIlquham.

Cherry: 2nd, Mrs. Arno Meyer; 3rd, Mrs. John McIlquham.

Jelly

Apple: 1st, Mrs. Arno Meyer; 2nd, Mrs. Arthur Bassett, Baraboo.

Currant: 1st, Mrs. Elias Kopp; 2nd, Mrs. John McIlquham.

Apple Pickles

1st, Mrs. John McIlquham; 2nd, Mrs. Wm. Leonard; 3rd, Mrs. Theo. Ward.

Gourds

Exhibit of gourds on tray: 1st, Mrs. A. K. Bassett, Baraboo; 2nd, Mrs. Arno Meyer, Waldo; 3rd, Mrs. Wm. Leonard, Ft. Atkinson.

THE AUXILIARY CANNED FRUIT EXHIBIT

THERE was a nice exhibit at the annual convention of sauce, jams, jellies and pickles. The exhibit created considerable interest and therefore is one of the features of the Auxiliary meeting.

WOMEN'S AUXILIARY HAS GOOD MEETING

Elect Officers for Next Year

THERE was a good attendance at the Auxiliary meeting of the Wisconsin Horticultural Society convention at Fort Atkinson, and the program was very interesting. We are unable to give an account of the program in this issue but will print such

statements as are available in early issues.

New Officers Elected

The Auxiliary elected the following officers for the coming year: President, Mrs. Arno Meyer, Waldo; Vice-President, Mrs. Peter Schwartz, Waukesha; Secretary-Treasurer, Mrs. Wm. Connell, Menomonie.

The Auxiliary appreciated the tour to the Bettersox Knitting Mills and the Jones Sausage Factory arranged by the Fort Atkinson Garden Club.

NEW LIFE MEMBER

MRS. ARNO MEYER, Waldo, was admitted as a life member of the Wisconsin State Horticultural Society at the annual meeting of the Board of Directors held during the convention. The Society welcomes Mrs. Meyer as a life member.

We would like to suggest to other members that they apply for life membership. The dues are only $10.00. This amount is placed in the endowment fund of the Society.

Mr. Arno Meyer became a life member in August, 1942.

NEW HARDY PEACH WITHOUT FUZZ DEVELOPED

DR. F. W. HOFMANN of the Virginia Experiment Station has developed a new variety of peach named "Fuz-les". It is said to be just as smooth and waxy as a plum, and retains its peach taste. The quality is said to be superior to the Elberta peach. It is highly resistant to brown rot and more hardy and frost resistant than standard varieties.

The new peach has been patented and propagation will start this year. Stock will not be available until the fall of 1943.

It is not like the Nectarine which has never proven profitable because of small size and other faults. The buds and blossoms are said to be more resistant to fall freezes than the common peach so that it may be of value in Wisconsin where the peach buds commonly winterkill at our low temperatures.

There's a new word for a girl who is fascinated by an army uniform—khaki-wacky.

—Kansas City Kansan

APPLE SYRUP A NEW PRODUCT FROM WASTE APPLES

APPLE syrup is a new product just developed by the U. S. D. A. Eastern Research Laboratory. It promises to take a portion of the 4,000,000 bushels of off-grade apples annually found in the United States.

The syrup is at present being tested by tobacco companies to replace glycerine to hold tobacco together and keep it moist, in the manufacture of cigarettes. Normally tobacco companies use 30,000,000 pounds of glycerine annually. The syrup can also be used in place of sugar in tea and coffee and in making pies and cakes. One bushel of apples yields about a half gallon of syrup, and is made much the same as maple syrup is made.

TOWARD OR AWAY

"I heard a burglar in the house one night last week. You should have seen me dashing downstairs three steps at a time."

"Oh—so the burglar was on the roof?"

WE WISH YOU
A MERRY CHRISTMAS AND A HAPPY NEW YEAR

SAVE DOLLARS ON . . .

NURSERY STOCK

Apple Trees **Raspberries**
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Elgetol—Used to Spray Ground and Tree While Dormant To Kill Scab Spores
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We have been promised a shipment of Sulphate of Ammonia for Spring Delivery.
Write for quotations on Sprayers—Spray Guns—Hose

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H. H. Harris, Warrens Describes Strawberry Plot

OUR most enthusiastic and oldest strawberry grower, Mr. H. H. Harris of Warrens, now 91 years old, writes on November 17th, describing his variety test plots for 1943 as follows:

"I wish you could have seen my variety test strawberry bed before it was covered on October 23. There were five rows in the plot approximately five rods long. The rows are four feet apart, with plants set about two feet apart in the row.

Varieties

"The following varieties are in this plot:

"Row 1. U. S. Seedling No. 537, and Dunlap, Lynn Reynolds seedling, and Mackenzie.

"Row 2. Wisconsin seedlings Nos. 544, 703, 7178, 7130, and 7159 sent by Dr. R. H. Roberts.

"Row 3. Red Star, Starbright and Maytime.

"Row 4. Minnesota 1192 and Premier.

"Row 5. Catskill and U. S. Seedling 125.

Each plant I set out lived this year and each variety has made a wide row. It would have been easy to have a solid matted patch over the whole field if the plants had been allowed to form runners in between the rows. The paths are quite narrow now. Minnesota No. 1192 was the latest to form runners.

"Red Star and Star Bright had tall plants and large leaves. The plants are all of our own growing except those from Dr. Roberts.

Decrease In Acreage

"This little bed is all the 1942 new setting we have on the farm next year. Unless my son can get more help next year than he could this year I am afraid there will be only a new test bed set out next spring. Several other growers have not set out any new beds this year.

"I cannot be on my feet very long at a time and my right hand is somewhat cramped with rheumatism, but my appetite is good and I hope to see the test bed set out in front next June. The site for next year's test plot has already been selected and plowed.

" 'Look ahead with hope' is a good motto."

Mr. Harris concludes by inviting us to see his test plot next June when the strawberries are ripe.

MINNESOTA FRUIT GROWERS TO MEET IN JANUARY

THE annual meeting of the Minnesota Fruit Growers Association will be held with the Minnesota State Horticultural Society at the University Farm, St. Paul, during Farm and Home Week, January 18 to 23.

The tentative date for the meeting of the fruit growers is Friday, January 22.

HOW TO RIPEN FRUIT

THE storage life of each variety of apple and pear has been found to be fairly definite. If held beyond the proper storage period the fruit does not ripen satisfactorily when placed in warm temperatures.

It is found, for example, that before the pear is ready for eating, it must be ripened. The fruits may be placed in large commercial ripening rooms or they may be ripened in the homes of consumers. Temperatures of 60 to 70 degrees F. with fairly high humidity are best. The ripening process requires approximately one week.

A fruit is a living entity. If it is not ripened for use before a certain critical time interval has elapsed it becomes for all practical purposes "dead" and will not respond to ripening treatment. Accordingly, there is danger of keeping apples beyond the point at which they will respond to ripening treatment. Why not try taking a few apples out of storage for ripening at different intervals and run a little experiment of your own.

—*Condensed from November 14 Rural New-Yorker by H. B. Tukey.*

GOURDS BECOMING VERY POPULAR

A LETTER from Mrs. Wm. Verhulst, Franksville, Route 1, is typical of what many amateur gourd growers are saying. She writes: "I grew some beautiful gourds from the seeds I received through WHA last spring. I grew them right out in my vegetable garden. We made a tepee of willow sticks and how the gourds did grow over it. I received first prize at our school fair and everyone wanted to buy some of the gourds and were asking where they could get some."

Miss Jessie Bassett of Baraboo has been making quite a business of growing and selling gourds. One of the largest premium winner at the WHA Gourd Show, she did not want to sell any of the winners because she liked them so well she could not part with them.

Whether you need a box approved for interstate shipment by the Federal Food and Drug Administration, or whether you plan to ship locally in old style boxes, you can be safe and save money too, by assembling either type box with the fast-working Neva - Clog stapler. Get everything you need for fruit or truck shipments at Sheboygan—as leading growers have for 63 years.

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What Happened at the State Convention

IN ADDITION to the highlights at the State Convention mentioned in the last issue, the following took place.

Advertising Fund Being Built Up

It was decided by the Board of Managers and passed at the convention that the advertising fund be built up at this time so that when it is desired to again cooperate with the State Department of Agriculture in advertising honey, we will have some money in the treasury for that purpose.

The registration fee of 25c was voted into that fund, as well as the amount so collected a year ago.

Vitamins in Honey

Mrs. Harriett Grace of the American Honey Institute reported that the research being done on the food value of honey will be completed within two or three months and a full report will then be given by Dr. C. A. Elvehjem. She said the report would indicate that honey has more food value from the vitamin standpoint than we have anticipated, and that this will mean a great deal to the beekeeping industry.

AFB From Package Bees

Sources of AFB infection were discussed at some length during the convention. In fact, one of the highlights of the convention was the spirited discussion in which a large number of beekeepers took part. It brought out many things of interest.

There is rather positive evidence that AFB was found in package bees this year. The disease has been traced in at least one instance to a package shipper who had been careless in handling his stock. It was also brought out that there is no positive evidence that package bees will be free of the disease after they have been in the

package for several days. The only way we can be sure to have AFB free bees is for the packages to come from disease-free colonies. Package shippers in the South must be very careful about their inspection service to maintain the reputation they have had. If diseased colonies result from package bees irreparable damage will be done to the package industry.

Dr. Farrar Discusses Important Topics

Dr. C. L. Farrar of the Central States Bee Laboratory, Madison, has revolutionized beekeeping methods and thinking in this state. One reason for the large attendance at our convention is due to the fact that beekeepers realize there is a change taking place in beekeeping methods which will result in reduced cost of production and larger crops. They are anxious to learn about these new methods.

Dr. Farrar outlined the method of building up large colonies with approximately 50,000 bees. The wintering problem, he said, can be solved if we have plenty of stores and plenty of bees in the colonies—enough to cover the most of 20 frames.

Requeening should be done whenever a queen is failing. Queens will wear out more rapidly in colonies properly handled for maximum production than when crowded into small brood chambers because they can lay more eggs. The character of good stock depends upon the quantity and quality of the brood produced. He stated that a strong colony may use from 400 to 600 pounds of honey during a year for winter food and in brood rearing throughout the year.

Value of Pollen

Dr. Farrar stated that during the past summer colonies were crowded with pollen, but by fall they had below the best requirements for good wintering. He predicted that in the future some beekeepers, especially Southern package breeders, will produce pollen for sale for feeding purposes and mentioned that soybean flour used with pollen at the rate of four parts flour to one part of pollen gives excellent results in spring brood rearing. He mentioned, however, that it is possible to spread AFB if pollen is used from colonies infected with the disease.

Sixty to 90 pounds of honey should be allowed for wintering and for use until the next honey flow begins.

A package breeder, he said, who could send a 2-lb. package of bees plus 2-lbs. of pollen for the Northern beekeeper to use would give better service than by sending a 3-lb. package. We really need earlier packages in order that the colonies may build up to maximum strength for our clover flow in June.

Several nuclei should be maintained in each yard so that requeening may be done whenever necessary.

Nosema Widespread

Most apiaries have some Nosema, is the opinion of Dr. Farrar. Strong colonies suffer the least loss. Weak colonies, if that they become infected, are likely to dwindle during the winter and practically disappear by spring.

Ninety per cent of the package bees received last year showed more or less infection with Nosema. Fifteen to twenty per cent of the queens lost in introduction showed light infections of the disease. Queen loss may often be due to Nosema. If infection is heavy, it definitely slows up brood rearing.

The severity of Nosema decreases in hot weather during the summer time. It **shortens the life of the bee to about 2 weeks** after the infection occurs. Microscopic examination is the only sure method of determining the disease, although the digestive stomach is a milky white in diseased bees.

Winter brood rearing will help the colonies because young bees will be produced in late winter which are more vigorous and longer lived than the old bees and will greatly aid spring brood rearing. Little is known as yet about the spreading of the disease or its cure.

Disease Resistant Stock

Work along the line of AFB resistance is being done at various experiment stations. At Laramie, Wyoming a great deal of work is being done. Resistant bees, according to Dr. Farrar, do better house cleaning than non-resistant stock. Spores of the disease must be fed the larvae within the first two days after the egg is hatched in order to kill it. The resistant bees seem to clean up the dead larvae in a very short time, and even tear down the walls of the cells in their efforts to clean up. However, the larvae themselves are not resistant to the disease and can be infected if spores are fed within the first days after the eggs hatch, the same as non-resistant stock. Wholesale requeening with resistant queens is not advised at this time.

Must Give Wax Better Care

Propolis must be kept out of wax, Mr. H. H. Root, Medina, Ohio emphasized. Five per cent of propolis in beeswax spoils it for many uses. We should produce as much wax as possible in order to supply the need at the present time because efforts are being made to find substitutes. If substitutes are discovered which are cheaper than beeswax, they may largely replace our produce to our disadvantage.

Attention to detail has saved the day for many industries, emphasized Mr. Root. Care of waste products and their utilization has been an important factor in the success of industry and will be in the case of the beekeeper.

Honey can be used between meals to keep up energy.

Mr. Root mentioned the new circular No. 650 entitled "Factors Affecting the Usefulness of Honeybees in Pollination," published by the U. S. Department of Agriculture, Washington, D. C. He stated that the bulletin shows that butterflies and many other insects wander from one flower variety to another, and are therefore not good pollenizers. Honeybees, however, work one variety almost exclusively during any one period, and therefore are very effective pollenizers.

Better Care of Honey

All honey should be heated to 130 or 140 degrees to prevent fermentation if it is to be held for any length of time, Mr. Walter Diehnelt, President of the Association emphasized. Wisconsin honey is inclined to have a relatively high moisture content, especially during damp seasons. Consequently when the honey granulates a portion of it may remain in liquid form which has a low sugar content and will ferment. Heating the honey kills the yeast organism and if sealed while hot the honey should keep all winter.

Honey should also be allowed to settle in a large tank before being bottled in order to eliminate the skum or foam often seen at the top of retail containers.

HEAVY WINTER PACKING RECOMMENDED IN NEW YORK STATE

THE following article on winter packing was published by BEE-KEEPING NEWS, sent out by the Extension Department, New York State College of Agriculture.

"Winter Packing. Next to poor stores, the lack of protection during winter causes more loss in this state than any other factor. The colonies may not die outright, but are so weak in the spring that it is impossible for them to build up in time to gather a crop of honey. Insulation should be at least four inches on the bottom, six inches on the sides, and from eight to twelve inches on top."

New York State has a variable climate, but much of the state is warmer than Wisconsin because they can grow peaches in many parts of New York and peach blossom buds winterkill at a temperature of about —15 degrees F. We cannot grow peaches in Wisconsin.

We venture to predict that colonies which are weak this fall will be very weak next spring in spite of the packing recommended.

HEAVY WINTER LOSS OF BEES PREDICTED

IN THE opinion of some of our bee inspectors and others who have studied the situation, we are due for a heavy winter loss of bees this year. Main reason is that beginners and amateur beekeepers allowed their colonies to swarm heavily. Others made increase which resulted in weak colonies. The lack of a fall honey flow resulted in these weak colonies being low in stores. This combination, small colonies and inadequate stores, can result in only one thing—many dead colonies by spring.

Nor will packing or any so-called method of improved wintering help the situation very much. In states where heavy packing is advocated, past reports have always shown that there is considerable winter loss even with packing during "bad winters".

There is no substitute for strong colonies and plenty of stores for successful wintering.

WINNERS IN THE AUXILIARY HONEY CANNING EXHIBIT

THE following members of the Woman's Auxiliary of the Wisconsin Beekeepers Association won premiums in the honey canning exhibit at the convention.

Pears: 1st, Mrs. Walter Diehnelt, Menomonee Falls.

Red Beet Pickle: 1st, Mrs. Wm. Michaelsen, Arkansaw.

Sliced Ripe Cucumber: 2nd. Mrs. A. J. Schultz, Ripon.

Sweet Pickle: 3rd, Mrs. C. Meyer, Appleton.

Jellies

Apple and Blackberry: 1st. Mrs. A. J. Schultz, Ripon.

Apple and Peach: 3rd, Mrs. A. J. Schultz, Ripon.

Currant jelly: 2nd, Mrs. Walter Diehnelt, Menomonee Falls.

Honey jelly: 3rd, Mrs. Walter Diehnelt.

LOW GRADE HONEY PRESENTS PROBLEM

IT IS being reported from various sections of the state that considerable dark honey is appearing on the market. It seems that beekeepers extracted much of their poor quality fall honey and mixed it with their good clover honey, resulting in a lower grade for all.

If this is the case, it is a big mistake. We must build up a reputation for our best honey. The darker honey should be kept separate and sold as such. Many people do not like this kind. Some people do. The only way the problem can be solved is for buyers to pay on color. It is only by getting more for the best that we are willing to go to the extra trouble of keeping the best separate.

Beekeepers however, should remember that some of our neighboring states in the West produce largely sweet clover honey which competes with our honey. We cannot hope to sell dark honey at the same price as white honey. This applies also to the amount of moisture in the honey. We do have the problem here in seasons when there is considerable humidity of keeping down the moisture content and every effort should be made to do so. The answer is large, strong colonies, plenty of ventilation in the hives and extracting during the driest part of the season.

PRICE CEILING ON HONEY

AS WE go to press, we receive word that the government has placed a price ceiling on honey, effective December 3rd.

The regulations seem difficult to understand and we will have more details in our next issue. As we understand the regulations, they set a ceiling of 12 cents per pound on honey in 60 pounds cans, f.o.b. the producer's station.

That would mean a ceiling on the wholesale price of honey at 12 cents per pound, but not cans returned. It will certainly be a good policy for the beekeeper to ask to have his cans returned. They are valuable property in these times. Arrangements could, of course, be made for the buyer to return the cans, deducting their agreed value from the price paid.

A copy of the regulations—No. 275—may be obtained from the Department of War Information, Office of Price Administration, Washington, D. C.

BEE HIVES SHOULD BE BRANDED

DURING the coming year there will be greater danger than ever of bee hives in outyards being tampered with.

Branding is one solution to the problem. The Ever-Hot Manufacturing Company, Maywood, Illinois, put out a branding device, which, while somewhat expensive, is nevertheless very effective. It consists of a gasoline torch which heats the brand so that it quickly burns the initials or insignia of the owner into the hive. Brands with letters about 5/8 inches tall are very effective. They have been used for a number of years by the Central States Bee Laboratory, Madison. The Laboratory brands every frame as well as other equipment of wood.

For small apiaries it is possible to obtain letters mounted as punches and brand the hives with a hammer.

C. W. RADLOFF

MR. C. W. Radloff, Cecil, Wisconsin, president of the Shawano County Beekeepers Association, passed away on November 16th at the age of 73.

Mr. Radlaff was a member of the Shawano Association ever since it was organized 25 years ago, and a member of the State Association for many years.

The Shawano County Beekeepers Association joins with the Wisconsin State Beekeepers Association in extending deepest sympathy to the bereaved family.

BEES FOR SALE

One hundred colonies bees, 10 frame, with location, 1¼ acres, 18x34 two-story honey house with basement at Brillion. Supers and all equipment, also equipment for 200 more colonies. Henry F. Meyr, 718 S. Orchard St., Madison, Wis.

HONEY WANTED

Cash paid for cars and less than cars comb and extracted honey. Mail sample and best price. C. W. Aeppler Company, Oconomowoc, Wisconsin.

HONEY CONTAINERS

Wisconsin Beekeepers Association

Order Through Your State Association where all profits go to further the work of the industry.

Modernistic glass

Tin pails and cans

New Association labels

For complete price list write

HONEY ACRES

Menomonee Falls, Wisconsin

CHRISTMAS CHEER

To Our Beekeeping Friends and Customers

Many thanks to our customers and all others who have helped make 1942 a successful year.

REMEMBER

For the defense of our country and of the Beekeeping Industry

BUY WAR BONDS

AUGUST LOTZ COMPANY

BOYD, WISCONSIN

SOCIETY ELECTS NEW OFFICERS

Mr. Arno Meyer, Waldo, is New President; Mr. Don Reynolds, Sturgeon Bay, Vice-President

MR. ARNO MEYER, proprietor of Waldo Orchards, Waldo, Wisconsin, was elected president of the Wisconsin Horticultural Society at our 74th annual convention. Mr. Meyer is a graduate of the Wisconsin College of Agriculture, specializing in horticulture, and has developed a very successful orchard in Sheboygan County.

Mr. Don Reynolds, well known orchardist of Sturgeon Bay, associated with the Reynolds Preserving Company was elected vice-president. Mr. Reynolds is also a graduate of the Wisconsin College of Agriculture and has been a leader in horticulture for many years in his section.

New Directors

Three new directors were elected. They are: N. C. Jacobs, Sturgeon Bay, well known and successful grower of cherries, apples, and strawberries. He has been interested in testing new varieties of fruits for many years.

Mr. Peter Louis Swartz, Jr., Waukesha. Mr. Swartz is to our knowledge, the youngest horticulturist ever elected on the Board of Directors. He is 22 years old. He has attended the Wisconsin College of Agriculture, and is the son of the late Peter Swartz so well known in Wisconsin as a fruit grower and Farmers' Institute speaker. Peter Louis Swartz is rapidly taking his place on the Swartz Brothers Orchards which will soon be one of the largest in that section of the state.

Mr. Virgil Fieldhouse, Dodgeville, nurseryman and fruit grower. Mr. Fieldhouse is well known to the readers of this magazine as he has been a regular contributor for some years. He has tested many varieties of apples, plums and strawberries, and is keenly interested in the success of horticulture in his section.

Other members of the Board of Directors remain the same.

OUR 74TH ANNUAL CONVENTION

OUR 74th annual convention will go down in history as one of the most successful we have ever held. Total registrations were over 170. The attendance the first day was larger than on the second. Both the fruit growers and the Auxiliary meetings were most interesting and educational.

The splendid cooperation of the Jefferson County Fruit Growers Association, the County Agricultural Agent Mr. George Wright, and the Home Demonstration Agent Mrs. Helen Feind, will long be remembered.

The Municipal Building at Fort Atkinson is well planned for the purpose of holding such meetings. The large Auditorium really needs a loud speaker for best results so speakers may be heard by large groups. The fruit show was held in the rear of the Auditorium and this proved satisfactory.

The Fort Atkinson Garden Club, the city officials and the Chamber of Commerce all helped to make our stay a profitable one.

The program was one of the best in years. The Society unanimously adopted a resolution thanking the following speakers: Dr. C. L. Fluke, Dr. G. W. Keitt, Dr. W. G. Brierley, Dr. H. B. Tukey, Prof. J. G. Moore, Prof. O. B. Combs, E. L. Chambers, C. L. Kuehner, Karl S. Reynolds, M. B. Goff, Dr. R. H. Roberts, and Mrs. Harriett Grace.

Apple Coffee Served

A surprise at the annual banquet was a serving of apple coffee. The secretary had brought from Canada some of the coffee described in our October issue. It created considerable interest. As was expected, many of those in attendance liked it, while others said "Ugh!"

OLDEST FRUIT GROWER SENDS GREETINGS TO CONVENTION

H. H. Harris of Warrens Still Active

MR. H. H. HARRIS of Warrens, our 91 year old strawberry man, sent a letter of greeting to the annual convention of the Wisconsin Horticultural Society at Fort Atkinson, November 17-18.

Mr. Harris illustrated his greeting with drawings, and his hand writing was remarkably clear for a man of 91.

The greeting was read at the annual banquet and applauded. The Society extends best wishes to Mr. Harris and for many more years of health and happiness.

The night has a thousand eyes, the day but one, and the neighbors twice as many as both of them put together.

Society Presents Certificates to Two Outstanding Men

Arthur J. Schultz

THE honorary recognition certificate of the Wisconsin State Horticultural Society, given each year for meritorious work along the lines of horticulture were presented this year to two outstanding men, Mr. Arthur J. Schultz of Ripon, and Dr. Ray H. Roberts of Madison.

The presentation was made at the annual banquet in Fort Atkinson by a former president, Mr. Moulton B. Goff, orchardist of Sturgeon Bay, now living in Chicago. Mr. Goff reviewed the work of the men who have received the certificate since 1929 when the plan was first inaugurated. He then told of the work of the two men to be honored this year, stating that Mr. Schultz was given the certificate for his achievement in developing one of Wisconsin's most successful apiaries and for his leadership in advancing the beekeeping industry.

He then presented the following account of Mr. Schultz's achievements.

ARTHUR J. SCHULTZ

MR. ARTHUR J. SCHULTZ was born on June 7, 1884 in Ripon, Wisconsin, where he still lives. He has become one of Wisconsin's largest and most outstanding honey producers. His success is the result of long study of bee culture and in following the best teachings of the day.

Mr. Schultz was reared on a farm, but as a young man went on to other work, including that of rural mail carrier. Ill health, due to the hardships and discomfort of delivering mail in the days before automobiles forced him to give up this work.

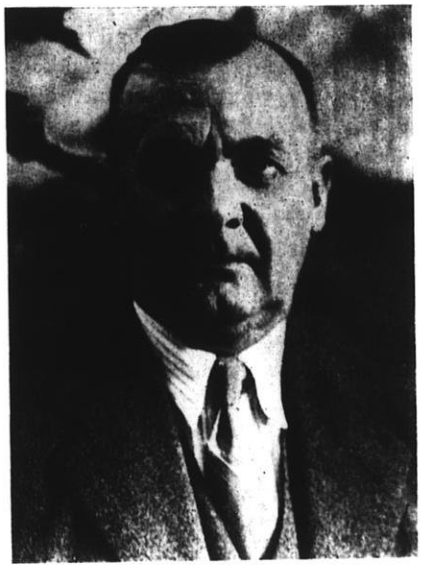
Meanwhile a neighbor's bees had aroused Mr. Schultz's interest, and in 1901 he bought his first colony. Inexperienced, he did the wrong thing—divided his colony into two. The next spring both were dead. Nevertheless he wasn't discouraged. He bought more bees, studied all the literature he could find, and as his experience grew, cautiously enlarged his holdings.

Bees soon became his chief interest. He liked to work with them. He felt sure there was a future in beekeeping despite the skepticism of his parents. So the advice of his physician to take things easy was shrugged aside and the young man threw himself enthusiastically into his work.

Commercial Beekeeping

He purchased more land and in 1917 established his first out-apiary. One apiary followed another until he was soon a commercial beekeeper. His vision was broadened by five years as deputy apiary inspector. However, he dropped his work to devote himself to his growing honey business.

The step into commercial honey production brought new and bigger problems. Large crops of honey needed a market. The local demand was too small to absorb his crop. He then met the problem by building a substantial honey house and installing equipment necessary for packing honey into retail containers. Honey under the Schultz brand soon became known on store counters all over the state.



Ray H. Roberts

Recently two additions have been attached to the former honey house. More bee yards were established in the surrounding prosperous dairy country until now they number fourteen.

State Association President

He was elected president of the Wisconsin Beekeepers Association in 1937, serving in that office for three years. During his presidency through the loyal support of the members, an appropriation of $31,500.00 was secured for disease eradication work in the state.

Arthur Schultz has always stood firm for thorough and relentless work for the highest type of beekeeping. He has held offices in his own Fond du Lac County Beekeepers Association. He is also serving

his third term as a member of the Fond du Lac County Board.

Mr. Schultz is known to everyone for his cheerful and friendly personality and for his devotion to his bees and honey business. He is in perfect health today and if you ask him about it, he very likely would tell you that an average amount of daily work and a diet consisting of a generous amount of honey has restored his body to a vigorous condition.

Ripon is proud of the Schultz Honey Farm. They point to it as "the sweetest business in town".
—By Joe Mills, Ripon, Wisconsin.

DR. RAY H. ROBERTS

DR. RAY H. ROBERTS was born on a farm near Lebanon, Oregon, April 4, 1890. He graduated from the Oregon State College in 1910 and received his Masters Degree in 1912. He returned to his home fruit farm until 1915 when he accepted the position of extension specialist in fruit growing at the University of Wisconsin. It soon became apparent that Prof. Roberts had particular aptitude in research and the emphasis in his work became more and more the solution of the problems confronting the fruit growers. During this period he spent a part of his time in academic work to better fit him to carry on his future investigations and in 1924 he was granted the degree of Doctor of Philosophy by the University of Wisconsin. Since that date, although he has done some instructional work with advanced students and has spent a limited amount of time in consultation with commercial orchardists and other commercial horticultural interests in the State, the major part of his time has been spent in trying to solve both problems rather directly related to the successful culture of horticultural crops, particularly tree fruits, and some of the fundamental phenomenon of plant growth and functioning upon which the scientific culture of plants is dependent.

These studies have carried him into investigational work along a variety of lines. Among the earlier of the problems attacked was fruiting of sour cherries and its relation to cultural practices in growing that crop. Another study related to stock and scion influence on the growth of trees.

For a number of years studies of the factors influencing reproduction and fruitfulness in plants have received greatest attention. This problem has lead into a variety of fields. Two of great import are the effects of photo-period and temperature on the functioning of plants and the relation of structure and composition of plant tissue to the reproductive functioning of the plant.

Dr. Roberts' work has not been confined to the more technical laboratory and greenhouse studies. For the past several years he has been carrying on rather extensivly a strawberry breeding project which at present gives promise of making a valuable contribution to the list of varieties adapted to Wisconsin conditions.

He has also recently concerned himself with what at this time appears to be some fundamental problems of cranberry culture and already has been able to suggest cultural practices designed to overcome some of the conditions of serious concern to cranberry growers.

The above is far from a complete list of the various studies and contributions made to horticulture by Dr. Roberts and are cited merely to show the breadth of the field in which he has made contribution and to the fundamental character of some of the studies which has commanded his attention and effort.

The Certificate

The testimonial certificate presented Dr. Roberts by the Society stated that it was given for his "eminent services in advancing the science of fruit growing through research, and as a counselor of students and orchardists."

THE DECLINE OF APPLE PIE

"A friend tells us of an Iowa miner who has had apple pie for lunch every day for the past forty-five years. His wife fabricates a fresh pie each morning, puts half of it in her husband's dinner pail, and they share the remaining half at the evening meal.

That's all we know of the story, but it is obvious that the miner's wife learned her trade back in those golden years of cookery before subversive influences began to destroy the character of America's finest dessert. If the Iowa miner were to find in his dinner bucket the kind of apple pie you get in most public eating places these days, he would tamp it in as ballast around a stick of dynamite. Just how some hotels and restaurants arrived at the abortion which they mistakenly list on the menu as apple pie is one of the major mysteries of the past twenty years. It is surprising that an indignant populace hasn't sought a court injunction.

Apple pie, properly compounded of fresh, thinly sliced apples, sugar and spices—with flaky strips of brown crust criss-crossed over the top—is one of our noblest American institutions. Within it there is all the generous flavor put there by the wind and the blue sky and the gentle rains of summertime. It balances off a good many of the shortcomings of this confused world.

Most restaurant apple pie, however, tastes as if it had been left in a Turkish bath overnight. What actually has happened is that chefs somehow have acquired a ridiculous notion that apples should be stewed before putting them into the crust. The result, naturally, is a spiritless concoction which, if it had appeared at an old-fashioned country-school pie supper, would have brought about the ostracism of its creator.

As matters stand, there is probably nothing we can do about the use of precooked, watery apples in pie except to exercise the democratic right of protest. If the proper recipe for apple pie had been written into the Bill of Rights, as it should have been, we could demand that the FBI take immediate action.

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Nothing ever happens in a small town, but what you hear makes up for it. *—Virginia Safford*

Home and Garden

Mrs. C. E. Strong

GARDENERS VIEWPOINT

Planting of garden;
Muscles to harden;
Dragging of hoses:
Beautiful roses;
Bugs dissipated;
Highly elated;
Roots fertilized;
Plants energized;
Pool renovated;
Ego inflated;
Cleaning and burning;
Neatness returning;
Results of the labors?
Envy of neighbors:

Wheeler R Osborn
In Sunset Gold, Calif.

ON THE MOUNTAIN TOP

AS a child—my happiest hours came when I climbed the steps my father had placed in the big Transcendent Crab tree—way up to the very top. There hidden by the leafy branches, I could imagine it was the top of a mountain and many were the childish dreams of a home on this mountain and the wonderful things I could see and do. Of course I would be able to see the OCEAN that was so very big. Today I am "making believe" again, but am really and truly on a mountain top and were it not for a slight fog, could see the ocean. But you can see for miles the lemon, orange, and avocado groves that cover the hills and mountains and in the valleys, green fields, with rows and rows of vegetables, with homes in the valleys and homes on the hillsides and mountain tops, over all the sun is shining warmly as though it were June instead of November.

On the mountain top that is my make believe home is a tiny white cottage surrounded with citrus fruits, avocados sapotas, pomegranates, everthing you can imagine. A thicket of bamboo tempers the wind that always blows on a mountain top no matter how quiet it is in the valley below.

There are many snails in a warm climate. They do a great deal of damage to trees, especially the avocados. so the grove owners keep a flock of ducks. They march up and down the rows—cheerfully gobbling up every snail in sight as well as the other bugs

and worms. The owner carefully pens them up at night, for coyotes are as fond of ducks as ducks are of snails. There is a garden on this hill top with many varieties of trees, shrubs and plants, many of them in bloom. Acacias are budded. One early variety, a great tree, is covered with fluffy yellow balls. Bougainvillea and Oregon grape, almost cover the patio pergola, and with the shade of a large pepper tree, make an ideal spot to rest and dream.

There are great tubs and gay pots, filled with palms and unusual succulent plants edging the patio next to the reservoir. On either side of the house are rubber trees, Artocarpus, Pittosporums, Eugenias, Pyracanthus, Cotoneasters, Honeysuckle, Stately Palms, Strawberry and lemon Guavas. There are paper white Narcisssus here there and everywhere, Cannas, Poinsettias, Gerberas, Roses, Sand verbenas, Lantanas in various colors. Salvias, Ivy Geraniums, Myrtle all growing bravely, in spite of the absence of the owner. Uncle Sam has great need of her husband—so the wife leaves this beloved spot "for the duration." So that is why for a few hours I could make believe that my dreams had come true—this was MY home and garden.

California Gardens

I've been visiting some real gardens —the sort of gardens where the owner says proudly. "I take care of this myself," and shows you tree Begonias in pink, white, rose. Wonderful Fuchsias, Chrysanthemums that would be a credit to a greenhouse,that lovely blue daisy known as Agathea. "Does it bloom all the time" we asked. "If you keep the faded flowers picked—it's a constant bloomer." Fulva Hemerocallis is still blooming in this garden—in spite of its being November. In fact—there are a few Hemerocallis, that are known as "winter bloomers." There are also winter Marigolds, Calendulas, Snapdragons, Stocks. Varieties that like the rainy season, which they say will come along soon.

California gardeners tell you a lot of things about gardening. THEY divide and replant their Dahlias in February —about once in three years. They plant Sweet peas in September so they may pick great bowls of blossoms at Christmas time. They grow Tree Dahlias. The blooms look like great lavender Tulips and there are hundred of buds still to open. Am quite sure there will be some for Christmas. There was a long row of the beautiful Morea iridioides, still showing many of those white iris-like blooms, "very good bloomer" rare roses that never heard of quitting in the winter time.

Stocks grow to look like small shrubs after five or six years. That's why it is interesting to a visitor to see a home garden that has that intimate look. It is like a garden you dream of, plants you like live on and on, "Yes," said the gardener with a smile, "and when we get a freeze as we did in 35, we wake up. That year all my flowers froze to the ground. You cannot imagine my feelings as I looked at my garden." I think I can—just as I did when the hailstorm came in June when the garden was most beautiful—and then there was nothing, just nothing! Yet in a little more than a month, it was again beautiful. The same with this garden. At the end of the year, even the shrubs were tall and full of bloom. So we just enjoy a garden's beauty—and hope nothing happens. They say peonies will not grow in southern California. Well maybe they will not, but should like to try them just to really be convinced.

"It has been rumored that you are receiving money for playing football here. Is that true?"

"Yes, sir. But I have to make money. I'm putting my mother through welding school."

—Kay Kyser Kollege (NBC)

Gladiolus Tidings

By the WISCONSIN GLADIOLUS SOCIETY

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Favorite Gladiolus Varieties

THE number of varieties of gladiolus mentioned in the symposium vote this year is surprisingly large. Notice for example, the salmon-pinks. Even with such a favorite as Picardy receiving by far the largest number of votes, 17 other varieties also received votes.

Only a few additional votes have been received since the report in our last issue. As the best variety of any color **Helen of Troy** received 2, and **Bagdad, Picardy** and **Myrna** received one additional vote.

Llona received a vote as the best seedling seen in 1942.

Any Red

Rewi Fallu leads the field as the best red with 9 votes. Algonquin being second with 6. Hindenburg's Memory. Commander Koehl and Master Myron were tied for third. Also in the running was Dr. Hoeg, Jules Amott Wilson, Red Lucifer, Valeria, Red Charm, Beacon, Bill Sowden, American Commander, Liberator, Marsseille and Bright Red.

Cream or Buff

White Gold was an easy winner in the cream or buff class, receiving twice as many votes as the runners up, Jersey Cream and Shirley Temple. Others receiving votes were Helen of Troy, Duna, Buffette, Margaret Fulton, Bingo, Wasaga, Sir Galahad, Capri, Amulet, and Paradise.

Salmon Pink

The voting in the salmon pink class was surprising, considering that **Picardy** was the winner with 17 votes. However, **Smiling Maestro** and **Jeannie** received three votes each, and then there were votes for the following varieties: Cooney Lass, Antonita, Peggy Lou, Phyllis McQuiston, Marguerite, Miss New Zealand, Sue Ellen, Aladdin, Sardis, Ellen Marie, Legend, Wings of Song, Grand Opera, and Margaret Fulton.

An article by one of our growers on the salmon pink class for this magazine will be appreciated.

OTHER PINK

Rosa von Lima was an easy winner in this class, receiving 11 votes compared with New Era, receiving 4. Then the following varieties, which is indeed a long list, also received votes: Criterion, Peggy Lou, Jeanie, Corona, Marlyn, Aladdin, Stella Antisdale, Rio Rita, Rima, Camellia, King Wm., Sonatine, Candy Heart, Sharon, Miss New Zealand, Debonair, Grand Opera and Laddie.

It is noticeable that some growers do not distinguish between **salmon pink** and **other pinks, Peggy Lou,** for example, is listed in both casses as in Jeanie.

According to our official classification, Jeanie is a deep pink with markings. King William is a light salmon, Peggy Lou is a deep pink, Miss New Zealand is a deep salmon, Grand Opera is a light pink. Growers should look up the correct color in the show premium schedule.

The Yellows

There is a long list of good yellows, but obviously not an outstanding variety as yet in this class. This is indicated by the fact that the winner **Crinkle Cream** received only 7 votes, and **Golden Chimes** 5 votes, Sir Galahad and Amber Glow had 4. Votes were also given the following: Golden Cup, Golden Teton, Yellow Teton, Yellow Peril, Ruffled Beauty, Golden Poppy, Zillah, Royal Gold, Jasmine, Golden State, Golden Goddess, Pure Gold and Mother Kadel.

The Lavender

Minuet received as many votes in this class as did Picardy in its class, indicating that this variety which has been popular for so many years, is still an easy winner. However, **Badger Beauty** is coming to the fore and received 5 votes as the best lavender, taking second place. Elizabeth the Queen was third, Lavender Ruf-

ties fourth, and votes were given the following: Salbach's Orchid, Gertrude Swenson, Frances Irwin, Reflection, Rosalie, Rima, Hoosier Lady, and King Lear.

The Purple

Evidently the purples are much like the yellows, without an outstanding variety, and yet with a large number of varieties of some merit.

King Lear was the winner with only 7 votes. Chas. Dickens and Gloaming were second. Other varieties were: Parnasses, Vulcan, Purple Beauty, Purple Classic, Mrs. Mark's Memory, Max Reger, Imp. Hy. Ford, Rudolph Serkin, Simcoe, Purple Glory, Convoy, Paul Pfitzer and Blue Admiral.

The Violets

Here is another class without any outstanding variety, according to the vote. **Blue Beauty** was first with only 6 votes; and **Blue Admiral** second with 4 votes. The following varieties also received votes: Ave Maria, Allegro, Bluet, Pelegrina, Milford, King Lear, Minuet, Rudolph Serkin, Candy Splash, Tunia's Triumph, Edvard Grieg, Tunia's Blue, Vilna Woods, and Delhi.

White

Maid of Orleans is becoming increasingly popular. This is not a new variety but its merits are appreciated more and more. It was the winner with 14 votes, **Margaret Beaton** receiving 5 as second. Myrna was third with 4 votes, and Snow Princess fourth with 3 votes. The following also received votes: Nana, White Eagle, Ivory Keys, Crystal, Snow White, Mammoth White, Star of Bethlehem, Surfside and Leading Lady.

"I saw you the other day at the corner of Hollywood and Vine winking at the girls."

"I wasn't winking. That's a windy corner. Something got in my eye."

"She got in your car too."

—*Rudy Vallee Show (NBC)*

MOUSE CONTROL FOR GLADIOLUS GROWERS

DR. Geo. Scheer, Sheboygan, writes an interesting account of how mice almost ruined some seedling gladiolus in a cold frame this fall. He found a mouse cache or storage house in the cold frame in which the mice had stored away for winter a large number of seedling bulbs. He states that every bulb in those caches were peeled clean of their outer husks, and every vestige of roots had been removed. The entire job was very neatly done. He is wondering if he could train a little army of mice to clean the remainder of his bulbs. Could anyone give him the name of an expert at training mice for this job?

This reminds us that gladiolus growers might find it profitable to become familiar with methods of mouse control. On page 31 of the October issue of Wisconsin Horticulture is an article on mouse control in the orchard, giving prices of bait available through the Wisconsin Horticultural Society.

FLOWERS GROWN WITH X-RAY TREATMENT

DAVID BURPEE, Philadelphia, plant expert, recently showed his "X-ray twin" calendulas. The X-ray treatment, he said, produces more definite changes in the structure of plants than colchicine. Colchicine increases the chromesome content of a plant and intensifies or distorts some traits of the flower, whereas the X-ray smashes the genes or breaks up the chromosomes in the seed so the next generation "goes crazy."

"The genes," he said, "are the units of hereditary material. They are placed in the chromosomes like beads on a string . . . Each gene is thought to be a large chemical molecule made up of various atoms of chemical elements. As such, if a gene loses an atom or a group of atoms, startling changes may take place in the form of the plant or flore. Roentgen rays are emitted as particles of energy from the X-ray tube. If we shoot a stream of X-rays at the seed . . . and hit a gene, the effect may be good or bad on the next generation of flowers from that seed . . ."

—*New York Herald Tribune.*

MIDWEST GLADIOLUS SHOW RECEIPTS FOR ARMY AND NAVY RELIEF

A letter from Mr. E. A. Lins, Spring Green, advises us that there will be a nominal admission charge to the Midwest Gladiolus Show at Chicago next August, of 10 cents. None of the income will be used for the expenses of the show, but the full gate receipts will go for army and navy relief.

APPLE MUFFINS

2 cups flour
¾ teaspoon salt
4 teaspoons baking powder
¼ cup sugar
¾ teaspoon cinnamon
¼ teaspoon nutmeg
1 beaten egg
⅓ cup melted shortening
¾ cup chopped apples

Sift dry ingredients; mix and add the egg, milk and shortening; stir until ingredients are just moistened. Add apples. Mix. Fill greased muffin pans two-thirds full; bake in a hot oven 400° F. for 25 minutes. Makes 1 dozen.

GLADIOLUS GROWERS!

Limited quantity of AGICIDE SPECIAL BULB DUST, a Rotenone insecticide,, available for winter treatment of gladiolus corms.

AGICIDE LABORATORIES, INC.
4668 North Teutonia Ave.
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GARDEN GLEANINGS

FIBROUS rooted begonias are among the most satisfactory house plants we can grow throughout the year. There are a large number of varieties, most of them with beautiful foliage, and growing them is an interesting hobby. The plants do well under ordinary conditions in the home. They do not require a great deal of sunlight so can be grown in almost any window. There are varieties, of course, which are difficult to grow and should not be attempted in the average home.

The American Begonia Society, 2751 East 17th Street, Long Beach, California, publishes a magazine "The Begonian," for members of the Society. Membership fees are $1.00 per year. The pamphlet contains the addresses of growers of choice varieties. Among those advertising the newer kinds are Fairyland Begonia Gardens, Harbor, Oregon; Green Tree Flower Gardens, 5343 Green Street, Germantown, Philadelphia, Pa.; Mrs. V. L. Shippey, 536 Willow Street, Lockport, New York.

We give these because there are not many places where one can buy good selections to our knowledge.

Most house plants prefer low temperatures for best results during winter months. Fuel oil rationing may have a beneficial effect in that we will maintain a somewhat lower temperature in our homes, resulting in better living conditions for both humans and plants.

An experiment carried on last year indicated that men prefer a lower room temperature during the winter than do women because they wear warmer clothes. In the experiment a group of men and women exchanged clothing, the men wearing the women's clothes, and vice versa. Whereas at the room temperature used in the experiment, the men had first complained it was warm, and the women that it was cool, when the exchange of clothing was made the men then said it was too cool for comfort, but the women were warm enough.

During early November the writer had five garden club meetings in various parts of the state—La Crosse, Lodi, Big Bend, Burlington, and Kenosha. We had been advised at the annual convention that small meetings would not be successful because of a decrease in interest. We did not find it so this year. The attendance at some of the meetings was very large and interest at all of the meetings was exceptionally good. We had a definite feeling that garden club members are taking their gardening seriously and are very keenly interested in the fundamentals of horticulture. We have a feeling too, that the boys who are doing the fighting will appreciate a good deal more if we keep up our gardens than if we get our recreation in some of the sordid spots we see full of people.

Perennial Phlox must be replanted about every three years. From questions asked at garden club meetings we could draw the conclusion that many people are having trouble with their phlox due to the clumps becoming overcrowded. When the leaves begin to dry up from below without there being any evidence of disease or red spider, it is no doubt due to the clumps being crowded and old, as has been described in this magazine before. The condition may be so widespread that we should give it more serious attention next spring, or phlox will lose its popularity.

—*H. J. Rahmlow*

"Why did you leave your last position?"

"Illness. The boss got sick of me."

—*Charley McCarthy (NBC)*

UNPRUNED SEEDLINGS SURVIVE

Clipping Plants Not Entirely Beneficial

IT APPEARS that the time-honored practice of clipping the tops of seedling plants to prevent wilting after transplanting is not entirely beneficial.

According to James E. Kraus, formerly of the Federal Bureau of Plant Industry, pruning makes no difference with lettuce, cauliflower, celery, pepper or onion plants as far as survival is concerned. Hardened or unhardened, watered or not watered, just as many unpruned as pruned plants live after transplanting.

In the case of lettuce severe pruning not only delays maturity but also reduces yield. Cauliflower is also delayed in maturity by the removal of over half of the leaf area.

Tests with celery have also demonstrated that with young plants pruning has no object. Heavily pruned onion and pepper plants yield in normal fashion.

The study determined that the rate and amount of root growth of cauliflower and celery plants subsequent to pruning are reduced in proportion to the amount of foliage removed. It seems that pruning away half the leaf area removes about one quarter the total carbohydrates in the plant tops.

Mr. Kraus concludes that plant recovery and resumption of root and top growth after transplanting appears to be directly tied up with the amount of carbohydrates present after pruning.

—*From November 1 Horiculture.*

Teacher—"Michael, what is that lump in your cheek? Are you chewing gum in class? You know that is forbidden."

Michael—"No, I aint chewing gum. I'm just soaking a prune to eat at recess."

Annual Gourd Show Very Interesting

Keen Demand Shown For Most Attractive Gourds

THE Third Annual Gourd Show staged in Radio Hall, University of Wisconsin Campus, under the auspices of Radio Station WHA, the Wisconsin State Horticultural Society, and the Wisconsin Gourd Club proved very successful from an artistic standpoint. The quality was much better than at past shows.

A great many people saw the exhibit during the week. The number of visitors who wanted to buy gourds was surprising. The varieties Crown of Thorns, Warty and Spoon Shaped Bicolor, were by far the most popular. If the show is held next year it is planned to ask exhibitors to bring additional gourds which they might wish to offer for sale.

In the opinion of those in charge of the show, interest in gourds is definitely on the increase. They are being used more and more in an ornamental way. The show is no doubt helping to teach people the uses and attractiveness of gourds.

The Winners

Apple Shaped. 1st, Jessie Bassett, Baraboo; 2nd, Lois Byrns, Madison; 3rd, Martha Klein, Madison; 4th, Earl Squire, Burlington.

Bird's Nest. 1st, John Schuldt, Colgate.

Large Bottle. 1st, John Schuldt.

Crown of Thorns. 1st, Jessie Bassett; 2nd, John Schuldt; 3rd, Harold A. Engel, Madison.

Emperor's Hat. 1st, Jessie Bassett.

Hercule's Club. 1st, John Schuldt.

Maranka or Dolphin. 1st, Ann Haugen, Stoughton.

Nest Egg. 1st, Earl Squire; 2nd, Elizabeth Stitgen, Madison; 3rd, Mrs. William Kikul, Waukesha.

Orange. 1st, Jessie Bassett; 2nd, Earl Squire.

Ornamental Pomegranate. 1st, Jessie Bassett; 2nd, John Schuldt.

Pear Shaped (bi-colored). 1st, Ann Haugen; 2nd, Jessie Bassett; 3rd, John Schuldt.

White Pear Shaped. 1st, Lois Byrns; 2nd, John Schuldt; 3rd, Earl Squire.

Any other Pear Shaped. 1st, Jessie Bassett; 2nd, Lois Byrns; 3rd, Earl Squire; 4th, Martha Klein, Madison.

Powder Horn. 1st Harold A. Engel; 2nd, John Schuldt

Spoon. 1st, John Schuldt; 2nd, Earl Squire; 3rd, Mrs. William Kikul.

Turk's Cap. 1st, Jessie Bassett.

Worted Sorts. 1st, Darlene Haugen, Stoughton; 2nd, Jas. and Billy MacDonald, Madison; 3rd, Earl Squire; 4th, Mrs. William Kikul.

Any other variety. 1st, Jessie Bassett; 2nd, John Schuldt; 3rd, Martha Klein; 4th, Mrs. W. F. Walsh, Madison.

Arrangement less than 15. 1st, Mrs. Albert Haugen, Stoughton; 2nd, Martha Klein; 3rd, Jessie Bassett; 4th, Lois Byrns, Madison.

Junior arrangement less than 15. 1st, Jas. and Billy MacDonald; 2nd, Gloria Ann Walsh, Madison.

Arrangement 15 or more in container. 1st, Mrs. Frank Patterson (special award), Stoughton; 2nd, John Schuldt; 3rd, Lois Byrns.

Collection less than 15, no container. 1st, Martha Haugen; 2nd, Lois Byrns; 3rd, Earl Squire.

Collection 15 or more, no container. 1st, Jessie Bassett; 2nd, Joyce Haugen, Stoughton; 3rd, Lois Byrns.

Largest Gourd. 1st, Jessie Bassett.

Longest Gourd. 1st, John Schuldt. (Hercules Club)

Smallest Gourd. 1st, Harold A. Engel; 2nd, John Schuldt; 3rd, Mrs. William Kikul; 4th, Mary Walsh.

Most beautiful. 1st, Jessie Bassett; 2nd, John Schuldt; 3rd, Martha Klein.

Most unusual. 1st, Jas. and Billy MacDonald; 2nd, John Schuldt; 3rd, Jessie Bassett; 4th, Martha Haugen.

Most colorful. 1st, Jessie Bassett; 2nd, Mrs. William Kikul; 3rd, John Schuldt.

Other sorts. 1st, John Schuldt.

Handicraft exhibits (amateurs). 1st, Martha Klein, Madison.

EMMA GOELZER

MISS EMMA GOELZER, a life member of the Wisconsin Horticultural Society, passed away at her residence at Oakwood, Wisconsin on October 10th. Miss Goelzer had been a member of the Minnesota Horticultural Society and was an ardent gardener.

SHELLAC SPRAY MAKES DECORATIONS FOR WINTER MORE LASTING

IN VIEW of the interest now taken in dried wild flowers, seed pods and grasses for harvest arrangements and home use, readers may be glad to know of an experiment made last autumn to prevent pollen from flying or falling on the furniture.

I use a small 19-cent sprayer, such as is used indoors for moths or mosquitoes, filled with shellac thinned by adding extra alcohol.

This does not glaze, but just makes the seeds and pollen stay put.

When the downy milkweed pods widen with excessive heat another spraying will hold the silken seeds in place.

My trail bouquet from last year still holds good.

—By Beatrice Haddrell, Marblehead, Mass., in Horticulture.

"I didn't know you suffered with rheumatism."

"Sure. What else can you do with it."

—Kate Smith Hour (CBS)

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Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

OFFICERS

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15 W. Main St., Madison

Mrs. R. H. Sewell, 1st Vice-President,
957 No. 70th St., Wauwatosa

Mrs. F. E. Willard, 2nd Vice-President,
Oakfield

Mrs. Floyd E. Ballard, Recording Secretary-Treasurer
Badger Park, Route 62., Madison

H. J. Rahmlow, Corresponding Secretary
424 University Farm Pl., Madison

DISTRICT PRESIDENTS

Mrs. F. J. Fitzgerald, 649 Broad St., Menasha
Fox River Valley District
Mrs. Martha Lowry, Lakewood, Madison
Madison District
Mrs. Geo. Adami, 2466 No. 46th St., Milwaukee
Milwaukee District
Mrs. Gilbert E. Snell, 414 Erie Ave., Sheboygan
Sheboygan District
Mrs. Bentley Dadmun, 604 Main St., Whitewater
South Central District

MESSAGE FROM THE PRESIDENT

Dear Garden Club Members:

All over the nation garden clubs are formulating their programs for the coming year, to fit in with government needs. Wisconsin too is alert and eager to do its part to help in the winning of the war.

We are facing a very different year of activity as garden club members. We are all aware of this. You have read and heard the many excellent reports of this past year. Now we need to look ahead, to face realities—to know that garden clubs have a definite place in a war time program. Real dirt gardeners have a duty to perform, no less patriotic than other types of war work, and we stand ready to do our utmost for the duration.

Your Board of Directors was convinced of this at the meeting held in Milwaukee November 20th. It was called primarily for the purpose of appointing new standing committees and project chairmen for the year. It was gratifying to note that many new names were advanced for this work.

All during the very busy day of our meeting a mental alertness was noted, and finally this question was asked, "What does the Wisconsin Garden Club Federation expect of the districts and the members this year?" I am sure each member knows the answer. Our government officials feel that we are a necessary and vital organization. As dirt gardeners, it is our privilege to help in the food production of the nation. Our programs will be planned more and more on where to obtain plots of ground, how to intelligently plan and plant a vegetable garden, how to can and preserve, and how to store and keep what we harvest to the best advantage.

Many of us have not felt a real need for producing our own vegetables as yet. We have been told, however, that we need to start this program now. We need not forego the pleasure of growing flowers. This part of our program is essential for many reasons. It has been suggested that when one garden club has planned a really worth while program, that other clubs in the nearby vicinity be asked to attend that meeting in order to avoid duplication of a program within that vicinity. Your speaker will appreciate this too. Invite new members to these meetings, for we need to build membership to spread the knowledge of horticulture.

The Board of Directors, Wisconsin Garden Club Federation. Left to right, front row: Mrs. Martha Lowry, Madison; Mrs. R. H. Sewell, Wauwatosa; Mrs. Gilbert R. Snell, Sheboygan; Mrs. Geo. Adami, Milwaukee. Back row, left to right: Mrs. H. S. Bostock, Madison; Mrs. F. E. Willard, Oakfield; Mrs. Floyd E. Ballard, Madison; H. J. Rahmlow, Madison.

Officers not present are: Mrs. F. J. Fitzgerald, Menasha and Mrs. Bentley Dadmun, Whitewater.

Continue Small Flower Shows

Mrs. Chester Thomas, State Flower Show Chairman, met with the Board to discuss the advisability of holding a 1943 State Spring Flower Show. Since other states are cancelling spring shows, it was voted that we cancel our spring flower show until conditions warrant holding it again. The Board of Directors recommended that Victory shows be held in all communities possible in 1943 and that the districts and clubs coordinate and assist all existing organizations in holding such shows, the proceeds to be given to patriotic causes.

Your entire Board of Directors feels privileged to serve you this coming year. We welcome your suggestions and cooperation. It is our most sincere wish that—"The Spirit of Christmas remain with you, and bring you Happiness."

—*Mrs. H. S. Bostock.*

LET FLOWER SHOWS GO ON

IN THE Bulletin of the National Council of State Garden Clubs, Mr. J. W. Johnston who conceived the idea of Victory Garden Harvest Shows and has been managing director, make the following statements in an article on the subject:

"As to what will happen to the movement (Victory Garden Harvest Shows) in 1943, this must be decided by the Department of Agriculture, the War Department, and the Navy Department. This writer has heard considerable discussion as to the advisability of having ornamentals and flowers. He would like to point out that just recently the National Rose Show was held in London.

"Therein then lies the answer for the gardens of America."

He adds that when the boys come home they will want to see the flowers and ornamentals they have learned to love welcome them home. A line in the film "Mrs. Miniver," he says, will always stand out in his memory: "There'll always be roses."

MILWAUKEE VICTORY HARVEST SHOW NETS LARGE SUM FOR ARMY AND NAVY RELIEF

THE Milwaukee County Victory Harvest Show, sponsored by the horticultural interests of Milwaukee County, netted a total of $1,001.72 for army and navy relief, according to Mrs. Chester Thomas, Milwaukee, manager of the show.

Two checks, each for one-half of the total have been sent to the Navy Relief Society and the Army Emergency Relief organization. This is a notable contribution by Milwaukee County horticultural interests, and all those who took part deserve our praise and thanks for their efforts.

REPORT OF THE MEMBERSHIP AND ORGANIZATION COMMITTEE

OUR organization is energetic, ambitious and courageous. It is made up of citizens devoted to their country.

We look back with pride at the things we have done and the way we have grown as an organization. Today we have in our Wisconsin Garden Club Federation 87 clubs with 2286 members banded together and ready for whatever line of work seems most important.

When I assumed the Membership and Organization Chairmanship for 1942, I asked cooperation from all of you for I fully realized my utter dependence upon your help. Being so anxious for Wisconsin to take its place in the forward march of Garden Clubs, I offered a cash prize of $20 to the district organizing and federating the largest number of Garden Clubs during the year. This award was given at the banquet to the Milwaukee district. Your support and cooperation I have had, and I should like to express to the clubs and club members in the entire federation my deep appreciation.

Many people are interested in gardening and have a love for the soil but do not belong to a garden club. If you know of such a group, won't you please make an effort to meet with them. You'll get a thrill, when you feel you have had a part in their organization, a pride in their success and a pleasure in helping them over the rough places.

It has been asked, what do people belonging to a garden club get from their membership. The answer is,—Many different things of course, but most important on the list is **Education.** Members learn from each other and when we look about and see the improvements in homes and grounds, then consider that the order is nation-wide, we begin to realize that Federated Garden Clubs really have a vital place in the life of our nation.

Our convention was carefuly planned to assist you in solving your garden club problems. I'm sure the association with other club members, the excellent reports, and the outstanding messages will arouse new and greater enthusiasm to be useful and active garden club members. During these troubled times, it is particularly important that we do everything we can to hold our clubs together so that the work of many years will not be lost. Let's share our **garden joys** until all the world is one beauty spot.

—ROSE E. BRAMAN.

Editor's note—The nine new clubs federated this year have already been mentioned in this magazine.

FOX RIVER VALLEY DISTRICT REPORT

THE following is condensed from the report of Mrs. F. E. Willard, Oakfield, President of the Fox River Valley District for 1942.

The Regional meeting was held in Fond du Lac on February 5, in spite of a severe storm. Officers of the Federation were present, and each stated plans for the coming year, and tried to assist garden club presidents in laying out their programs. It was a delightful meeting and the efforts of the state officers to help will long be remembered.

In February Mrs. Willard spoke and gave a demonstration on flower arrangement before the Ledgeview Garden Club, Fond du Lac, and in March spoke to the Ceresco Garden Club of Ripon, demonstrating arrangements and table settings.

The District sponsored radio programs. Mrs. Emery Wegner was Radio Chairman. Programs were given over the Fond du Lac Station KFIZ, the fourth Friday of each month at 11:15 a.m.

Green Bay put on ten radio programs during March, April and May. Mrs. Gladys Minahan is chairman for the Green Bay Station.

Wisconsin Rapids also put on some garden programs over their radio station, with Mrs. Don Waters as chairman.

The Park Ridge Garden Club of Stevens Point broadcast several programs. Mrs. Horace Coleman was chairman.

A district meeting was held in Menasha on April 9. About 90 posters from the district were on display and were judged. They were to advertise the State Flower Show in Wauwatosa.

The District President reported attending a large number of garden club meetings in her district, and also in August and September attended flower shows, Victory Harvest Shows at Green Bay, Menomonee Falls, Plymouth, Sheboygan, Horicon, Brandon, Mayville Oakfield and Milwaukee.

The summer district meeting was held at Whispering Pines at Waupaca, October 26th, with the Waupaca Garden Club as hostess. There was a large crowd in attendance.

There are 26 garden clubs in the Fox River Valley District. Three new clubs, the Park Ridge Club of Stevens Point, the Rosholt Club, and the Horicon Club joined this year.

More and Better Victory Gardens in 1943

H. W. Hochbaum

Editor's Note—The following on Victory Gardens for 1943 is condensed from a talk by H. W. Hochbaum, assistant to Secretary of Agriculture Claude R. Wickard, given in Boston, Massachusetts September 29 in connection with the Victory Harvest Show. The article was published in the October 15 issue of **Horticulture**, magazine of the Massachusetts Horticultural Society.

Many Good Gardens

The victory gardens of 1942 were highly successful the country over. Nature was kind to gardener and farmer alike almost everywhere. Never, indeed have we had such bounteous harvests or such great production on farms and in gardens. It is our hope that the successes won this year will encourage our gardeners to make even greater effort next year.

Undoubtedly we shall have enough food to meet our needs, but perhaps not always the quantities and kinds which have been freely available in the past. It is particularly necessary that our people should have a full supply of the protective foods, the foods which carry the essential minerals and vitamins needed to maintain health. Our standard in extension work for many years has been that there should be an equivalent of 125 quarts of canned fruits and vegetables per year for every member of the family. In these times, with the hazards of war before us, including difficulties in transportation, and lack of labor, it seems that the victory gardener of 1943 should try his best to meet that goal. Thereby, he will be assured of a greater supply of protective foods and also release processed and fresh vegetables for lend-lease and military purposes.

Kinds to Grow

Green leafy vegetables—cabbage, collards, green lettuce, kale, turnip and beet tops and others; yellow vegetables—carrots, squash, rutabagas; and of course, tomatoes can be grown so easily and yield so bountifully that every garden should supply the family's needs. So in considering our food needs for 1943, our first concern should be to obtain a constant and full supply of these health building vegetables.

The food score of our bureau of home economics allows a score of 100 where the daily intake of right foods is adequate. Of these 100 points, 40 may be scored if the person eats the required amount of fruits and vegetables—namely, seven servings a day. So without disparaging the earnest effort of our victory gardeners in town and country alike, the problem for 1943 is to encourage them to have bigger and better gardens, with gardens for all who can find available open sunny space and fertile ground to grow vegetables.

There should be ground enough to supply the family's entire needs, at least of green leafy vegetables, yellow vegetables and tomatoes for the year. A small plot of green onions, radishes, lettuce and a few string beans and tomatoes will not suffice. To meet the everyday need of protective food, our gardens need to be larger, growing something from earliest spring to the hard freezes of winter. Seasonal surpluses should be dried, canned or brined, and pits prepared in which to store late vegetables for winter use.

Keep Ornamental Plantings

We need to open up opportunities for town dewllers and communities to grow more vegetables. In the suburbs there is often space enough for a good large garden on the residence lot. **Yet lawns and ornamental plantings should not be sacrificed.** While more inconvenient, the community plot gardens or allotment gardens, as they are called in England, offer real opportunities. There are many places on the outskirts of town where vacant fertile ground can be made available. Here the serious gardener can cultivate a plot 30 by 50 or even 50 by 100 and really get down to business. Surpluses beyond the family's needs may well be turned over fresh or processed to the schools for improving the school lunch menu. The little town of Orono, Me., last year turned over 2000 cans of fruits and vegetables for use in the local schools.

Commercial Grower Still Needed

Perhaps some commercial vegetable growers may look askance at these recommendations, fearing that the market for their product will be hurt. It is true that the commercial grower has many difficulties to meet—shortage of labor, essential materials, higher production and marketing costs. Yet I do not think his market will be hurt, for he can supply many vegetables which the amateur cannot grow well. Besides there are many millions of metropolitan residents who cannot garden and who will depend upon him for their supplies. Moreover, if this need for vegetables in the daily diet really takes hold, as it will, he will find new and larger customers.

What is needed in many centers is a local committee on which are represented the various garden clubs, horticultural interests, private and trade interests, and garden experts to survey the opportunities for gardening, to make available garden plots, to bring instruction to gardeners, to help them generally with their garden effort. The extension service of each state has helpful garden literature which is freely available to all. Extension agents and specialists likewise are available to local garden groups for help in developing and organizing community or home plot garden effort.

Withal, do not let people get hysterical about our food needs. Let us place the most emphasis that now as in normal times people need to eat more vegetables, but not to sacrifice beautiful lawns or landscaped places to grow their own. Those who take the need seriously will find opportunity on the outskirts of the city if the home plot is not suitable to grow their own.

SCALLOPED APPLES AND SWEET POTATOES

4 medium sized apples
3 medium sized sweet potatoes
½ cup sugar
½ teaspoon salt
3 tablespoons butter or other fat
¼ cup water

Wash and cook sweet potatoes in boiling water until tender. Cool and remove skins and slice. Pare, core, and slice apples. Arrange sweet potatoes and apples in alternate layers in a greased baking dish. Sprinkle each layer with sugar and salt, and dot with butter. Add water. Bake for 30 to 45 minutes in moderate oven (375°) or until apples are cooked and top is brown. Serve in baking dish.

EDUCATIONAL MEETINGS MAY BE HELD

AFTER months of consultation with Washington agencies, the country has been assured that the government will not interfere with the holding of educational gatherings and other meetings which will promote national welfare.

Even some of the large flower shows will be held next spring. The Massachusetts Horticultural Society, Boston, will hold its annual show in March. The Society owns its own building, the Horticultural Hall which makes the show possible. Several large spring flower shows as in New York and Chicago are unable to secure a suitable building to house the exhibit.

Flower shows and other horticultural shows should therefore be continued next year, especially those of local character, not requiring the use of automobiles for travel.

Educational conventions should be held wherever desirable.

PUTTING VEGETABLES TO SLEEP

SCIENTISTS at Cornell University are working on ways to "put vegetables to sleep." Seems they already do that with apples—since the apple is a living thing, it breathes or takes in oxygen, and respires or gives off carbon dioxide. By controllling the proportions of oxygen and carbon dioxide they "put the apples to sleep" so that the fruit will keep a year or more.

With vegetables, it's more of a problem, because different vegetables have different breathing rates. But already the Cornell scientists have been able to double the storage period of most vegetables. There is very little water loss and the vegetables remain crisp and turgid.

—*Coastal Cattleman, September.*

England and America are two countries separated by the same language.

—*Bernard Shaw*

The Center of Interest in Flower Arrangement

Emma C. Schipper

ONE of the attractions at flower shows is the awards and comments of the judges. The reactions to these awards and comments are food for interesting discussions, especially among the visitors whose interest and curiosity seem greatly aroused. This was evidenced by the groups that gathered before some of the entries at the Wisconsin Garden Club Federation's convention show in Milwaukee last October.

Center of Interest

The subject of one of these discussions was an arrangement of wild pampas-grass which had been placed before a mirror. We liked it immensely—the material and container, an old crock of a harmonizing color, were in perfect accord. "No center of interest" was the criticism of the judges. The judges were right—it had no center of interest. Was a center of interest necessary? Here was a bouquet of specimen blooms, the blooms showing no contrast in color, size or form. How, without contrast could there be anything to emphasize? Positively some contrast, either in size, form or color, is essential in creating a center of interest.

"The world around you is made up of contrasts—the differences of things—a fascinating world if the eye is tuned to its beauty. An arrangement without some degree of contrast would have very little fascination indeed," writes Nell True Welch in **Sunset's Flower Arrangement Book.**

We have always been more or less intrigued by the art principle known as "center of interest", "focal point", "point of interest", or "emphasis". There seem to be so many different interpretations.

Mr. John Taylor Arms gives us the following interpretation: "Every flower arrangement—and every work of pictorial art—may be reduced to a skeleton or structure. The elements of this basic structure must balance about a certain definite axis and the central or focal point in a balanced design generally—but not always—comes on the central axis at slightly above a middle point between the exact bottom and the exact top."

In **Art in Everyday Life** by Harriet and Vetta Goldstein we find "emphasis" very clearly defined as follows: "Emphasis is the art principle by which the eye is carried first to the most important thing in any arrangement, and from that point to every other detail in the order of its importance."

Prof. Victor H. Ries tells us, in the May issue of **Wisconsin Horticulture** that a center of interest is not necessary but often helpful. How should we interpret this? Did he mean this to apply only to bouquets of specimen blooms where the blooms show no variation or contrast in color, size or form? If so must we not differentiate between **bouquets** and **arrangements?**

The judges' comments stimulate interest in flower arrangement and in this way make their contribution to its development. Let's continue them.

PROGRAM AIDS FROM THE STATE CONSERVATION COMMISSION

A NEW bulletin has just been issued by the Wisconsin Conservation Department, State Capitol, Madison, entitled "Visual Aids Material." This booklet describes the moving picture films and lantern slides available free of charge from the Commission. All garden club secretaries or program chairmen should have a copy of this bulletin in order to plan programs for the coming year.

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NEW WEED KILLER KILLS POISON IVY

POISON Ivy can be satisfactorily killed with a new weed killer known as Ammonium Sulfamate. It was sold this year as Du-Pont Weed Killer and reports from a number of sources indicate that it has given excellent results.

Beekeepers who have had trouble with poison ivy in outyards will be glad to know that this material not only kills the plants for the season in which it is applied, but seems to kill roots so that they do not come up again the next year.

The weed killer is dissolved in water and sprayed on the plant with a hand sprayer so that it is not difficult nor dangerous to apply.

The only drawback may be that it will be impossible to obtain he chemical this coming year. However, when available, it should be used, because of the great danger of poisoning where the weed is present.

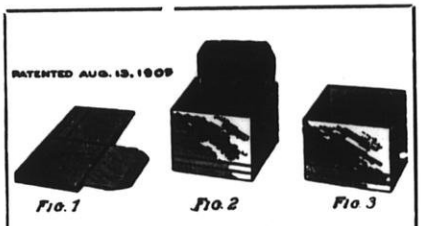

Fig. 1 Fig. 2 Fig. 3

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

ESTABLISHED 1910

Entered at the postoffice at Madison, Wisconsin, as second-class matter. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1918.

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
424 University Farm Place
Madison, Wisconsin

H. J. RAHMLOW, *Editor*
Secretary Wisconsin State Horticultural Society

Office: Old Entomology Bldg., College of Agriculture
Tel. University 182

Volume XXXIII JANUARY, 1943 No. 5

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PLEASE DO NOT SEND STAMPS

Orchard Plans for 1943

GROWERS DISCUSS HOW THEY WILL SOLVE PROBLEMS

EARLY in December we asked a number of fruit growers in various parts of the state to tell us about their plans for 1943, and if they have changed their plans in any way from last year.

The following are the answers we have received to this question.

By Don Reynolds, Sturgeon Bay

Our plans for fruit growing in 1943 will not be materially different from previous years unless conditions unforeseen at this time should arise. We expect to harvest fruit from our acreage of cherries and apples, together with approximately 15 acres of strawberries. Next spring we expect to plant an additional acreage consisting of 30 acres of apples, principally McIntosh, Cortland, Snow and N. W. Greening, 100 acres of cherries, and a small acreage of pears and dwarf apples of the McIntosh, Cortland, Macoun, and Delicious variety.

Mr. Theo. Bakke of Gays Mills writes that they are not planning any special program for 1943. They will do the things they consider most essential such as pruning, spraying and harvesting the crop.

Mr. C. J. Telfer, Green Bay, states that they are not planning any different program next year than they did the past year.

Mr. D. E. Bingham, Sturgeon Bay, gives the same answer, adding that at this time it is uncertain as to what will happen.

Mr. N. C. Jacobs of Sturgeon Bay writes as follows: "Owing to the fact that our apples this season were practically free from scab and insect injury we do not intend to change our plans of operation from previous years."

From Bayfield

Dawson Hauser of Bayfield writes as follows: "My crop last

year was the lightest I ever had due to the freeze. The returns for the labor investment was very good due to the demand and better price.

"It is my intention to carry on as I have in the past during the coming year. Labor will be hard to get, as will fertilizer, and we will be forced to cut all corners we can in order to get the spraying done and the crop harvested."

From Ralph Irwin, Lancaster. "It has been very difficult to make plans for the future. We have been employing older men for apple picking and other jobs, but the old fellows are wearing out and we are on the lookout for replacements. The job of hauling apples, hauling brush, manuring, etc. are the worst problems."

From N. A. Rasmussen, Oshkosh. "There will be a labor shortage here. We have only two experienced men to rely upon, and will have to pick up whatever is available."

By Arnold F. Nieman, Cedarburg. "In planning our orchard management and apple crop production for 1943 we will take into consideration the war and its probable effect upon the different phases of fruit production. We will try to place our order for nursery stock this month with some reliable nursery so as to be fairly sure of getting our trees at the right time for spring planting.

"We have had a small crop of apples this year and expect a better crop next year."

Mr. Ellery Teach of Sunrise Orchards, Gays Mills writes: "Our plans for next year will be the same as in other years. We will buy our supplies early so there will be no delay when the material is needed."

By Peter L. Swartz, Waukesha. "Our plan for 1943 in regard to fruit growing will be about the same as in other years."

HOW GROWERS WILL SOLVE THE LABOR SITUATION

ON the question of orchard labor, growers gave the following answers.

Mr. Don Reynolds of Sturgeon Bay stated that the question is an imposing one, adding, "We will lose a few of our men to the armed forces and to the local defense plants which are paying exhorbitant wages. However, we expect to keep our key men and figure that we will probably make an increase in the price of common labor.

Mr. Theo. Bakke of Gays Mills says, "Wes do not expect the labor situation to become serious as far as we are concerned. The help we need to harvest the crop comes from farmers located in the vicinity and not far from the orchard. We expect these people to be here during 1943. No doubt large operators in the fruit business will suffer more than the smaller growers."

Mr. D. E. Bingham of Sturgeon Bay says, "We will do the work ourselves until harvest and then harvest all we can. That's the way we did it this year and got by."

C. J. Telfer, Green Bay, writes. "We have not had any trouble with labor so far and will have to wait to see what happens next season.

Mr. N. C. Jacobs of Sturgeon

Bay states, "The labor situation here at Sturgeon Bay is serious and might be even more so the coming season. However, by employing what extra help we can pick up now and then we hope to get along."

By Arnold F. Nieman, Cedarburg. "We do not need much extra help in our orchard work until picking and packing time in the fall. In past years we have been able to secure part time helpers such as students and housewives. We expect these will again be available next fall."

Mr. Ellery Teach says, "We expect the labor situation to be much worse than last year and have made no plans in regard to it as yet. We will have to solve it when the time comes."

Peter L. Swartz, Waukesha, writes: "The labor situation might be worst of all at harvest time. We will try to get high school children as we did last fall during the rush, when our regular pickers need extra help."

FERTILIZERS AND SOIL IMPROVEMENT FOR THE ORCHARD

THE third question asked the growers was, "What will you do about fertilizers for the orchard? Will you use any type of soil improvement other than applying commercial fertilizer?"

Don Reynolds answers the question as follows: "In regard to fertilizers, we were able this fall to buy a considerable quantity of cyanamid which we will apply in the spring at one-half rate according to advice received from Dr. R. H. Roberts. We will supplement this with one-half application of either Ammonium sulphate or Nitrate of Soda if either are available. In addition to commercial fertilizers, we apply approximately 2,000 tons per year of barnyard manure which is being purchased from farmers in the vicinity."

D. E. Bingham says, "We will keep on growing sweet clover in the orchard and use commercial fertilizer if we can get it."

Theo. Bakke writes, "We will use commercial fertilizer if we can get the kind we would like to have. We are hopeful of getting enough to carry us through."

C. J. Telfer, Green Bay, writes, "We will work in the cover crop that we now have and apply commercial fertilizer if we can get it. Up to the present time we had never used much commercial fertilizer. We use it more to grow a cover crop than for growing trees."

N. C. Jacobs states, "We use very little fertilizer for our apples, but have been doing considerable mulching which, combined with partial cultivating, seems to work out satisfactorily with us."

By Ralph Irwin, Lancaster. "I could get no Sulphate of Ammonia last year, but have been able to get a fair amount of stable manure. We plan to use manure again this year if we can get the hauling done."

By Arnold F. Nieman, Cedarburg. "The soil in our orchard is fairly fertile and our young trees in the cultivated orchard will not suffer if we use a winter cover crop and omit the application of commercial nitrate fertilizers for a few years. Our bearing orchard is in sod and we cut the grass in the early part of July and leave it lay. This forms a hay and sod mulch which upon decaying we hope will keep up the soil fertility until we can again obtain commercial nitrogen."

Writes Ellery Teach: "We have plenty of commercial fertilizer on hand which we will apply in the spring. Expect to use straw mulch on young trees and in parts of the orchard with a poor cover of sod."

By Peter L. Swartz. "We will get all the fertilizers we can and apply them by the ring method."

SPRAYING AND PRUNING THE ORCHARD IN 1943

THE fourth question was, "How will you spray and prune the orchard this year as compared to previous years?"

Don Reynolds, Sturgeon Bay, answers the question as follows: "Our spray program will probably not vary much from other years with the exception of our present plan of applying a pre-blossom spray to our cherries. Our pruning of cherries will be about normal, but we plan on cutting our apples heavier than usual.

"Because of the severe infection of cherry leaf spot in Door County in 1942, it is our plan to cultivate the cherry orchards next spring as soon as the frost leaves the ground. This will be an earlier cultivation than is usual."

D. E. Bingham writes, "We will spray the same as usual with the slight variations that come from year to year."

Mr. Theo. Bakke: "The spray program will be carried out as in previous years. So will pruning which is now being done during winter months. We are not worrying about what will happen in our program for the coming year and we will not cross any bridges until we get to them. As we see it now, we may have some difficulty buying containers, and the amount of gasoline will be shorter. However, we are not worrying too much about it."

C. J. Telfer, Green Bay, writes, "We will spray about the same as in previous years and we hope conditions will not be like 1942. Pruning will be about the same as usual and one-half was already finished in December."

N. C. Jacobs, Sturgeon Bay, states, "We are again pruning quite heavily, which is better for spraying and harvesting and also lets more sunshine into the trees which results in better fruit."

Dawson Hauser of Bayfield writes, "We expect to prune a little heavier during the coming year to gain apple size and reduce spraying labor and cost. If I can get some mulch material I will apply it under some of the better trees."

(to be continued in February issue)

Home Storage of Vegetables and Fruit

O. B. Combs

HOME storage of fruits and vegetables, particularly by rural people, is essential if a sufficient variety and quantity of food for adequate nutrition is to be available throughout the year. Apples and pears and such vegetables as beets, cabbage, carrots, chinese cabbage, dry beans, dry peas, onions, parsnips, potatoes, pumpkins, squash, rutabagas and turnips may be stored satisfactorily in most Wisconsin homes with little outlay for storage facilities. In addition to providing a suitable storage room, care in the choice of the products to be stored, careful regulation of temperature and humidity, and constant attention are essential to success.

Only sound fruits and vegetables which are free from insect or mechanical injury should be stored. Apples and pears should be of late varieties which store well and should be hard-ripe. Fall apples cannot be stored satisfactorily for more than a few weeks except in refrigerated storage. Onions, pumpkins and squashes should be mature, dry and preferably cured before being placed in storage. These three vegetables, as well as dry beans and dry peas, keep best in a dry atmosphere and, therefore, are frequently stored more successfully in a cool, dry, space outside the regular storage room.

Best Temperatures

For best results with both fruits and vegetables, the temperature of the storage room should be kept near 35 degrees. In order to get and maintain such a temperature, particularly in basements which contain heating units, the storage space must be separated from the remainder of the cellar and provided with at least one window for ventilation. The walls should be tight, and the door should fit snugly; double walls, ceiling and door with three to four inches of insulation are preferable. A layer of moisture-proof building paper between the insulation and the wall boards will materially improve and prolong the insulating value. Likewise, a concrete footing six inches high at the base of the walls will help to keep the walls and insulating material dry.

Storage Room Windows

The windows in the basement storage should be constructed so as to permit maximum exchange of air, when desired, for lowering the temperature or admitting fresh air. Storage room windows may be pivoted at each end, divided in the middle with an air duct running from one section down the wall to within a foot or so of the floor, or they may be hinged at the top. Pivoted windows may be tilted inward at the bottom and outward at the top, thus providing easy operation and rapid exchange of air. A divided window with a cold air duct from one section, either one side or the bottom, to near the floor and the other section provided with a hinged door makes an extremely efficient ventilating system. Provsion must be made, of course, for closing both the cold air duct and the hinged door or warm air outlet when necessary to prevent freezing. A single window hinged at the top is less effective but convenient and satisfactory if properly operated. Windows of this type should be provided with a notched board, chain or some other device, so that the size of the opening may be conveniently regulated. In all cases, the window should be carefully screened. It should be remembered, of course, that ventilation not only aids in maintaining low temperatures but that ample circulation of fresh air in the storage room also reduces the likelihood of undesirable flavors being absorbed by apples while in storage with vegetables. Apples, of course, should always be placed near the fresh air inlet when stored with vegetables.

The Moisture Problem

Both fruits and vegetables lose water, shrivel and thus lose food value, flavor and texture unless the moisture in the air of the store room is kept fairly high, or unless the products are stored in partially covered containers. Too much moisture, of course, is undesirable. The aim should be to keep enough moisture in the air, surrounding the fruits or vegetales, to prevent wilting but not enough to allow free water to collect on the walls and ceiling or on cans and other containers. Sufficient moisture is quite easily maintained in a room with a dirt floor; occasional sprinkling is all that is needed. If the floor is of concrete, more frequent sprinkling with be necessary unless the concrete is covered with 4 to 6 inches of sand. In either case, a false floor which may be made of inexpensive 1 x 4" boards laid on 2 x 4's is an advantage, both for walking and as a means of insuring ample circulation of cold air about all products by keeping the containers off the soil or sand. Excess moisture in the storage room may be reduced by proper ventilation to the outside or into the remainder of the cellar depending upon the temperature.

Such crops as apples, beets, carrots, parsnips and turnips may be stored in clean, lightly covered, paper lined, milk cans, crocks or other containers to prevent shriveling. Parsnips, of course, may be left in the garden over winter if desired. A light covering of soil, hay or stray will help to prevent rot which sometimes results from alternate freezing and thawing when the tops of the roots are exposed. Heads of both common and chinese cabbage keep well when wrapped loosely in paper and stored in a cold place. A bin with provision for circulation of air beneath and in back should be provided for potatoes and rutabagas.

(Continued on page 120)

What Eastern Growers are Thinking and Doing

H. B. Tukey, Geneva

WHEN one attempts to estimate the fruit industry, there is one important item frequently not taken into consideration, namely "what is in the minds of the men who comprise the industry and what is their spirit?" Quite aside from such factors as yields per acre and the number of bearing trees in the country, the willingness or unwillingness of men to attack a problem and to work out a solution is most important. In the long run the thoughts that surge upwards from the soil and through the minds of men who are working with the soil are the ones which help a situation most. And so one rightly asks, "Just what is it that eastern growers are thinking about? Are they optimistic, pessimistic, alive to important problems, interested in production, marketing, just what?"

New Spirit Developed

Not many seasons ago there was discouragement, something of a whipped and beaten air. Then came the realization that the East has certain advantages which need taking care of. From this has developed a spirit of aggressiveness which has flowered into a forward policy of "we must do it ourselves". And this is important because with the war upon us the region without a goal is in a serious way.

At the moment there are two series of problems: first, those brought about by the impact of war and which are of immediate concern; and second, long range problems which are important to the development of horticulture from generation to generation.

The immediate problems are the most urgent, and the general feeling is that the restrictions of the war will tend to draw the noose tighter before there is any slack. Transportation, tires, gasoline, farm machinery, spray materials, fertilizers, and labor, are all important items for discussion. The production of crops close to home where they can be consumed, the emphasis upon materials essential to the war effort, the tightening grip of the government, the diversification programs, are features of the times.

Reduce the Mortgage

There is one happy advantage in World War II namely, the present generation has lived through one war and should be expected to profit to some extent from the previous experience. Most significant is the attention being paid to reducing the mortgage, paying up debts, and putting money ahead for the blow that everyone expects, but which most hope will not come. This is a good sign.

As for general trends, the interest is in diversification. Where apples alone were grown a few years past, now the East finds sweet cherries, peaches, cabbage, tomatoes, nursery crops and even wheat, hogs and cattle of value. Each section of the country has its advantages and the East is beginning to find that its future lies not in imitation of standardized methods of other sections, but in diversification and in taking advantage of opportunities close to home.

Changing Cultural Methods

Culture is along the lines of sod and mulch, with considerable interest in a smaller than standard tree which can be more easily thinned, sprayed, harvested and pruned. Spray materials are shifting towards the milder forms of sulphur and away from arsenate of lead. The whole orchard game is becoming more technical and requiring ever more skill. Accordingly growers are very much interested in research work and in scientific developments. And, along these lines, may be mentioned deficiency troubles as boron, magnesium, and potassium, rootstock problems, gas storage, breeding of made-to-order varieties, preharvest spray, and the like.

The trend is noticeably towards the production of better quality products using the word "quality" in its broad sense of shape, color, grade and finish, as well as in taste. Ben Davis and some of the poorer varieties have given way to McIntosh and Delicious, to tree-ripened peaches from several varieties ripening in succession, and to an emphasis upon quality and home production. The trend is to eliminate the cull by not growing it.

Closely related to quality is the problem of handling. The trend here is to pick more carefully and with more attention to the exact time, to spot pick the fruit if necessary, and to pack it and handle it so as to avoid bruising and to get it to the consumer in the best condition.

Eastern growers are more conscious of markets and merchandising than they have been in several decades. There is a feeling that the grower is the one who must see the fruit through to the ultimate consumer. In this line of thinking advertising appears and there is much interest in advertising if and when a plan can be worked out which will insure grower control.

Finally, one of the interesting changes in the East is the movement away from individual independence towards government regulation and direction. Individuals who years ago would accept no government subsidy, now experience no difficulty in working on programs for tree removal and benefit payments. This is one of the changes in the times, and while perhaps not strictly a fruit grower's problem, is something that is on the minds of many eastern growers and which is distinctly a part of their thinking.

How New Government Regulations Affect Fruit Growers

APPLES Classified as "Essential": The Department of Agriculture has listed all tree fruits with the crops to be considered as essential war production by farmers. Local Selective Service boards have been furnished the list as a guide in applying the new law barring the enlistment, induction, or employment elsewhere without permission, of men found to be necessary in essential agricultural occupations. The standard for a necessary man in apple production is that he be responsible for production of 16 acres or more, according to the local boards' knowledge of the appropriate acreage under growing practices in the locality.

Truck Mileage to be Adjusted Locally: A ruling by the Office of Defense Transportation now clears the way for growers dissatisfied with their truck mileage allowances to do something about it locally. The grower may take his "Certificate of Necessity" to his county agent or county war board, who will figure out what mileage ought to be allowed. The district O. D. T. offices have been instructed to issue new certificates on that basis.

The "Certificate of Necessity" plan was just about what the apple growers, along with many others, asked for last summer in place of the impossible "back haul" order, except that the request emphasized the importance of local responsibility. When the mileage applications had to be sent to Detroit and passed on there, some of the results were pathetic. This new ruling brings the question of mileage back to proper local authorities who are capable of judging the circumstances in each case.

Wooden Boxes and Baskets in Doubt: The latest word on a prospective order by War Production Board to prohibit use next season of new wooden containers for certain fruits and vegetables, including apples, is that no such order will be issued. However, important decision are to be made. The shortage of woodsmen, expanding war uses of lumber, and the strain on box manufacturers occupied with priority business, will compel reductions and changes in new apple packages.

The Institute proposes:

(1) A federally sponsored salvage program to recover boxes and baskets for re-use, to a practicable extent, by (a) prohibiting destruction of wooden containers by retailers, (b) setting up a system of regular collection of empty containers from retailers, at a fair price, (c) setting up concentration points where repairing and sorting by types and condition would be done, at which point prices could be governed.

(2) Use of fiber containers as far as proved practicable, but not where such boxes cannot survive storage or loading conditions.

(3) Manufacture of all baskets which can be made of logs not usable for conversion into priority lumber purposes. Manufacture of sufficient Western boxes. Manufacture of one type of Eastern apple box, in preference to none at all.

—Truman Nold, Executive Secretary, National Apple Institute.

LIKES ALTON APPLES

John Brickbauer, Elkhart Lake, states that he produced several Alton apples this past season on a graft made the year before. The apples ripened about July 20th and were of very good quality and of good red color. He says from his limited experience that he thinks it is a good apple and one of the earliest he has ever grown.

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WAUKESHA WISCONSIN

Lester Tans, Secy.-Treas. **Telephone: Big Bend 2821** **Route 2**

It Will Pay to Grow a Patch of Strawberries

IT is probably inevitable that the acreage of strawberries throughout the country will decrease during times like these. A reduction in acreage will probably continue this year, with smaller plantings than before. The reason—large growers find it difficult or impossible to obtain labor to care for and harvest the crop.

However, all of this means that the price of strawberries will be high. It means too that if we select our field with care and plant a smaller acreage, perhaps a half-acre where an acre was produced before, we can give the smaller acreage better care and produce more crates per acre than in the past.

The strawberry patch should be selected with care. A fertile soil, preferably one which grew a cultivated crop last year, and which has been well manured should be used.

Plant Early

The plants should be set out as early as possible in the spring because only plants which set early runners will be profitable. The strawberry plant produces its fruit buds in September in Wisconsin so only plants and runners well developed by that time will produce a good crop the next year.

If well rotted manure free from weed seed is available it can be profitably applied to the strawberry bed before the plants are set out. It has been found that humus, especially in the form of **manure is the most profitable fertilizer** we can use for strawberries.

It is also well to think about the new patch for the year following by manuring heavily a cultivated crop such as potatoes, which is to be used for strawberries in 1944.

There are still plenty of younger children who can help pick the berries. Arrangements must be made so they will help in food production.

A good strawberry patch will help to buy those war bonds.

CRANBERRY SUPPLY IS LARGER THIS YEAR

CRANBERRY production in Wisconsin was six per cent larger than in 1941, according to the Crop Reporting Service of the Wisconsin and United States Departments of Agriculture.

Wisconsin had one of the largest cranberry crops on record with 105,000 barrels harvested. The crop in 1941 totaled 99,000 barrels. Average production for the 10 years, 1930-39, was 68,600 barrels. The 1942 crop of high quality berries was tied for second place with the New Jersey production. Massachusetts ranked first, and Oregon and Washington were fourth and fifth, respectively, in cranberry production this year.

About 13 percent of the United States cranberry crop was produced in Wisconsin this year. The nation's output of cranberries is estimated at 785,000 barrels, which is about 60,000 barrels above the crop harvested in 1941 and 181,000 barrels above average.

FROM A SATISFIED ADVERTISER

Enclosed find my check to cover advertising in Wisconsin Horticulture. Your rates are very reasonable and the half-page ad I run attracts customers all over Wisconsin and many outside states as well W. A. Sisson, Rosendale, Wisconsin.

Home Storage of Vegetables and Fruits

(Continued from page 117)

Outdoor Cellars

Properly constructed outdoor cellars usually provide excellent conditions for the storage of fruits and most vegetables. Unless ample ventilation is provided, however, apples are likely to take on undesirable flavors when stored with vegetables in such cellars. If available, of course, outdoor cellars may be used. Where neither an inside nor outside storage space is available, it is doubtful, even where no basement is present, whether the construction of an outside cellar would represent a sound investment. The development of an adequate basement fruit and vegetable storage room will be equally satisfactory and generally much less expensive. Certainly, a basement cellar is more convenient, and if properly constructed and operated, may be used for canned, brined and dried foods as well as those which are commonly stored fresh.

Get extra savings on Sheboygan fruit and berry boxes

Whether you need a box approved for interstate shipment by the Federal Food and Drug Administration, or whether you plan to ship locally in old style boxes, you can be safe and save money too, by assembling either type box with the fast-working Neva - Clog stapler. Get everything you need for fruit or truck shipments at Sheboygan—as leading growers have for 63 years.

Write, now, for low prices and free facts on new shipping regulations.

Sheboygan Fruit Box Co.

5102 Sheboygan, Wisconsin

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

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The Price Ceiling on Honey

The Ceiling Price of Bulk Honey 12 Cents Per Pound

THE ceiling price of bulk honey sold by producers in containers of more than 10 lbs. has been fixed by the government at 12 cents per lb. including cans for U. S. No. 1 honey, F. O. B. producer's station.

A copy of maximum price regulations **MPR 275** may be obtained from the Office of Price Administration, Washington, D. C., or from the local Price Administration Office.

Briefly, here are some of the provisions. Prices of **less** than the maximum of 12 cents may be charged.

The ceiling of 12 cents is only on bulk honey in packages of more than 10 lbs., sold at wholesale, and is F.O.B. the producer's station. Containers must be included and may not be charged for.

If the container is exchanged, the maximum price established for the honey shall be **reduced by ½ cent per lb.** and the cost of transportation of the empty containers shall be paid by the purchaser.

Honey grading less than U. S. No. 1 must sell for less than 12 cents "by the customary dollars and cents trade differential. in effect during the September-November 1941 base period."

The regulations also provide for the amount of increased price which may be charged by those buying honey from the producer. Details of maximum price regulation #275 are quite lengthy and should be studied by all producers. The regulations became effective Dec. 3rd, 1942, and do not effect sales made prior to that date.

It is claimed that this ceiling price action will restore honey once again to store shelves. Distribution of packaged honey virtually stopped because March ceilings did not allow many distributors to purchase bulk honey and resell without loss. Now anyone wishing to package honey may buy it at a maximum price and add a "permitted increase" before reselling it. Those wishing to sell packaged honey should study the permitted increase rules carefully in the form.

The regulations apply only to sales of packaged honey defined as honey in containers of a capacity of not more than 10 lbs. and to resales of bulk honey. Beekeepers should notice too, the definition of U. S. No. 1 honey as given in MPR 275.

We are not positive as we go to press how the regulations will apply to the small beekeeper as we cannot imagine that 10,000 small farmer beekeepers in Wisconsin will be required to fill out blanks. However, the Department of Agriculture Market report of December 1 states: "Every person who sells packaged honey or resells bulk honey must preserve for examination by the Office of Price Administration, all records." Also file, "two copies of forms No. 1A,1B, and 1C." The forms are obtainable at the District or State office of the OPA. According to the above statement, this applies to all beekeepers who put up honey in containers of 10 lbs. or less.

WAR-TIME BEEKEEPERS CONFERENCE MORRISON HOTEL, CHICAGO

January 26-27

THE American Honey Producers League has called a War-Time conference of honey producers and the entire honey industry at the Morrison Hotel, Chicago, January 26-27. Two special committees have been appointed, one on the "honey industry cooperation for our war effort" consists of leaders of the industry from all parts of the continent, and is headed by Dr. Jas. I. Hambleton, Chief of the Division of Beekeeping, Washington. The other, a committee on "organization improvement" to work out a plan for improvement in the national organization, has H. J. Rahmlow, Madison, chairman, Prof. V. J. Milum, Illinois, Prof. R. H. Kelty of Michigan; James Starkey, In-

diana, and W. E. Anderson, Louisiana, as members.

The Program

The program which opens at 9:30 a. m., January 26th, will consist of half-hour talks by leaders in the industry on such topics as: "How the package industry will help our war effort; How research in beekeeping will help our war effort; Production and care of beeswax; Preparing and caring for honey; How honey production can be stimulated; and of course reports by the committees.

All beekeepers are invited to attend. Mrs. Jas Gwin, Madison is President of the League.

COUNTIES MAKING COUNTY APPROPRIATIONS FOR BEE DISEASE CONTROL FOR 1943

Name of County	*Appropriation*
Barron	$ 100.00
Brown	200.00
Buffalo	100.00
Chippewa	200.00
Clark	200.00
Columbia	200.00
Crawford	200.00
Dane	300.00
Dodge	200.00
Door	200.00
Dunn	50.00
Fond du Lac	200.00
Grant	200.00
Green	100.00
Jefferson	300.00
Kenosha	150.00
La Crosse	200.00
Lincoln	150.00
Manitowoc	200.00
Marathon	100.00
Monroe	100.00
Outagamie	200.00
Pierce	150.00
Rock	300.00
St. Croix	100.00
Sheboygan	100.00
Taylor	50.00
Trempealeau	200.00
Vernon	100.00
Washington	100.00
Waupaca	100.00
Waushara	100.00
Wood	250.00
Total	$5,400.00

WATCH EARLY FOR SHORTAGE OF STORES

THERE is considerable evidence that many colonies of bees went into winter this year somewhat low in stores. Heavy fall brood rearing contributed to this condition. That means that colonies may be stronger than usual. It means too that there may be more brood rearing in late January and February than usual, especially if there was pollen left in the hives. Winter brood rearing requires food. It all adds up to something very important when we consider that the price of honey is now good and that honey and wax are needed during this time of emergency.

It means that the bees may be so short of stores even by the first of March, and especially by the first of April as to require feeding. Bees packed outdoors should be inspected long before warm weather comes. That will mean early opening of hives which we are often reluctant to do, but when we consider that it may save lots of colonies from starvation, it is very important that it be done. Furthermore it really does no harm if done properly.

Methods of Feeding

Two methods of feeding may be used. The most common method has been with the 5 or 10 lb. honey pail. Place it over the frames with 15 or 20 holes punched in the cover. These holes should be made with a nail such as one of the smaller nails used for nailing frames. However, this method requires much more labor than the sprinkling can method and requires two trips to the yard and exposure of the colony to the cold during bad weather.

A method which is coming rapidly into favor is the sprinkling can method which has been suggested by the Central States Bee Laboratory. This method will work satisfactorily if it is done correctly. Here are some of the requirements: (1) For early feeding the syrup should have a concentration of 1½ parts of sugar to 1 of water, or preferably 2 parts of sugar to one of water; (2) The syrup must be fed warm—at least 100 degrees. However, be careful not to feed it hot. Remember that the melting point of wax is from 142 to 148 degrees F.; (3) Use a wash boiler to catch the drip off the combs; (4) If the holes in the sprinkling can are too small, enlarge them with a nail so that the syrup will flow freely; (5) Hold the sprinkling can at least 20 inches to two feet above the comb so that the syrup will be thrown onto the comb with force enough to enter the cells.

With this method two or three frames can be filled very quickly and replaced, the hives closed, and the job is done.

In making the sugar syrup remember to heat the water to the boiling point, add the sugar and stir thoroughly so that all is dissolved. The syrup can be carried to the yard in 60 lb. cans and fed before it gets too cold.

BEE INSPECTION DEPARTMENT BEARS DOWN

WE ARE advised by Mr. James Gwin, Chief of the Bee Inspection Division for the Department of Agriculture, that a Grant County beekeeper was recently prosecuted at Lancaster and fined a total of $37.50, including costs. for selling and moving bees and used bee equipment without a permit.

All beekeepers are advisd that the law definitely requires that no person shall sell or move bees or bee supplies without a permit from the inspector of apiaries.

A man was fumbling at his keyhole in the small hours of the morning. A policeman saw his difficulty and came to the rescue.

"Can I help you find the keyhole, sir?" he asked.

"Thash all right, old man," said the other, cheerily, "you just hold the house still and I can manage.

WATCH YOUR BEES FOR SIGNS OF DYSENTERY

DR. C. L. FARRAR, Central States Bee Laboratory, College of Agriculture, Madison, would like to have beekeepers send to the Laboratory, bees that show signs of dysentery.

If, during the coming two months, you find many dead bees on the snow around the hives, pick up 10 bees from each of several colonies showing trouble and send them in a small vial or box to the Laboratory for examination. Such bees may have become ill from Nosema. Dr. Farrar is making a study of the prevalence of Nosema and its relationship to some of our troubles.

Spotting inside of the hive may also be due to Nosema. If later when the hives are opened you find a few colonies showing much more spotting than others, it might also be well to send in 10 bees from each of several such colonies.

There seems still some doubt as to the correct cause of dysentery. Some authorities hold that it is indigestible material in the food, others that it is the moisture content of the honey. Dr. Farrar has found evidence that Nosema may be a primary cause in some cases. It will be interesting to see what these studies will show.

WHY SOME HOTELS DON'T SERVE HONEY

THE Bee World (England) reports the following, taken from a Britain Bee Magazine. In this magazine is "an amusing sidelight on the prevalence in Swiss hotels of the imitation honey with which all visitors to that land are familiar. An old hotel-keeper, when asked why he did not supply the real thing, replied: 'Every guest would empty a pot a day'."

This reminds us that a beekeeper at our convention in October told of going to a restaurant and ordering wheat cakes. He asked the waiter for honey. After some search they brought a one-pound glass jar about half full. The beekeeper told of his companion and himself using the one-half pound remaining in the jar on their cakes.

This presents a problem with 1 lb. jars selling at around 30 cents. At the present time we can see why a restaurant could ill afford to furnish honey in that way to his customers.

What we need to do is to provide restaurants with large containers of honey, such as a 60-lb. can, with a faucet so that pitchers or Drip-cuts can easily be filled from it.

Note too that in this country it is not permissible to sell "imitation honey".

SOYBEAN AND POLLEN MIXTURE FOR FEEDING BEES

IN the December issue of Wisconsin Beekeeping we stated, in connection with Dr. Farrar's discussion at the annual convention, that "soybean flour used with pollen at the rate of 4 parts of flour to 1 part of pollen gives excellent results in spring brood rearing." This is an error. It should have read, **3 parts** of soybean flour to 1 part of pollen.

In the statement that "a package breeder who could send a 2 lb. package of bees plus 2 lbs. of pollen for the northern beekeeper to use would give better service than by sending a 3 lb. package," makes use of too much pollen. Dr. Farrar says that one lb. of the mixture, which would consist of ¼ lb. of pollen, and ¾ lb. of soybean flour, would be sufficient to feed one 2 lb. package. If southern breeders would furnish 1 lb. of this mixture, with instructions as to how to mix it with sugar syrup and how to feed it, they would render many northern beekeepers a real service.

TURNING ON THE HEAT

From Minneapolis Tribune:

"In his suit for divorce Chalmers stated that Miss Nolan asked him over to dinner to her home seven nights in succession, then she asked him if he didn't want to get married. Chalmers said he was wilting, so they simply hunted up a minister."

HONEY WANTED

Cash paid for cars and less than cars comb and extracted honey. Mail sample and best price. C. W. Aeppler Company, Oconomowoc, Wisconsin.

HONEY CONTAINERS

Wisconsin Beekeepers Association

Order Through Your State Association where all profits go to further the work of the industry.

Modernistic glass

Tin pails and cans

New Association labels

For complete price list write

HONEY ACRES

Menomonee Falls, Wisconsin

LOTZ HONEY SECTIONS

When you buy **Lotz Honey Sections,** you will get the finest sections that can be made.

Write for our prices

Order your sections and other bee supplies early.

None of us can see into the future, or know what is going to happen.

SO ORDER EARLY!

AUGUST LOTZ COMPANY

BOYD, WISCONSIN

Editorials

Arno Meyer, Waldo, President of the Wisconsin Horticultural Society for the coming year.

NECESSARY MEN FROZEN TO THEIR FARM WORK

DECISIVE steps to relieve the farm manpower problems were taken in November by Major-General Hershey, Director of Selective Service, acting under authorization of the Tydings amendment to the "Teen-age" Draft Act. In accordance with the law, instructions went to state and local draft headquarters, as follows:

1. Farm workers, of all ages 18 to 45, who are necessary to and regularly engaged in war-essential agriculture, are to be deferred. The deferment is to remain in effect so long as the man continues to be so engaged, or until a satisfactory replacement can be obtained.

2. Such a deferred farm worker may not move to a job in industry or elsewhere without prior permission of his local board. He may transfer to another necessary farm job.

3. If he leaves without his local board first having determined that it is in the best interest of the war effort for him to make the transfer, the board must immediately reclassify him for military service. This applies regardless of dependents.

4. Farm deferred men cannot be released by local boards for voluntary enlistment.

The Department of Agriculture indicates it will prepare recommendations setting forth (1) which crops are to be considered essential, (2) what measure of productivity shall be used to decide whether the individual farm is an essential contributor, and (3) what kind of work done by a man shall class him as necessary.

—*Truman Nold, Secretary, National Apple Institute.*

MEMBERSHIP IN THE HORTICULTURAL SOCIETY AND WISCONSIN HORTICULTURE MAKE POPULAR CHRISTMAS GIFT

WE have been surprised at the large number of members and others who this year sent as Christmas gifts to friends, a membership in the Wisconsin Horticultural Society and the magazine Wisconsin Horticulture.

This is a suggestion to all members for another year. Your friend will remember you each month he receives the magazine.

EUGENE OESTREICHER

MR. EUGENE OESTREICHER, for many years treasurer of the Wisconsin Upper-Michigan Florists Association, passed away in Milwaukee on December 11th, 1942. The Society extends to the bereaved family sincere sympathy.

D. W. Reynolds, Sturgeon Bay, Vice-President for the coming year.

VITAMIN SOURCE VARIES

Apple Peel Contains Vitamin C

SOME varieties of fruits and vegetables are richer in vitamins than others. Some part of an individual fruit or vegetable may be a better source of a given vitamin than another part. Research by the many scientific workers engaged in vitamin studies shows, for example that the peel of an apple has more vitamin C than the flesh. the rosy or "sunny side" more vitamin C that the "shady side." The vitamin A content of butter varies with the breed of the cow. with what the cow eats. whether she is stall fed or on pasture, and with the length of time after calving when butter is made. Vitamin C values of citrus fruits depend on the variety, time of harvest, even on the location of the tree in the orchard and the fruit on the tree — on an outside or inside branch.

—*Florida Grower, November.*

SOMETHING TO THINK ABOUT

IN THE November 1 issue of HORTICULTURE (Massachusetts Horticultural Society) appeared an article entitled "Render Unto China the Things That Are China's." In this article the author makes the statement, "Now when all things Japanese are justly unpopular," in reference to plants of Japanese origin.

The Men's Garden Club of Portland, Oregon in their magazine PRACTICAL GARDENER takes issue with the article, and HORTICULTURE reprints their comments. It gives us something to think about. Here are the comments by the Men's Garden Club of Portland:

"We take issue with HORTICULTURE (Nov. 1). One of the rotten nastyisms of war is the dumping of what may be good about our enemies into the same pile with their bad, to be hated alike. It is well known that many of the plants commonly tagged "Japanese" came from China and other parts of the Orient, but to use the war as occasion for tarring the good and the bad with the same brush is silly. It is smallnesses like cataloguing **Iris Germanica** as **"Liberty"** Iris that say to our enemies that we wage war on them, not against their war lords.

"If we are to help bring the world better days we must be big enough to respect all things that are good while doing our level best to destroy those things that are bad.

"The rest of the article, 'Render Unto China the Things That Are China's,' is interesting; it is just the one sour note which we find objectionable. Objectionable because it reflects an error into which it is all too easy to fall—in the blindness of war hatreds. We commend to our elder brother another quotation, unparaphrased, 'Can there any good thing come out of Nazareth?'"

TRITOMA

Velma A. Kaufman, Oakfield Garden Club

One night in September,
I distinctly remember—
The flowers decided to hold a ball.

But when the night came,
One could tell very plain—
Something was wrong with it all.

"What shall we do for light,
There is no moon tonight?"
The sad news was chorused by all.

But suddenly Tritoma pipes,
I'll hold the red and yellow lights
Of my torches high, by the garden wall.

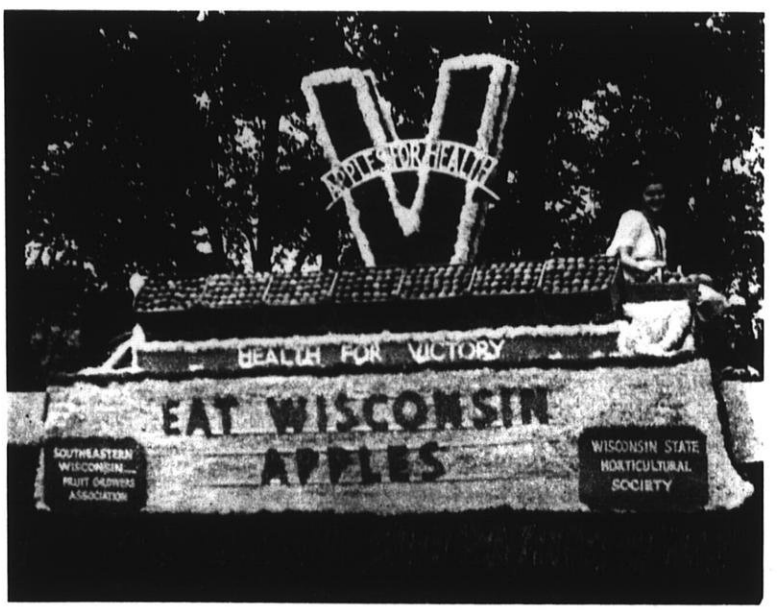
They danced on into the night,
'Twas a very lovely sight —
And the Man in the Moon missed it all.

FEWER VEGETABLES NEXT YEAR

A MAN in uniform needs about 306 lbs. of meat per year, as contrasted with 172 lbs. for a civilian, according to Science Digest. Canned goods are wanted in huge quantities for the army and lend lease orders. The WPB has approved army officers for all the canned apples, beets and carrots, and for more than one-half the spinach, 40% of the pears, and more than a third of the pack of asparagus, beans, corn, peas and tomatoes.

This means that the housewife is going to prepare more of her own vegetables from the garden. Americans may not get their accustomed 40 cans of food a year because each soldier requires 80 cans.

All of this must be considered when making plans for our spring garden.



"Eat Wisconsin Apples" Float Attracts Attention at State Fair

THE picture on this page shows the "Eat Wisconsin Apples" float prepared for the Wisconsin State Horticultural Society and the Southeastern Fruit Growers Association by Alfred J. Meyer and Son of Hales Corners. Most of the planning was done by LeRoy Meyer, son of Alfred, who is also very much interested in the home orchard.

The float took part in two parades in front of the grand stand the last day of the State Fair, and attracted a great deal of attention.

Considerations in Planning Our Vegetable Gardens for 1943

J. G. Moore

IT is generally conceded that vegetables are essential to an adequate diet. The principal reasson for a farm garden is to supply the farm family with the vegetables necessary to meet this nutritional requirement, for regardless of the frequently expresssed opinion that it is more economical to purchase the vegetables necessary to give adequate nutrition than to grow them, the facts are that it is impractical for the farm family to do so, except for possibly a few kinds, and it is doubtful if it is ever done. Present indications are that in 1943 it may not even be possible.

The considerations in planning our 1943 garden, therefore, are directly related to production to meet the nutritional requirements of the family and to effect that production with the least expenditure of labor.

There are at least 5 or 6 major considerations. First is quantity. With the land that is available, no farm family should lack a sufficient quantity of vegetables. Publications are available giving the quantities of different classes of vegetables needed for adequate nutrition and the probable production under average conditions of the various kinds. Using the data given, it is a comparatively simple matter to figure out the feet of row needed, under average conditions, to produce the amount needed by a particular family. A word of caution is possibly advisable. It is always better to have an excess than a shortage of food. Be sure then that plantings will meet at least minimum requirements.

"Variety is the Spice of Life"

Variety is needed in the garden. It would probably be possible to meet nutritional requirements with a comparatively few kinds. We are more likely to meet them if we grow many kinds. A certain vegetable may be an excellent source of some nutritional requirement but who wants to eat the same kind of vegetable, unless it be potatoes, every day in the year? We may "eat to live" but there can certainly be no objection to making the eating as enjoyable as possible.

Having wide variety is at least one easy way to make eating more pleasurable. How many kinds of vegetables should be grown in a farm garden? I would say all the kinds that the family likes, if they can be grown with reasonable chance of success, and if a certain vegetable has particular nutritional merit and is adapted to your conditions you had best grow it and if necessary learn to like it.

Quality is not one of the "must" considerations in garden planning but it should be given consideration. Plan to grow quality varieties even though they may not be quite as productive as some other variety of poorer quality. The home gardener has the opportunity of having the highest quality vegetables, and he is the only American who does, so why not available ourselves of that opportunity?

Spring Shortage is Common

Inquiry among a group of farm women last February revealed the fact that there was not a home represented in the group that had enough vegetables on hand to adequately meet the requirements until fresh vegetables were again available. That is the rule and not the exception in Wisconsin farm homes. It comes about in most cases not because the garden was too small but because the planning was faulty. Either the garden area was inadequately cropped or there was poor planning as regards producing a 12 months supply. A large majority of our farm gardeners should give this matter more careful consideration in making their garden plans.

Another place in which the farm garden fails to reach its best possibilities is in producing a given vegetable over as long a period as possible or desirable. How many Wisconsin gardens have more than two plantings of beans? Yet more are both possible and desirable in any Wisconsin garden. There should be as many successive plantings as the length of your growing seasons or favorable growing conditions make possible. The same principle applies to a number of other crops. Very few gardens are well planned in this respect.

More for Less

Increased production with reduced labor is the farm slogan for 1943. So far as farm gardens are concerned this should be the perpetual slogan until our gardens are so planned and planted that we come much nearer than we do under our present methods to the economical production of the vegetables we use in our farm homes. The average farm garden is a prize example of inefficiency and that statement applies generally even though the garden is well cared for. We have become obsessed with the idea that horse power maintenance tillage is a labor saving method in the garden. That is true only when the garden has been poorly planned or we are not equipped with good garden tillage tools. When a good wheel hoe can be had, and the garden planned for intensive cropping, and cultivation done at the proper time, then one can save practically all if not all the time spent in horse cultivation of the garden. Such a plan calls for growing potatoes, dry beans and possibly peas for canning, which are grown in relatively large quantity, in conjunction with some other cultivated crop and in growing the other vegetables in a garden

(Continued on page 129)

Home and Garden

Mrs. C. E. Strong

LANDSCAPE IN TIME OF WAR (WEST COAST)

In spite of death, in spite of war,
As lovely as they were before
Men first disturbed the quiet mood
Of earth with some forgotten feud.
The hills behold this new unrest
With neither fear nor interest,
While as in any other year,
In spite of hate, in spite of fear,
Unhurried and indifferent,
The sea on beauty's business bent
Still comes and goes, nor
seems to feel
The weight she bears of
armored steel.

—Elizabeth-Ellen Long
(in Sunset Gold)

THE GARDEN CLUB

YESTERDAY December the 8th, We attended the Vista Garden Club Christmas meeting. At this time they have a potted plant exchange along with their special program. The meeting was held in the Recreation Center, before a large fireplace—in which a large Eucalyptus back log blazing cheerily, scented the air pleasantly. Long sprays of Cotoneaster berries, with candles, decorated the mantel with a Christmas tree on each side. The President and other officers greeted the guests and made them feel warmly welcome, while an efficient committee made sure you did not get your own plant back. The meeting opened with the salute to the Flag, then a short business meeting (very short). The program began by everybody singing Holy Night.

Plants In Holy Land

One of the members gave a most interesting talk on Flowers and Plants of the Holy Land. She asked if we knew that Jerusalem and California were almost the same distance from the equator — thus the

flowers and plants were very similar. Figs and Olives grew on the hillsides, Anemones, Ranuncules, Crocus — especially that variety from which saffron is obtained—grow both on hillside and meadows. Anise grows by the roadside just as it does here, and as the rainy season comes during winter, as it does here, at Christmas time the brown hills become green—and are covered with bloom. So as we look at the hillsides here, we can visualize the countryside in the Holy Land. Even the wonderful Hanging Gardens of Babylon, are duplicated by the Terrace Gardens on the hills near Hollywood.

The speaker urged that everyone should do as much gardening as possible—ornamental, herbs, vegetables, especially growing those vegetables that are needed by the soldiers and defense workers. By so doing you are leaving those grown commerically, for them, remembering always—that as a gardener—you belong to an ancient and honorable Guild.

Victory Garden Plans

The President then reminded members that January was the time all members were to bring plans for Victory gardens—and members who were more experienced would aid those who needed help. There were gardeners at this meeting from many states—and some advice is needed—even by experienced gardeners—as to the right and wrong time to plant. After the meeting Tea was served with cookies and other goodies, and an hour of getting acquainted while we talked of "Gardens."

Flowers Of The Month

Poinsettias are beginning to color gardens everywhere. They are the Flower of the month. Size and height are almost unbelievable to those who are used to the greenhouse variety.

We visited a neighbor today. The house was decorated lavishly with Chrysanthemums, Stocks and Sweet Peas—and—they served watermelon ripe and fresh from the garden.

The beautifully colored fruits of the Persimmon, bright orange red, show up in the groves—and are as delicious as they are showy.

The Toyon or California Holly lines the roadsides — a beautiful large evergreen shrub with great hanging bunches of red berries, while nearly every garden has one or more of the Cotoneasters with their brilliant berries. There is no snow, only on the highest peaks, but the holiday coloring is plentiful.

DIFFERENT WITH ROOKIE

"I have a pain in my abdomen," said the rookie to the army doctor.

"Young man," replied the medico, "officers have abdomens, sergeants have stomachs; YOU have a bellyache."

CLAIR A. FANCHER

Clair A. Fancher of Fancher's Nursery, Sturtevant, for 15 years in charge of growing at the nursery, died in Racine on November 17th. Mr. Fancher was a member of the Board of Directors of the Society. He is survived by his widow, a son and daughter, and his parents, Mr. and Mrs. W. E. Fancher, and a brother Floyd.

Gladiolus Tidings

By the WISCONSIN GLADIOLUS SOCIETY

OFFICERS

A. S. Haugen, Stoughton, President

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Plans for the Glad Garden

Walter Krueger

THE usual answer to the question, "What are you going to do next summer?" in these times with our country at war, is, "I don't know!" That is probably the logical answer, for administrative regulations may spoil or modify any partly conceived plans, but not the best answer.

Morale of a nation at war is best maintained by allowing the citizenry to suffer the minimum of disruptions of normal living necessitated by our drive for quick victory. The body requires food. The mind requires recreation, wholesome and stimulating.

Those people who have found stimulation in the growing of a flower garden, and beauty in gladiolus, should by all means plan to plant their flowers along with a bigger vegetable garden in 1943. In other words the hobbyist should continue his hobby, unless and until, a higher service selects him for a greater duty which precludes the continuance of his hobby.

Thoughts on Shows

I believe the year 1943 to be an excellent one to try out the two-show idea within our society membership; i.e., both a northern, and southern area show, each so situated to present the shortest travel distance to those active competitive members in that area. The dates set to suit each geographical area. If government restriction forbids such a plan it should be ascertained by our officials prior to the actual expenditures of cash. Such shows might operate one year without ribbon awards, merely the secretarial report of winnings. The 1942 prize schedule or parts of it could be used to minimize expense from that source.

Varieties for 1943

It is somewhat early to ascertain the trend in planting of varieties for 1943. Right now it looks as if sales of varieties introduced prior to 1942, and after 1935 would enjoy their best sales years judging from purchases of amateurs and small professionals. Commercial buyers may withhold their experimental purchases of new varieties and replacement stocks until late in the spring. Catalogers are making committments on stocks at this writing. Bulblet and small stock sizes will probably not be offered in 1944 lists because of labor shortages.

Fertilizers

Since commercial fertilizers will be hard to secure in 1943, it may be necessary to utilize the organic fertilizer, barnyard manure, which will really improve many soils. If the manure is too fresh, much bulb disease will result. Copious watering will help.

Substitute sprays will no doubt be found to replace the "harder to get" standard thrips sprays.

PLANS FOR THE COMING YEAR

Mrs. Albert Haugen, Stoughton

IN comtemplating the 1942 gladiolus season one recalls that the general public indicated enthusiastic reception of the exhibition type flower with the trend toward all the lighter gay shades, however, enough color-tone to give definite character.

The benefits of exhibiting one's own grown spikes at a flower show is distinctly manifest in the symposium choice of 1942 flowers. The lack of knowledge of the color classification of any special variety is a handicap to thorough enjoyment of one's own flowers. The 1942 color classification was simple enough for me to locate the variety and trace to its color class.

The maintenance of the past sizes of gladiolus planting will probably depend on the time one can have to care properly for the amount planted. A smaller garden, well-cared for, will give the mental relaxation. Mileage rationing may tend to maintain present plantings along with our war business of production. Increased taxes will limit customer's buying power another year but for the present the trend is toward the largest and newest regardless of cost.

All growers of fine glads have realized the best results come only by discarding old, double grown,

scabby and the dry rot bulbs. Diseases infest the soil, which is a very good reason to change the place of gladiolus plantings when feasible. Our field grew soy beans in 1941.

Commercial fertilizers can help a good deal when farm fertilizers are not available. The type 5-10-5 organic mixture is slow acting, therefore feeds the plant through the whole season for bloom and bulb both. It does not give a quick send-off that may cause a good spike to be at its best just a bit too early for a show.

The State Show

Our State show may have to be postponed for the duration. For ourselves, we cannot carry on the train the amoun of spikes taken to the Lake Geneva Show. We filled the whole side of the main hall with displays of baskets and single spikes, besides being second in a matter of points throughout the whole show.

Suggestions: Each regional vice-president should be chairman of a show staged by the local membership. Racine and Kenosha have numerous gladiolus growers. Oconomowoc and Waukesha is another fertile field for a show. The spring Green-Baraboo area and the Monroe-Montford section are possibilities. The Madison members are certainly primed for another tilt at the blue ribbon gathering.

KEEP UP THE GLADIOLUS SHOW WRITES MEMBER

A LETTER from Clarence D. Fortnam, Tyler Hill, Pa., who shipped an exhibit of glads to our State Show in August, states:

"Enclosed are my 1943 dues to the Wisconsin Gladiolus Society. You gave me fine treatment and I appreciate it. Be sure and plan for a 1943 show. I think all societies should keep right on with their shows.

"I shipped to 28 shows this past summer and won 248 ribbons."

TWO OF A KIND

English Prof.: "Give me an example of a paradox."

Someone: "Two M.D.'s."

Did You Receive a Plant as a Gift

THEN KEEP IT GROWING! PLANTS WILL RESPOND TO GOOD CARE.

Cyclamen: The most common fault in caring for this plant is keeping it too warm, and giving it insufficient water. Always keep in the coolest part of the house; do not allow the temperature to be over 60 degrees at night. It is usually necessary to water twice a day—morning and evening. Some authorities recommend that cyclamen be watered well when received, then no additional water applied until the outer leaves begin to droop slightly. Then water again heavily. It is best to water by setting in a saucer of water, so the moisture can be absorbed from the bottom of the pot. The cyclamen requires a medium light but no direct sunshine. With good care, it should last until the warm days of April.

Hydrangea: This plant requires an abundance of water when blooming. It should be kept as cool as possible and out of drafts. If the soil dries out it will wilt down immediately. Water daily by setting in a large pan of water, so as to receive a thorough soaking. After blooming, about May, cut the plant back one-half, repot and plunge pots outside.

Azaleas: Flowers last longest under cool conditions. Place in a good light and give plenty of water. Do not allow soil to dry out. Bloom should last about two or three weeks under proper conditions. After blooming period, remove faded flowers. With proper care, it is possible to keep an azalea plant for several years. Young growth is made after flowering, and during this stage, keep plants warm and in a moist atmosphere. Later, when warm weather arrives, place outdoors in partial shade, plunging the pot, and see that the plant does not get dry.

Begonia: If plant drops foliage, it is probably because of too much water; or too dry air in the room. The begonia is somewhat susceptible to gas fumes. This plant prefers an even, warm, moist atmosphere, moderate watering, and considerable sunlight. Avoid chilling.

Rambler Roses: Keep in good light and give plenty of water while blooming. After blooming period (should last about two weeks) cut back and plant in yard, when weather permits.

Vegetable Garden Plans

(Continued from page 126)

area close to the house making possible better utilization of time spent in caring for the garden and in harvesting the crops and in far better utilization of the crops produced.

With the scarcity of wheel hoes, due to war conditions, many farm gardeners will have to use horse tillage in 1943 but it is safe to say that in many cases careful planning of the garden would reduce the labor involved even under these conditions.

Be Definite

A garden plan is not something which you have in your head. To be efficient it must be carefully worked out in all of its details. It must be definite as to quantities, location of crops and order of planting. It must be on paper so that you have a concrete picture of what your garden is to be. Even then it will not be perfect but if you have such a plan your garden will come a lot nearer efficiently serving its purpose and do so at a considerably reduced expenditure of manual labor on the part of yourself or the members of your family.

It's fair enough—you think radio announcers are dumb, and evidently that's what they think about you.

GARDEN GLEANINGS

BEFORE appearing on a number of garden club programs during November, we again asked several members of each club to send in samples of their garden soil for analysis. Samples were received from La Crosse, Lodi, Burlington, Kenosha, Fond du Lac, and Horicon. The tests for soil acidity again proved that the garden soils of city garden club members are high in lime. Only one sample out of all sent in tested below pH 7, and that was pH 6.8. Most of the other samples tested around pH 7.2 up to 7.8. A few were as high as pH 8.

Prof. C. J. Chapman of the Soils Department, Wisconsin College of Agriculture, makes the interesting observation that in some cases at least, the high lime content may be due to the fact that sub-soils from digging basements have been spread on the garden. These sub-soils are higher in lime than the surface soils, at least in southern Wisconsin. The importance of this is that while in some other sates sub-soils may be acid and lime may be required for the sub-soil, it is not true in this state. Consequently, in reading articles in national magazines one must always bear in mind that Wisconsin soils and conditions may be different from sections about which the articles are written.

Prof. Chapman lists possible reasons for the high lime content as follows: (1) use of wood ashes, which may contain 75% of lime, in liberal amounts on the garden, and addition of ground limestone and bonemeal; (2) frequent watering, especially during dry years, with city water containing lime; (3) the spreading of sub-soil containing lime on the garden.

We need not necessarily worry about this condition even though flowers and vegetables prefer a slightly acid soil. The addition of plenty of organic matter in the form of manure, leaf mold, or of peat will help correct the condition and enable the plants to make good growth.

The African Violet has surely come into its own as one of the most popular indoor flowers. It will even do well if planted in the garden in the spring. Victor Ries, writing in the Country Gentleman states that last year he planted a couple of them right in the ground in the shade of a Boxwood hedge overhung by Chinese Lilacs. They were there all summer.

Like Begonias, they do not need as much sunlight as some other house plants, and will grow in any window during the winter months when sunshine, after all, is not very abundant. During the summer, of course, they must be shaded from the sun. It seems to make little difference whether they are watered from above or below in spite of arguments about it. They seem, however, to prefer a somewhat drier soil than most other plants and do well in smaller pots.

Ring Spot on Saintpaulia is the title of a paper presented by Prof. G. H. Poesch in the Proceedings of the American Society for Horticultural Science. Growers of Saintpaulia have had trouble with ring spot which causes bright yellow ring patterns of fantastic design on the dark green leaves. Many reasons for the development of the spot have been proposed. Prof. Poesch concludes from the result of the experiment that when the temperature of the water was lower than that of the leaf, ring spot developed independent of light intensity. If the temperature of the water was only from 2 to 5 degrees higher or lower than the house temperature, no ring spots developed. To prevent the spots then, it is wise to use water equal to, or slightly higher than, the house temperature when overhead watering is necessary.

In one test on August 15th, pieces of ice were held a few inches from the leaves and drops of ice water allowed to fall on the leaf surface. In this case spots were evident four hours afterward.

Poison ivy stems, branches or roots must be treated with respect even after the plant has been killed. In a test by Profs. A. F. Yeager and D. Calahan of Durham, New Hampshire, plants killed by ammonium sulfamate spray retained their toxic properties and workers who **removed the dead plants three months afterward** were severely poisoned.

In the tests carried on by these men, ammonium sulfamate when applied at the rate of ¾ lbs. per gallon of water was very effective in killing poison ivy. The application may be made any time during the active growing period of the plants. Applications to poison ivy on apple tree trunks eradicated the ivy and did not damage the trees, according to a paper by these men in the Proceedings of the American Society for Horticultural Science.

A report in HORTICULTURE states that at least 124 plants have been used as coffee adulterants or substitutes in various parts of the world. In some parts of our country the roasted and ground chicory root is most most often used and right now chicory is being used a great deal to make available supplies yield more cups of coffee per person. The blending is done skillfully and if the law did not require the labeling of these compounds as such perhaps few coffee drinkers would detect the adulteration.

The soy bean has been discovered to be in use in present-day New England. Samples of "coffee beans" said by newspapers to have been grown in the Northeast have been identified as the Ogemaw variety of soy bean. These substitutes lack the stimulant which gives some people a lift and robs others of sleep.

—H. J. Rahmlow.

Chrysanthemums at Superior View Farm

Comments on Some of the New Varieties as Grown at Bayfield
By Dawson Hauser

DURING the past few years we have obtained some of the newer varieties of hardy chrysanthemums from several sources, including the University of Chicago and the University of Minnesota. I kept notes on these varieties as the season went on.

There are two things that are important in judging hardy chrysanthemums the first year—things other than hardiness.

First of all, the flowers must have a certain appeal and fill a color need. They must not be a nearlikeness to a variety we already have. Second, the variety should have a long blooming season. In order to have a long season it must be reasonably early and not fade too quickly. The length of time that different varieties continue to appeal to the eye is quite different in the various varieties. From the florist's standpoint many varieties which a home owner will consider good do not have value because they do not make good cut flowers.

Mr. and Mrs. Dawson Hauser of Superior View Farm, Bayfield, in their field of hardy chrysanthemums.

Comments on Leading Varieties

The following are the notes we made during the blooming season on some of the best varieties we grew this year.

Robert Brydon (Chicago) is a good deep maroon coming to bloom at Bayfield September 8, and was still of good appearance the last week in October when they froze. Is a dwarf stocky plant useful for garden decoration and table bowls.

Harmony (Minnesota). A dwarf spreading cushion-type, bronze in color. Starts to bloom September 10 and had lots of appeal when cut down by the frost. Apparently of much deeper color than at St. Paul.

Polar Ice (Chicago). Pure white 28 to 30 inches, coming to bloom after the middle of September and remaining clear white until real killing frost. Not affected by light frost as some whites. A good variety.

Redbank (Chicago). Brick-red, double, coming to bloom September 18 and of good use until frost.

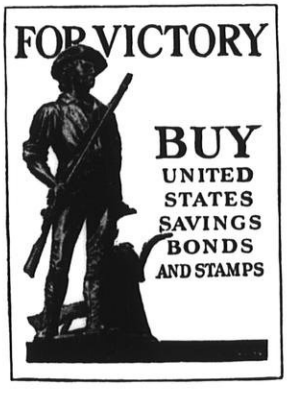
Dahlia Mum (Ohio). Has maroon flowers on 24 inch stems. Flowers resemble cactus dahlia. About September 15.

William Longland (Chicago). Best of the golden-bronze varieties from this source; rather tall, coming to bloom September 14 and was still good the middle of October. Might get too tall under some conditions, but was fine for us.

Chippewa (Minnesota). Double Magenta-red; 28 inch, coming to bloom September 15 and was good until frozen. Rates as one of the two best which we tried this year.

Early Red Cushion (Ohio). One of several red introductions of this type bearing double brick flowers taller than most of the cushion type. Flowers on the outside of the plants. Blooms about September 15. Has merit.

Others which I tried out were Harbinger, Goldridge, M. J. Costello, Tussore, Flavita from Chicago; September Gold, September Bronze, Eugene A. Wander, September Cloud from Ohio; Duluth, Purple Star, Sun Red, Welcome, Boreas from Minnesota; and Dean Ladd from Iowa. Several others from Chicago that were too late for a season such as the one just past might be of value in some places.



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Garden Club News

By the
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Mrs. F. E. Willard, 2nd Vice-President,
Oakfield

Mrs. Floyd E. Ballard, Recording Secretary-Treasurer
Badger Park, Route 62., Madison

H. J. Rahmlow, Corresponding Secretary
424 University Farm Pl., Madison

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Mrs. Geo. Adami, 2466 No. 46th St., Milwaukee
Milwaukee District
Mrs. Gilbert E. Snell, 414 Erie Ave., Sheboygan
Sheboygan District
Mrs. Bentley Dadmun, 604 Main St., Whitewater
South Central District

LETTER FROM THE PRESIDENT

Dear Garden Club Members:

Try as I might to turn my thoughts toward writing an article that might give you plans for the coming New Year, I find myself comparing the Holiday Season of a year ago, with the one just past.

The Holiday Season of 1942 has come and gone. It was indeed different than 1941 in a number of ways. Many of us did not have our families about us this year, but we did have Soldiers, Sailors and Waves with us, who were not privileged to spend their holidays with their families.

What has that to do with garden club members who seemingly waste their time in flower arrangement? They have directed their activities toward the War Effort.

The Milwaukee District clubs reported they made over 500 small Christmas wreaths and sprays that were sent to Camp McCoy at Sparta and to Camp Truax at Madison. These tiny wreaths and sprays were placed on he breakfast trays of the sick and convalescent soldiers. Collections were also taken up from Milwaukee District Club members, and the money spent for small gifts and sent to these two camps and given to the boys who failed to receive Christmas gifts from home.

Garden club members in Madison were busily engaged in obtaining and decorating Christmas trees for the Service Club at Truax Field and the USO Center. Many large

sprays and wreaths were made, table decorations for the dining room, and wreaths and sprays were hung in the reading and recreation rooms.

Christmas cheer was brought to the men and women stationed at these camps. Did they appreciate it? This is how one soldier expressed it to us: "I assure you we do appreciate everything Wisconsin has done for us. We like your State, and I can truthfully say that many of the boys having to leave for some other camp actually leave with tears in their eyes."

I know that garden club members are only a small part of the citizens of Wisconsin who help to create this feeling. As one of our most active State Chairman put it, "It is just one of the many things that garden clubs can do to keep busy and utilize their creative ability, devoting their time and energy to war time needs in order to heeep up interest and organization activities."

We trust that every member will have the Faith, Courage, and Strength to accomplish that which will be required of us this coming year and are looking forward hopefully to the New Year of 1943.

—Mrs. H. S. Bostock

WANTED: VEGETABLE GARDEN PLANS FOR BACK YARD GARDENS

HAVE you ever grown vegetables in your back yard garden, either in a separate vegetable garden, or in the flower garden? If so, send your plans to the Wisconsin Horticultural Society, 424 University Farm Place, Madison. The best plans will be published in this magazine for the benefit of others who are making their 1943 garden plans now.

We are particularly anxious to have the following questions answered:

(1) What vegetables, if any, can be successfully grown in combination with flowers in such a way that they are both ornamental and useful?

(2) In your opinion, should we confine our gardens to vegetables alone and flowers alone, or can we successfully combine them?

(3) What vegetables most important in the diet should be grown in the small back yard garden?

Here is a chance to do your part. If you have successful plans, pass them on to others through this magazine.

Federation Financial Report

Organization Has a Good Financial Year

THE following is a brief summary of the financial report of the Wisconsin Garden Federation as presented by Mrs. Fred. C. Marquardt, Recording Secretary-Treasurer for the period November 25, 1941 to October 20, 1942.

The Federation maintains a permanent fund of $250.00 as a bank balance which is left intact.

The Educational Fund had a balance of 219.23 as compared to a balance of $226.54 a year ago. Receipts from registration fees at the convention were slightly lower than anticipated, being a total of $86.50. Expenses for speakers and program at the convention were $89.70.

The Educational Fund is maintained to pay the expenses of speakers at meetings, and other educational work of the Federation. Only such expenses as are strictly educational are charged to it. Registration fees at meetings are placed in the fund.

The Flower Show Fund

The Flower Show Fund has a balance of $606.47 as compared to $293.71 in 1941. The reason—the receipts of the 1942 flower show were $1,132.45, and expenses of the show $819.69, leaving a profit of $312.76 to be added to the balance.

The Flower Show Fund is to be maintained at a permanent level of $400.00 so that there may always be a balance on hand to pay preliminary show expenses.

The General Fund

The General Fund had a balance this year of $188.43 as compared to $109.43 in 1941. The largest item of receipts in this fund is the membership dues. The Federation's share of the dues amounted to $394.20 out of which the National Council dues were paid amounting to $101.05. Net receipts from dues were $293.15. Other items of receipts were profits from the Gadget Shop at the state flower show, $36.43, and profit from the sale of conservation stamps which was used as an offset to a loan made in previous years. Net receipts from this source in 1942 were $81.56, which account for the larger balance.

Other expenses were: expenses of the president, $40.00; salary of recording secretary-treasurer and extra clerical help, $25.00; postage, stationery and supplies, $74.02; committee expenses, $26.47; and Roadside Development Association dues, $10.00. Traveling expenses of the Board of Directors for three meetings and the convention were $86.18.

Net Worth

The balance then in each of the various funds of the Federation is as follows:

Permanent Fund ------	$250.00
Educational Fund -----	219.23
Flower Show Fund ----	606.47
General Fund ---------	188.43

RURAL CLUB CHAIRMAN REPORTS

MRS. G. F. Harbort of Madison, Rural Club Chairman for 1942, reports as follows:

A meeting was held at the College of Agriculure with Prof. J. G. Moore, Prof. T. L. Bewick, Prof. J. Sherburne Elfner, and Miss Blanche Lee, in charge of Home Economics Extension, early in the year to make plans.

A circular letter was sent to all garden club presidents, county and home agents stating the object of the project, and the plans to assist in club work. The response from garden club presidents was not up to expectations.

Prof. T. L. Bewick, State 4-H Club leader, has suggested that our Rural Club Chairman meet with the county and home agents when they plan their year's work, and have our program conform with theirs. He stated that garden club members could assist in helping the nation keep the youth on the farm and to solve the food problem.

Prof. Bewick stated that the goal for last year of 10,000 victory gardens had not been reached, but that over 9,000 had signed up. The gardens were to cover 1,000 square feet, but some large tracts were developed. He described one outstanding garden 200 feet by 260 feet cared for by a young 4-H club boy whose father was crippled. It had a large V of flowers in the center of the plat, and was in excellent condition.

Our task should be to create a greater interest among the youth of our cities by enlisting their services to help those who have the ground but need help.

With high wages paid unskilled labor and many farmers selling their farms to go to the city to work in defense projects, the food shortage both in vegetables and dairy products may be acute unless some group steps in and sponsors garden planting. Food conservation will be very important this year. My recommendation would be that we wholeheartedly cooperate with county and home agents in the program they set up for this coming year.

Why Garden Clubs Should Not Disband

F. F. ROCKWELL

"Shall we suspend for the duration?"

That is the question many Garden Clubs are today asking themselves. Some of them have asked me. My reply in each case has been the same—— an emphatic and definite "no".

Work that will help win the war is needed—we all know that. Activities and duties in connection with the war are being created right and left, and women are rushing into them. This is as it should be. But the real gardener will not abandon her gardening just because "everyone is doing it." She will carry her share in defense work; but she will realize that this coming year, of all years, she can in most cases make no greater contribution to her country, her local community and her home, than in continuing to be a good gardener.

If this is true of the individual it is no less true of the Garden Club. That is not to say that any Garden Club should continue to run on in its accustomed rut. In too many Garden Clubs there are members who are not, and never were, real gardeners. They joined originally for social reasons, and if now they cease their Garden Club (not **gardening**) activities, it will be no insurmountable loss. A smaller group—those who are not merely fair-weather gardeners—will carry on.

Those who feel that perhaps it is not patriotic to continue their garden activities need have no such scruples. Here again, they will not continue in a rut. Gardening, like other pursuits, is being changed to meet war needs.

Among the greatest of these, for the coming year, will be the production of food. That means a curtailment of space and time, for the duration, devoted to purely ornamental gardening. Every pound of vegetables and fruits produced will be a direct contribution to the war effort. This does not mean that flowers are to be abandoned. We shall need them, too.

Gardeners, keep up your good work! Never was it more worth while. In a world that is devoting itself to destruction, gardening—the symbol and essence of creation—is needed as it was never needed before.

—From Bulletin of the National Council of State Garden Clubs, Incorporated, November, 1942.

OUR MOST IMPORTANT PLANTS

Garden Club Members Name Most Useful Plants

PROGRAM chairman who are casting about for new ideas may be interested in a roll call topic used recently by the program chairman of the Madison Garden Club. Each member was asked to respond with the name of the plant he or she considered most important to our American life, and why. The response was most spirited, even involving rebuttal discussion, and many interesting facts were brought to light.

Trees Most Important

Among the plants mentioned, trees received the highest vote because they supply shade, bark for commercial use, wood for fuel, and fruit, nuts and syrup for food.

The potato was second because it furnishes a basic food. Others were as follows:

The rose because it contributes the most beauty, greeting us on all the most important occasions of our lives including birth, weddings and funerals, also because its seed pods are a potent source of Vitamin C.

Wheat, because it is a vital source of food energy in so compact a form as to be easily and cheaply transported to distant war centers.

Soy beans because they furnish nutrition for man and beast as well as raw material from which paints, varnish and auto body parts are made.

Corn because in addition to its general use as a food, it is used extensively as a source of rayon for hosiery and other garments in the absence of silk.

Digitalis because its leaves produce a drug useful as a heart stimulant.

Grass because it covers the earth with color restful to the human eye, and halts the destructive processes of erosion.

Sugar cane because it produces a valuable staple of food.

Bamboo for its artistic value, its use in providing light furniture and porch shades, synthetic wood and fishing equipment.

The rubber tree because of its necessity as a source of tires, naval escape rafts and other articles too numerous to mention is being demonstrated forcefully in our daily lives.

Mosses and lichens because by covering bare rocks with their growth which subsequently decomposes, they furnish rich soil upon which other more desirable plants later flourish.

—By Martha Lowry, President Madison District.

Saintpaulia (African Violet): Keep in cool, even temperature. Requires good light, but protect from direct sun. East or north-east window is an excellent location. Heat, abrupt temperature changes, insufficient light, or incorrect watering will start or spread decay. Keep moist, watering from bottom. This can be done by placing pots in a pan of water until soil is thoroughly soaked and then drain off excess water.

Modern Trends in Flower Arrangement

Emma C. Schipper

EVERY now and then protests against "modern trends" in flower arrangement are heard.

In the October, 1941 issue of **Wisconsin Horticulture** Dorothy Biddle states: "Flower arrangements at flower shows are growing more and more exotic. What a shame that is! The adjectives that you can apply to many of the current flower show arrangements are not the ideal descriptive words for flower pictures. Bizarre, fantastic, grotesque, extravagant, are words that are so often applicable. Are flower arrangements going berserk?"

If the spirit of the times is reflected in the art of the times flower arrangements cannot remain immune.

"The artist is the true barometer of his times," Alfred J. Pelikan, well known art critic, told members of the Milwaukee Art Institute in one of his talks. "It is in the arts that the spirit of the times is reflected. Historians in recording the past have always turned to the arts for their information."

Moreover, there would be no exotic material seen or used at flower shows if it were not for modern transportation facilities which make it possible for them to be within reach of almost everyone. Why shouldn't we use and enjoy the privileges of our time? To-day we also have the mechanics or tools (holders of all description, etc.) which enable us to undertake the creation of almost any kind of an arrangement. Have we gone a bit too far in our undertakings—perhaps in the subordination of our material to design? For example, arranging flowers in unnatural or tortuous positions. We are living in a highly mechanized age. Can we keep from "mechanizing" our flower arrangements?

Arrangements Are Part of Home Decoration

The "interior decorating trend" seen at recent flower shows is meeting with disapproval of our horticultural friends. It is thought to be a step in the wrong direction to have interior decorators judge these classes. Incidentally, the spread of good taste in home decoration parallels the nation-wide interest in flower arrangement. Never before have schools, magazines, department stores and manufacturers cooperated as they are doing to-day in trying to develop good taste in home decoration, and never before have we been so conscious of plants and flower arrangements being an integral part of home decoration. Recognizing this trend and its tremendous appeal to the American public one well known manufacturer, in advertising his product, distributed a fabulous number of books illustrating flower arrangements in attractive interiors. All of these percussions in our flower shows.

Since flower arrangements in interior decorating units, as they are influences were bound to have recalled in the flower show schedule, are not judged so much for horticultural perfection as for good design and style, why not allow interior decorators to assist in judging these units?

The comments made by the late Leonard Barron, noted horticulturist, in **House and Garden Magazine,** a number of years ago, pertaining to what he called the "flower-arranging fever," I believe, will explain the attitude of horticulturists in general regarding flower arrangement. "After all, the really lasting appeal of gardening lies in the actual growing of flowers, not in the artificial disposition of the blooms that result from such efforts.

WHAT THE GARDEN CLUBS CAN DO IN 1943

Report in National Council Bulletin by Mrs. Walter P. Morton, Indianapolis, Regional Chairman

IN the lush and fertile Mississippi Valley, with its rich soil and wealth of natural plant life, there is a perfect setting for an "all out" program for war-time gardens among the garden clubs of Illinois, Indiana, Iowa, Michigan, Missouri and Wisconsin.

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Third: The Practical Herb Gardens. Growing the herbs which are needed to supply the demands now at hand in the markets. Some of the agricultural schools are experimenting with the herbs best adapted for growing, to market commercially. Garden Clubs could well study these needs and grow essential herbs. Many gardeners growing small amounts of a few herbs could supply a market with a considerable quantity of the more needed varieties.

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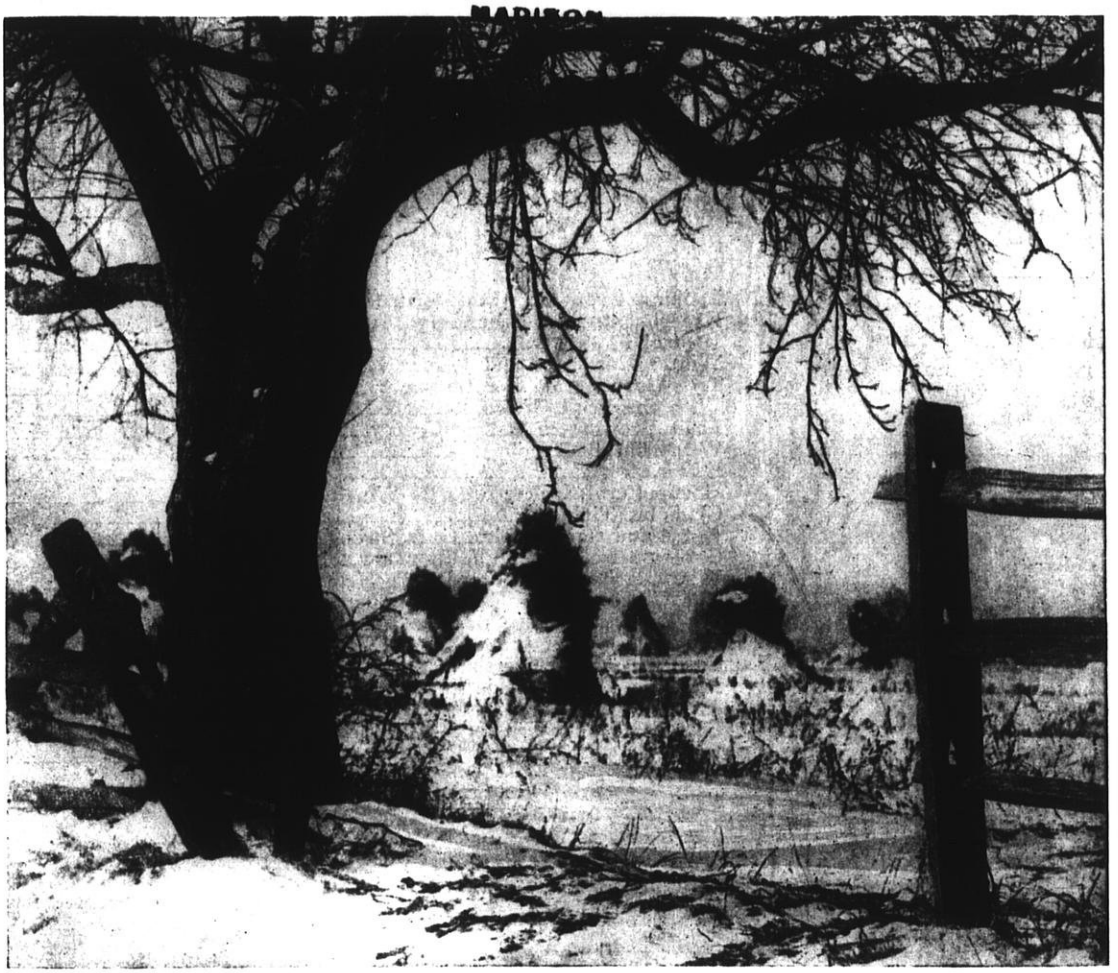

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—Frank Case, Do Not Disturb (Stokes).

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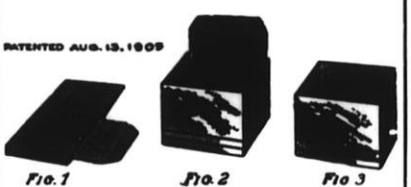

Fig. 1 Fig. 2 Fig 3

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ESTABLISHED 1910

Entered at the postoffice at Madison, Wisconsin, as second-class matter. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1918.

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
424 University Farm Place
Madison, Wisconsin

H. J. RAHMLOW, *Editor*
Secretary Wisconsin State Horticultural Society

Office: Old Entomology Bldg., College of Agriculture
Tel. University 182

Volume XXXIII FEBRUARY, 1943 No. 6

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PLEASE DO NOT SEND STAMPS

Looking Over American Horticuture

H. B. TUKEY, NEW YORK EXPERIMENTAL STATION, GENEVA

(Summary of a travel talk given before the Wisconsin State Horticultural Society at Ft. Atkinson on November 18, 1942, touching on items of horticultural interest on a twenty-five thousand mile trip into Canada, Mexico, and points between.)

WHILE every one of us is busy with the details that interest and concern us most, there is always something else which somehow shapes our destiny and our thinking and our pattern of living. The few acres we own are influenced by our surrounding neighbors; they are in turn influenced by the surrounding State; and the State again is influenced by the surrounding States of the Union. Accordingly, it does us good to get out and visti other places and to try to gauge the broad general trends. What are people saying, what are they thinking, what are they doing? We might call this "Looking Over America."

The Mid-West

Iowa and Illinois are rich at corn harvest, where farming is highly mechanized and efficient —a thousand acres of asparagus in one block, the Mid-West is surely the bread basket of the country. A stop at the Iowa Experiment Station shows the importance of hardy body stocks such as Virginia Crab and Hibernal to the continued production of apples in the Middle West.

Across the Missouri River, and the rich green of Iowa gives way gradually to less moisture and the dry conditions of the Dakotas. Yet anyone who thinks he is isolated need only drop into Mitchell, South Dakota, on an afternoon in the fall to find Orin Tucker and Bonnie Baker performing at the great Corn Palace in truly Metropolitan style! And what is more delightfully reminiscent of fairy tales and Alice in Wonderland than to drop down into the Bad Lands of the Dakotas late in the evening as the rising moon casts its spell over the place.

The Black Hills come and are gone, but stir memories of "I do not choose to run", a seventy-eight-thousand-foot stratosphere ascent, and the great Rushmore Memorial. Across the great open spaces, Cheyenne appears. The item that surprises is that here are 2,300 acres and a CCC camp devoted to horticulture. It seems at first strange to find so much emphasis upon horticulture, but gradually the truth is forced home that horticulture has tremendous social implications, and a few flowers, a few vegetables and a few trees build permanence to a locality. The breeding work at this Station promises much for the Plain States along horticultural lines.

The Rocky Mountain Region

In this great Rocky Mountain region the importance of nature is evident in the names of places. No longer does one find such classic names as Ovid, Romulus, Hector or Pompey; instead the names are Aspen, Rocky Ford, Buena Vista, Grand Junction, Leadville, Palisade—and the climax is reached when the Roaring Fork meets the Frying Pan!

On the western slope of Colorado is the fruit section of the Grand Valley. Here one visits with an elderly man who came west in 1887 to shoot meat for the railroad. He left the nomadic life and followed the pursuits of agriculure. In the boom periods of the 1920's there were government loans and commitments followed by foreclosures until now this pioneer is a ward of the State living on an old-age pension. This is a saga of the development of America.

Codling moth has about driven the apple business away, but peaches still do well. The cooperative fruit organization, one of the first of its kind in the country, has been taken over by local growers with government money, and the former owner is now on salary—another sign of the times.

Into Canada

From here the road leads across Utah and straight up the backbone of the country through the national parks, Montana, and on up into Canada. Following the Columbia River from its source in the ice fields around Jasper, down from the north with ice and snow on the car, the road drops into a gentle valley, into the intensive fruit producing area of British Columbia, including Vernon, Summerland and Penticton. This is part of the Okanagan Valley—spelled with an "a" in Canada and with an "o" in the United States. It is from this section that 630,000 bushels of apples were shipped to the East a year ago to cause

confusion and to focus attention upon the area. The total production is five and a half million boxes, of which one-third are McIntosh. Its history is the story of many apple sections on the continent, namely a reduction of the number of varieties from 123 to 7, increase in average production from 2.5 to 4.6 bushels per tree, so that while the total acreage has not been reduced, production has actually increased. The general setup is remindful of the upper reaches of the Hudson River Valley. In fact, a good comparison of the whole western apple belt from British Columbia to Yakima can be made with the eastern apple belt from northern New York down into the Virginias, in which British Columbia is the Hudson River Valley and New England, Wenatchee is the lower Hudson Valley and Pennsylvania, and Yakima becomes the Cumberland-Shenandoah section and south.

The World's Apple Capitol

Wenatchee still boasts itself the apple capitol of the world, which it really is. Three financial reorganizations have been like three blood transfusions, until finally the last one in combination with rising prices, has created a very happy atmosphere. Yakima, to the south, is more diversified; its main trouble is with a labor problem that is as vicious as anything one cares to see.

Just east of Wenatchee is the great Columbia River Reclamation Project and the Grand Coulee dam, which will eventually bring a million acres into production. Many easterners think of these reclamation projects as direct competition with eastern agriculture. Out here they are thought of as great social developments which are pushing back the frontiers and bringing great populations of people and industry into regions that need both so badly.

Over the Cascade Mountains the road leads into the Puget Sound area around Puyallup and Sumner with its 8-feet raspberry canes, bulb production, and a generally moist climate. Back up through Canada again, across onto Vancouver Island, back onto the Olympic peninsula and the great rain forest, and so down to Portland and to the horticultural center of Oregon. Both Hood River Valley and the Willamette Valley show diversification and stability. At Medford, in the Rogue River Valley, the pear continues at its best.

Over the Coast range the road leads now to the Pacific Ocean and northern California and winds down through the impressive redwoods to California horticulture at Sebastopool and Santa Rosa. At Santa Rosa, Luther Burbank lies buried under a Cedar of Lebanon with the words "When I go don't raise a monument to me, plant a tree."

California

The great interior valleys of California are always impressive with their thousands and thousands of acres of tremendous production. The Sacramento Valley spreads north and the San Joaquin Valley spreads south. Peaches, pears and plums are characteristic of the northern valley, while grapes, figs and the warmer season crops are characteristic of the southern. Acreages and ideas are staggering to anyone more familiar with the smaller acreages and more limited horizon of eastern horticulture.

South of Los Angeles one finds subtropical horticulture, and gets a look at the avocado, the mango, the papaya, the loquat and the cherimoya. The avocado is developing rapidly as an important fruit, and the cherimoya suggests that it too has possibilities; but imagine finding sixteen cars of prickly pears finding their way to eastern markets from a 10-acre commercial cactus planting in this region!

East of the hills lies the Imperial Valley with its great vegetable industry and the date section at the northern end, near Indio. The citrus industry just east is familiar to most and needs no special mention. To the north, and east of the Sierra Nevada mountains, lies Death Valley, a place of unexpected charm in mid-winter.

Eastward the road leads through Arizona vegetable production, across New Mexico and down into the Rio Grande to find acres and acres of fertile soil, low water costs and low costs of production. Here one is told that a grower can make money on grapefruit at $10 a ton and carrots at 25 cents for 72 bunches. A statue of "Popeye" stands in the center of the square at Crystal City to proclaim this region as the spinach center of the world.

A short trip down into Mexico calls vividly to mind the richness and possibilities of this great country. Mineral resources are great and the possibilities with vegetables and southern horticultural crops are tremendous.

Back along the Gulf States one finds the sweet potato developing into a great industry, citrus production all along the way, tung oil production receiving scientific attention, and the whole southern region coming into its own and likely to see great development in the years immediately ahead.

Along the Atlantic Coast through the peach section of the Carolinas one is again impressed with the great producing ability of the nation and how important one section is to another. With transportation as it is, it is no longer possible for one section to live unto itself. Every section bears some relation to another and plays its part.

(To be continued)

Experiments with Ground and Tree Spraying For Apple Scab Control in 1942

By G. W. Keitt and
J. Duain Moore

WHILE tree spraying programs for apple scab control are of great benefit, they still have important defects. They may fail under severe conditions of scab occurrence or if unavoidable circumstances prevent timely application. If strong enough for disease control, they may cause objectionable injury to foliage or fruit. Furthermore, they commonly permit abundant survival of the scab fungus in the leaves, so that it can produce quantities of ascospores to start the disease in the next year.

The purpose of ground spraying is to strike at the fungus in that weak part of its life history when the dead leaves are on the ground in the spring, but have not discharged ascospores to start the season's infection. It is aimed to reduce the supply of ascospores to such a low level that disease development will be reduced and control by tree sprays will be made surer and safer. By lessening the difficulty of control, it should be possible to use less injurious materials for the tree spraying programs.

Experiments in Door and Kewaunee Counties in the past season tested various programs of tree spraying with and without the ground treatment for apple scab control.

The season was cool, with frequent rains, and scab development was unusually severe.

For the ground spray Elgetol Regular, 1 gallon in 200, was applied at the rate of 600 gallons of spray per acre. The chief experiment was on McIntosh in a 60-acre orchard containing McIntosh, Starking. and Grimes Golden. Forty acres received the ground treatment, 20 did not.

Effects of Ground Treatment on Ascospore Supply

Ascospore discharge experiments indicate that the ground treatment reduced the supply of ascospores by **about 99 per cent.** Counts on trees that received no tree spray indicated that infection by ascospores in the far part of the ground-treated area was about 90 per cent less than in the area that was not ground-treated. There was evidence that ascospores were carried in the air from the non-ground-treated to the ground-treated area, but the amount was not large enough to prevent a high degree of effectiveness of the ground treatment, except near the non-treated area.

Effects of Ground Treatment on Disease Control

To check on the effects of the ground treatment on disease control 5 tree spray programs were

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applied comparatively in the ground-treated and the non-ground-treated areas. On account of frequent rains the applications in these programs were poorly timed for scab control. At harvest averaged results from the 5 programs showed that the ground-treated plots about 300 to 400 yards from the non-ground-treated area had 29 per cent fewer fruits scabbed (based on total number of fruits) than the corresponding plots that received no ground spray. Averaged counts on this fruit from the 5 programs showed 81 per cent fewer scab spots in the ground-treated area than in the non-ground-treated.

Experiments with Milder Programs in the Ground-Treated Area

In another experiment various programs were applied only in the far part of the ground-treated area to see whether milder materials or dosage would control the disease with the aid of the ground spraying and lessen the amount of spray injury. Lime-sulphur, 1-50, was used in 3 applications before bloom. Different materials were used in 5 applications after bloom. Results according to the material used after bloom in terms of McIntosh fruits scabbed at harvest were as follows: (1) lime-sulphur, 1-75, 2 per cent; (2) Mike Sulphur, 5-100, + lime, 1-100, 10 per cent; and (3) Fermate (ferric dimethyldithiocarbamate), 1-100, + lime, 1-100, 8 per cent. There was severe foliage injury and an objectionable amount of russet from the full-season lime-sulphur program. The spray injury was satisfactorily reduced where Mike Sulphur or Fermate was used in the treatments after bloom.

In this experiment most of the scabbed fruit on the plots that received the particulate sulphurs or Fermate in the after-bloom treatments had slight infection that occurred late in the season. A month elapsed between the last two applications of spray, and the protection by these mild materials weakened in this period. It should be borne in mind that the ground spray is designed chiefly to lessen the severity of scab in the critical first half of the season when control is most difficult. While it also lessens the severity throughout the season, it cannot take the place of adequate protection by tree sprays.

Discussion

While further experiments will be necessary to determine the possible place of ground spraying in the control of apple scab, the results of the past season show that it was a very valuable supplement to tree spraying under the conditions encountered. Its chief probable adaptations seem to be (1) in situations of severe scab development in which well applied tree spray programs do not give satisfactory control, (2) in situations of severe scab occurrence in which unavoidable circumstances prevent timely spray applications, and (3) in situations in which sufficient protection by tree sprays requires use of such strong materials that too much spray injury results.

Some Wisconsin apple growers are using the ground spray with satisfactory results. For others who may wish to try it, Elgetol, 1 gallon in 200, applied at the rate of 600 gallons per acre is suggested. Thoroughness of application is necessary for success.

The use of ground spray does not take the place of thorough tree spraying. The chief purposes of ground spraying in its present stage of development are to make scab control by tree spraying surer and to permit use of less injurious tree spray materials. There should be no relaxation in the thoroughness or timeliness of tree spraying.

When and How to Apply the Ground Spray

The ground spray should be applied in the spring after the ground is in suitable condition and before the buds have broken enough to expose tissues susceptible to scab infection. In Wisconsin this will usually be in a period of about 2 weeks before the first tree spray for scab control (delayed dormant). The ground should be as free as possible from surface water, but the application can be made while the leaves are still moist. The exact time required for the Elgetol to be effective in case rain follows soon after the application is not known, but in experiments it has been effective in a 3-hour period. Until further information is available, it is suggested that an effort be made to work at such times that a period of at least 3 hours without rain seems probable. It is well under Wisconsin conditions to use the earliest favorable opportunity to apply the ground spray, or unfavorable weather may delay it past the time of effectiveness.

In the experimental work the ground spray has usually been applied by 2 men walking backwards behind the rig, each using a single-nozzle gun and spraying only about ¼ the distance between two rows. This necessitates 2 trips of the rig down each middle, but is more workable than treating the entire middle in 1 trip. The spray is applied at 550 to 650 lbs. pressure, using a 5/32-inch disk in each of the 2 guns. This permits use of a 25 gallon per minute pump at nearly its full capacity. The speed of driving is regulated so that about 600 gallons of spray is applied per acre. A strip of ground about 50 feet wide at the edge of the orchard is sprayed to cover leaves that have blown away from the orchard.

Various modifications in method of application are possible, but in all cases outlets should be near the ground and good pressure and thorough coverage should be provided. Spraying from the top of the rig has not been successful. Experiments with booms are in progress.

Elgetol should be thoroughly stirred before it is put into the spray tank. To avoid excessive foaming it is well to add the Elgetol after the tank is filled and just before beginning to spray. If there is still enough foaming to cause loss of pressure, the problem

(Continued on Page 145)

Winter Hardiness and Winter Killing with Special Reference to the Strawberry

W. G. Brierley, Minnesota
Paper Presented at Society's Annual Convention

FROM the many investigations of winter injury we have learned that a plant must be well matured in order to develop its full resistance to cold. When we think of the maturing process in a plant we find that the growing season can be divided into two parts—one the period of active growth, and the other the maturing period. The duration of these two parts varies greatly with different fruits. In the apple, active growth usually ends by mid July and maturity develops throughout the remainder of the season. In the red raspberry and grape, growth usually continues until checked by low temperatures, or drought, or both. Sometimes there is too little time for full maturity to develop and severe winter injury may result. Strawberry runner plants generally are formed sometime in July. They grow rapidly and usually mature rapidly in October if weather conditions are favorable.

What Is Dormancy?

We know that as a plant matures it generally becomes dormant. We know, also, that dormancy is really made up of two parts. One of these parts is true dormancy, a condition in which the plant does not grow because temperatures are too low for growth. The other part is called the "Rest Period." This is a regulation caused by conditions within the cells of the plant and is not directly related to temperatures. A "dormant" plant usually will begin to grow whenever the temperature rises above 43 degrees, but if the "rest" is governing a plant it will not grow even at much higher temperatures. This explains why there usually is no growth in woody fruit plants during warm weather in October or early November.

Low Temperatures Break Rest Period

The "rest" is overcome or "broken" by mild injury which may be due to several causes but most commonly is due to exposure to low temperatures. In the upper Mississippi region the "rest" of apple and plum trees probably is **broken by the first zero weather**. From then on until spring the trees are **"dormant" and may show activity in the buds during periods of mild weather.** Our steady northern winters usually are good protection for our trees because there usually is little opportunity for bud activity. Winter injury to tree fruits quite commonly is more severe in milder regions where winter temperatures fluctuate widely and where mild spells bring on bud activity too early.

In recent years at the Minnesota Experiment Station the studies of hardiness and winter injury have been largely confined to the strawberry. We have hoped that an answer might be found to the question, "What goes on out in the field of winter beneath mulch, ice, and snow?" Some of the answers which we now have are given here.

Strawberry Plants In Winter

We have found that growth of strawberry plants is checked and maturity advanced by frosts. Light frosts seem to be needed to harden the plants but frosts also seem to break the "rest." Weather conditions often change rapidly in October and the plants go through a process of gaining and losing hardiness, but the net result generally is the development of maximum hardiness by early November. We have known for some time that severe injury would be likely if the plants were **exposed to temperatures below 20 degrees and have recommended that mulching be done before the ground freezes hard**. But this has led to mulching too early before plants have matured and hardened and this has been the cause of as much or more injury than if mulching was delayed too long. Plants mulched too early before they have matured and hardened frequently begin to grow beneath the mulch. Such plants develop bleached, yellow leaves and are very tender to frost. We have completely killed such plants by freezing at 27 degrees. Because of this sort of behavior we now suggest that a grower place a good thermometer under the leaves in his strawberry field and then not worry about early light frosts. Under ordinary conditions no injury is likely to occur until temperatures fall lower than 20 degrees and in normal times advance information about these November cold spells may be gained from weather reports. In other words, mulching should not be done by watching the calendar, but by watching the temperatures that will mature and harden the plants, and spread the mulch on the fields when severe cold is expected.

We have learned that the internal activity of plants declines sharply with the first frosts and remains at a low point all winer. In the early spring this activity increases rapidly before signs of growth can be seen in the crowns. There is some evidence that warm spells in March may bring on this activity too

early, but we also have noted that plants in the early stages of growth are able to reharden rapidly and can endure temperatures down to 27 degrees at least.

Amount of Mulch to Use

The effects of various types and depths of mulch have been studied and we have found that 3 inches of good straw is as satisfactory as any common or available mulch. This, of course, is in agreement with field practice. We have found that a good mulch in the ordinary winter is adequate protection for the plants against too low temperatures, and an additional covering of snow makes the protection more certain. Only in the severe winter of 1935-36 did temperatures under a good mulch fall low enough to cause injury to strawberry plants, and in this case the snow covering had been removed to note the effects.

In agreement with results obtained by other investigators we have learned that the "Danger Point" for dormant, hardened strawberry plants is close to 21 degrees. Below that point injury becomes more and more severe until the actual "Killing Point" is reached at about 10 degrees.

Varieties Vary In Hardness

Varieties behave somewhat differently in their resistance to cold. As a general rule the everbearers are much less hardy than the June bearers. This difference may be due to the late fruiting habit that probably delays maturity. In our studies of the June bearers we have found that the new pistillate seedling Minn. No. 1192 is the hardiest. The Beaver, Dunlap and Premier, although varying a little from year to year appear to be dependably hardy at 21 degrees. The Catskill has been somewhat less hardy. Of the everbearers the new seedlings Minn. No. 1166 and Minn. No. 1167 usually have been the hardiest and these have been about equal in hardiness to the Dunlap or Premier. The Gem has been somewhat less hardy, and Wayzata frequently has been severely injured at 21 degrees.

Smothering Explained

In our experiments ice has not been found to merit its bad reputation as a cause of "smothering," although at times plants may be killed beneath a covering of ice. Ice is not a good insulating material and in cold weather we have recorded temperatures close to zero beneath 3 inches of ice. This temperature is much below the killing point and indicates that cold probably accounts for a large part of the killing that usually is attributed to smothering. We have kept plants under an ice coating for 10 to 14 weeks with little or no injury when not exposed to low temperatures. When we have exposed these ice coated plants to controlled low temperatures they have not been seriously injured at 21 degrees, but have been injured or killed at lower temperatures in just the same way as plants not covered with ice. So it seems that ice alone has not been the cause of injury.

In order to learn more about the possibilities of smothering we have sealed dormant plants in glass jars. So long as such plants have been kept below freezing they have survived for as long as 7 weeks with no evident injury when the oxygen supply was held at 2 per cent or less. When no oxygen was admitted to the jars severe injury has appeared in 6 weeks and complete killing has occurred in 7 weeks. In the latter case the oxygen in the jars was almost completely exhausted and the concentration of carbon dioxide rose to the very high level of 44 per cent. However, we do not believe that the granular, more or less cracked ice in the field seals the plants as tightly as in the jars. So we still have to search for the cause or causes of injury beneath ice. In addition to low temperatures it seems likely that injury may at times be due to excess water as the plants thaw, or activity of the plants may speed up while they are covered, or diseases may attack them.

High Temperatures Under Ice Being Studied

In the experimental handling of thousands of plants during the past 10 years it has been noted that injury has occurred at temperatures above freezing while the plants have been more or less closely confined either in winter storage, or beneath a layer of ice, or confined within glass jars, or beneath a soggy mulch in the field. We have found that the temperature of strawberry crowns beneath an ice covering will rise rapidly when the plants are placed in sunlight. Crown temperatures have risen from 26 degrees in storage to 38 degrees in sunlight in half an hour with only partial thawing of the ice. This interesting behavior is being studied further and conclusions cannot be made at the present time, but it may be that a further explanation of "smothering" may lie in this direction.

A Vermont farmer was plowing a field with one horse, but he was yelling "Giddap, Jack. Giddap, Jerry. Giddap, Casey. Giddap, Cromwell."

A stranger passing by asked, "How many names does your horse have?"

"Oh," said the farmer, "his name is Jack, but he doesn't know his own strength. So, I put blinders on him and yell all those other names. He thinks he has other horses helping him."

—Can You Top This? (WOR)

The girl who thinks no man is good enough for her may be right—also, she may be left.

—Allan Prescott (Blue)

TREE DEPRECIATION FOR INCOME TAX

Treasury Department's Internal Revenue Bureau has recently questioned income tax returns sent in by some of our growers, in which apple tree depreciation was placed at 5%, on the long-accepted basis that apple trees average to bear for 20 years commercially.

Since income taxes are invading continuously lower brackets and catching more and more growers, and since this may be brought before other growers, we reprint parts of a letter we wrote for one of the growers whose return was questioned:

"Apple trees do not bear, except occasional fruits, until they are twelve to eighteen years old, depending upon the variety. They end commercially-practical bearing at from twenty-five to forty years of age. The early-bearing trees are also the shortest-lived, as a rule. Grimes Golden variety, for instance, starts bearing at twelve years; commonly dies at twenty-five to thirty years. York Imperial begins to bear at fifteen to eighteen years; ends commercially-useful bearing at about forty years. The average productive span, then, is just about twenty years.

"This has been established so commonly, and accepted so fully by the Treasury Department in the returns of orchardists of this state, that it seems to us remarkable that it should be questioned. If it will be at all helpful, we will be glad to list the full names and addresses of orchardists whose returns have been approved for years, based on this twenty-year or 5% depreciation basis. The West Virginia Horticultural Society will be glad to help you in any other possible way to buttress this.

—*From Mountaineer Grower.*

PRUNING IN 1943

Mr. Charles Patterson of Franksville, Racine County, writes: "I will prune our Wealthy severely this year to encourage new growth and take out some trees that are not in good condition. Other trees will be pruned the same as in previous years. We will spray the same as in past years, using three sprays before the calyx and every 10 days after the calyx as long as the moths are flying. We will then use two or three sprays from the 14th of July until the latter part of August to control the apple maggot. The strength of the lime sulphur will depend upon weather conditions.

"I think we should have at least four stations for bait traps in each county to determine when to spray for the apple maggot."

A chip on the shoulder indicates there's wood higher up.

EXPERIMENTS WITH GROUND SPRAY

(Continued from Page 142)

may be met by using smaller agitator blades.

Orchard Cultivation After Treatment

Where the ground treatment is used the orchard should not be cultivated before the end of the ascospore discharge period (usually about 2 or 3 weeks after petal-fall in Wisconsin), since this would tend to uncover some leaves that escaped treatment because they were covered by others. As long as they remain well covered they cannot discharge their ascospores into free air.

The question is often asked whether it is advisable to spray the ground at the same time the trees are being sprayed with Elgetol for insect control. This is generally not advisable, because in most cases it is not workable to make efficient application to the ground and trees at the same time.

RECONDITIONED SPRAYERS AVAILABLE

We have a few used sprayers, completely overhauled and guaranteed to be in good working condition. We have all makes, BEAN, MEYERS, "FRIEND," HARDIE, ranging in capacity from 3 bbl. to 8 bbl., and priced from $125 to $225.

We invite your correspondence.

SAM GOLDMAN

BEAN Sales & Service **STURGEON BAY, WIS.** **Phone 436**

With the Fruit Grower

HALLOCK BERRY BOX MAY BE USED WITHIN STATE

While the federal government passed a ruling some time ago, making the Hallock berry box illegal for interstate shipment, the state of Wisconsin has taken no action and according to word received from the State Department of Markets, will probably not take any action for the duration. Consequently, berry growers may use the Hallock box for sales of berries within the state of Wisconsin. This will enable manufacturers and dealers to clean up their stock of boxes on hand.

PRUNING AND SPRAYING IN 1943

By Ralph Irwin, Lancaster. "Our method will be different by removing alternate trees and "fan pruning" a year or so earlier than we have done in the past. We are pruning older trees especially the tops of tall trees more severely than heretofore. I may have to do my spraying alone next season.

"What is the use of producing so many apples when so many of them are not worth producing?"

By Arnold F. Nieman, Cedarburg. We will try to get started with pruning as soon as the most severe cold weather of winter is passed. We want to be sure to complete our pruning before there is much bud growth in spring.

"Since spray materials are hard to get, we will place our order early. If we can't get all the lime sulphur in liquid form, then we will use some of the dry form for spraying, beginning with 10-day spray. We will use sticker with our arsenate cover sprays so as to be sure of complete protection at all times against side worm and apple maggot."

RASPBERRIES AND STRAWBERRIES GROWING AT RICHLAND CENTER

Latham and Newburgh red raspberries have been our leading varieties here at Richland Center. A moderately fertile soil seems best for Newburgh as they winterkill on a rich soil. It does best in a season with plenty of moisture.

Taylor has never done as well with us as the other two varieties. Marcy has done as well with us as Taylor, and we are watching with much interest those who have planted heavy of Taylor.

Sodus and Potomac purple raspberries do splendidly with us. They outyield the red and our market takes all we can raise. The Sodus berries are very large while Potomac are only of medium size, but of good quality.

We still think the Premier strawberry is the best variety. We are growing Beaver but find that this variety fails to bring all of its fruit to maturity and is not dependable. *—H. B. Blackman, Richland Center.*

WINTERKILLING OF PLANTS EXPLAINED

DR. W. G. BRIERLEY, horticulturist with the Minnesota College of Agriculture, has a very interesting article in this issue on winter hardiness and winterkilling. His explanation of how a "rest period" in plants may be broken by injury or low emperatures, and that activity in the buds may follow during periods of mild weather, may explain a great deal of our winter injury, especially to raspberries and other horticultural crops. It explains why winter injury to tree fruits is sometimes more severe in milder climates where winter temperatures fluctuate than where there is a steady winter cold. We recommend the article to all horticulturists.

NATURE OF SUNSCALD

SUNSCALD occurs usually in late winter and early spring. The interior continental climate here in winter is distinguished by clear, bright sunny days and by crisp cold nights. The air is dry and that state induces wide and quick changes in temperature. Moist, cloudy weather evens daily temperatures and narrows and slows the changes from noonday to midnight thermometer readings.

Ordinarily March and early April finds the sun shining brightly. With sunset the atmosphere becomes keenly cold with abruptness. The trees respond to the direct rays of afternoon sunlight, and to their accompanying waves of heat. This stimulates movement of sap on the southwest side of the tree. With the setting of the sun, the bark loses its source of heat. Frost comes sharply and the cells of the cambium layer are killed by freezing of the sap. This may be due to expansion of liquids on freezing or to poisonous chemical changes that sometimes occur. Then in May, small or large patches, or sheets, of bark and cambium are noticed to be dull, dry, hard and dead.

Prevention is the one satisfactory treatment. Exposed trunks of trees and shrubs with thin, tender bark should be protected on their southwest sides against direct sunshine. There are many methods. A sheaf of corn may be tied against the trunk. Heavy whitewash may be applied to serve as a reflector. Wrappings of burlap strips, white building paper, old magazines and metal lath, or board veneers are effective. A convenient alternate safeguard is to tack a piece of board, preferably white in color, to the trunk. Protectors are removed next May.

—By W. R. Leslie, Morden Experimental Station, Manitoba.

FRUIT GROWING IN RACINE COUNTY

R. G. Dawson, Franksville

A CHANGE has taken place in the nursery business as in other lines. I remember when nursery sales were of different varieties of apples and pears, a few shade trees, perennial plants and shrubs. Now there is a large assortment of evergreens.

Years ago most farms had a small orchard. It is different today. It looks as if the family orchard is passing away.

Pears sold very well here this season at good prices. Some of our Duchess pears weighed one pound each. Racine county growers report growing Red Delicious to the weight of one pound. From reports I wonder if the Golden Delicious is hardy and will stand our winters.

We have not found the Minnesota varieties of pears to equal the Bartlett, Clapp's Favorite and Sheldon in our location. Of the New York Experiment Station pears, Cayuga is good. Phipps, Ovid and Willard do not have the quality of some of the older varieties.

Could we not plant more varieties of nut trees and less Box Elder and soft Maples?

NEW MOUSE BAIT IS EFFECTIVE

SEVERAL letters have come to the Horticultural Society from growers questioning whether the new mouse bait zinc phosphide is effective.

A letter from Mr. G. C. Oderkirk, Division of Rodent Control, at Purdue University, writes in regard to this as follows:

"At first I was rather skeptical when using zinc phosphide, because I found that there was not as much kill of mice on the surface as I had expected. However, in following up the runways and digging out the nest sites it was very common to find anywhere from 3 or 4 up to 10 or 12 mice dead in their underground nests or in the vicinity of their food caches. Thus, before making a definite statement, growers should dig out some of the nests and see whether there is an underground kill.

"Of course, from now on, or even from the time of the first snowfall, baits will likely freeze during the night and would not be very palatable after a day or so. However, mice are active during the day and by baiting in the morning to give them an opportunity to feed on the bait for two or three hours between 10 a.m. and 4 p.m., it should be effective."

Growers should remember, however, that the best time to control mice is to make a thorough baiting throughout the orchard in the late fall before snow comes.

LIKES JONATHAN APPLE AT BRODHEAD

We have an old orchard of about 20 acres and will set out a young orchard of about 200 trees in spring. We also set six acres of new orchard in 1942. Most of the young trees are Jonathan. We had 100 old Jonathan trees of which there are about 80 left. These Jonathans have paid better for us than any other variety, including Greening, Wealthy, McMahon, McIntosh and Delicious. They have been regular bearers and sell well here.

We are still growing strawberries and raspberries, about four acres of each. We like the Wayzata everbearing strawberry better than any other kind we have tried.

—A. M. Ten Eyck, Brodhead

Editor's Note: The Jonathan apple is popular in the extreme southern part of Wisconsin. Farther north, however, it is less popular than McIntosh.

NEW "VICTORY" APPLE

A Money Maker For Fruit Growers

"VICTORY" is an improved McIntosh. Originated by the Minnesota State Fruit Breeding Farm. Christened and formally introduced this year. Better quality even than McIntosh. Hangs to tree better. Keeps longer.

FREE Catalog describing *"Victory"* apple and other new money-making fruits. New Nanking and Korean Cherries—New Sunrise Red Raspberry and New Burgundy Strawberry (Minn. No. 1192).

ANDREWS NURSERY
Faribault, Minn.

"What's the meaning of those three balls in front of a pawnshop?"

"It means three to one you don't get it back."

—Gay Nineties (CBS)

Get extra savings on **Sheboygan** fruit and berry boxes

Whether you need a box approved for interstate shipment by the Federal Food and Drug Administration, or whether you plan to ship locally in old style boxes, you can be safe and save money too, by assembling either type box with the fast-working Neva - Clog stapler. Get everything you need for fruit or truck shipments at Sheboygan—as leading growers have for 63 years.

Write, now, for low prices and free facts on new shipping regulations.

Sheboygan Fruit Box Co.

523 Sheboygan, Wisconsin

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

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National Beekeepers Conference Held in Chicago

A great deal of important work for the beekeeping industry was brought to a successful conclusion at the National Beekeepers Conference called by Mr. James Gwin, President of the American Honey Producers League, at Chicago on January 26-27.

Two important committees met the preceding two days—January 24-25.

National Organizations Planned

Two new national organizations were proposed and ratified by the conference.

The first was an over-all organization to be known as the War-Time Beekeeping Council, this organization to be known as a union of the entire industry including the producers, the manufacturers of bee supplies, the honey packers, and the Southern queen breeders and package men. An attempt will be made to raise sufficient funds by this organization to employ a permanent secretary to care for the needs of the industry.

Producers Federation

Second, it was felt that the producers needed a separate organization to take care of their needs. The committee on organization proposed a National Federation of State Beekeepers Associations. This plan was adopted and the organization will be called by that name. Each State Beekeepers Association will be invited to join this Federation. A Board of Managers will be formed composed of delegates from each State Beekeepers Association which will be the governing and policy-making body and also elect the officers consisting of president, vice-president and secretary- treasurer.

A Board of Directors to have charge of affairs will be formed. It will consist of the three elected officers, plus one board member from each of five different regions in the United States. Dues are to be 5c per member for each member in the State Association, or a minimum of $5.00. The purpose of this organization will be to take care of the needs of the producer. It is planned to have a direct national connection between the National Federation secretary and the officers of each State Association, who in turn will contact the membership of the State Association. An annual convention will be held at which the delegates from the various states will meet to determine national policies and bring back to their state the results of the conference.

The committee on organization, of which Mr. H. J. Rahmlow, Madison is chairman, will proceed to contact all the states and attempt to perfect the National Federation in as short a time as possible.

National Problems Considered

Most of the time at the convention was taken up with consideration of national problems. A number of committees were appointed to meet with Washington officials on the subject of price ceilings, increased allotments for metals for tin cans so beekeepers can take care of a prospective larger crop, increase the allotment of bee supplies, especially beeswax for foundation, and to watch such matters as sugar allotments for feeding bees, and a method for getting to the beekeepers in as short a time as possible, information about new rules and regulations from Washington.

Wisconsin Members Present

We believe that Wisconsin had the largest number of delegates of any state. Present from this state were: Mr. and Mrs. A. J. Schultz, Ripon; Walter Diehnelt, Menomonee Falls; Mr. and Mrs. Edwin J. Mintzlaff, Pewaukee; Adolph Moesch, Bonduel; James Gwin, Madison; Lewis Parks, Watertown; Carl Aeppler, Oconomowoc; Mrs. Harriett Grace, Dr. C. L. Farrar, and H. J. Rahmlow, Madison.

Asked the approximate number of beekeepers in the United States, Mr. Harold Clay of Washington stated that in his opinion there were approximately 600 thousand beekeepers, and the production goal for 1943 was set at 275 million pounds.

AMENDMENT TO PRICE CEILING ORDER ON HONEY

THE Office of Price Administration, Washington, issued on January 15 **an amendment** to maximum price regulation 275 on extracted honey.

First is an amendment giving the method of arriving at the permitted cost increase in transportation over that of the base period. It also permits persons who made no purchases of bulk honey during September-November, 1941 base period to take 5.6c per lb. as the average cost. Those who bought honey can also use 5.6c per lb. as the average cost if the beekeeper's f. o. b. price cannot be calculated otherwise.

Small Beekeepers Need Not Report

Amendment No. 2 states that beekeepers selling less than 1,000 pounds of **packaged honey** annually, need not send in to the Office of Price Administration detailed reports required of all sellers of honey in the original

order. However, beekeepers must continue to retain in their possession records showing their computation of prices which must be produced for examination upon demand by O.P.A.

Review of Price Ceiling Order

Order M.P.R. No. 275 places a price ceiling of **12c per lb.** f.o.b. **beekeeper's shipping point** (not apiary) on extracted honey, U. S. grade No. 1 or better, with a discount of ½c per lb. when buyer furnishes the container. Beekeepers selling more than 1,000 lbs. packaged honey per year must file detailed reports.

Comb honey sales have not been affected by price regulations, but bulk honey does come under the regulation.

Maximum prices on true domestic beeswax is 41½c per lb. cash at the apiary, or 43½c per lb. in trade.

There may be a change made in the method of figuring the retail and wholesale price of packaged honey. We hope to have th information in our next issue.

DO YOU HAVE BEES OR EQUIPMENT FOR SALE

In order to help those who may be called into the service or employed in defense work, Wisconsin Beekeeping will advertise free of charge in a classified ad, any equipment or bees for sale by any of our members.

Simply send a statement of what you have for sale to Wisconsin Horticulture, 424 University Farm Place, Madison, before the 15th of the month preceding month of publication. For the April issue send it at once, or by March 15th.

"Show me a tough guy and I'll show you a coward."

"Well, I'm a tough guy."

"Well, I'm a coward."

—Lou Costello (NBC)

SOUTHERN DISTRICT BEEKEEPERS MEETING
Y.M.C.A., Janesville

[illegible], March [illegible]

THE PROGRAM

Ivan Whiting, President Southern District Presiding.

10:00 A. M.—Sources of A.F.B. Infection. John F. Long, Madison.

11:15 A. M.—Plans for 1943 In Disease Control. James Gwin, Madison.

12:00 M. —Noon luncheon available in the Y.M.C.A. cafeteria.

1:30 P. M.—Business meeting and election of officers.

2:00 P. M.—Moving picture illustrating methods of beekeeping. Production Problems. Best Method of Spring Feeding. How to Introduce Package Bees. How to Build Strong Colonies for Bigger Crops of Honey. H. J. Rahmlow, Madison.

3:00 P. M.—Question and Answer Period on Beekeeping Problems.

3:30 P. M.—The Price Ceiling on Honey and Beeswax. How to Figure the Selling Price of Your Honey. Ivan Whiting, Rockford.

SOME STOCKS of BEES BETTER THAN OTHERS

Progeny from 15 breeder queens, representing 6 lines of stock, that were tested for honey production showed greater variability among lines of stock than among individuals within a single line.

Average yields for the test groups ranged from 83 to 205 pounds, while individual colony yields ranged from 8 to 318 pounds. Differences were also found in the amount of brood produced, the percentage of queens superseded, and the strength of the surviving populations at the close of the active season.

Lines of stock showing either high or low performance in 1 season held their same relative position during succeeding years.

—*From Report of the Chief of the U. S. Bureau of Entomology and Plant Quarantine.*

SUGAR FOR FEEDING BEES AVAILABLE

Amendment No. 26 to Ration Order No. 3 of the Sugar Rationing Regulations, will permit beekeepers to draw upon their 1943-44 allowances to the extent of 15 lbs. per colony for winter feeding. This action was taken because the fall flow of honey was below expectations.

No beekeeper, therefore, should allow his bees to starve this spring. The country needs the honey and the beeswax. It may mean that all colonies that have been heavily packed must be unpacked during the first warm days in order that an examination can be made of the food supply available. It is far better to leave them unpacked than to starve.

With so many beekeepers wintering without packing, those who pack need have no fear of bad effects to strong colonies during early spring weather. In fact, there is every chance that the bees will build up faster if they are unpacked because they may have better flight conditions.

DON'T EXPOSE EGGS TO SUN

Honey bee eggs exposed to sunlight for 5 to 7 minutes were practically all killed, whereas the mortality of larvae 2 to 3 days old exposed to sunlight for 10 minutes was negligible. Exchanging combs of eggs between 2 colonies appeared to have no effect on subsequent brood mortality.

—*From Report of the Chief of the U. S. Bureau of Entomology and Plant Quarantine.*

TIN HONEY PAILS

5 lb. and 10 lb.

None Will Be Manufactured In 1943.

Write for Prices.
Will Ship All Orders Until Supply Is Exhausted.

C. W. AEPPLER CO.
Oconomowoc, Wisconsin

JUST NEWS ABOUT BEEKEEPING

Dr. V. G. Milum of Illinois stated at their annual convention that dandelion honey granulates with such a gritty, hard crystal that the bees are unable to use it in winter. He also said that the sweet clover weevil looms as a great threat to sweet clover honey production in the United States.

It is said that a cell of honey carefully protected from outside air may contain as high as 300 thousand yeast cells. It is easy to see why thin honey will start to ferment or why, when honey granulates, if there is any liquid between the solid particles it will ferment.

On reading the bee magazines we notice this: in many states there is still much talk about how to pack colonies for winter and the necessity of it, and but very little is being said about how to produce the kind of colonies that will come through the winter without packing which is far more essential. If we are going to produce more honey we should talk about how to produce strong colonies.

It is said that after a search of 25 years for the best soil building plant, U. S. Government experts have come back to sweet clover because it will produce results no other crop will give. Just at present Wisconsin farmers seem to have stopped planting sweet clover to some extent. There is no doubt they will come back to it.

He: "I'm not a lazy man, Sir. I work when I can get work, but I've been out of a job."

Judge: (to officer) "Look at his hands, Sergeant."

Officer: (looking at prisoner's hands) "Why, Sir, it must be years since the old scoundrel did any work—his hands are as soft and white as mine!"

WAR PRISONERS STUDY BEEKEEPING

In La Gazette Apicole (France) is an account of the apiary started in a German prison camp by Captain de Boerio and some comrades. They expected about 80 or 100 members for their bee club; about 350 joined! They had lectures, kept an apiary, and taught hive making, etc., in a workshop. The German commandant appears to have been helpful, ordering 6 stocks for them in addition to the 8 for which they had arranged. When the Captain left the camp (he was released under the repatriation of prisoners scheme) there were 20 colonies in fine condition. The members not only learned practical beekeeping, but discussed the future of French apiculture. and investigated the methods of Germany, Switzerland and America, with a view to adopting anything likely to be useful in France.

—*From The Bee World, England*

BEEKEEPERS TO GET NECESSARY GAS

The Office of Defense Transportation has issued a statement as follows: No farmer is to be put out of business as a result of the Office of Defense Transportation's Certificate of War Necessity plan.

As long as tires, spare parts and gasoline are available, the O.D.T. will help every farmer get enough tires, spare parts and gasoline to carry on his necessary truck operations.

Any farmer who is dissatisfied with the amount of mileage and gasoline allowed, should take up the matter with his county agent, his county war board, or his county farm transportation committee.

At the same time they pointed out that we must make every effort to save tires and the country's five million motor vehicles must get along next year with less than half the rubber they used in 1941.

NO MORE 5 AND 10 POUND TIN PAILS

On December 9. 1942 the manufacture of 5 and 10 lb. pails was discontinued.

There is some stock on hand and beekeepers who find the tin container desirable for their particular type of honey marketing should immediately buy enough to fill their needs at once.

We are advised that 60 lb. tin cans will be available this coming season.

PERMIT NOT REQUIRED FOR NEW BEE SUPPLIES

In our January issue we made the statement that the law requires that no person shall sell or move bees or bee supplies without a permit from the Inspector of Apiaries.

Some beekeepers construed this to mean all beekeepers supplies whether old or new. Of course it means only **used supplies** which are likely to be infected with A.F.B. New bee supplies do not require a permit.

THE PRICE CEILING ON BEESWAX

Maximum Price Regulation No. 264 of the O.P.A. places a price ceiling on beeswax of 41.5 cents per lb. cash, and 43.5 cents per lb. on trade for supplies, f.o.b. beekeeper's apiary. These prices are not permitted to be increased or for any reason changed for any charge for containers, or in any other way.

There is a large demand for beeswax and there is now no longer any advantage in holding for higher prices. All beekeepers should therefore send in their beeswax during the winter months.

WANTED

25 to 50 colonies of bees, standard 10 frame hives with supers, completely equipped for extracted honey, free of disease. C. G. Hendricks, 3522 W. Linden Place, Milwaukee, Wis.

QUESTIONS BY BEE-KEEPERS

Question: Can mixtures of pollen and soybean flour or soybean flour alone, be fed in a dry state, using a Boardman or other type of feeder?

Answer: So far the methods tested have been very wasteful on the material. It may be possible to find a method by which the bees would take up the dry mixture, but in methods tested so much has been wasted as to make it impractical.

Question: Can the presence of foulbrood in a hive be detected by an examination of frames, combs, etc., in the laboratory without scales or other evidence of the disease being visible to the eye?

Answer: It might be done but it would not be practical to try to do it because it would involve too much labor and cost.

Question: Can skim milk powder be used for feeding as a pollen supplement?

Answer: According to tests made by Dr. Farrar, skim milk powder has not given practical results as a pollen supplement. It was not found possible to raise enough bees by the use of this powder to make it practical to use it. So far the soybean-pollen mixture is the only one that has given practical results.

The possibility that a flying auto will become a common means of transportation after the war was pictured by President Eugene E. Wilson of the United Aircraft Corporation. His company, he said, has a helicopter which can ascend or descend vertically and easily move on the ground in any direction.

They don't row across: the Amazon River, in Brazil, is 160 miles wide at its mouth.

QUESTION ON FEEDING BEES

Question: I winter my bees in the cellar. Lately I have noticed that some of the colonies are getting very low in stores and I am afraid of starvation. How can I feed them?

Answer: Perhaps the easiest way would be to spray heavy sugar syrup into empty frames and place them on the outside of the cluster.

The syrup should be made by thoroughly mixing and bringing to a boil two parts of sugar to one part of water. This should be placed in a sprinkling can and the holes in the can opened large enough so that the warm syrup will spray out. Place the comb in a wash boiler and hold the sprinkling can at least 18 inches above the comb so that the syrup will be thrown with some force into the cells. The quickest way will be to exchange empty frames at the side of the cluster with frames full of sugar syrup. By opening the cellar door so that it will be cold the cluster will not be disturbed greatly by the work.

The same method can be used for late winter or early spring feeding outdoors.

EASY WAY TO CATCH A SWARM

I have found a good way to get a swarm of bees from an out of the way place or off a fruit tree.

After the swarm settles, go to a healthy hive, take out a brood comb, and brush off the bees. Tie a small rope to it and a piece of iron to the other end of the rope, throw the iron over the limb and pull the brood foundation up to the swarm. In a few minutes all of the bees will crawl onto it. Now you can let the comb down easily and place all in a hive.

—*C. O. Williams, in the American Bee Journal.*

HONEY WANTED

Cash paid for cars and less than cars comb and extracted honey. Mail sample and best price. C. W. Aeppler Company, Oconomowoc, Wisconsin.

NOTICE

After the present supply is gone there will be no more 5 or 10 lb. tin honey pails available.

We will have 100% of the 1942 supply of 60 lb. cans.

We can supply your 5 lb. glass jars as in the past.

Write for complete price list.

Order Through Your State Beekeepers Association.

HONEY ACRES
Menomonee Falls, Wis.

LOTZ HONEY SECTIONS

When you buy **Lotz Honey Sections,** you will get the finest sections that can be made.

Write for our prices

Order your sections and other bee supplies early.

None of us can see into the future, or know what is going to happen.

SO ORDER EARLY!

AUGUST LOTZ COMPANY
BOYD, WISCONSIN

Editorials

A STORY ABOUT COFFEE

An Editorial About the Apple Coffee Served at Our Annual Banquet In The Rural New-Yorker

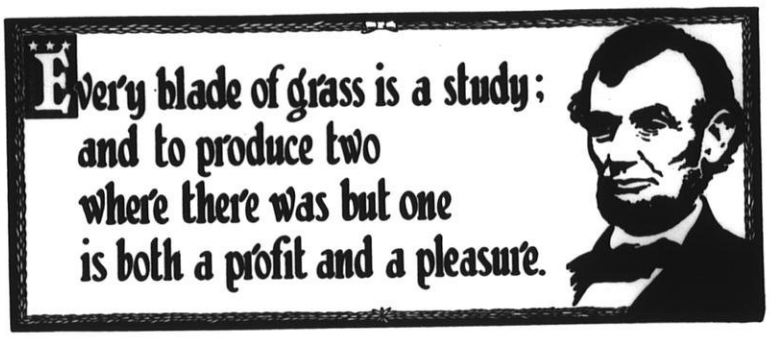
The banqueteers at the Annual Meeting of the Wisconsin State Horticultural Society were gathered happily in the lovely, modern Church Parish House at Fort Atkinson. Husbands and wives were enjoying the fine spirit and fellowship that descend so easily upon a horticultural group. A beautiful, highly-colored polished Macoun apple reflected bright red before each diner. Fresh pressed blended cider looked appetizingly from brimming glasses. Candles added the warm touch of hospitality.

At the close of the dinner, a steaming cup of the highly prized amber liquid was placed before each guest and immediately the conversation turned to rationing and to coffee. It did not prevent them, however, from enjoying the palatable afer-dinner drink.

A rapping from the speakers' table was followed by the announcement: "You may be interested to know that what you are drinking is a horticultural product. It came from the Okanagan Valley fruit section of British Columbia. It sells for 25 cents a pound, and one teaspoon makes four or five cups. It is made from the apple and is not truly coffee at all, although some call it erroneously "apple coffee"!

Of course, everybody knew right away that the "coffee" had seemed a little weak in the first place and that it really hadn't tasted just right, but they had been too polite to mention these defects. Which really wasn't so at all. All things aren't what they seem and half of our troubles in this world are born of the imagination and brought on us by ourselves. Man is a highly adaptive creature, and this little story shows that with even half an effort he can adjust himself quickly and painlessly to a new situation or environment—even to apple coffee!

—*Rural New Yorker.*



HERMAN V. HUNKEL

HERMAN V. HUNKEL, one of the founders and president of the Holton and Hunkel Company, Milwaukee, died on Christmas day in Milwaukee after a long illness.

Mr. Hunkel started the well known florist business in 1897 with his partner the late F. H. Holton. In 1911 the company constructed its own greenhouses at Brown Deer which now occupies about 100 houses, covering about 10 acres. Fourteen of the houses grow roses. The rest are devoted to pot plants, orchids, gardenias, lilies and other crops. In addition there is a nursery of 40 acres and a farm of 232 acres.

VITAMIN B-1 AGAIN

The irony of it all! As everyone knows, the B-1 craze had its origin in California. As if to make amends for its sins, it is the first state insofar as I know to outlaw specific claims for B-1. The California Department of Agriculture states that any claim for value of Vitamin B-1 for general use on plants is misrepresentation and not acceptable under the law. In addition, all claims for B-1 in a commercial fertilizer must be discontinued as of January 1, 1943.

—*Iowa Florists News Letter—Nov.* 1942.

Members of the Horticultural Society can render service to their country by helping grow vegetables successfully.

E. L. ROLOFF

E. L. Roloff of Mendota Beach, Madison, passed away on January 3 at the age of 82. Mr. Roloff was for many years superintendent of the Vegetable Department at the Wisconsin State Fair, and was an enthusiastic flower and vegetable grower. He was a life member of this Society since 1921.

The Society extends deepest sympathy to Mrs. Roloff who survives him.

Organization and Work of the Wisconsin State Horticultural Society

Organized 1868—75th Year

4,900 Members

Member Organizations: 120 state, county and local associations, and clubs, also individual and life members.

The following organizations compose the Society:

Fruit Growers

20 Member Organizations—
1,240 Members

The following fruit growers associations are affiliated: Fruit Growers Co-op, Sturgeon Bay; Reynolds Company Fruit Growers, Sturgeon Bay; Alma Center Fruit Association; Bayfield Fruit Association; Cranberry Growers Association; Southeastern Fruit Association; Warrens County Association; and the following County Fruit Growers Associations — Dodge, Jefferson, Manitowoc, Marinette, Milwaukee, Ozaukee, Racine, Shawano, Sheboygan, Walworth, Washington, Waukesha, and Winnebago.

Program: Meetings and demonstrations on fruit growing methods.

Information on fruit growing through Wisconsin Horticulture magazine each month. Fruit variety testing throughout the state.

The government asks for increased production of fruits.

Beekeepers

Member Organizations: The Wisconsin Beekeepers Association, 5 district associations, and 28 county associations.

Program: Meetings on production problems with all organizations; 4 pages on beekeeping in magazine each month.

The secretary of the Horticultural Society is the only person in Wisconsin engaged in an educational program with beekeepers on beekeeping and production problems. (Must not be confused with disease control appropriation)

Many states have a beekeeping extension specialist, but our beekeepers like this setup.

The government has asked for more honey and wax and considers bees essential for pollination.

Garden Clubs

Member Organizations: 80 garden clubs, 2,200 members.

These clubs are now going on an all-out project of Victory Vegetable Gardens. The secretary of the Horticultural Society is the only person in state service giving these clubs any considerable amount of time in their projects. Wisconsin Horticulture devotes about 12 pages each month to gardening.

The government wants an all-out effort to increase vegetable gardening in the cities as well as country.

Nurserymen

Member Organization: The Wisconsin Nurserymen's Association. The nurserymen are turning their efforts to food production and will devote a part of their nursery to vegetable growing. Have already asked the Society for help along this line.

Our Magazine

Wisconsin Horticulture devotes all its pages to an educational program along the lines mentioned above. It is paid for by income from membership dues and advertising. Note that this would not be possible excepting through this type of organization. This magazine is recognized by authorities as one of the leading horticultural educational magazines in the nation.

Our Budget

Our appropriation is $7,000 per year. This is used for the secretary's salary, stenographer's salary, traveling expenses, extra office help, Board of Directors' expenses, conventions and meetings, office supplies and postage, educational supplies—movies and slides, fruit and plant testing.

Membership dues and advertising pay for the printing and paper of Wisconsin Horticulture.

NURSERYMEN'S ASSOCIATION MEETS IN MILWAUKEE

The Wisconsin Nurserymen's Association held their annual meeting in the Schroeder Hotel, Milwaukee, on February 11-12. An excellent program was presented.

Speakers included E. L. Chambers, State Entomologist; Prof. Walter B. Griem, Soils Department, College of Agriculture; John L. Bohn, Acting Mayor of Milwaukee; F. G. Kilp, forester for the Nekoosa-Edwards Paper Company; Richard P. White of the American Association of Nurserymen, Washington, D. C.; H. J. Rahmlow, Wisconsin Horticultural Society; William George Bruce of the Bruce Publishing Company, Milwaukee; James Livingstone, Brown Deer; F. R. Killner, Editor of the American Nurseryman; E. C. Hunkel, Holton and Hunkel Company, Milwaukee; H. E. Ochsner, forester of the U. S. Department of Agriculture; J. Clark Dawson of the Dow Chemical Company, Michigan; and Ed Eschrich, nurseryman, Milwaukee.

Bunged-up client: "I want to sue Jones for running me down with his car, but I'm afraid he has no money."

Lawyer: "Oh, that's all right. I can use his car."

Gladiolus Tidings

By the WISCONSIN GLADIOLUS SOCIETY

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Paul Haase, Columbus

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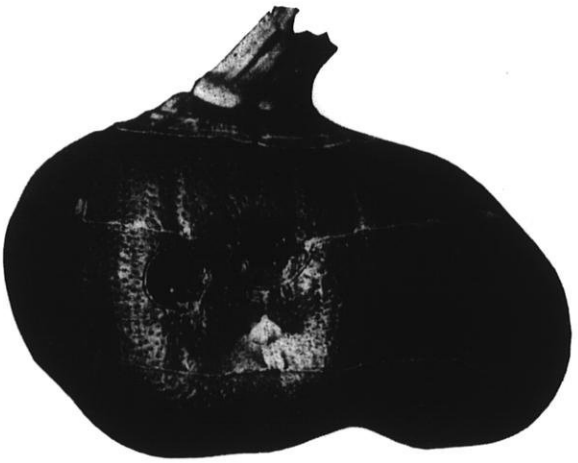
Gladiolus Troubles

Noel F. Thompson



1. Scab or Neck Rot

SCAB or neck rot is one of the most common diseases of the Glad. It attacks the leaves, husks and corms. In the summer it may be noticed as black streaks near the base of the leaves. The plant may be stunted, or in severe cases a soft rot develops and the top dies. When the corm is dug, the black streaks may be noted on the husks and often a portion of the latter is completely destroyed. It has the appearance of being charred or burned out. Following these black streaks through the husks, a lesion is usually found on the corm.

The lesions on the corms are very characteristic. They are circular, sunken spots, and when fresh and clean appear shiny as though varnished. They may be a reddish color or black. A single spot is seldom over ¼ inch in diameter, and it does not penetrate deeply into the corm. There is very little, if any, enlargement during the storage period.

Bacteria Live in Soil

Scab is a Bacterial disease. The organism is **Bacterium marginatum,** McC. It is capable of living over in soil for some years on the refuse of old glads. It also spreads directly from old corms to the new ones. Burning all refuse, culling out infected corms, and rotating the planting site are therefore advisable.

Since on the corm the scab lesions are largely superficial, it is possible at times to check the disease by application of a fungicide. Dipping in a suspension of very finely ground calomel (1 lb. to 2½ gal. of water) or soaking for several hours in a solution of bichloride of mercury, one part in 1,000 parts of water, is recommended. This should be done in the spring just before planting.

SMALL DECORATIVES
By James H. Odell, President N.E.G.S.

Nothing would hurt the gladiolus industry more than to have amateurs demand but one type and one size of bloom, especially the largest size which we all like to see on the show bench.

The greater adaptability of our favorite flower the greater will be its lasting value and the more people will appreciate the flower now.

Despite its great contribution to floriculture, Picardy does tire the florist and his customers if they see this same variety continuously. We do like to have something different for a gift, and when we receive flowers we do appreciate the thoughtfulness of the giver, and commend the discrimination of the florist who can and does provide something different.

These are some of the reasons why a few amateurs who like their glads big and showy continue to

advocate wider use of the medium and smaller sizes also.

The annual show of the N.E.G.S. will be held in Boston August 18th and 19th, 1943. So states a circular from the secretary. The circular further says that Washington is encouraging flower and vegetable shows for next year with the public becoming more garden minded. "We have a real duty to grow and show flowers."

—*From The Ohio State Gladiolus Society January Bulletin.*

FAVORITE VARIETIES OF 1942

Gladys Sprecher, Spring Green

Avalon beautiful bright rosy pink with a large cream throat. It is a color that appeals to everyone and opens from 8-10. Placement and substance is excellent.

Sensation soft rose shading lighter in the upper throat with darker feather on the lip. The florets are heavily ruffled and open from 8-10. It is a very tall and massive plant.

Alsace beautiful buff apricot. Petals are fluted and of heavy texture. This won a first at the Midwest Show in Recent Introductions and also in its color class.

Red Bank an excellent deep red with a dark feather edged with white in the throat. It opens about 8 and the placement and substance is good.

Pearl Necklace a very lovely creamy white. Florets are ruffled. It opens about 8 blooms on a perfectly formed spike and the texture is very good.

Twilight Dream resembles its name. It is a smoky and the coloring is very soft. It has well placed florets and opens about 9 on a tall spike.

Bancroft Windsor is an excellent orange with a reddish plume in the throat. The florets are slightly ruffled and are perfectly placed.

Tara a large flowered deep salmon with a light yellow throat. It grows tall and straight with excellent placement.

Robert Shippee a lovely white with slightly ruffled florets with a dainty rose marking in the throat. The florets are large and well placed on a tall straight spike.

Hopedale is a delicate flesh pink with slightly lighter throat. The spikes are tall and straight and the placement is perfect.

From Report No. 1, 1943 Mid-West Gladiolus Show.

THE FLORIST TURNS TO VEGETABLES

It is not at all likely that the florists and nurserymen of America will, like their contemporaries in Great Britain, be compelled by law to cut down their output of ornamentals and devote part of their ground to food stuffs. It is even less likely that greenhouse operators will be ordered to plant all or part of their greenhouses to vegetables. But regardless of possibilities and probabilities, florist growers near the largely populated centers and even those in the smaller towns that are not adjacent to truck growing sections, will do well to consider vegetables as a possible source of income during the coming year. If good, unneeded ground outdoors is available, it certainly can be made to produce and it is not improbable that neighborhood shopkeepers, rather than use gas and rubber going to market, will be glad to take a crop as it comes in. Certainly the florist with glass, should not fail to raise the kind of vegetable plants that home gardeners and allotment workers will be seeking next spring. The Dept. of Agriculture has already announced its intention of calling upon all who have the ground, to grow vegetabes for their home use and so ease the transportation situation.

—*T. A. Weston in Florists Exchange and Horticultural Trade World, December 26.*

MECHANICS OF MOVING BIG TREES

THE moving of big trees has been traced back at least 4,000 years. Carvings on the pyramids show balled and burlapped trees being moved. Marco Polo, in writing of his travels in China some 700 years ago, tells about Kublai Khan sending his servants and a troupe of elephants to bring beautiful trees from many points in his kingdom with the soil about their roots to beautify his palace grounds.

An early governor of Brazil transplanted some 700 cocoa trees, thirty to fifty feet high, a distance of four miles. This, however, was small compared to the exploits of Louis XIV, who moved nearly an entire forest to Versailles. The Englishman, Sir Henry Stewart, was moving big trees during the reign of Gerove IV with his tree-moving machine with a loss of less than two per cent, which, by the way, would be good work in this day and age.

One can thus see that planting large trees is an old practice and a successful one in many lands and climes.

—*Condensed from American Nurseryman, by M. G. Coplen.*

Sprinkles Flowers on Rug—To Make 'Em Grow

Seattle (AP)—Mrs. C. W. Felix didn't mind when a neighbor's four-year-old son greeted her with a cheery "Mrs. Felix, I used your hose."

"Did you?" she smiled.

"Yes'm—to sprinkle the flowers on your rug."

The nozzle was thrust through a window. The rug floated by as she opened the bedroom door.

Home and Garden

Mrs. C. E. Strong

There are beets among the roses
And potatoes in the 'mums,'
Small red radish poke up noses
Underneath the flowering plum.

Chive and Lilies share a section
And they harness very well;
While the chard has no objection
To the Canterbury bell.

For utility and beauty
Here's a planting can't be beaten,
Since it does a double duty
And can be both worn and eaten.

—VIRGINIA BRASIER,
In Sunset Gold.

Victory Gardens

THERE is much discussion these days, as to whether we should give all the space in our home grounds to the growing of vegetables. Personally—I should be very sorry to see those gardens which have cost their owners much in time, labor, as well as money, which have given to many people pleasure and uplift — torn up — to perhaps raise a very poor crop of vegetables. We know it is necessary to raise more vegetables. We are going to need the food, but we need to use good common sense also. If we raise food it should not be wasted—all that is not used daily during the growing season should be canned. The canned goods on the shelves of the grocers are needed by the defense workers; they have neither time nor energy for gardens. Our grandparents utilized every inch of their garden spots for fruit, vegetables and flowers. It was useful—and it was so orderly, so clean and well kept. They were beautiful as well.

Do you remember the young teacher in the book, "SO BIG"? When she saw the great fields of red and green cabbages, she exclaimed, "Why cabbages are beautiful!" Why, I did not mind weeding the onions in my grandmother's garden because she used to sow poppy seed at the same time. I didn't care for the onion odor—but the poppies were so graceful and gay, we thought about them. Among the strawberry plants the Johnny-jump-ups loved to grow and grandmother didn't mind if they even grew in the paths.

But you have heard of that garden so often. I'm just trying to remind you that there were no cans either of vegetables or fruit in the grocery baskets in those days, but there were jars and glasses and sacks of dried corn and peas, dried fruits, pickles, cucumber, apples, watermelons, beans, on the pantry shelves.

There were apples, potatoes, squash, carrots and beets, turnips, rutabagas in the cool cellars and cabbage in pits where they remained nice and crisp. There was plenty of good food because they worked to have it. Who? Well, some of the work was done by the men of the family at odd times—but the women folks spent all their spare time out there just as you are going to do—if—you are going to do your part in a Victory program. Not so much glory—no snappy uniform, probably not even much praise, but a lot of satisfaction in knowing that the American woman has not degenerated. She is as fully capable of looking after her family's needs as was her grandmother and even the great grandmother of pioneer days.

A Garden Club Program in California

Garden club meetings are much the same whether you attend them in Wisconsin, or in sunny California (one must always attach that word sunny — else you get a very reproachful look). The members are always a group, interested and enthusiastic, working for better fruits, flowers, vegetables, pleasanter home surroundings, the safeguarding of natural beauty spots. In other words, we all speak the same language, so I felt very much at home when we attended the January meeting of the Vista Garden Club and extended to them greetings from Wisconsin clubs.

They are taking the growing of more food very seriously and the meeting was filled with good practical talks by members who knew whereof they spoke. They stressed first of all the importance of soil preparation, saying there would be no real success with a garden unless the soil was right, worked up deeply, fertilized, watered, then left for weeds to start. "You will eliminate a lot of back aching weeding, if you get rid of about three crops of weeds — BEFORE — you plant your garden."

As a speaker enumerated some of the things she raised specially, one of these being 22 pound ripe red water melons that were cut at Christmas—our mouths were watering, and we were all audibly wondering if there were any left. This question was NOT answered.

The next question, "Can you give a sure way to tell when a melon is ripe before removing from the vine?" She said "No, perhaps someone else can, though." A very clever

member rose, and gave that delightful little recitation about the colored minister's son who stole a neighbor's watermelon, and that heinous crime was capped by the fact—when cut, the melon was green. The minister bemoaned the fact that not only was his son a thief—but he was ignorant—he didn't know that when you thumped a melon and it said "plink" it was green. But when it said "plunk" it was ripe —and don't you ebber forget that.

Planting Roses

A successful rose grower gave some very good advice on the planting of roses. Summed up, it was "dig a ten dollar hole for a fifty cent plant. It pays in growth, foliage and beauty of bloom." We were invited to admire the beautifully arranged flowers brought by one of the members. Branches of the immense Cups of Gold, Heavenly Blue Thunbergia, in one bowl. Ageratum, pink ivy geranium, and yellow jessamine in the other. Sunny California is right, all right.

A most delicious Russian tea was served in the social hour—and the nice hostess gave us all the recipe.

WHY SOME SPEAKERS HAVE SHORT FINGER NAILS

Have you noticed that some speakers have chewed their fingernails, as one speaker put it, almost to their wrist because:

1. While they were trying to put across an important point someone in the audience suddenly remembered an experience and had to tell his or her neighbor all about it in a loud whisper. Consequently, neither of them heard what was being said, so later on they asked questions about it. Or,

2. Some member of the audience tries to attract attention by asking a catch question which the speaker cannot answer, thereby embarrassing the speaker and calling attention to the brightness of the member.

The next time you attend a meeting observe whether the men or women are the worst offenders.

SAUERKRAUT MAKING AT HOME EXPLAINED

In explaining what takes place in the curing of sauerkraut, Dr. C. S. Pederson, food bacteriologist at the New York State Agricultural Experiment Station, says, "Although many people have made kraut for years, few realize what happens in the typical curing process.

"When cabbage is cut there are a great many bacteria, both good and bad, together with yeast and molds present upon the cut shreds. The salt sprinkled upon the cabbage draws out the sugar which is used as food by certain groups of bacteria which change the sugar to acids and other by-products. A typical mellowing of the cabbage takes place with these changes, resulting in the product we term 'sauerkraut' or acid cabbage.

"In properly packed kraut, which contains the correct quantity of salt and which is held at a reasonable temperature, only certain desirable types of bacteria are able to grow, Dr. Pederson explains. He adds that spoilage types of bacteria, yeast, and molds are stopped from growing by absence of air and by the presence of the acid which is rapidly formed by these desirable bacteria. If an insufficient amount of salt is used, or if the kraut is not thoroughly packed, or if the juice is drained off, or if the kraut is not covered properly, spoilage may occur and may show itself as an off color, off flavor, or in the texture of the kraut."

—*From Bulletin by U. S. Department of Agriculture.*

PROPAGATE AFRICAN VIOLETS BY LEAF CUTTINGS

The African Violet or Saintpaulia may easily be propagated by leaf cuttings as follows. Take a leaf from one of the plants, cutting the stem near the crown of the plant. However, only about an inch and a half or so of the stem is required. So cut it to that length. Use one of the smaller leaves which will be younger and evaporate less moisture than larger ones. Plant this stem with the leaf in a small pot of pure sharp sand. Place over it a tumbler to help control evaporation of moisture from the leaf and keep the sand damp. Set the pot in indirect sunlight and in a short time the cut stem will send out small roots and soon there will be a new plant.

Saintpaulia plants that are two or three years old are usually straggly and weak and should be replaced with young plants started from cuttings.

Some growers prefer to use soil for cuttings composed of equal parts of sand and peat.

African Violets like a soil with plenty of organic matter—leaf mold or peat. Perhaps the easiest way to get a good soil for them is to go to your local florist and buy a small quantity which will not be expensive.

GARDEN GLEANINGS

MANY of our members have heard about the **International Peace Garden** located on the boundary of North Dakota and Canada. Since it is an important garden, it is well to keep up on its affairs.

Mr. W. R. Leslie, Superintendent of the Morden Experiment Station, Manitoba, writes in the January issue of the North and South Dakota Horticulturist:

"The International Peace Garden is a possession of everybody. It has developed nicely during recent years but further progress is now almost halted while the commanding task of righting the affairs of mankind in the world is performed. The annual meeting of the corporation took place the second Saturday of September, in the lodge building.

"The President, William M. Smart of Minot, N. D., emphasized that the Peace Garden was certainly not a pacifist institution. It was for the glorification of goodwill among men and a monument to the common sense of the peoples of two nations, United States and Canada, in living in a scientific manner in their relationship one with the other. It is a confirmation that wars do not need to happen. Henry J. Moore, originator of the Peace Garden plan, had again come from Islington, Ontario. He enthused the audience with new thoughts for extending the influence of the International Peace Garden. His Peace Garden Christmas cards are to be offered in both countries. The small profits derived will go into the finances of the Garden. Votes of money by the legislatures of North Dakota and Manitoba are caring for the current costs of maintaining the Garden."

Soil improvement will probably be No. 1 on our list for study when planting victory gardens, as well as flower gardens for this coming year. Let us always bear in mind, when planning a sound program, that everything the soil needs cannot be purchased in a bag. In other words, the plant food elements, nitrogen, phosphorus and potash, are essential when they are needed. Their needs can be determined by soil analyses tests. However, when the soil is in poor condition as indicated by its being hard to hoe, by not retaining moisture well, or by not giving results in spite of commercial fertilizer applications, lack of humus is to blame. Organic matter is difficult to obtain in many cities. Consequently it is often our biggest problem. Peat moss, manure and compost material must be given more consideration in the future in city gardens. Wisconsin farmers are fortunate in having manure available. Use plenty of it on the vegetable garden.

Remember too that to grow good crops of vegetables a higher fertility is required than necessary for most flowers. Vegetables remove more fertility from the soil and therefore require more.

Prof. J. G. Moore, chief of the Horticulture Department, Wisconsin College of Agriculture is doing a lot of work preparing bulletins and pamphlets of instruction for Victory Vegetable Gardens. This material will be available to every gardener this spring. The plans and recommendations made by Prof. Moore are sound. For best results, not only with varieties and planting methods, but in the kind of vegetables most needed for health, we should follow the suggestions he has made. Even though we have had a lot of experience in growing vegetables, it will pay us to study these bulletins.

A garden tool exchange meeting was held recently by the Men's Garden Club of Elmhurst, Illinois. Sounds like a good suggestion. Each member was urged to come to the next meeting prepared to buy or trade garden tools. A list of tools available and tools wanted was published. No doubt many club members have garden tools they are not using which could be exchanged for some they would like, or even sold. Part of the proceeds could be donated to the garden club or some other cause. Tools no longer usable could be given as scrap.

Tuberous rooted begonia bulbs should be planted the latter part of this month, or about March 1st. If planted early they come into bloom during the cooler weather of June.

The soil mixture for starting the bulbs should contain a lot of humus. Perhaps it is best to buy potting soil from a local florist. A well developed root system is essential for the large plants we like to see. Roots develop best in an open soil containing a great deal of organic matter. Even when planted out in the garden a lot of organic matter such as peat moss should be spaded into the soil in which the plants are to grow. These begonias are wonderful plants for a shady spot in the garden, but don't plant them where there is too much competition from tree or shrub roots which will deprive them of moisture and food.

—*H. J. Rahmlow.*

TO A FANTASY TULIP

Sleep silently beneath the drifting snow,
And rest your roots to grow in spring;
When all the earth will wake as Robins sing.

Sleep peacefully while winter says you may,
For soon the sun will warm your dark brown bed;
Then you must wake and show your tousled head.

—*Marion F. Haugseth, Hayward*

What Garden Clubs Can Do to Help the War Effort

THE Executive Board of the Federation at a recent meeting decided to tie in our program with the war effort and appointing a War Service Chairman whose committee will devote their time to the many services that can be rendered by the garden clubs to help the war effort.

Services which can be given was well demonstrated at holiday time when garden clubs in Milwaukee and Madison districts made nearly 2,000 small evergreen wreaths and sprays, together with other holiday decorations as described in another article in this issue.

I hope you will send me ideas and suggestions which can be made part of our program or used in our plans so that as time goes on, we as an organization can be looked upon as having performed a very worthy and helpful service.

Projects For Garden Clubs

No. 1. The Scrap Book Project. To be started at once. Scrap books made up of short stories, cartoons, jokes, comics and articles of human interest. These scrap books to be given to hospitals at Camp McCoy at Sparta and Camp Truax at Madison.

Scrap books may be any size with hard cover and carry name of garden club on inside front page.

Scrap book project to be finished by March 20. Please cooperate, advising me when your books are ready so that you can be advised where to send them.

No. 2. The Victory Garden Program Under Civilian Defense. It is self-evident that gardens will be more necessary this year than last year and garden clubs must back them to the fullest.

Everywhere there can be a build-up toward the harvest shows which should stimulate interest and produce better vegetables. These harvest shows should and undoubtedly will be held earlier in 1943, in late August and early September, when the vegetable gardens are still at their height.

No. 3. Grow flowers for beauty, for one's family, the homesick in government hospitals, U.S.O. Service Clubs, Red Cross Recreational Centers, and the like.

No. 4. Plan one day a week at the Red Cross and call it Garden Club Day.

Garden Club Day at an induction center.

Garden Club Day at the canteen station.

Garden clubs are asked to do this wherever possible as a garden club unit.

In this way you will keep alive your garden club associations and interests.

—Mrs. Chester Thomas, Chm. War Service, Milwaukee, 2579 N. Downer Ave.

FACTS ABOUT BEGONIAS

Are Excellent House Plants

BEGONIAS are probably our largest and most important class of house plants. There are four or five hundred species, and several thousand varieties to which hybridists are constantly adding. One California begonia grower lists more than 250 varieties.

The plant was named after Michael Begon, French botanist, a Governor of Santa Damingo who passed away in 1710. Dr. William Brown sent the first begonia to England from Jamaica in 1777. They are native of warm countries, Central and South America, Asia, Africa, and India.

The American Begonia Society is devoted to the culture of this flower. Its address is: The American Begonia Society. 2751 East 17th Street, Long Beach, California. A monthly magazine is published and membership is $1.00 per year.

One of the best books on begonias is "Begonias And How To Grow Them" by Mrs. Bessie Buxton, and its price is only $1.00.

There are four classes of begonias—bulbous, tuberous, fibrous and those with rhizomes.

The begonia shows a great preference for a light, porous, open soil with plenty of humus. This is especially true of tuberous rooted begonias. Here is one soil mixture used by greenhouse men: 2 bushels of loam; 1 bushel of sand; 1 bushel of old horse manure; and 2/3 bushel of ground peat. Mrs. Buxton in her book on begonias states that she uses the following mixture: 2 parts sandy loam; 1 part clean sharp sand; ½ part of old leaf mold; ½ part well rotted cow manure at least 2 years old. She then adds some crushed charcoal and mixes all very thoroughly.

Begonias differ widely in their light requirements. Some kinds will do well in north windows. Many will do well in our homes with east or west exposures.

Begonias should not be overwatered. However, in a modern home where the atmosphere is dry, they must be watered a little every day or the leaves wilt. This is especially true if they are in porous pots. It is best to grow them in the home in glazed or painted clay pots so that the moisture may not evaporate through the pot itself.

The bulletin of the American Begonia Society has advertisements of growers from whom many varieties may be obtained.

The boys in Australia sent us this one. A mother Kangaroo had patiently scratched her stomach three times, but when the process was to be renewed a fourth time, she snatched two baby Kangaroos from her pouch, spanked them, and said: "How many times have I told you not to eat crackers in bed!"

He: "I never knew love was like this."

She: "Neither did I. I thought there were more chocolates and flowers to it."

The Urban Victory Garden Project

James G. Moore

Because there are a number of agencies interested in promoting and assisting in food production through increased and better urban gardening it has seemed desirable to find if possible, some agency under which the efforts of all those interested could be coordinated so that duplication and misdirected effort might be avoided. The most logical agency seems to be the one provided for by the federal and state governments, the Office of Civilian Defense.

Under this agency there is now organized in every community in the state a Citizen's Service Corps under which in urban communities there has been set up what is commonly known as the "block leader" plan. This going organization makes it readily possible to contact every home in the community and therefore seems to be the best available agency for securing information as to garden prospects and possibilities and distributing materials which it will be desirable to place in the possession of individual gardeners.

The State office of Civilian Defense has already sent to the county offices details of organization and procedure. Below we give the more important features of the plan as they may be related to readers of Wisconsin Horticulture.

The Garden Committee

It is proposed that the local Citizens Service Corps, which is a part of the organization of the Office of Civilian Defense, set up a "Garden Committee." This committee is to consist of selected members of the Citizens Service Corps, the county agricultural agent in an advisory and contact relationship, and such other persons especially interested in the Urban Victory Garden Project as may be deemed of value on the committee.

The function of this garden committee is to promote in all feasible ways efficient urban gardening. This would mean that all organized efforts to promote more and better urban gardening in the community would head up in the garden committee of the Citizens Service Corps which would be the directing agency of the services to be performed. It is quite likely that this committee would utilize the "block leaders" to gather data as to those who plan to garden and those who would like to garden but have no available garden tract. They might also be used to distribute to the gardeners in their respective blocks printed material designed to assist the gardener in his efforts.

Another function of the committee is to appoint and assign garden leaders who will render all possible assistance to the gardeners in their assigned area, and particularly the inexperienced gardener. in order that the efforts put forth may be most productive of results. There are a number of other suggested functions for the committee but those mentioned above are the ones in which garden club members are likely to be most interested.

The Garden Club's Contribution

Naturally the questions which arise in the minds of the officers and the members of garden clubs are where do we fit in? Does this plan give us an opporunity for effective service?

The intent of the plan and of having the urban Victory Garden Project as one of the projects under O.C.D. was to give organizations and individuals who wanted to serve in a garden project the opportunity of doing so and of avoiding the possibility of some organization or individual feeling that this important part of our all out war effort was the responsibility and privilege of some one particular group or person to the exclusion of others willing and competent to serve.

First of all it would be expected that the local garden club along with other agencies would be represented on the group composing the personnel of the garden committee. It is further to be presumed that a representative of the local garden club might well be a member of the garden committee.

Garden Leaders Needed

Doubtless one of the greatest services that the clubs could render would be to furnish garden leaders. There will very likely be a great need in cities and larger towns of persons qualified to help less experienced gardeners in meeting the many perplexing problems which are certain to arise. What better service could the garden clubs render than to provide a corps of experienced and well qualified garden leaders to give aid to less experienced or new gardeners? It is not at all likely that the average block leader could qualify as a garden leader. As a result there is likely to be need for a large number of persons to function in this capacity. Don't make your garden committee hunt you up—offer your services. Doubtless your garden club will solicit its membership for garden leaders and furnish the garden committee a list of those available with such additional information as may be helpful in getting this job well done.

There will doubtless be numerous other services open to garden club members if you individually or through your club make it known that you are available. It is scarcely necessary to enumerate them for the experienced gardener knows what they are likely to be in her community and of course they will vary somewhat in different communities.

We are committed to a victory garden program in 1943. Let's join wholeheartedly in a coordinated effort sponsored by our community agency, the garden committee of our local Citizen Service Corps.

My Back Yard Vegetable Garden

Mrs. Edward M. Davis, Madison Garden Club

I believe vegetables and flowers should be grown in separate gardens. The feeding and cultivation of each is so different that neither would achieve best results if planted together.

Our rear terrace is 75 feet across, 35 feet deep. Two-thirds of this is devoted to lawn, with a border of native shrubs, roses and perennials. The remaining one-third is our vegetable garden. Although there are two distinct plots, unity is achieved by the curving lines of the shrub border also forming one side of the vegetable plot. There is a planting of asparagus along one side, and currant bushes along the back line.

Grew All Vegetables For Table

We bought no vegetables from June 28th until after frost last summer, and still are using some from storage as well as those canned. Our excellent results, we believe, have come from soil analysis and the varieties selected, and timed replanting, and of course, hard work. We strongly advocate soil analysis so as to know what elements are needed and applying those only. Our vegetables were carefully selected from the varieties advocated for southern Wisconsin gardens and were planned to give us a continuous supply.

Varieties Grown

Our earliest vegetables were the usual lettuce, radishes and onions. There were some tender turnip greens and tiny whole beets, and in early June our asparagus border in its first summer yielded samples of what is to come. July brought quantities of swiss chard, kale, peas, string beans, parsley, cabbage, beets, tomatoes, parsnips, peppers and salsify or oyster plant. In August the lima beans were ready for use. The chard is a continuous producer until frost comes as new leaves appear where cuttings are made. Kale should be grown more in Wisconsin, not only for its value as a protective food, but because it is usable after other green vegetables have been frozen. Ours was fresh after 15 degrees of frost and even when covered with ice or snow, the quality and flavor of the cooked greens was excellent.

Late plantings of turnips, carrots and beets were brought in for storage. The onions were dried and brought in; parsnips and salsify were left in the soil for early spring use. While salsify is not a basic food, it supplies variety and is a good basis for soup.

Second and third plantings were made of radishes, lettuce, turnips, beets, peas and string beans, the last being ready in late July or the first week in August.

In our opinion, vegetables that demand the least space and produce most generously are swiss chard or kale, string beans, carrots, peppers, and tomatoes.

THE U. S. DEPARTMENT OF AGRICULTURE ANNOUNCES 1943 FOOD GOALS

Secretary of Agriculture Claude R. Wickard has announced 1943 food goals to meet the needs of the United Nations.

He also announced a price support program which pledges the Department to, "so far as possible, work out and maintain a price policy during the year which will give maximum price assistance to the production program."

The goal for commercial truck crop production is about the same as in 1942, with increases asked for the more essential crops and decreased acreage for the less essential.

A series of specific support prices for snap beans, corn, peas, tomatoes, beets, carrots, pumpkins and squash for processing, and cabbage for kraut, will be worked out and announced before February 1. In general, these support prices will be maintained through the certification of canners agreeing to pay specified prices to growers and Government commitment to purchase the processed commodity at a level which will support grower prices at about the same level as in 1942.

So far as possible, the Department will also endeavor to work out such price supports as may be necessary for fresh vegetables and for fresh and canning fruits which are deemed essential.

POTATOES

The 1943 potato goal is 10 per cent above the 1942 acreage. Prices will be supported at 90 per cent of the parity price as of the beginning of the marketing year, but not less than specified prices for certain grades of potatoes in specified commercial areas, which will be announced about January 1.

DRIED FRUITS

A series of specific support prices for dried apples, apricots, peaches, pears, prunes and raisins will be worked out and announced about February 1, 1943. Support prices for these products will be generally maintained through the same means as used in 1942, and at about the same levels.

Russian Tea

1 quart water
3 cups sugar
1 teaspoon cinnamon
1 teaspoon whole cloves tied loosely in cloth bag
Boil all together five minutes
Remove from fire and add ½ cup black tea, let stand ten to fifteen minutes
Drain and strain
Add juice of 3 oranges and 3 large lemons—let stand several hours at least
When wanted to use—add 3 quarts of boiling water
Serves 30.

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

OFFICERS

Mrs. H. S. Bostock, President
15 W. Main St., Madison

Mrs. R. H. Sewell, 1st Vice-President,
957 No. 70th St., Wauwatosa

Mrs. F. E. Willard, 2nd Vice-President,
Oakfield

Mrs. Floyd E. Ballard, Recording Secretary-Treasurer
Badger Park, Route 62., Madison

H. J. Rahmlow, Corresponding Secretary
424 University Farm Pl., Madison

DISTRICT PRESIDENTS

Mrs. F. J. Fitzgerald, 649 Broad St., Menasha
Fox River Valley District

Mrs. Martha Lowry, Lakewood, Madison
Madison District

Mrs. Geo. Adami, 2466 No. 46th St., Milwaukee
Milwaukee District

Mrs. Gilbert E. Snell, 414 Erie Ave., Sheboygan
Sheboygan District

Mrs. Bentley Dadmun, 604 Main St., Whitewater
South Central District

MESSAGE FROM THE PRESIDENT

Dear Garden Club Members:

1943 Marches On.

I sincerely hope that each garden club is "Marching On To Victory." United in purpose with the rest of the nation, we plan ahead.

Programs should definitely cover active participation in the National Victory Garden Movement. This is indeed one of the "essentials." Call on your county agents and your experts on vegetable gardening to help your clubs in formulating good plans for their own gardens so that they may meet the coming food problems.

Have at least one open meeting and invite prospective gardeners so they too may benefit by firsthand advice. These people may be new members in the weeks to follow.

Garden clubs whose main purpose was of a social nature only need not disband because social activities are now frowned upon. Such clubs may direct their effort toward Red Cross work, nutrition classes, making scrapbooks for convalescent soldiers, supervising and assisting junior gardeners by giving talks in the schools and helping these young people with their Victory gardens. Knowledge of gardening may also be spread through the means of radio and garden centers.

They may also aid in keeping up the morale of our men and women throughout the state. Red Cross officials are asking our groups to

furnish fresh cut flowers this coming year to all army and navy hospitals, and USO centers.

This necessitates the need for planning flower gardens accordingly. Many small flower gardens, not having space for vegetables can supply these fresh flowers.

Such are the present needs that may be covered by club programs.

We need to look ahead too in planning for the beauty of our state in post war days. Men and women are even now planning for the peace that is to come. Ours is the privilege of planning for a peace that comes from the beauty of our country.

Elsewhere in this issue is an article on memorial plantings for Wisconsin highways. Few of us realize that we shall be doing a great service to our nation in maintaining the beauty of our highways as well as dedicating such natural beauty to our loved ones in service.

Our state is an integral part of this great nation and we can make it an example for other states to follow.

Your Garden Club Federation is sponsoring this memorial planting. Our aims were discussed at the first annual meeting of the Wisconsin Roadside Development Council. The entire Board was so enthused with the plan that a resolution was drawn up giving us the assurance and wholehearted cooperation and financial assistance from all of their member organizations.

Each of our clubs can assist in this project by raising funds and sending them to Mrs. Floyd E. Ballard, Recording Secretary-Treasurer and ear-marking such funds for this purpose. When the legislation has finally been taken care of these funds will then be ready for the Wisconsin Highway Department to use in the planting of Wisconsin's "Roads to Remembrance."

—Mrs. H. S. Bostock

As one remedy for the shortage of farm workers, Secretary of Agriculture Wickard advocated a big migration of farmers from small hilly farms in the East to big rich Middle Western farms which are in danger of lying idle next year. He estimated there were 2,000,000 farm families which might profitably move.

Madison District Aids Santa at Truax Field

WHEN Mrs. Chester Thomas, Milwaukee. State Flower Show chairman, conceived the plan of making miniature evergreen sprays and wreaths to brighten the Christmas morning trays of the hospitalized soldiers at Truax Field, Madison, she appealed to the Madison District for assistance. The appeal was appreciated by this group, who were waiting for just such an opportunity. All the Madison Garden Clubs pledged wholehearted support, and set to work to meet a greatly enlarged quota of material due to an epidemic of measles at the Field just before the holidays.

A total of 441 very attractive evergreen wreaths with red berries and ribbon bows were delivered to the Red Cross Center at the hospital on the morning before Christmas. It would have been a wholesome influence on the garden club war impetus if each member could have gone with the District President when she delivered these tokens. To have seen the festive note which these bits of greenery, and those from Mrs. Thomas which had arrived the day before, contributed to the otherwise bleak interior; to have witnessed the convalescent boys' enthusiasm as they began to unpack them; and to have realized how very important in their present lives are the little things we do for them, would have been an inspiration to any of us. Let's hope it is just the beginning of what we may do for them as long as they are with us.

But Madison District did other things too. Money was contributed by each of the local clubs to defray expenses of decorating the USO Center, the actual decorating being done by the members of the various clubs. Trees were set up and trimmed, evergreen wreaths hung and a very festive spirit produced. The committee also decorated the guest house, service club, library, cafeteria and recreation center at Truax Field for Christmas. The Baraboo Garden Club, also a member of the Madison District, decorated their local USO Center very effectively.

To all of the members who participated in this project it meant long hours away from home. Yet ask any one of them what effect this effort had on their personal holiday, and they will reply enthusiastically, "It just **made** my Christmas!" For such is the spirit of garden clubs.

—*Martha E. Lowry, Chairman Madison District.*

NOTICE TO GARDEN CLUB MEMBERS

ALL membership dues must reach Mrs. Floyd E. Ballard, Badger Park, Route 62, Madison, Recording Secretary - Treasurer of the Wisconsin Garden Club Federation, before March 20th. This means that you must pay dues before March 15th so that the Secretaries whose names were on our list tary can send it to Mrs. Ballard.

Membership cards and blanks for sending in membership lists have been sent to all garden club secre the first week in January. In some cases the material was sent to the 1942 secretary. In case of a change in this office, the material should be turned over to the 1943 secretary.

How Dues Are Divided

The annual dues to the Wisconsin Garden Club Federation, which includes membership in the Wisconsin Horticultural Society as well, are 50 cents per year. The dues are divided as follows:

Wisconsin Garden Club Federation	10 cents
National Council of State Garden Club Federations, Inc.	5 cents
Wisconsin Horticultural Society, membership and magazine "Wisconsin Horticulture"	35 cents

DISTRICT MEETINGS TO BE HELD

STATE OFFICERS AND COMMITTEE CHAIRMEN TO PRESENT PROGRAM OF WORK

A series of District meetings will be held by the Wisconsin Garden Club Federation at which the State officers and committee chairmen will present their plans for the program of work for 1943 to garden club officers and members. Each club should send at least one delegate and all officers should try to attend in order to become familiar with the plan.

Meetings will be held as follows:

Tuesday, February 23. Milwaukee District, in Milwaukee.

Wednesday, February 24. Sheboygan District, in Sheboygan.

Thursday, February 25. Fox River Valley District, in Oshkosh.

Friday, February 26. Joint meeting Southern Wisconsin and Madison Districts at the University Club, 803 State St., Madison.

The District Chairman will be in charge of each meeting and further announcements will be sent each garden club as to location and time.

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RACINE GARDEN CLUB PLANS INTERESTING PROGRAMS FOR 1943

MRS. H. J. Anderson, chairman of the Racine Garden Club program committee, reports that the club, anticipating difficulty in obtaining out-of-town speakers, will have their own members contribute to their regular programs. She writes:

"We will start out with one-half hour of botany by our high school botany teacher, who is also a garden club member. This will be followed by one-half hour on some specific gardening subject by various members who are qualified. At each meetting we plan to have several seasonal artistic arrangements of flowers which will be discussed and commented upon. We will allow sufficient time for questions on all phases of our program.

"We feel that all garden club members need to get up on their feet and express themselves, and we are taking advantage of this emergency as an opportune time to try out the plan. It will keep our membership active. Otherwise they are bound to eventually lose interest.

"War conditions have created many demands on all of us. but I feel if a person is sufficiently interested he will find time to do the things he enjoys and benefit by it. I feel that we can give them a program from which they will gain much valuable information and thereby consider garden club meetings a necessary diversion.

"We will have several out-of-town speakers, and these programs will be open meetings to which we will invite anyone interested."

PATH OF TRUE LOVE

Sam—"Yassuh, Boss, ah suah do love chicken."

Boss—"But you must have trouble getting what you want, sometimes."

Sam—"Yassuh, but you knows de old saying': 'love will find a way'."

Garden Club Membership

If there was ever a place for garden clubs, there is a more definite need at the present time. Our government has asked us to help and we have never had such a splendid opportunity to be of assistance to our country.

Let us do as the men in the service are doing, shoulder our burden, for we all know that the two great aids to the Victory program in America are the man with the gun and the woman with the hoe. Not only are we going to "Dig for Victory," we will act as instructors and advisors to others less skilled who will be growing vegetables for the first time. Although flowers belong in the picture, we must plan our gardens now for the growing of food for our families, our army, and our alllies in other countries.

Everyone is busy these days with war work, but let us not use this as an excuse for neglecting our garden club work. We must keep up the enthusiasm of present members and attract new ones. In every club there must be members who are prepared to give a talk that would be of interest to a neighbor club, and I hope we will show the "good neighbor" policy and share with other gardeners.

My plea is, "Come Garden Clubs" let us help each other and together let us do a job that we will be proud of.

—Rose E. Braman, Membership Chairman, Wisconsin Garden Club Federation.

PRIZES OFFERED FOR ORGANIZATION AND AFFILIATION OF NEW GARDEN CLUB

The Wisconsin State Horticultural Society has set aside the sum of $100 to be used for prizes for the organization and affiliation of new garden clubs during 1943.

Each individual or garden club who organizes or brings into the Federation and Horticultural Society a new garden club, will be awarded the sum of $5.00 as a prize.

Information necessary to determine the award should be sent to Mrs. Charles Braman, Box 147, Waupaca, chairman of the membership committee. Evidence must be given proving that some effort was put forth on the part of the individual or the club to bring the new club into membership. In case more than one person or club took part, the prize will be divided.

As stated elsewhere, Mrs. Charles Braman is awarding a prize of $5.00 to the district which has the most new member clubs during 1943, the minimum being three clubs affiliated.

A SUCCESSFUL FLOWER AND VEGETABLE GARDEN

Mrs. Chas. R. Rode, Waukesha

We can grow flowers and vegetables successfully in the back yard. I know because I had flowers of all kinds and all kinds of vegetables—even a few hills of potatoes, squash, beets, tomatoes. and onions from seed, as well as sets.

I planted sweet corn and when the corn was up about one foot I planted Kentucky Wonder or Old Homestead pole beans about 3 or 4 beans to a hill. They yield heavily and I think are one of the best tasting beans we can grow. I had about 14 hills and we had all we could eat besides canning 16 quarts.

I planted 3 rows of Sunshine Asters, 4 rows of Stringless greenpod bush beans, and then I planted dwarf hybrid dahlias which were very pretty. Also some Giant dahlias. I buy dahlia seed and start it in a hot bed April 15th. The greatest pleasure and surprises from my garden activities the last three summers was growing dahlias from seed. Each plant produced a different colored bloom.

Plans of the Roadside Committee for 1943

In the minds of nearly everyone these days are thoughts of loved ones who are serving our nation and we long to be doing something for those who return, to enjoy, and in memory of those who remain on foreign battle fields.

The wooden plaque with painted names soon is neglected and becomes unsightly and ere long most of the names are names only.

It is with this thought in mind that the Wisconsin Federation of Garden Clubs has planned to sponsor a project of Memorial Plantings along our Highways Rights of Way, using native shrubs and plants found in the area, to conserve them and also to bring their beauty to the traveler on his way.

Each section of the State has certain plants, trees and shrubs of outstanding beauty and it is planned to use them as the principal motif in the planting plan or picture. Wherever it is possible the Wild Crab apple will be featured and where that will not do well the Hawthorne or some other of our beautiful wild blossoming trees and shrubs will be used in combination with other outstanding native materials of the area.

The committee in charge will study a Master's thesis written by F. H. Brant in 1931 on "Roadside Development Problems and Standards for Wisconsin", made available to us by the Department of Agriculture of University of Wisconsin and with the aid of experts set up a planting pattern for each section of the state.

As soon as a pattern of a planting can be worked out the approximate cost for the material will be made so that definite plans can be made available to each garden club or organization wishing to make such a planting.

It is important that a permanent highway be selected for such work so that there will be no loss of material, money or effort should the highway be rerouted or the width of the right of way changed.

It is possible that some of the money provided by Bill S-675 passed by the last legislature seting aside $20,000 a year for use in the planting and maintaining of Roadside projects may be drawn upon to care for and maintain these plantings and to train men for such work.

We would like to ask each Garden Club of the Federation in making plans for the year's work to start a fund that will provide money for at least one Memorial planting in their neighborhood and secure as much help from other organizations as they can, to make this project an outstanding piece of work not only as an honor to our State but to be nationally recognized in honor of all men in our armed forces.

—Mrs. C. L. Dean, Chr. Memorial Planting Project.

GARDEN CLUB RADIO PROGRAMS STATION WTMJ, MILWAUKEE

The Wisconsin Garden Club Federation is again sponsoring a series of programs over Radio Station WTMJ. The first program was given on January 30th. The programs will continue **every other Saturday at 3:15 p. m.** Announcements of the program will be found in the Milwaukee Journal on Friday issue—green sheet. A note to WTMJ, Milwaukee, will bring a copy of the program.

County Agent R. C. Swanson, Milwaukee, is giving several talks on more and better Victory Gardens for 1943.

—Martha Malisch, Hales Corners, Radio Chairman.

TRIAL GARDEN PLANT REPORT

Mrs. Harry F. Howe, Elkhorn

All of the plants we received from the 1941 trial garden list came through 1941-42 in good condition, with the exception of Chrysanthemum Lavender Lady, which did not come up last spring.

We had no trouble with insect or disease pests in our garden, for we dusted quite regularly with sulphur-rotenone dust.

The following varieties proved good for cutting: Asters—Beechwood Challenger, and Mount Everest; Aquilegia Crimson Star and Mrs. Nichols; Shasta Daisy Snowbank and Nobilis which were extra good; and Heliopsis Summer Gold; and Pyrethrum Jas. Kelway.

The Rudbeckia The King grew 6 feet or more in height, with excellent bloom. It would make a fine planting for the background in the garden.

The Aquilegia are very long spurred and the blooms were a lovely shade, though the plant was small and the stems short last year. We thought the Chrysanthemums and Pyrethrum were rather ordinary.

Likes Phlox Miss Kenosha

The Perennial Phlox Miss Kenosha was a very fine bloomer, very showy and we especially recommend it.

We also recommend the hardy Asters, Beechwood Challenger and Mount Everest, the Aquilegia Crimson Lady, the Rudbeckia The King, Shasta Daisy Snowbank and Nobilis, and of the roses, World's Fair and Summer Snow were the best bloomers. However, the center of the rose Summer Snow turned dark rather soon and so spoils its beauty. They are both Floribundas.

"How do you explain the shortage of meat?"

"I don't know, but you certainly can't blame the boys who make the drugstore sandwiches."

Committee Chairmen for 1943

State and District Committees

WISCONSIN GARDEN CLUB FEDERATION

Standing Committee and Project Chairmen

General Chairman: Mrs. Frank E. Willard, Oakfield.

Bird: Mrs. Carl M. Schwendener, 1722 N. 48th St., Milwaukee; co-chairman: Mrs. Robert A. Walker, 2222 Chamberlain Ave., Madison.

Conservation: Mrs. Alfred Kieckhefer, Sta. F, R. 9, Box 819, Milwaukee.

Constitution and By-Laws: Mrs. Martha Lowry, 204 Kensington Dr., Madison.

Garden Centers: Mrs. Thomas Mullen, 311 E. Johnson St., Fond du Lac.

Historian: Mrs. W. A. Peirce, 2335 Carmel Ave., Racine.

Horticulture and Victory Gardens: Mrs. Ralph R. Hibbard, 7034 Aetna Ct., Wauwatosa; Co-chairman: Rev. A. H. Otto, 208 S. 7th Ave., West Bend.

Judging Schools: Mrs. S. J. Hirsh, 604 N. 119th St., Wauwatosa.

Junior Garden Clubs: Mrs. Peter C. Cooper, R. 4, Box 232, Milwaukee.

Membership and Organization: Mrs. C. H. Braman, Box 147, Waupaca; Co-chairman, Mrs. Roy H. Sewell, 957 N. 70th St., Wauwatosa.

Nominating: Mrs. Chas. Jahr, 312 N. Broad St., Elkhorn.

Program and Lectures: Miss Katherine Melcher, Wisconsin Hotel, Milwaukee.

Publicity: Mrs. Fred C. Marquardt, R. 1, Box 63, Hales Corners.

Rural Clubs: Rev. A. H. Otto, 208 S. 7th Ave., West Bend.

Visiting Gardens: Each Garden Club President.

Special Projects

Block Plan Organization: State Advisory Committee.

The Wisconsin Council of Defense. Mrs. H. S. Bostock.

State Flower Show: Mrs. Chester Thomas, 2579 N. Downer Ave., Milwaukee.

Plant Testing and Trial Gardens: E. L. White, Box 334, Fort Atkinson.

Memorial Highway Planting: Mrs. C. L. Dean, 102 Grand Ave., Madison.

Radio: Mrs. R. H. Malisch, Hales Corners.

War Service: Mrs. Chester Thomas, 2579 N. Downer Ave., Milwaukee.

Madison District Officers

President: Mrs. Martha E. Lowry, 204 Kensington Dr., Madison.

Vice-Pres.: Mrs. Bert Wells, 2526 Gregory St., Madison.

Secy.-Treas.: Mrs. Charles True, 217 Second St., Baraboo.

Madison District Committee Chairmen

Bird: Mrs. R. A. Walker, 2222 Chamberlain Ave., Madison.

By-Law Revisions: Mrs. Oliver S. Rundell, 2227 Van Hise Ave., Madison.

Conservation: Mrs. E. N. Hein, 3200 Oakridge Ave., Madison.

Convention: Executive Board to constitute committee.

Garden Center: Mrs. W. W. Biege, 704 8th St., Baraboo.

Historian: Mrs. R. E. Kartack, 115 10th St., Baraboo.

Nominating: Mrs. H. R. English, 1722 Chadbourne Ave., Madison.

Program: Executive Board to constitute committee.

Publicity: Mrs. O. I. Dhein, 4206 Mandan Crescent, Madison.

Roadside Development: Mrs. Charles Dean, 102 Grand Ave., Madison.

War Service: Mrs. Walter Dakin, 4110 Mandan Crescent, Madison.

Milwaukee District Officers

President: Mrs. Geo. Adami, 2466 N. 46th St., Milwaukee.

Vice-Pres.: Mrs. Dale Shockley, R. 2, Thiensville.

Secy.-Treas.: Mrs. H. W. Schaefer, 4416 Taft Rd., Kenosha.

Milwaukee District Committee Chairmen

Bird: Mrs. C. M. Schwendener, 1722 N. 48th St., Milwaukee.

Conservation: Mrs. Max Schmitt, 1912 N. 84th St., Wauwatosa.

Convention: Mrs. L. L. Cannon, 7123 Cedar St., Wauwatosa.

Flower Judging: Mrs. E. A. St. Clair, 2418 N. 65th St., Wauwatosa.

Garden Center: Mrs. O. H. Burgermeister, 2127 S. 87th St., West Allis.

Historian: Mrs. I. C. Miller, 6831 Cedar St., Wauwatosa.

Horticulture: Mrs. Arthur Jaeger, 7015 N. Pierron Rd., Milwaukee.

Junior Gardens: Mrs. S. J. Hirsh, 604 N. 119th St., Wauwatosa.

Membership: Mrs. Carl Lemke, R. 11, Box 239, West Allis.

Nominating Committee: Mrs. H. Freudenberg, 1507 N. 68th St. Wauwatosa

Plant Testing: Mrs. Arthur Jaeger, 7015 N. Pierron Rd., Milwaukee.

Program: Mrs. E. A. St. Clair, 2418 N. 65th St., Wauwatosa.

Publicity: Mrs. I. C. Miller, 6831 Cedar St., Wauwatosa.

Radio: Mrs. R. H. Malisch, Hales Corners.

Roadside Development: Mrs. J. W. Overholt, 1979 S. 73rd St., West Allis.

War Service: Mrs. Chester Thomas, 2579 N. Downer Ave., Milwaukee.

South Central District Officers

President: Mrs. Bentley Dadmun, 604 Main St., Whitewater.

Secy.-Treas.: Mrs. John Kyle, 129 Park St., Whitewater.

South Central District Committee Chairmen

Conservation: Mrs. Robt. Adler, R. D. Elkhorn.

Flower Show: Miss Avis Cleland, 111 S. Prairie St., Whitewater.

Garden Centers: Mrs. E. L. White, Box 334, Fort Atkinson.

Junior Gardens: Mrs. R. J. Stumpf, 22 W. Fulton St., Edgerton.

Membership: Mrs. Theo. Ward, R. 1, Fort Atkinson.

Nominating Committee: Mrs. Chas. Jahr, 312 N. Broad St., Elkhorn.

Publicity: Miss Hannah Larson, 111 S. Prairie St., Whitewater.

Roadside Development: Mrs. Wilbur Strohbusch, Jefferson.

Victory Gardens: Mrs. Norma Robinson, Normandie Farms, Lake Geneva.

Fox River Valley District Officers

President: Mrs. F. J. Fitzgerald, 649 Broad St., Menasha.

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Milwaukee District Garden Clubs Seek to Bring Yuletide Cheer to Service Men

Members of garden clubs from Milwaukee County met at the Y.W.C.A. for an all-day meeting on December 9th and under the able direction of Mrs. Chester Thomas made the following trimmings for the Service Men's Christmas: 1,546 small sprays and miniature wreaths; 36 feet of evergreen garland; 4 large wreaths; 2 V's for Victory. All were shipped and delivered as follows: 946 sprays and wreaths to Camp McCoy at Sparta; 450 wreaths and sprays to Camp Truax at Madison; wreath and garland to Red Cross headquarters, Milwaukee; wreath and 1 V decoration to WAAC's office, Milwaukee; 1 wreath to Navy Reserve office, Milwaukee.

The garden club members can feel pleased indeed at the accomplishment and it does show how we can in our own way cooperate with the war effort.

Mrs. Dorothy H. Miller, Publicity Chairman, Milwaukee District.

Junior Garden Club Report

By Mrs. Peter C. Cooper, Junior Garden Club Chairman

At the three regional meetings of garden clubs held last spring, my plan for juniors was presented. It contained suggestions which could be used and would meet the trend of the times. Fifteen letters were written to me regarding the program and were answered, and there were three calls from unfederated groups for information.

Our juniors put up an exhibit at the spring flower show and six garden clubs were represented, with 33 exhibits. At the Harvest Festival there were 36 exhibits by three junior clubs.

In late February and March the girl scouts enlisted my aid in organizing and establishing a victory garden set-up in the county. The following garden club members helped make this a success: Mrs. E. A. St. Clair, Mrs. W. F. Roecker, Mrs. Irving Lorentz, Mrs. A. J. Kubal, Mrs. J. Overholt. They acted as leaders and consultants for each of the five districts in the county.

I planned a scout garden which was published in the monthly paper of the county, "Soundings," and over 229 scout leaders and their 224 assistants received this aid. Articles on pest and insect control followed.

At the State Fair, girl scouts took part in the pageant for Victory on Youth Day, with the gardeners having a special feature. More than 50 gardeners took part in this pageant. I do not have a record of the number of junior garden clubs in the state. Since schools are taking care of the work in the cities, and the 4-H clubs in the country, the only way a garden club member can help is in the capacity of consultant. I would encourage this very much.

The Ravenswood Garden Club made an outstanding report of a junior garden club this year. Mrs. Hazendahl is their leader and has 18 members. She has taken our outline and glorified it with many new ideas of her own.

I still feel that many more of us should give time to our junior gardeners.

EUROPEAN PLUMS

DURING the past 10 years the Dominion Experimental Station at Morden has tested practically all European varieties grown commercially in Canada. Six varieties have been tested from Norway. A considerable number of varieties have been obtained from Russia; Central Experimental Farm, Ottawa; Vineland Experimental Station, Ontario, and other experimental stations and private individuals in Canada and the United States.

Promising Varieties

The most promising varieties considering hardiness, productiveness and quality are Raynes, Morden #802, Russian Green Gage, Mount Royal, two Reine Claude x Voronesh seedlings from F. L. Skinner, Dropmore, Manitoba, and Shorospelka Krassnaja from Russia. A considerable number of varieties, such as Carleton, Prescot, Nepean and Lanark, from the Central Experimental Farm, show considerable hardiness but have not commenced to bear. Other varieties, such as Kozlov and Krikon are in poor quality.

In general, European types of plums are slower to come into bearing than the hardy native types commonly grown on the prairies. Test years may be expected every few years which will severely damage all but the very hardiest.

—From News Letter, Experimental Station, Morden, Manitoba.

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Dimensions indicate location of rows from end of garden)

Row	1	v	v	v	1 ft. 6 in.—Early Carrots	v	v	v	v	v	v	v			
Row	2	v	v	v	3 ft. 0 in.—Late Carrots	v	v	v	v	v	v	v			
Row	3	v	v	v	4 ft. 6 in.—Late Beets	v	v	v	v	v	v	v			
Row	4	v	v	v	6 ft. 0 in.—Early Beans	v	v	v	v	v	v	v			
Row	5	v	v	v	7 ft. 6 in.—Spinach 1—Followed by Late Beans										
Row	6	v	v	v	9 ft. 6 in.—Spinach 2—Followed by Late Cabbage—Chinese Cabbage 5 ft.	v	v								
Row	7	v	v	v	11 ft. 6 in.—Early Cabbage—Followed by Late Turnips—Chard 5 ft.	v	v	v	v						
Row	8	v	v	v	13 ft. 0 in.—Leaf Lettuce	v	v	v	v	v	v	v			
Row	9	v	v	v	14 ft. 6 in.—Spinach 1—Followed by Tomatoes										
Row	10	v	v	v	15 ft. 9 in.—Peas	v	v	v	v	v	v	v	v	v	
Row	11	v	v	v	16 ft. 3 in.—Peas	v	v	v	v	v	v	v	v	v	
Row	12	v	v	v	17 ft. 6 in.—Radish 1—Followed by Tomatoes	v									
Row	12	v	v	v	17 ft. 6 in.—Radish 1—Followed by Tomatoes	v									
Row	13	v	v	v	18 ft. 9 in.—Peas	v	v	v	v	v	v	v	v	v	
Row	14	v	v	v	19 ft. 3 in.—Peas	v	v	v	v	v	v	v	v	v	
Row	15	v	v	v	20 ft. 6 in.—Radish 2—Followed by Tomatoes	v									
Row	16	v	v	v	22 ft. 0 in.—Early Beans	v	v	v	v	v	v	v			
Row	17	v	v	v	23 ft. 6 in.—Corn	v	v	v	v	v	v	v	v	v	
Row	18	v	v	v	24 ft. 9 in.—Onion Sets	v	v	v	v	v	v	v			
Row	19	v	v	v	26 ft. 0 in.—Corn	v	v	v	v	v	v	v	v	v	
Row	20	v	v	v	27 ft. 3 in.—Early Beets—Turnips Late	v	v	v							
Row	21	v	v	v	28 ft. 6 in.—Corn	v	v	v	v	v	v	v	v	v	

A 20x30 foot VICTORY GARDEN

Prepared by the Dept. of Horticulture — Wis. College of Agriculture

MARCH 1943

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—*Condensed from November 1 American Nurseryman.*

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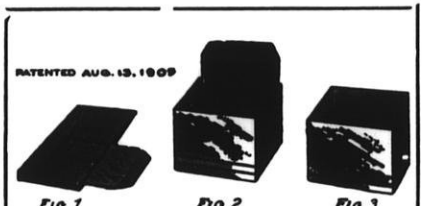

Fig. 1 Fig. 2 Fig 3

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

ESTABLISHED 1910

Entered at the postoffice at Madison, Wisconsin, as second-class matter. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1918.

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
424 University Farm Place
Madison, Wisconsin

H. J. RAHMLOW, *Editor*
Secretary Wisconsin State Horticultural Society

Office: Old Entomology Bldg., College of Agriculture
Tel. University 182

VOLUME XXXIII MARCH, 1943 No. 7

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PLEASE DO NOT SEND STAMPS

The Orchard Management Program

All Items Are Parts of A Well Balanced Program
Annual Convention Paper — W. G. Brierley, Minnesota

ALL items in the management of a commercial orchard should be regarded as related parts of a single, well balanced program. Such items as pruning, spraying and fertilizing are of major importance. These usually contribute heavily toward keeping the orchard in good health and production. Although these three items need constant study as our knowledge advances, their relation to each other always should be kept in mind.

Pruning

It is likely that in the past there have been more mistakes made in pruning than in other operations. Perhaps this has been a result of the common tendency to feel that if a little is good a lot is better. Poor work in pruning, usually in the removal of too much wood, frequently has disturbed the desirable balance between carbohydrate and nitrogen supplies, and has upset the whole management program. As we have added to our knowledge and experience relative to the response of apple trees to pruning we have learned that when a tree is bearing well it needs very little pruning. Some repair work may have to be done, but in general we have learned that to prune a bearing tree heavily is likely to throw it out of bearing and thus upset the entire management program.

Remove Weak Wood

We have learned through careful studies that a large proportion of the apples too small for market, or poorly colored, are borne on the small drooping branches in the shaded central and lower parts of the tree. Usually we find more worms and scab there as well. Dr. Roberts of your station has made some valuable contributions on this subject. We now are calling this sort of growth "weak" or "thin" wood. When pruning is confined largely to the removal of this "weak" wood we are told that fewer small apples are produced and that spraying is made more effective. Thus we find that by spending less time in pruning and doing a better job we save pruning labor, save in picking and handling culls, and make spraying more effective. This is an excellent illustration of the inter-relation of orchard operations.

find some varieties that will need somewhat more thinning in the central part of the heads than will result from the removal of the weak drooping small branches. In Minnesota the Northwestern quite often develops a dense head that needs some general thinning to make spraying more effective. In any locality where a pest like the apple maggot becomes a serious problem we shall need to be sure that the tree heads are not dense, for to control such a pest we shall have to do a lot of spraying. The help afforded by pruning may pay its expense many times over in the better control of pests.

Fertilizing

We have come to recognize the fact that orchards maintained under the mulch system may need supplemental nitrogen to maintain vigor and yield. If a tree becomes a poor producer because of low vigor the efforts spent in pruning and spraying will be largely lost. The best pruning for a weak tree may be to fertilize it!

Mistakes in fertilizing have been made in both directions. Either the fertilizing has been too long delayed or, less commonly, fertilizers have been used when not needed, or in excess amounts. Fertilizing when the tree is in good condition, or applying fertilizers too liberally almost always results in the development of too heavy foliage and a reduction in color of the fruit. Either too little or too much will tend to throw the tree out of balance and thus upset the rest of the management program.

In the attempt to determine the need for supplemental nitrogen several easily recognized "indicators" are useful. If a tree is in a well drained location a tinge of yellow in the foliage usually indicates a shortage of available nitrogen. Similarly very short, weak spurs, and short terminal growth show a lack of nitrogen. Lack of size in the fruit also indicates a deficiency. These indicators are easily recognized and easily interpreted. But they are of greatest value when recognized early and the nitrogen shortage made up before it becomes serious. With a shortage of inorganic nitrogen facing us it will be necessary to experiment with reduced applications and with organic materials. Any expedient that seems to be of promise may be worth trying as it is clear that a loss in vigor will seriously affect the entire management program.

Spraying

Spraying usually is not a pleasant operation but is necessary for the protection of the results gained from other management items. Cer-

tainly this item needs to be studied carefully and the work done thoroughly, at the proper times, and with the right materials. At the present time the prospects are that the number of sprays will have to be increased to obtain satisfactory control. This certainly is true in Minnesota where the maggot is a serious menace to our commercial orchards. We shall have to put on more sprays even if that leads us to a residue problem.

Little needs be said here about the need for or the methods to follow in the protection of fruit from diseases and insects. That is a long story in itself and all recognize its importance. But we should not overlook the fact that as we spray to control fruit pests we also protect the foliage against damage. This has an important hold-over effect in relation to the maintenance of balanced nutrition in the tree. This is particularly noticeable when the canker worms or leaf roller are active. Early season damage to the foliage may seriously reduce the amount of carbohydrates made by a tree and thus directly affect the set that season and the process of bud development for the next year. Injury to the foliage in August may seriously delay the development of maturity in the wood. This effect leads directly to more or less severe winter injury and may upset the performance of a tree for several seasons. Young trees defoliated by grasshoppers in August have been killed in the following winter. This relationship of healthy foliage to tree performance is easily lost sight of in the "off" year.

In conclusion it should be repeated that all management items need to be studied not only with regard to their immediate effects but also in regard to their relation to other items. Also it always is a good idea to question every item and method. Perhaps no changes will result but it will do no harm to be sure that the best practices are being followed. Successful results in an orchard are not gained by doing things from habit.

Apple Aphids Can be Controlled

Dinitro Compound Combined With Oil Gives Excellent Results

IN TESTS conducted by the Department of Entomology, Wisconsin College of Agriculture this past year, and reported by C. L. Fluke and C. F. Gerlach, apple aphids can be controlled with a dormant spray of one of the dinitro compounds combined with oil.

Writes Dr. Fluke: "The dinitro compounds have been tested quite frequently of late years and are usually effective against aphids and case bearers. Our tests indicate that Elgetol, a dinitro compound, is effective against aphids but is greatly improved if combined with oil. Elgetol alone at 1% gave 84% control of aphids but at ½% plus Stanolind oil 2% gave 100% control.

Elgetol ½% combined with McConnon's aphid spray produced 99.3% kill. The Dow Chemical Company makes several dinitro compounds and their materials alone gave poor control, but when combined with oils produced from 94 to 97% kill.

"Thus a combination of a dinitro compound at ½% strength and a dormant oil at 2% appears to be the best for aphis. This past year case bearers and leaf rollers were not numerous enough to draw any conclusions as to the effectiveness of this combination spray against these insects."

Only Materials of High Effectiveness Should Be Used

Because of the fact that aphids reproduce so rapidly, only the very best of the materials should be used. If as many as 10% are killed those remaining would soon reproduce to the point where infestation would again be severe. We should attempt, therefore, to get as near a 100% kill as possible.

Those who are interested in the control of apple aphids and leaf rollers should read the article in the March, 1942, issue of Wisconsin Horticulture, written by John A. Callenbach. He reminds us that there are two species of aphids common in Wisconsin—the apple grain aphid and the green apple aphid.

The Apple Grain Aphid

The apple grain aphid is the one that is so conspicuous on the opening fruit buds. Both species overwinter in the egg stage, but the eggs of the apple grain aphid are the first to hatch. They can also be recognized by the dark green line running down the middle of the back, and a number of cross lines of the same color.

The apple grain aphid, however, soon leaves the apples to migrate to various grasses of small grains where they continue to reproduce through the summer.

Green Apple Aphid

The green apple aphid is the important aphid pest of apples in Wisconsin. It overwinters in the egg stage on apples and related trees such as Hawthorn and pear. The insect is dark green and does not have stripes. Furthermore, it does not leave the apple and it is this species that is found heavily infesting terminal growth and water sprouts all during the summer months.

Aphids Migrate to Other Orchards

Unless all growers in a community cooperate in controlling the pest in its egg stage, much of the benefits to an individual grower are lost by migration into the orchard and the rapid build-up of population followed by the great reproductive capacity of the insect, writes Dr. Callenbach in his article.

During the summer months if the young trees become seriously affected and terminal growth is being stunted or killed by aphids, nicotine sulphate at the rate of one part to 800 parts of water plus a good spreader is recommended to check the pests.

Orchard Mulching

A Twenty Year Test Of Hay Mulch Show Good Results
By J. K. SHAW

TREES grow naturally in forests. They grow close together and their crowns form a more or less dense canopy above the earth. The soil beneath is covered with a layer of leaves and other organic matter in a more or less decayed condition. This layer and the surface soil is filled with small roots. If the surface layer is removed or destroyed by fire, the trees suffer.

Now it would be foolish to argue that fruit trees should be grown in the same manner as forest trees. For one thing, we grow forest trees mainly for long straight trunks, while we want no more top than is required to produce a desirable trunk. We grow fruit trees with a directly contrary purpose; we want only enough trunk to support the crown which we desire to be large to produce as many fruits as possible. Many years ago, I saw a forest of apple trees planted a few feet apart with bare crooked trunks twenty or thirty feet high. It did not look at all like a profitable orchard. Many orchards do bear a slight resemblance to this apple forest. The trees are too close together. Within reasonable limits an acre of land can produce only about so many apples, no matter how many trees are on it. "Within reasonable limits" means that tips of branches of adjacent trees do not interlace nor is there more than a few feet between them. Of course, some acres can produce more than others, and lack of proper care will reduce and even ruin production.

Forest Floors

The nature of the forest floor, however, does give us a hint as to conditions that fruit trees like. A ground cover of decaying organic matter seems to furnish ideal conditions for fruit as well as for forest trees. While the forest can itself produce the necessary organic matter, the orchard cannot do so. It is necessary to grow at least a part of the required material outside the orchard and bring it in among the trees.

All this is a round about way of introducing the subject of growing orchards on the mulching system, an orchard practice that is gaining favor wherever it has been tried. Of course, mulching orchards is really not new; it has been practiced in occasional orchards for many years. Maintenance of organic matter in orchards has long been a problem that has been met in various ways. The use of manure, growing cover crops among the trees and sod or sod mulch have been the common methods of keeping up the supply of organic matter in orchard soils. It has long been felt that all these methods fall short of perfection. None produce a ground cover like that in the forest. The soil beneath and between

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the trees of a mature bearing orchard will not produce enough organic matter to meet the needs of the trees. Sufficient stable manure is not obtainable. Hence, the practice of bringing waste hay of low feeding value, straw and other organic matter from various sources.

Waste Hay Mulch

Experiments in mulching were begun at the Massachusetts Experiment Station 20 years ago. Waste hay was brought into two small orchards and spread around 10-year-old Wealthy and McIntosh trees at the rate of about six or eight tons per acre annually. This is probably more than was necessary. None has been added for the past three years, yet there is a layer of mulch eight or ten inches deep with witch grass hiding the mulch completely. No fertilizer (other than that in the hay) has been applied during the 20-year period. It was two or three years before the beneficial effect of the mulch appeared. Since then, the trees have grown well and produced very satisfactory crops. Beneath the mulch is a layer of humus with numerous small rootlets running through the surface soil. Five years ago, we mulched another cultivated plot of ten McIntosh trees that had not been fertilized for 17 years and were in poor condition and bearing light crops. This mulch was less in amount and was applied to the bare soil instead of on sod, as in the earlier orchard. The response of the trees was immediate and most satisfactory. Growth was vigorous and crops were good. Rootlets appeared in the surface soil during the second year.

We have found extraordinarily high nitrates and abundant available potash under mulch, yet these trees were not over vegetative and bore large crops of well-colored apples. Pre-harvest drop was larger than in adjoining plots in cultivation, yet more apples were picked from the trees. However, in our experience, bearing orchards heavily mulched with waste hay, without other fertilizer, may become over vigorous.

Mulching Effects

There are several reasons for the excellent effects of the mulch: The rainfall is all absorbed by the soil and evaporation is less, making a more abundant and constant water supply for the trees. The soil is cooler in summer and warmer in winter than under cultivation or sod, which may or may not influence performance. The supply of nitrates and available potash is high. This may also be true for phosphorus and other mineral nutrients in the soil. The mulch may supply minor elements lacking in commercial fertilizers and now believed to be necessary for good growth and production. The aeration of the surface soil, which we believe to be of great benefit to the trees, is better than under other systems of culture. The feeding rootlets attracted by favorable conditions, penetrate this surface layer and absorb mineral nutrients released from the organic matter before they are fixed in the soil. This does not interfere with root development in the deeper layers of the soil where the water supply is more constant. Soil erosion is prevented, retaining the best of the soil and its mineral nutrients.

Mulching Materials

The practice of bringing mulch into the orchard is increasing among practical growers. It has been tried with good results by several experiment stations, especially those of Ohio and Indiana. It seems to be good over a wide range of soils and with all trees and bush fruits. All sorts of materials have been tried, but waste hay that has a low feeding value for animals has been most used. Straw has been tried with good results, but is more likely to call for supplemental applications of fertilizer because straw has a lower content of fertilizer elements than waste hay.

The benefits of a mulch application will last for several years while direct fertilization is a year to year proposition. Mulching is like putting a part of your income in the bank. A mulch crop may be harvested over a considerable period of time, but it would seem best to do it when the dry matter and mineral content of the crop is at the maximum. If fertilizer is necessary for a heavy mulch crop, we should seek to conserve all of it for the orchard.

—*Condensed from November 28 The Rural New-Yorker.*

A BIT OF McINTOSH HISTORY

J. K. Shaw, Mass. Agricultural Experiment Station

All fruit growers should be interested in facts about the early history of the McIntosh. Recent correspondence with members of the McIntosh family gives some interesting information. The original tree was found by John McIntosh (born August 15, 1777, near Schenectady, N. Y.) not in 1794 as generally believed, but sometime after 1811, the year when he took possession of the farm in Dundas County, Ontario. The tree was injured by the burning of the nearby dwelling in 1894. The tree bore its last apples in 1908, died shortly afterwards and finally was removed in 1910 by a great grandson of John McIntosh, whose house burned in 1925, and with it burned the last work of the original McIntosh tree. It is interesting to know that there are now trees near the place of origin which are believed to have been propagated from the original tree, all bear apples of the blushed type.

"Daddy, what is a mole?"

"It's a kind of wart on a person's skin."

"Do they crawl around?"

"No."

"Then that ain't a mole on your neck, is it?"

Some Results from Experiments on Cherry Leaf Spot Control in 1942

G. W. Keitt and J. Duain Moore

Cherry leaf spot development was unusually severe in the past season. Frequent rains during the long blooming period favored infection by the ascospores of the leaf spot fungus, and rainy weather through most of the season made possible abundant spread of the disease.

Exceptional Outbreak of Fruit Infection

For the first time on record fruit infection by the leaf spot fungus was an important problem in well sprayed orchards, especially on the Early Richmond variety. This appears to have been made possible by a very exceptional combination of weather conditions and an abundant supply of ascospores. The most severe fruit infection occurred during a series of heavy and protracted rains that came shortly before the second spray application. Abundant conidia were present on the spots that had resulted from infections during the frequent rains in the blooming period. The Bordeaux spray residues on the infected leaves, which are usually effective in checking infection by these spores, were not satisfactorily effective under these extreme conditions. However, fruit infection was well controlled in some orchards, especially those in which the supply of ascospores had been held down by good control of the disease throughout the preceding season or by clean cultivation before infection occurred.

Application of the after-harvest spray and early clean cultivation, where thorough early cultivation is regularly practiced, lessen the liability to severe early outbreaks of the disease. However, **if orchards have not been thoroughly cultivated in the preceding year, early clean cultivation might cut too many roots and is not recommended.**

Results from Spraying Experiments

This season of abundant disease development gave a severe test of spray materials and programs. Experiments were carried out in Door County on Montmorency trees. In three-spray programs applications were made (1) at petal-fall, (2) about two weeks later, and (3) just after harvest. In four-spray programs there was an additional application about four weeks after petal-fall. Lead arsenate, 1½-100, was used in the first and second applications in all programs. The following results were obtained:

1. Bordeaux, 6-8-100, applied in the three-spray program gave fairly satisfactory control of the disease on both leaves and fruit, without severe foliage injury.

2. Bordeaux, 3-4-100, in the four-spray program gave nearly as good results as the 6-8-100 three-spray program.

3. In the four-spray program Tennessee copper 34 plus lime, 3-3-100, plus Orthex, 1-800, gave somewhat less satisfactory results than Bordeaux.

4. In the four-spray program unsatisfactory control of the disease was given by the following materials: (a) Bordeaux, 1½-2-100, (b) Basicop plus lime, 3-8-100, and (c) lime-sulphur, 1-50. Lime-sulphur, 1-50, also failed to give satisfactory control when four applications were made before harvest and one after.

5. In the four-spray program, Fermate, a commercial preparation of ferric dimethydithiocarbamate, 1½-100 (plus lime 1½-100 in all treatments before harvest), gave about as good disease control as the best Bordeaux program (except in late season) and slightly larger fruit.

6. High-calcium and high-magnesium lime were used comparatively in various Bordeaux programs. In the three-spray program the high-magnesium lime gave somewhat the better results.

Spray Programs for the Coming Season

No single spray program can be recommended as best for all conditions. Subject to modifications that may be required to meet unusual conditions, the following are recommended for Wisconsin growers:

A. A three-spray program of Bordeaux, 6-8-100, applied (1) at petal-fall, beginning when about three-fourths of the petals are off, (2) two weeks later, and (3) just after harvest. Through the years this program has given as good results on the average as any tried. However, it sometimes causes foliage injury and reduction in the size of the fruit.

B. A four-spray program of Bordeaux: (1) 6-8-100, at petal-fall, (2) 3-4-100, two weeks later, (3) 3-4-100, two weeks later, and (4) 3-4-100, just after harvest. The 6-8-100 Bordeaux should not be substituted in the second or third application in this program because of danger of reducing the size of fruit. In certain cases this type of program has given less spray injury than program A. It requires 16-2/3 per cent less copper than A.

The experimental results have not established either program A or program B as definitely superior to the other. Arsenate of lead, 1½-100, should be used in applications 1 and 2 of each of these programs for insect control, as recommended by the Department of Economic Entomology.

Either high-magnesium or high-calcium lime may be used in making the Bordeaux mixture. The experimental evidence tends in favor of the high-magnesium lime.

Looking Over American Horticulture

H. B. TUKEY

Continued from February Issue

"Isn't This Grand"

As for general impressions, outside the field of horticulture, one finds that about every person is satisfied with his particular locality. Perhaps he wants a better job, more money, or a new wife, but the locality suits him as it is. The lad sweating in a winter temperature of 90° in the tropics of Mexico says "isn't this grand", while at the same time the lad among the ice and rocks of Canada's mountains puts his rifle over his shoulder and thinks the world is his.

One gets soon to drop the use of superlatives. There is apparently no biggest, smallest, largest, shortest, tallest, most beautiful, grandest anything anywhere. If the swimming pool at the university is fine, there is one just a bit finer in San Francisco, another still finer in Los Angeles, and probably another still finer just opened this afternoon.

Good Roads

Also, all things are relative. When a resident of a given locality says the roads are "good" he knows what he means, but woe to the traveler who fails to inquire further. "Good" in Texas means an hour and ten minutes to Laredo for supper after spending all day at the spinach center of America, 90 miles away. "Good" on the North California Coast means 25 miles an hour average, if no one is car sick, on a coiled spring road that never straightens either vertically or horizontally and never intends to straighten. "Good" in British Columbia has nothing to do with speed; it means that by keeping sober and with the aid of Providence you can just manage to get through before winter locks everything up until spring, but with mud pan dragging and boulders nipping unexpectedly at the differential from below and at hub caps and fenders each side.

Also, you realize that people are just about as fine one place as another depending upon what you are looking for. If you are looking for delightfully pleasant people, you'll find them among the native population of Mexico, a thousand miles from nowhere in Canada, or on Halstead Street in Chicago; and if you want trouble, you can find it in the same places, or even in the blissful, peaceful home town.

Sometimes one wonders why there is so much controversy and disagreement and compromise in Congress. When one sees the diversity of interests and background in all corners of the country, one marvels that Congress even finds it possible to agree on anything. Added to diversity are tremendous vigor and untold possibilities for development.

Finally, the items that make any trip what it is, quite aside from any professional activity, are the little personal experiences that one lives and relives, like the English accents of the teen-age lads training to be air pilots and picked up near Victoria on the road, asking only for their chance to pay back to "Jerry" what he did to their homes in England; the blackout on the Coast when new friends were made around the grate fire; the meeting with the old rancher in Colorado for whom you worked years ago as a hired hand; the flight over the 12,000-foot pass in a modern automobile where once you puffed and pushed and goaded and swore at packed burros.

Natural Wonders

For natural wonders—the big trees of California—imagine a main limb 8 feet in diameter 109 feet from the ground! For loveliness, the lush greenness of Mexico and the tropics. For grandeur, the ice and rocks of the Rocky Mountains, the sheer rock walls of Yosemite, the gigantic expanse of the Grand Canyon. For a place of unexpected charm, Death Valley in mid-winter and the Bad Lands of South Dakota under moonlight in October. For luxuriant plant life, the rainforests of the Olympic Peninsula. For sophisticated dumbness, Hollywood's Great Dane painted with stripes to resemble a tiger and frightening office visitors nearly to death. For excitement, the bull fight in Mexico City, when all concern for the poor bull was lost in fear that that handsome, graceful, cape-waving young man would be impaled on those razor-like horns by 1,400 pounds of black fury; what relief when the bull was killed instead of the man—a state of nervous exhaustion, and early exit, and never again! For romantic background, cowboys, Texas and the Southwest. For richness and plenty, Iowa at corn harvest. For a place you like and for people you like—the place that you call "home."

SEASON IS CLOSED

Applicant—"I want a license."

Clerk—"Hunting license?"

Applicant—"No, the hunting is over; I want a license to marry the girl."

Mother: "Now, Junior, be a good boy and say 'Ah-h-h,' so the doctor can get his finger out of your mouth."

Southeastern Fruit Growers Association Meeting

Cooperative Has Good Business Year.

The Southeastern Fruit Growers Cooperative held its annual meeting in the Underwood Hotel, Wauwatosa, on Thursday, February 25. Delegates from the various county associations were present, and an excellent meeting of interest to all was held.

The financial statement presented to the members showed the organization in excellent condition. The statement of conditions showed an accumulated surplus of over $9,000. Cash receipts from sales for 1942 totaled more than $35,000. As explained by Mr. Lester Tans, Secretary, the excellent financial condition of the organization makes it possible to purchase goods to the best advantage and to have a full quota of nitrogen fertilizer, which of course is very important at this time.

The Co-op has on hand such important materials as Elgetol and Stanolind.

The Program

Mr. J. Duain Moore of the Plant Pathology Department, Wisconsin College of Agriculture, gave a very important talk on the subject of scab control and the use of ground spray with Elgetol. This is used at the rate of one-half gallon of Elgetol to 100 gallons of water, and is sprayed on the ground at the rate of 600 gallons per acre to destroy the ascospores in the overwintering leaves. This spray of Elgetol has reduced the supply of ascospores by about 99% in sprayed areas.

Mr. Moore explained that further experiments are necessary to determine the place of the ground spray in the control of apple scab, but that many Wisconsin growers are now using the ground spray with excellent results and others may wish to try it, especially in situations where the grower has had difficulty in controlling scab satisfactorily with the regular sprays.

H. J. Rahmlow, Secretary of the Wisconsin Horticultural Society, discussed apple maggot control, aphis control, and what to do about rabbits and mice in the orchard. He stated that the Horticultural Society will send to interested growers the chemicals for making traps to attract apple maggot flies for the price of 50c. A half dozen growers signed up to run bait traps this summer. We hope that growers all over the state will run traps to determine when the apple maggot flies appear in Wisconsin orchards, which will give us a much better indication of the time to spray for this very dangerous pest.

Officers of the Southeasstern Fruit Growers Co-operative for 1943 are as follows:

President, Martin Wiepking, Cedarburg; Vice-Pres., Charles Patterson, Franksville; Secretary-Treasurer, Lester F. Tans, Waukesha; Directors, Elroy Honadel, Hales Corners, and Louis Gundrum, Hartford.

IN POTASH

THE United States is now self-sufficient in potash, the plant food for which there is no substitute in other fertilizers, it was reported by the president of the American Potash Institute, Washington. In the World War potash went to $500 a ton. It has been imported largely from Germany. Today it is all-American and selling for $25 a ton. The 1942 requirements, moreover, are estimated at 580,000 tons compared with 250,000 in 1914.

—*N. Y. Herald-Tribune.*

BORON STOPS ROOT CRACKING IN THE WEST

THE Oregon Experiment Station has found that Boron controls such troubles as celery stem crack, beet canker, and yellow top of alfalfa. Recently experiments indicate that Boron applied to soils deficient in this element has an effect on controlling the cracking of cherries and prunes in rainy weather. It was found that Boron has an effect on the elasticity of plant tissues.

In some sections of the country it has been found that Boron may prevent internal cork of apples. We are fortunate indeed that scientists are able to find the cause and cure for so many otherwise difficult problems.

HARDY UNDERSTOCKS FOR TOP WORKING

These northern grown trees are 3 years old, well headed, and extra well branched for top working. Ready for shipment now or in early Spring, if preferred.

Write us how many of these fine trees you want and we will promptly quote our lowest prices.

Mount Arbor Nurseries
E. S. Welch, President
Shenandoah, Iowa

One of America's Foremost Wholesale Nurseries Since 1875

GARDEN FOR VICTORY
Grow Your Own Fruit

New Minnesota Apples
Raspberries, Grapes, Plums
Pears, Apricots, Strawberries
Windbreak and Woodlot Trees

Special Prices—Catalog Free

SWEDBERG NURSERY
Battle Lake, Minnesota

Small Fruit and Vegetables

FOR STRAWBERRY GROWERS

ANY soil that makes good yields of garden or field crops will produce strawberries in abundance, whether that soil is a light sandy loam or a heavy clay. Here are some pointers.

1. In rolling country a sloping field gives better air drainage and less injurious frosts.
2. Run the berry rows across a steeply sloping field rather than up and down to help prevent erosion.
3. Following a hoed crop makes less weeds and grass to contend with in the strawberries.
4. Avoid sod land that may harbor grub worms which cut or injure your plants.
5. Change the place of the strawberry bed every few years. It will help keep up the vigor and growth and reduce the danger of a build up of disease and insect trouble.
6. A rank growth of weeds and grass on a vancant lot, garden plot or unused field indicates soil fertile enough to grow good crops of strawberries.
7. Most important of all, select land that holds moisture well because (a) it is naturally springy (b) it has a low water table (c) irrigation is available or (d) because lots of organic matter in the form of animal manures or green crops has been incorporated in the soil.

When Should Plants Be Set?

EARLY! EARLY! EARLY!

The most important single thing in growing strawberries successfully is to set the plants EARLY. With no other crop that you grow is early spring so ALL IMPORTANT.

A good stand and growth are easy if plants are set early so they can become established while the soil is still cool and moist. With late setting good results are very unlikely unless soil and moistture conditions are entirely favorable.

REMEMBER if you want a bumper crop of berries in 1944 set plants this spring! Do not delay until too late! Fall setting (even if plants live) will mean little or no crop until the season of 1945.

—From Allen's Book of Berries for 1943.

BERRY CROP WILL DECREASE THIS YEAR

Bush fruits and strawberries will decrease in acreage this year. Prof. R. L. Adams of the University of California College of Agriculture, states that the decline in the berry crop in California is the result of high labor requirements, evacuation of the Japanese, and the fear that berries will be considered a nonessential crop. He states: "Shortage of labor is the principal cause. The little labor that was available was inefficient, not dependable, and demanded excessive pay. Growers are fearful that berries will be considered less essential farm products and, if so, what can they expect in the way of containers and fertilizers? Briefly, growers don't know where they stand and consequently are not inclined to take the risk of planting berries."

HOW TO SPACE GARDEN PEAS

One inch apart in the row seems to be the best spacing for the seeds of garden peas. Russell E. Larson of the Rhode Island Experiment Station has reported in the Market Growers Journal that the early yields of all eight varieties which he tested in rows three feet apart increased progressively as the intra-row spacing decreased from eight inches to one inch. No increase occurred at less than one inch spacing. Also, the highest total yields were obtained at one-inch spacing.

Mr. Larson's tests brought out the interesting fact that as the seeds of all varieties are not of the same size, the same weight of seed peas of different kinds will plant different lengths of row. This is important when large quantities are being sown.

—From January 15 Horticulture.

HANDLING TOMATO PLANTS

Plenty of Space While Young Increases Yields

In tests with tomatoes at the West Virginia agricultural experiment station, K. C. Westover found that plants which were spaced four inches apart at their first transplanting gave significantly greater yields than those which were given half that interval while young. This held true for both flat- and pot-grown plants. Also, due to less transplanting disturbance the plants started in pots showed a general tendency to outyield those which had been pricked off in flats. Mr. Westover's results also indicated that pinching or topping reduced early yield. However, the topping treatment may be practical as an emergency measure in holding young plants for setting late in the season.

—From January 15 Horticulture.

FOUR POTATO VARIETIES "COOK WHITE"

TO the elite list of potato varieties that tend to "cook white" instead of blackening may be added Sebago and Pontiac. Those which made good on this score in the past are Chippewa and Triumph.

Sebago is a recent U. S. Dept. of Agriculture introduction, a white-skinned variety which resembles Chippewa but is later. Pontiac is a relatively new, red-skinned, late Michigan variety intended to meet the needs of muck soil farmers.

Since the parents of Sebago and Pontiac-Chippewa, Katahdin and

Triumph—all have favorable cooking records, apparently the tendency to cook white is an inherited trait. This indicates that whatever obstacles beset Wisconsin's program of breeding improved varieties, the problem of obtaining good cooking quality should not be too difficult.

Meantime growers who have had trouble with blackening after cooking, and who want to avoid it in the future, will be wise to plant other varieties than Rurals. Rural New Yorker and Russet Rural blacken about twice as much as Triumph and Chippewa.

For its cooking tests this Station has grown potatoes in nine Wisconsin counties representing a variety of soil types and climatic conditions. Nine different varieties now have been tested for five years and others for three or four.

On the basis of a "blackening index" in which O means perfectly white and 100 means dark gray, the varieties tested for five years rank as follows: Triumph, 20; Chippewa, 21; Houma, 27; Katahdin, 29; Red Warba, 30; Irish Cobbler, 37; Green Mountain, 38; Rural New Yorker, 45; Russet Rural, 49.

This study was conducted by Gus Rieman, W. E. Tottingham, J. S. McFarlane, C. O. Clagett and R. MacVicar.

(Works Projects Administration assistance.)

—*From Wisconsin Bulletin* 455, *What's New in Farm Science.*

OUR FARM VEGETABLE PLAN

On page 190 of this issue is a farm vegetable plan with varieties, planting directions, and planting dates. Be sure to study the plan. It is well worth following because it makes the best use of the land available and provides the best varieties of vegetables for a family of five.

THE BERRY MARKET

Strawberry and Raspberry Plants For Sale

Latham raspberry plants. Beaver and Premier strawberry plants. Well rooted and freshly dug. Guaranteed satisfactory delivery. Relyea Dahlia Gardens. Taylor, Wisconsin.

Strawberry and Raspberry Plants For Sale

Latham, Taylor, Starlight, Sodus, Cumberland raspberry plants. Premier, Dunlap, Catskill and Gem Strawberry plants. Frui trees and ornamental stock. Hall Nursery, Elmwood, Wisconsin.

Strawberry Plants for Sale

Beaver, Premier, Catskill, Dorsett, and Fairfax. Well mulched. Freshly dug and packed in moss. Order early. Mrs. John Jensen, Warren, Wisconsin.

Likes Dresden Strawberry

"We are pleased to say that the Dresden strawberry fruited very satisfactorily last year," writes Allen Troemner of the Quincy Nurseries, Friendship.

"Black walnuts," he writes, soon starve out unless planted on the best of our sands containing some silt or clay. Carpahian walnut winterkills to the snow line every year here at Friendship."

HARDY FRUIT TREES

For Sale: Bearing age. Ready to bear. Why worry about store fruit? Grow your own. Also walnut trees—no better grown—and giant hazelnuts. Bear regularly. Plant a gold mine this spring. **Write Kettler Nursery, Platteville, Wisconsin.**

Here's one that emanates from Camp Blanding, Florida. The vigilant sentry shouts, as usual, "Halt, who goes there?" Back comes the answer: "Shucks, you wouldn't know me—I just got here."

New

SUNRISE Red Raspberry

Originated By

U. S. Dept. of Agr.

Extra Early - Extra Quality

Fruit growers receive extra money for this early, high quality berry. 10 days to 2 weeks earlier than Latham and higher quality.

FREE Catalog of new fruits for your Victory Garden—New Nanking and Korean Cherries—New "Victory" and "Fireside" Apples. New Burgundy Strawberry. (Minnesota No. 1192)

ANDREWS NURSERY

Faribault, Minn.

HOW TRUE

First Flapper: I wouldn't wear a one-piece bathing suit; they're too immodest.

Second: I haven't much of a shape either.

Get extra savings on

Sheboygan

fruit and berry boxes

Whether you need a box approved for interstate shipment by the Federal Food and Drug Administration, or whether you plan to ship locally in old style boxes, you can be safe and save money too, by assembling either type box with the fast-working Neva - Clog stapler. Get everything you need for fruit or truck shipments at Sheboygan—as leading growers have for 63 years.

Write, now, for low prices and free facts on new shipping regulations.

Sheboygan Fruit Box Co.

533 **Sheboygan, Wisconsin**

Wisconsin Beekeeping

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March in the Bee Yard

THERE may be plenty of snow on the ground during this month of March, yet it will be necessary in many cases to start work in the apiary at least by the end of this month.

There is every indication that many colonies will be short of stores this spring. It would be a tragedy indeed this year to allow colonies to starve. Brood rearing has begun. In fact, it began more than a month ago. If colonies had pollen available in the combs, they have been using both honey and pollen to raise brood. Early examination of the colonies to determine if they have enough stores to carry them through until warmer weather is necessary.

Shall We Unpack Early

Nor need we have any fear about unpacking our colonies early to inspect them for stores. It will, in fact, be far better to unpack them than to leave them starve.

Furthermore, Dr. C. L. Farrar of the Central States Bee Laboratory, Madison, found in his work in several northern states that there was a higher ratio between brood and bees in unpacked colonies than in packed colonies. In other words, unpacked colonies had more brood in proportion to the bees than those that were packed. There are probably several reasons for this. One is that if we have a period of warm sunshine during the middle of the day, an unpacked colony will warm up quickly, the cluster will have an opportunity of becoming active, many bees may get a flight, and brood rearing will be increased.

The importance of raising young bees in the spring cannot be overestimated. Young bees are vigorous. They are the best for heavy spring brood rearing. They have more vitality than old bees. Therefore we must do everything possible to increase brood rearing now.

Reasons for Winter Losses

There will no doubt be many colonies which will not come through the winter satisfactorily, or be dead outright this spring.

Dr. Farrar lists the most probable causes for winter losses as follows:

(1) Starvation; (2) Small populations or old bees; (3) Lack of pollen resulting in weak colonies; (4) Nosema disease.

In trying to determine winter losses see if one of these does not fit the case.

How to Increase Brood Rearing

It is, of course, highly important that brood rearing be stimulated as much as possible during the latter part of March and April in order that we may have strong colonies of worker bees by the time of the honey flow in June. Brood rearing can go on at a rapid rate only if there is plenty of honey and pollen in the hive. It has been well established that if the pollen reserves are gone, the bees will stop rearing brood in a short time, even though the queen continues to lay some eggs. In past years it has also been found that colonies had used up their supply of pollen before April 1st. If then, we have bad weather during the blooming period of soft maples, willows, alders, and other plants, we are in serious trouble. Even though the bees can work for a day or two on any of these plants, if we have a week of bad weather following, brood rearing will not be at a maximum.

Feeding Soybean Flour Recommended

It will pay beekeepers therefore to have a supply of soybean flour on hand. If we have a very favorable spring and the bees work continuously on early pollen bearing plants we do not need to feed the soybean flour, but if there is unfavorable weather, which is very likely, we should feed it immediately. In fact, it would be well to feed some soybean flour *a week or two before we expect the first pollen from soft maples.* It will stimulate brood rearing at that time.

It has been proven that soybean flour alone will not stimulate brood rearing as will a mixture of three parts of soybean flour and one part of pollen, but most of us will not have any pollen available to feed. The flour alone will stimulate brood rearing for about two weeks and it should only be fed

during a time when we expect pollen from the fields, using the flour as a supplement.

How to Prepare Soybean Flour for Feeding

Soybean flour made by the expeller or heat process of extraction with a low fat content of 6-7% should be used because it has been shown by the Central States Bee Laboratory to be superior to the other kinds. *Do not use soybean* meal which is coarsely ground and used for feeding cattle. The bees cannot make use of this coarse material.

One source of soybean flour by the expeller process is the Allied Mills, Board of Trade Bldg., Chicago, Illinois. The price per hundred pounds, f.o.b. their Peoria mill, is $4.75.

Feeding it at the rate of one lb. per colony we can readily determine how many pounds we need. However, the Mills do not like to ship less than 100 lbs. It will, of course, keep well in a dry place and can be used in another year. We keep ours in the attic because the cold of winter and the heat of summer prevent the infestation of worms which are likely to get in in a warm place.

To prepare the mixture, pour into a pail a sugar syrup made of 1½ parts of sugar to 1 part of water. Pour into this syrup the soybean flour and stir vigorously. Stop adding flour before the mixture is too thick as it will thicken on standing for a short time. Cakes can be made and wrapped in oiled paper, taken to the bee yard and laid on the frames above the cluster.

Normal colonies should take the flour down within a week. If they do not use it they may be queenless or weak and it will be found that they are not raising brood normally.

Stimulative feeding of sugar syrup outdoors is not desirable. It has little value and too many bees are lost.

BEEKEEPERS MEETING FOX RIVER VALLEY DISTRICT COUNTY COURT HOUSE. OSHKOSH TUESDAY, APRIL 6

PROGRAM

10 a. m. What is A.F.B.? How is it spread? What we Know About Nosema Disease. J. F. Long, Madison.

11 a. m. Plans for 1943 in Disease Control. The Newly Organized National War-Time Beekeepers Council and What It Proposes To Do. James Gwin, Madison.

Discussion on National Organization.

12 M. Luncheon. Payment of State and District Dues.

Conferences.

1:30 p. m. Business meeting.

2 p. m. What Do Our Colonies Look Like Now? How to Build Up For the Honey Flow. Feeding Soybean Flour. How to Use the 3-Hive Body Brood Chamber. H. J. Rahmlow, Madison.

3:30 p. m. How New Government Regulations Effect the Beekeeper. How to Figure Price Ceilings on Retail Packages. The Container Situation. Walter Diehnelt, Menomonee Falls, President State Beekeepers Association.

HOW TO DO QUICK SPRING FEEDING

THE quickest method of feeding bees that are short of stores is to use the sprinkling can method. It will require only one trip to the bee yard, thereby saving the use of truck and gasoline, and much labor.

Make a sugar syrup of about 1½ to 2 parts of sugar to one of water. Keep the syrup hot, at a temperature of about 110 degrees F., but not so hot as to soften the comb. Take it to the yard in cans, then pour the syrup into a sprinkling can, the holes of which can be enlarged with small nails so the syrup will squirt out.

Set a wash boiler next to a hive and then spray the syrup into an empty comb by holding it over the wash boiler to catch the overflow. By holding the sprinkling can at least 18 inches above the comb, the syrup will enter the cells.

When the frame is full exchange it quickly with an empty comb in the brood chamber. Fill as many frames as are needed, and close the hive.

On days when there is danger of robbing we have fed successfully by simply holding a frame from the brood chamber over the brood nest and spraying it full of syrup.

MANITOWOC COUNTY BEEKEEPERS TO MEET AT REEDSVILLE, WEDNESDAY AFTERNOON, APRIL 7

The Manitowoc County Beekeepers Association will hold a spring meeting in the village of Reedsville on Wednesday afternoon, April 7th, beginning at 1:30 p. m.

The speaker will be H. J. Rahmlow, Madison, Secretary of the Wisconsin Horticultural Society who will talk on how Nosema disease effects the beekeeper; how to feed soybean flour; building up strong colonies; and the price ceiling situation.

All beekeepers are invited to attend.

For Sale

50 colonies of bees in 10-frame standard hives with supers with drawn combs. Inspected last fall. Josef Legner, Knowlton, Wisconsin.

Auction Sale of Bees

About 75 colonies of bees in standard, 10-frame hives, most all with brood chambers. 100 comb honey supers, 10-frame.

Sales starts 1 p. m., Wednesday, April 7th, 1943. 1 block from Orfordville School. M. E. Onsgard, Orfordville, Wisconsin.

BEEKEEPERS WITH 300 COLONIES MAY BE EXEMPT FROM MILITARY SERVICE

The Selective Service System has recently decided that the basis for deferment from military service for beekeepers is 300 colonies.

Twenty-five colonies are considered equivalent to one dairy cow, and 12 dairy cows are necessary for full-time deferment of one person doing all the work himself.

Thus beekeeping is classed with dairying, livestock, and poultry farming in the matter of protection of labor. This measure was adopted to maintain bees for the pollination of the many important seed and fruit crops and to encourage the production of beeswax and honey.

Of course a beekeeper with other farm crops or cattle and fewer colonies may still be exempt if he has enough points to meet the requirements.

HOW POLLEN INCREASES BROOD REARING

Feeding experiments with pollen added to sugar sirup suggest that there are two phases of pollen feeding. Egg laying is stimulated by pollen in the liquid food supplied the queen by the worker bees, and brood rearing is dependent on the pollen reserve in the form of bee bread. Egg laying, however, seems to be the reaction to pollen eaten, not by the queen, but by the workers, since the stomach of a queen contains few or no pollen grains. Her nitrogenous food is obtained from the worker bee as a secretion, but its gland source remains a mystery.

Correlation of the fat content of pollen with bee activity indicates that the higher egg-laying levels are reached when bees are working plants having pollen high in fat content, such as mustard and dandelion.

—*From Report of the Chief of the U. S. Bureau of Entomology and Plant Quarantine.*

NEW WORK MAY PRODUCE QUEENS USEFUL OVER LONGER PERIOD

Approximately 7 million sperms have been introduced into the spermatheca of a queen bee by artificial insemination, which is about 1 million in excess of the number in naturally mated queens. Since mature drones contain about 10 million sperms, once the technique has been perfected it may be possible through artificial insemination to have queens head colonies for a longer period than when they mate naturally.

—*From Report of the Chief of the U. S. Bureau of Entomology and Plant Quarantine.*

SOYBEAN FLOUR AVAILABLE FOR FEEDING BEES

A letter from Allied Mills, Inc., Board of Trade Building, Chicago, states: "We have the soybean flour made by the expeller process. The base price at the moment (January 25) is $4.75 per hundred pounds, f.o.b. our Peoria, Illinois mill."

The company also states that it is practically impossible for them to make shipments of the flour in quantities less than 100 lbs.

WHERE HAS ALL THAT HONEY GONE

Do you remember just about a year or a little more ago we were talking about that big surplus of honey in the United States and wondering how we could get rid of it? And now in the January semi-monthly government market report this statement appears frequently: "Honey is so scarce that it is disappearing from local stores," and here it is only the middle of the year.

The problem then, it would seem, is one of increasing the use of honey when sugar again becomes available. Can we do it?

NOSEMA DISEASE SERIOUS

Nosema disease may be more responsible than heretofore indicated for loss of queens, poor brood production and unfavorable wintering. Several queens that had stopped laying were found to be heavily infected with Nosema apis. Examination of a number of overwintered colonies showed this organism present in 15 percent of them. The infected colonies survived in poor condition.

—*From Report of the Chief of the U. S. Bureau of Entomology and Plant Quarantine.*

A.F.B. INFECTIONS DEPENDS ON AGE OF LARVAE

Inoculation of individual larvae 1 day old or younger with spores of the causative organism of American foulbrood resulted in the infection of about 41 percent of those sealed, but less than 5 percent of those inoculated in the second day of larval life showed infection. Worker bees removed before time for sealing, about 32 percent of the larvae inoculated on the first day of larval life, 4 percent of those inoculated on the second day, and 3 percent of those inoculated on the third and fourth days. One spore is apparently sufficient to cause infection, although consistent infection of all larvae was not produced even by larger inoculations. Infection depends on the age of the larvae, rather than on the number of spores or on resistance in the larvae, for brood from resistant colonies became infected as readily as that from suceptible colonies. The studies continue to show, even more conclusively than in the past, that resistance to American foulbrood is not a physiological characteristic but a matter of the behavior of the adult bees.

—*From the Report of the Chief of the U. S. Bureau of Entomology and Plant Quarantine.*

Everybody loves to find fault; it gives a feeling of superiority.

BEES ARE SUBJECT OF NATIONAL BROADCAST

THE United States Department of Agriculture in its radio broadcast, "Farm Flashes," presented an article entitled "Bees Essential War 'Crop'."

The following are a few of the statements appearing in this broadcast.

"If you know how to handle bees, take bees into account in figuring the essential war 'crops' you can raise toward our 1943 goals.

"As you know, beeswax is being put to important military uses—and the honey supplements limited supplies of sugar. But bees have a still bigger and more important war job; that is, to pollinate legumes, and certain vegetable crops to help insure a good set of seed.

"The U. S. Department of Agriculture points out that goals call for 315 million pounds of alfalfa, red clover, sweet clover, and alsike seed this year. This seed is needed to plant increased acreages of these legumes to take care of larger numbers of livestock, and to make up for the shortage of nitrogen fertilizer. We also need legume seed to help farmers in other United Nations hit by the war to get back on their feed. As you know, most of those important legumes require pollination by bees and other insects, and studies have shown that the greater part of such pollination is done by honey bees.

"And then we need thousands of pounds of vegetable seeds, both for use at home and for our Allies. Some of the vegetables (including cabbage and all members of the cabbage family) require insect pollination.

"Then, of course, the bees pollinate orchard crops.

"Now, it isn't enough to plant the legume, vegetable, and other crops that require pollination—and cultivate and spray them—and trust that bees will fly in and take care of the rest. In fact, the poor yields of legume seed last summer were partly due to a shortage of bees."

FATHER'S BEES

When I see the Clover blossoms
Haunted by the roving bees,
They 'waken memories of a homestead
Far away among the trees.
I can see the grove and orchard,
But far dearer still than these,
Is the memory of my father
Working there among his bees.
He would linger near for hours,
As they flitted to and fro
Gathering honey from the flowers
In the days of long ago.
In the bright and glorious spring time
When the days are fair and warm,
He would wander yon and hither,
Watching for the bees to swarm.
But I nevermore shall see him
'Mong the bees there on the farm,
And those dear old hills and valleys
Now for me have lost their charm.

—Dedicated to Dr. W. E. Rice, Delavan, by his mother.

DYSENTERY IN CELLAR WINTERED BEES

COLONIES suffering from dysentery have been found heavily infected with Nosema spores by the North Central States Bee Culture Laboratory. There is considerable evidence that Nosema disease is the primary cause of dysentery. The laboratory would like to receive samples of 10 to 20 bees for examination, particularly from cellar-wintered colonies suffering from dysentery. Samples may be placed in old queen cages, small capsule boxes, or even envelopes if the latter are placed loosely in a larger box for mailing. Each sample should be identified and a description of the colony conditions given. Beekeepers who cooperate by sending bees whether wintered in the cellar or outdoors will receive a report from the laboratory. Mail samples to Dr. C. L. Farrar, 6 King Hall, University of Wisconsin, Madison, Wisconsin.

Uncapping Can

For sale. Root uncapping can, like new. Large enough for one day's extracting. Has faucet and is complete in every way. Price reasonable. Leonard A. Otto, Forest Junction, Wisconsin.

HONEY WANTED

Cash paid for cars and less than cars comb and extracted honey. Mail sample and best price. C. W. Aeppler Company, Oconomowoc, Wisconsin.

NOTICE

After the present supply is gone there will be no more 5 or 10 lb. tin honey pails available.

We will have 100% of the 1942 supply of 60 lb. cans.

We can supply your 5 lb. glass jars as in the past.

Write for complete price list.

Order Through Your State Beekeepers Association.

HONEY ACRES
Menomonee Falls, Wis.

BUY LOTZ SECTIONS and Solve Your Packaging Problems

1943 is a year of problems for the Beekeeper. Sugar rationing has created a demand for honey.

Conservation Order M-81 issued by the War Production Board has banned the manufacture of tin containers less than 5 gallon size and limited the manufacture of caps for glass containers.

Produce comb honey. It furnishes its own container.

Lotz sections will give your comb honey a boost. They will save you valuable time because they will not break when being folded. Less breakage means lower cost. And too, the smooth white appearance of the surrounding section adds sales appeal.

AUGUST LOTZ COMPANY
BOYD, WISCONSIN

Editorials

YOUR SUPPORT APPRECIATED

Copies of many letters and resolutions to the governor and members of the legislature have reached the office of the Wisconsin Horticultural Society, written by officers and members of affiliated organizations supporting the work of the Society.

We have been surprised and are greatly appreciative of the generous support given.

DONALD NELSON SETS FARM SCRAP GOAL 3 MILLION TONS BY JULY

BIG figures don't mean much—because nobody ever saw 3,000,000 tons of scrap piled up in one place. But think of it this way:

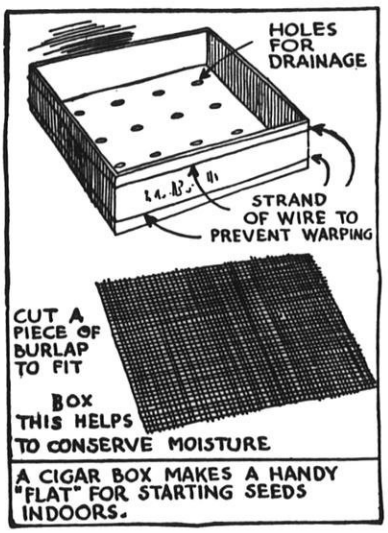
You and every other farmer in the United States must turn in 1,000 pounds of scrap metal to reach this goal. And it must be reached—because if you fail, there simply won't be enough steel to make the weapons our boys need to win the war.

Here's How to Turn in Your Scrap

First pile up every piece of scrap iron and steel on your place.

Next sell it to a junk dealer. If you can't find one who will come and get it, call your County Agent, or your implement dealer, or your nearest newspaper, or your Local Scrap Committee. And by all means donate your scrap free if you want.

FREE—Send for these booklets, "Scrap and How to Collect It," and "National Scrap Harvest." Write to: Farm Press Scrap Committee, Room 3303, Empire State Bldg., New York City.



A CIGAR BOX MAKES A HANDY "FLAT" FOR STARTING SEEDS INDOORS.

SPECIAL CIRCULAR ON FARM VEGETABLE GARDENS AVAILABLE

A special circular entitled *"More Vegetables in 1943. A plan for an adequate home produced vegetable supply,"* is the title of a new bulletin just published by the Wisconsin College of Agriculture, prepared by the Hortciulture Department, and is available to all who wish to plant a farm vegetable garden.

A supply of the bulletins has been sent to each county agent. Send for your copy there, or call for one.

We urge all gardeners to follow the plan in this bulletin. It makes the best possible use of the land available. It suggests the most reliable varieties and gives planting instructions. Now is the time to strive for efficiency and the bulletin will help us be more efficient.

This bulletin is designed especially for the farm garden. Plans for the city vegetable garden are also available from the county agent. Two of these will be found in this issue.

CRATH CARPATHIAN ENGLISH WALNUTS DO WELL IN CLARKSTON, WASH.

A letter from Mr. R. E. Clouse, Route 2, Clarkston, Washington, states that he has 20 English walnut trees that he grew from seed we sent him of the Crath Carpathian English walnuts in 1937. The trees are growing very rapidly and Mr. Clouse is planning to increase his plantings from seed of his own growing.

One tree, the seed of which was planted in 1937, is now 26 feet tall, and 6 inches through at the base, writes Mr. Clouse. Evidently the climate in this section is mild and there is no winter injury to the catkin buds.

THE BUSY BEE

In a vegetable-seed-producing area in California pollen traps placed on 6 colonies for a 10-day period yielded 33 pounds of pollen. The bees visited approximately 88 million blossoms to obtain this pollen. A plot of alsike clover screened from bees yielded no seed, while 100 unscreened heads yielded 4,437 plump seeds. A single colony in Arizona yielded nearly 10 pounds of alfalfa pollen, which required the visitation of 35 million alfalfa blossoms by pollen-collecting bees.

—*From Report of the Chief of the Bureau of Entomology and Plant Quarantine, 1942.*

NOSE FOR BUSINESS

Householder: "No, we have no junk and no scrap. My wife's away and the house is cleaned out."

Junkman: "Any old bottles, maybe?"

WICKARD MOVES TO INCREASE PRODUCTION OF POTATOES, DRY BEANS AND FRESH TRUCK CROPS

Increased goals for three vitally important war-time food crops—potatoes, dry beans and fresh truck crops—and a production payment program designed to encourage the increases were announced today. Secretary Wickard asked for an additional increase of 100,000 acres in potatoes, which increases the potato goal from 3,160,000 to 3,260,000 for 1943. In addition to supporting prices at not less than 90 percent of parity, the new program also offers farmers a payment of 50 cents a bushel on the normal yield of the acreage planted to potatoes in excess of 90 percent of the individual farm goal, up to 110 percent of the goal. The program will be effective on acreage planted after Feb. 1. (1374-43)

WISCONSIN NURSERYMEN REELECT OFFICERS

The Wisconsin Nurserymen's Association holding its 26th annual meeting in the Schroeder Hotel, Milwaukee, February 11-12 reelected the following officers:

President, Walter Remond, Milwaukee; Vice-President, H. W. Riggert, Fort Atkinson; Secretary-Treasurer, Thomas Pinney, Sturgeon Bay.

There was one change in the personnel of the Board of Directors with the election of R. Pippert of Cleveland, Wisconsin. Other directors are T. A. Singer, Milwaukee; E. M. Erickson, Janesville; James Livingstone, Milwaukee; and C. W. Albright, Superior.

There was a good attendance and an excellent program was presented.

History records no greater flop than the attempt to interest the human race in work.—*Foxtail Johnson in The Prairie Farmer.*

Garden Gleanings

THOUSANDS of Wisconsin families will have Victory Vegetable Gardens this year who have not had them before. Those are the indications from the meetings at which I have spoken this spring. It has been encouraging to find so many members keenly interested in growing vegetables and in planning a Victory garden.

In this issue will be found a plan for a large Victory Vegetable garden prepared by Prof. J. G. Moore. We recommend it to your use. It is ideally adapted to Wisconsin conditions and makes excellent use of the land available by a carefully selected succession of crops.

Attendance at all horticultural meetings, whether fruit growers, garden clubs, or beekeepers, has been exceptionally good this year. In fact, better than in some years past. That indicates our folks are anxious to help in the war effort by producing more food and that they are looking for information.

How to improve the soil for growing vegetables is one topic in which there is much interest this spring. The question is frequently asked, "Why are my carrots so rough and crooked?" The answer is, the soil is too hard for root crops to grow straight. The way to overcome it is to add more humus either in the form of manure, peat moss or compost. The roots of plants cannot develop well in a hard soil and as a result the entire plant does not do its best. Humus is more difficult to obtain, especially in cities, than is commercial fertilizer, yet it is very essential. More of us should plan a compost pit into which we can place dead leaves, lawn clippings and the tops of plants. This organic material should be covered with a layer of soil and allowed to decompose for at least a year and can then be dug into the soil as humus.

However, we must not neglect to give our soils sufficient phosphorus and potash so that a shortage of these elements will not decrease yields. The best way is to have our soils tested. The tests will indicate how much of these elements we should add. That is the scientific way. In the case of small vegetable gardens, fertilizers should be broadcast and dug into the soil in sufficient quantity to give the entire garden a high enough level of phosphorus and potash so that plants will grow anywhere at their best.

A question often asked is whether vegetables in the same family such as pumpkins, squash and mellons will mix if planted next to each other. Yes, crop pollination takes place between vegtables in the same family, but it *affects only the seeds.* The edible portion of the squash or melons is not affected in the least. However, if such seeds are planted hybrid plants will be produced, and then the vegetables will be mixtures.

H. J. Rahmlow

All-America Vegetable Selections

Because of the interest in them for victory gardens, the All-America selections in vegetables should be noted. The blue ribbon introduction is **Cucumber Marketer,** receiving a bronze medal, raised and entered by Associated Seed Growers, Inc., New Haven, Conn. **Potomac pole snap bean** won a bronze medal for the same firm.

Tomato Jubilee, winning a bronze medal, is described as a Rutgers with tangerine-orange flesh and a yellow skin; it was raised and entered by W. Atlee Burpee Co., Philadelphia, Pa.

Pepper Early Pimento, also winner of a bronze medal for that firm, is earlier than Perfection, narrower across the choulder, more elongated, thinner-walled and smaller but cone-shaped.

Cangreen bush lima bean, a green-seeded Henderson type, won honorable mention, raised and entered by F. H. Woodruff & Sons, Milford, Conn.

—Condensed from November 1 American Nurseryman.

Gladiolus Tidings

By the WISCONSIN GLADIOLUS SOCIETY

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Gladiolus Troubles

2-YELLOWS

By NOEL F. THOMPSON

YELLOWS is probably the most serious fungus disease of glads. It is caused by a species of *Fusarium*. The characteristic sympton in the field is a yellowing and dying back of the leaves. The yellowing begins at the tips of the leaves and extends downward, frequently involving the entire plant. These symptoms may appear in July and become most noticeable in August. High soil temperatures favor the disease, and it will be most evident in hot, dry seasons.

Symptoms

Symptoms in the corms are variable. The corm may be completely rotted, but frequently a few decayed roots are the only external evidence of the disease. If, however, the corm is cut in half, a brown discoloration of the core may be seen, and in advanced cases the bundles are dark and decay may develop on the surface of the corm around the ends of the bundles. Pockets of dry rot are also frequently found within the corm.

In cleaning the corms there may be difficulty in separating the old corm from the new and a deep hollow may occur in the latter. Sometimes this extends clear through the new corm. All such corms should be burned.

Experimental plantings indicate that diseased corms are practically worthless. As few as 5% of such corms have grown in some experiments, even though external symptoms of the disease on the corms were not noticeable.

Such being the case, it is advisable to rogue any visably infected plants in the field, since roguing is much easier there than in storage. Lots with a high percentage of infection should be discarded entirely. It has also been noted that a slight infection may practically inhibit cormel formation. So, in digging infected lots, the absence of cormels may be used as a criterion and such plants discarded.

This disease is largely internal and no dips or sprays have been effective in combating it. Moreover, the fungus is capable of living for years in the soil even in the absence of the host plant, so once a plot of soil becomes generally infected, susceptible varieties of glads planted there will be sure to develop the disease. A short rotation of a few years is not sufficient to eliminate this fungus. Commercial growers will have to find clean soil for their plantings; the home gardener, however, may need to resort to resistant varieties.

Resistance

As with other plants affected with different species of Fusarium, there seems to be considerable difference in the susceptibility of gladiolus varieties. There also appear to be different strains of the fungus which affect different varieties differently. For instance, two investigators reported Picardy as resistant, whereas, more recently, two other investigators have reported it as susceptible. If one must grow glads on sick soil, only the resistant varieties should be used. These may be selected from published lists or by the trial and error method, i.e., plant what you please but discard all varieties that show more than a trace of yellows.

It would be desirable for hybridizers to test all their new varieties in sick soil and introduce only those with a high degree of resistance.

MIDWEST GLADILOUS SHOW TO BE HELD IN CHICAGO

The officers of the Midwest Gladiolus Show have decided to hold the 1943 exposition in Garfield Park Conservatory, Chicago, on Saturday and Sunday, August 14-15.

Chicago was selected so that exhibitors might bring their flowers by train and in most cases they can arrive without changing trains.

The Midwest is composed of gladiolus societies in Michigan, Minnesota, Iowa, Wisconsin, Illinois, Indiana, and Ohio.

What is a Commercial Gladiolus?

Walter C. Krueger

THE word "commercial" as applied in gladiolus literature to various varieties of gladiolus is used so frequently that many an interested glad fan has lost track of its meaning in the strictest sense of the term. To some the word means a variety that is grown by catalogers. To others the term means a color in a specific gladiolus that a florist would use. To others the term would suggest a variety that is sold to the public at roadside stands or floral shops. Actually the term may or may not include any or all of the aspects referred to in the three illustrations, for there is missing in all of them the implication of acreage planting and all that goes with large scale planting, and missing also is the distance shipping factor.

To develop the theme of this title would require at least a book length discussion. However, the definition may be suggested simply by enumerating the characteristics that a gladiolus must "pass" if it can be truly called a commercial, without making an illustration or series of illustrations in order to be convincing, or illustrative.

Some of these characteristics are requisite, that is to say a variety must have these in a very high degree, others may be present in varying degree, but in slightly a lesser degree. Here are the requisites and relatives:

Ability to:

(1) Open its florets after being cut in tight bud.
(2) Open its florets after being cut and out of water for 24 hours.
(3) Open every bud after being placed in water under the conditions imposed in either one or two.
(4) Maintain an erect stem dur- this blooming out process.
(5) Grow a salable flowerhead without irrigation.
(6) Grow a tall cutting spike without irrigation.
(7) Bloom a salable spike from all sizes of bulb.
(8) Bloom properly in prolonged rainy weather.
(9) Stand upright in wind and rain.
(10) A floret attachment that allows of handling without breaking off the buds.
(11) A floret size and substance that allows of piling bunched dozens without breaking petals or scuffing the color.
(12) A floret color that looks well in the finished piece.
(13) A floret color that does not bleach, break, or fade out.
(14) A copious producer of bulblets.
(15) Easy germinator of its bulblets.
(16) One or two eyes per bulb, each of which is capable of producing a salable spike.
(17) One hundred per cent producer of salable spikes.
(18) Reliability of floret placement.
(19) Scab resistant.
(20) Fusarium resistant.
(21) Rot resistant.
(22) No storage sprouts.

Try the suggested test on a few of your varieties this summer. You will learn to appreciate more those few gladiolus that achieve the honor of a commercial rating in the strictest meaning of the word "commercial".

FLOWER GARDEN COMPLETE
(5 Varieties)
and
Garden Guide and Seed Catalog
All for 10 Cents
WINNEBAGO SEED CO.
P. O. Box 185
Fond du Lac, Wis.

ALL-AMERICA SELECTIONS

Petunia America All-Double, winner of a silver medal, is the first all-double petunia to be produced in America. It is of medium size, carnation-flowered and mauve-pink in color, somewhat a reminder of the color of Gladiolus America. It is a hybrida nana, an abundant bloomer from early summer to frosts and useful for bedding and cutting. Entered by W. Atlee Burpee Co., Philadelphia, Pa.

Marigold Sunkist, winner of a silver medal, developed as an orange-colored sport from last year's winner, Butterball. It is a dwarf, compact, early, continuous-blooming, dwarf double French Harmony type. It is six to twelve inches tall, and the many attractive flowers are up to one and one-half inches across. It will be good for bedding, edging and pot culture. Raised and entered by Bodger Seeds, Ltd., El Monte, Cal.

Petunia Igloo, winner of a bronze medal, is just about the most uniform, reckless-blooming, white, hybrida nana compacta so far developed. Plants are true, uniform and ocmpact growing, from 12 to 15 inches tall. The small, 1½-inch single flowers, creamy white with yellowish throats, cover the plants in a sheet of bloom from early to late in the season. Excellent and showy, though not a pure white, for bed or border. Raised and entered by Joseph Harris Co., Rochester, N. Y.

Petunia English Violet, receiving honoroble mention, is a rosy mauve-violet or purple-violet, medium-size hybrida nana variety, bringing a distinct new color to this class.

Cosmos Giant Sensation Dazzler, receiving honorable mention, is a rich, deep amaranth crimson producing 3 to 4-inch flowers on plants from 3 to 4 feet tall.

Aster Victory Giants Mixed, receiving honorable mention, is an extra-early Giants of California type, with a French background. It has strong, straight cutting stems on sturdy, branching plants up to three feet tall.

Aster Extra Early Giant Crego Navy Blue, receiving honorable mention, is the first of a new race of large-flowered early asters.

Free Price List on Request of,
Ornamental Evergreens
Deciduous Shade Trees
Wild Perennial Flowers and Ferns
C. WILSON'S NURSERY
Pembine, Wisconsin

Home and Garden

MRS. C. E. STRONG

This morning, in the garden, I beheld
A fig tree that but little time ago
Had fearsomely cast down its leaves. Impelled
To life anew, and with abounding show
Of faith in a returning spring,
It had put forth its buds, and now
Had led the season's burgeoning
With fluid life awake in every bough.

November saw the old dress cast away;
Now February sees the new robes making—
A little sleep between, and lo—the gay
Urge of the spring; life's new awakening.
And I, depressed too oft with winter's gray.
A lesson find herein, to drive my care away.

—*Bert L. Robinson.*

Spring Gardening

February—and it is spring in California. The rains have gone down deep; the soil is in good working condition. Everyone seems to be answering the call for the growing of more food in home gardens. the call is insistent—imperative—there is a need. Garden clubs, newspapers, individuals stress this need. One of the newspapers is offering very substantial prizes. They are a spur to many people in this vicinity.

A $1,000 War Bond Prize

The Los Angeles Examiner ofers a first prize of a $1,000 war bond in their Victory Garden Contest. Some of the rules for this contest which includes a total of 52 prizes of war bonds, are: the garden must be not less than 200 square feet in area, and at least 6 kinds of table vegetables must be grown. Judging will be done on neatness, straightness of rows, spacing of crops, freedom from pests, balance of vegetables, utilization of land, quality, weed control, and thinning.

We find an article by the chairman of the Defense Council praising the newspaper for carrying on the contest, and telling of the serious need for victory gardens. Some of the slogans of the contest are:.

"Vegetables for Victory," "Solve the Farm Labor Shortage with Victory Gardens," "Defeat Food Shortages By Growing Edibles Right in Your Own Backyard."

This garden contest has a number of very good points. It specifies sizes, and urges variety of crop, urges care in the planting, neatness, straightness of rows, weeding, and taking care of buds, aphids, so that even if you do not win the one thousand dollar prize, you will have a crop of vegetables that will repay you for time and effort.

THE AWAKENING

God walked within my garden,
When brilliant poppies bloomed
against the April sky;
And then His gentle hand touched
Phlox and mignonette
as He passed by.
Then soon all flowers felt
His presence from the sod,
As sleeping buds burst into bloom;
And gave their thanks to God.

—MARION F. HAUGSETH,
Hayward.

Need Children's Gardens

Of course I expect the whole family will work in these gardens, but I wish there could have been a children's garden contest also. Am still of the opinion that all children be given a chance to learn gardening so they may come back to it later in life. There is nothing like a garden—fruit, vegetable, or flower, or a combination of all three to smooth out kinks of a tired brain, or an unhappy heart. Of course children's gardens need careful supervision, and only those persons who have a real knowledge of gardening, who are understanding and patient with children should take these positions. I should like to see gardening be given a place in the Public School. Small folks love a garden.

California spring gardening is much the same as our own. You plant in your garden the vegetables you like best, and will use every day. Anyway, plant a garden first, because it is your duty if there is ground you may use; second, because the exercise and the vegetables will be very good for you; and third, if you have never had a garden and wondered "why" some vegetables cost more than you expected, you will have a very excellent opportunity of finding out.

Flower Garden Complete (5 varieties) and Garden Guide and Seed Catalog, All for 10 cents. Winnebago Seed Co., P. O. Box 185, Fond du Lac, Wisconsin.

The Horse Chestnut

A LARGE horse-chestnut (aesculus Hippocastanum L.) in full bloom in late April or early May is the most striking of flowering trees. The innumerable pyramids of white flowers, held erect at the tips of the upturned branches, light up the large, rich green leaves like so many candles.

A mature horse-chestnut has a spread of some 40 to 50 feet and attains a height of 60 feet or more. Because of its large size it is a good subject for park and estate planting. Some trees have a single trunk, but more often several large, slightly spreading limbs develop near the base. By midsummer the fruits (sort of spiny burs) are fully grown, but they are not ripe until October when they fall to the ground or are brought down by the squirrels. The seeds are large, measuring about 1½ inches across.

Flower of Horse Chestnut

Fruit of Horse Chestnut

Early History

The horse-chestnut probably comes from Greece. The first known trees were cultivated in Constantinople, and from there they were sent to the various European countries in the last half of the sixteenth century. Matthiolus, in his "Compendium de Plantis," published in Venice in 1571, described the origin of the name "horse-chestnut" as follows: "The inhabitants of Constantinople call these chestnuts horse chestnuts, because they, when eaten, bring much relief to panting or coughing horses." In 1597, John Gerarde, in his "Herball or Generall Historie of Plantes," gives a similar description for the origin of the name: "called in England horse chestnuts; for the people of Eastern countries do with the fruit thereof cure their horses of the cough, shortness of breath, and such like diseases."

Parkinson in his "Paradisi in Sole Paradisus Terrestris," 1629, states that he planted the horse-chestnut in his orchard as a fruit tree between his walnuts and mulberries and that the fruits were sweet and roasted and eaten like the ordinary edible chestnut. The word Hippocastanum, from hippos, a horse, and castanea, a chestnut, is said by some to have been given to this tree ironically because the nuts resemble the sweet chestnut but are fit only for horses.

Comes to America in 1741

The horse-chestnut was introduced into America in 1741. This is recorded in an exchange of letters between John Bartram and Humphrey Marshall" by Darlington in 1849. The European representatives of the genus Aesculus are commonly called the horse-chestnuts while the American species are usually known as the buckeyes.

Aesculus Hipocastanum Baumanii is a variety of the common horse-chestnut which bears double, white flowers, but no seeds. A red-flowered horse-chestnut is A. carnea. This tree presumably is a hybrid between the common European horse-chestnut and Eesculus Pavia, a native of the southeastern part of the United States. Both these trees are considerably smaller than the common horse-chestnut and for that reason are more appropriate for

(Continued on Page 191)

A FARM GARDEN PLAN

Suggested Plan For Hand Tilled Garden—To Meet The Needs Of A Family Of 5—Except For Potatoes, Dry Beans, And Perennial Vegetables.

Row	Feet	Inches	Crop, Variety, Planting Directions and Planting Date for Southern Wisconsin.
	0	0	Edge of garden.
1	1	3	Lettuce, leaf, Black Seeded Simpson, 25-30 seeds per ft.; 30 ft. April 15 and 30 ft. May 10.
2	2	6	Parsnip, Guernsey, 20-30 seeds per ft., April 15.
3	4	6	Beets, late, Perfected Detroit, or Detroit Dark Red, 12-15 seeds per ft., July 1.
4	6	0	Carrots, late, Red Cored Chantenay, 25-30 seeds per ft., June 20.
5	7	6	Carrots, same as row 4.
6	9	0	Onions, seeds or transplants, Southport Yellow Globe, 20-25 seeds per ft., April 15; or 178 transplants, 6 in. from edge, 3 in. apart, May 1.
7	10	6	Onions, same as row 6.
8	12	6	Parsley, Moss Curled, seed 3 ft., April 15 or set 3 plants, 1 ft. from edge, 1 ft. apart, May 1. Chard, Lucullus, 15 ft., 1 ft. from Parsley, 12-15 seeds per ft., April 15. Peppers, Early California Wonder, 10 plants, 18 in. from Chard, 18 in. apart, June 1. New Zealand "spinach", 10 ft., 18 in. from Peppers, 6 seeds in hills, 1 ft. apart, May 1. Thin to one plant per hill. Chinese Cabbage, Chihili, 12 ft., 1 ft. from "spinach", 15-20 seeds per ft., June 20.
9	13	9	Peas, first planting, Little Marvel, 12-15 seeds per ft., April 15.
10	14	3	Peas, same as row 9.
11	15	6	Cabbage, early, Resistant, Golden Acre or Resistant Detroit, 24 plants, 18 in. from edge, 18 in. apart, May 1; followed by late Turnips, Purple Top White Globe, broadcast July 20. Broccoli, Greer Sprouting, 11 plants, 24 in. from Cabbage, 24 in. apart, May 1.
12	16	9	Peas, second planting, same as row 9, only seeded May 10.
13	17	3	Peas, same as row 12.
14	18	6	Cabbage, late, Wisconsin All Seasons, or Wisconsin Ballhead, 30 plants, 12 in. from edge, 24 in. apart, seed in hills May 15; or set plants June 20.
15	20	6	Cabbage, late, same as row 14.
16	22	6	Beans, first planting, Stringless Green Pod, 4-6 seeds per ft., May 10.
17	25	3	Cucumbers, Straight Eight, in drill, 3-4 seeds per ft., May 20. Thin to 8-10 in. apart.
18	28	0	Beans, first planting, same as row 16.
19	30	0	Tomatoes, Bounty or Victory, 29 plants, 2 ft. from edge, 2 ft. apart, May 20.
20	31	6	Peas, first planting, same as row 9.
21	32	0	Peas, same as row 20.
22	33	6	Tomatoes, Bonny Best, or Stokesdale, or Rutgers, 19 plants, 3 ft. from edge, 3 ft. apart, 6-8 seeds in hills, May 1; or set plants, May 20.
23	35	0	Peas, first planting, same as row 9.
24	35	6	Peas, same as row 23.
25	37	0	Tomatoes, same as row 22.
26	38	6	Spinach, first planting, King of Denmark, 15-20 seeds per ft., April 15.
27	40	0	Beans, second planting, same as row 16 only seeded June 1.
28	42	0	Beans, third planting, same as row 16 only seeded June 20.
29	43	6	Carrots, early, same as row 4 only seeded April 15.
30	45	0	Corn, third planting, Golden Sunshine or Golden Bantam, 3-4 seeds per ft., June 20.
31	46	6	Radish, Early Scarlet Globe, 25-30 seeds per ft.; 30 ft., May 10 and 30 ft. May 20.
32	48	0	Corn, third planting, same as row 30.
33	49	6	Onion sets, White or Yellow, 1-2 in. apart, April 15.

VITAMIN C LOSSES IN COOKED VEGETABLES

Due Chiefly To Excessive Amount Of Cooking Water; Not To Heat Of Cooking

WHEN vegetables are boiled in large quantities of water, much of the vitamin C is dissolved out and lost when the cooking water is discarded, but the heat of cooking itself does not ordinarily cause much destruction of this vitamin, according to studies on the effect of cooking on the loss of vitamin C in vegetables which are summarized in a circular published by the Experiment Station at Geneva on the vitamin C content of New York State vegetables. The circular is available upon request to the Station.

Results of numerous tests of cooking snap beans, cabbage, carrots, Swiss chard, broccoli, cauliflower, lima beans, peas, and spinach have indicated that neither boiling nor steaming causes any considerable destruction of vitamin C. The actual loss of vitamin C during steaming or boiling of fresh vegetables usually is only about 10 or 15 percent; however, it varies from a minimum of 2 per cent to a maximum of about 30 per cent.

In general, the greater the amount of cooking water used and the longer the period of boiling, the larger the proportion of vitamin C dissolved and the less retained in the drained vegetable. Steaming destroys more vitamin C than boiling, but even so steamed vegetables may contain more of this vitamin than boiled vegetables because less of the vitamin is dissolved during steaming. Preliminary tests seem to indicate that baking is more destructive of vitamin C than either steaming or boiling. It apparently makes no difference on the loss of vitamin C whether the pan is kept covered during cooking; nor does it matter whether the cooking utensil is of aluminum, glass, or enamel.

—Condensed from Farm Research, New York, for January.

34	51	0	Corn, second planting, same as row 30 only seeded June 1.
35	52	6	Beets, early, same as row 3 only seeded April 15.
36	54	0	Corn, second planting, same as row 34.
37	55	6	Spinach, second planting, same as row 26 only seeded May 10.
38	57	0	Corn, first planting, same as row 30 only seeded May 10.
39	58	6	Peas, first planting, same as row 9.
40	59	0	Peas, same as row 39.
41	60	6	Squash, Table Queen and Buttercup or Green Gold or Hubbard, in drill, 3 to 4 seeds per ft., May 20. Thin to 12 to 15 in. apart.
42	62	0	Peas, first planting, same as row 9.
43	62	6	Peas, same as row 42.
44	64	0	Corn, first planting, same as row 38.
45	65	0	Turnips, early, for greens, Purple Top White Globe, 20-30 seeds per ft., April 15.
46	67	0	Corn, first planting, same as row 38.
47	68	6	Radish, same as row 31, only 30 ft., April 15 and 30 ft., May 1. Follow in southern half of state with Beans as in row 16 only seeded July 5, and in northern half with Rutabagas, American Purple Top, 15-20 seeds per ft., July 1.
	70	0	Edge of garden.

The dates suggested in the plan both for each crop and for the successive plantings of certain crops are intended only for the southern one-third of the state. Gardeners living in the central one-third should wait an additional ten days. The dates for making successive plantings of individual crops in these areas should be modified accordingly. Late beets, late carrots, chinese cabbage, late cabbage plants, rutabagas and late turnips should be planted at about the same time throughout the state.

Use This Garden Plan

The farm garden plan given above was prepared by Prof. J. G. Moore and O. B. Combs of the Horticulture Department, Wisconsin College of Agriculture. It is a plan well worth studying by every member of the Wisconsin Horticultural Society.

We wish especially to call attention to the numbers in the columns under the words "feet," and "inches." A measuring tape should be fastened at the zero mark and stretched along the side of the garden. Any cheap cotton tape is satisfactory. If two tapes can be used, one on each side, considerable time will be saved. The correct location of the row can be quickly determined by the number on the tape corresponding with the plan. Since not all the vegetables are planted at the same time, this is a great labor saver. The value of the plan is in the economical use of the land, and in the fact that it provides for the best varieties of vegetables for the small garden.

Do Not Buy Too Much Seed

Some stories have come to us which would be humorous were it not for the fact that there is only a limited supply of seed available. We have heard of amateur gardeners buying a pound of carrot seed when their garden was only 15 x 20 feet in size. From the planting instructions on this chart one may determine the amount of seed needed for the garden and it will not be very much of any one variety.

But at any rate, study the plan because you will find it a saving in labor and in garden space.

THE HORSE CHESTNUT

(Continued on Page 189)

planting in limited areas. They bloom in mid-May.

The last of the group to flower is Aesculus parviflora, the bottlebrush buckeye or dwarf horse-chestnut, which blooms in June. It is a broad, creeping shrub, six to ten feet high, a native of the southeastern states. Long, narrow spikes of white flowers with prominent stamens terminate the branches. There are other buckeyes native to the United States, particularly worthy of mention being A. glabra, the Ohio buckeye, and A. octandra, the yellow buckeye.

All the common horse-chestnuts and buckeyes will grow in this locality. They are not particular about the soil but they prefer an ample supply of moisture during the summer months. Fine specimens of the kinds described in this article may be found growing in the Missouri Botanical Garden.

—Condensed from Missouri Botanical Garden Bulletin, November, 1942, by P. A. Kohl.

Try this one eating a cracker: A skunk sat on a stump. The skunk thunk the stump stunk, and the stump thunk the skunk stunk.

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MADISON

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

OFFICERS

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15 W. Main St., Madison

Mrs. R. H. Sewell, 1st Vice-President,
957 No. 70th St., Wauwatosa

Mrs. F. E. Willard, 2nd Vice-President,
Oakfield

Mrs. Floyd E. Ballard, Recording Secretary-Treasurer
Badger Park, Route 62, Madison

H. J. Rahmlow, Corresponding Secretary,
424 University Farm Pl., Madison

DISTRICT PRESIDENTS

Mrs. F. J. Fitzgerald, 649 Broad St., Menasha; Fox River Valley District
Mrs. Martha Lowry, Lakewood, Madison Madison District
Mrs. Geo. Adami, 2466 No. 46th St., Milwaukee; Milwaukee District
Mrs. Gilbert E. Snell, 414 Erie Ave., Sheboygan; Sheboygan District
Mrs. Bentley Dadmun, 604 Main St., Whitewater; South Central District

GARDEN CLUBS AND THE VICTORY GARDEN PROGRAM

GARDEN club members have the opportunity of being of splendid service to their communities in the Victory Garden program.

Victory gardens should be a community project. Garden clubs should see that a garden committee is established in every community. This garden committee should represent all branches of community interest. No one organization should attempt to take over the project of victory gardens. We are interested in increasing the home grown food supply, and every organization willing and able to help should take part.

The garden committee in each community should decide how the project is to be carried on in that community. Garden clubs should see to it that there is full cooperation between all groups.

Garden Plans Available

Garden plans prepared by the Horticulture Department of the College of Agriculture for gardens of different sizes have been mailed to all county agents. How these plans will be distributed in the community will be the problem of local groups. Each county chairman of the O.C.D. has complete information and local groups should seek the help of this office.

Garden Centers Valuable

Garden clubs can set up a garden center in their community, either in the library or in some other place easily accessible to gardeners. Plans can be made available at the garden center, and members in attendance should be familiar with the plan and able to give advice. Here is a real opportunity for making a garden center helpful. The garden plans prepared by the Horticulture Department are ideally adapted to Wisconsin urban gardens. We should show prospective gardeners how to work the plan, in the interest of economy and getting the most out of the land available.

This is the time for efficiency and hard work.

THE TEST

When the weeds begin to grow—
And the weather gets hot,
It's the test of spring enthusiasm—
Whether a gardener's real or not.

—VELMA A. KAUFMAN,
Oakfield Garden Club.

FEDERATION MEMBERSHIPS DUE NOW

All garden club members whose membership dues have not reached the office of the Wisconsin Horticultural Society *before March 20 will not receive the April issue of Wisconsin Horticulture.*

All memberships expire January 1st, but March 20th is the deadline set for sending in dues.

Membership dues coming in late or any time after March 20th will be reinstated and will receive the May issue of the magazine if received in time. However, the supply of magazines for any one issue is placed by the 20th of the month preceding month of issue.

SOUND FILMS ON ENGLISH GARDENING AVAILABLE

The British Information Services, 360 North Michigan Avenue, Chicago, Illinois, has available several films on vegetable gardens and victory gardens which will be of interest to many organizations.

The following are titles of films which are especially adaptable at this time:

SOWING AND PLANTING
INDOOR STORAGE OF VEGETABLES
MISS T AND HER CABBAGE PATCH (2 reels)

The charges for the use of these sound movies are 50 cents for the first reel, plus 25 cents for each additional reel in the same package.

These films are all 16 mm sound films.

WHAT SHALL WE PUBLICIZE

By Mrs. Fred C. Marquardt, Publicity Chairman

IN Wisconsin I know most garden club members actually do their own gardening and are "dirt gardeners." While many have not done a great deal of vegetable gardening, this is because they do not have the time or adequate space in their back yards.

All Clubs Should Have Publicity Chairman

Garden club presidents are urgently asked to appoint a wide-awake publicity chairman, and each district president should likewise appoint a district publicity chairman. Your newspaper is eager and willing to print all garden club news, particularly at the present time.

Garden club publicity chairmen should find out what the deadline is for their own local papers and become acquainted with the newspaper staff. If your projects are of district and state-wide interest send it on to either the state or district publicity chairman. District publicity chairmen should keep me informed of interesting projects being carried out in the district, providing they have state "news value."

All district presidents and committee chairmen, who have not already done so, are asked to send me a complete list of their activities for the year.

And all items of national interest to be published in thte National Council Bulletin are to be sent directly to me for editing.

Good publicity, at a time like this, will greatly aid and build up our already great Wisconsin Federation, and we in turn, by building up our state membership are aiding our National Council. Let there be a garden club in every city and village of America. Then will our nation develop an ideal and a mode of living that will insure our future peace and happiness. This can be done by the right kind of publicity.

Ravenswood Junior Garden Club Victory Garden

By Katherine Melcher

THE Ravenswood Junior Garden Club was organized Feb. 17, 1942. Under the direction of Mrs. Leo Hasenzahl, 18 junior members decided to do a job that seemed almost impossible to the adult group, that of a Victory Garden. The amazing part of it was their enthusiasm and tireless efforts made it one of the most successful gardens in Wauwatosa last year.

Through the courtesy of our County Agent R. C. Swanson, arrangements were made for plowing to be done by Allis-Chalmers on a 50x100 plot donated by the owner. A planting chart furnished by Mr. Swanson was followed with the result that onions, radishes, carrots, white and red cabbage, rutabaga, swiss chard, broccoli, peppers, tomatoes, corn, cucumbers, pumpkins and gourds produced one good crop and some parts of the garden came through with two. Up to the time of an extremely early killing frost over 1,000 ripe tomatoes, 285 ears of sweet corn, 112 peppers and 145 cucumbers were harvested. (In Mrs. Cooper's report on Junior activities the Ravenswood group was given credit for being the outstanding group in the State in achievements and membership, and the only group having all city children where very few members ever planted a garden before.) The adult club donated $10.00 toward the project and the children paid 25 cents dues and 25 cents for seeds. Each member was to sell their vegetables to their parents at current market prices and purchase war savings stamps with their earnings. Some members reported $4.50 from their garden vegetables. The City Council of Wauwatosa furnished a storm fence and the adult club planted flowers in front of the garden to carry out the Junior slogan "Vegetables for Victory —Flowers for Fun."

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Junior Garden Club Program

Mrs. Peter C. Cooper, Junior Chairman, West Allis

If every federated garden club in the state would make it his duty to help a junior in garden work for this year, there would be over 2,000 junior gardeners helped. Every garden club should make it their business to help in every way to promote this movement. Many new and inexperienced gardeners are going to plant a garden. They all need guidance. It is our duty as experienced gardeners to help, to save seeds, and to see that they are planted and cared for properly.

Every bit of food raised in a home garden will release that much more from general consumption for our fighting boys. Children are aware of this. They are willing workers and will come to the front, knowing that their elders are busy in factories, Red Cross work, and other things contributing to the general war effort. Give them just a little of your time for your own food.

How to Organize Junior Clubs

In organizing a junior garden group thought must be given to the ages of the juniors. If they are all in the teen age group the children can elect officers as a senior group does. Regular meeting time and place should be established, and the leader or garden consultant should be present at all the business meetings. Dues may be set up if necessity arises. The children may want money for buying seeds in quantity or for plants.

If the group is younger a chairman should be elected to maintain order and records can be kept as a group with the leader actually guiding them in this.

It is wise for the garden club to lend a helping hand at all times. Have a list of people who are willing to devote time for demonstrations, and relieving the leader at times.

Representatives should be able to visit the senior group at any time. And the seniors should invite the juniors whenever programs of special interest to them are scheduled.

Purpose of Junior Organization

At this time more than ever juniors need assistance. Many are planning Victory gardens and know very little about this work. Patriotism leads them to want to help their country. Leaders should know that this is their time to really do something big and help keep this spirit alive. However, this is not the main aim of this project. The aim is to instill the love and desire of gardening in the young and to make good gardeners for the future. Nearness to the soil, the actual work and the seeing things grow and mature will make children marvel in nature; will make them love and appreciate flowers and food, and will in the long run make better citizens. At this time the main part of a junior program is to be sure to plan and plant a well producing Victory garden. However, such subjects as Bird Study, Flowers, Woodlore, and Conservation, should always have a part in their programs. Material may be had by writing to the Conservation Department, and to the Extension Service of the Department of Agriculture, which no doubt being compiled by experts in their respective work will be authentic and add to your programs. For material needed for any special gardening your county agent will be only too glad to help you.

The following may be of help in planning a program.

March

Discuss vegetables for health, and flowers for beauty.

Decide to raise some of the easier vegetables. Buy in quantities from reliable seed houses. Be sure that all garden plots have had soil tested.

Fertilizers should be studied, and those used that are available. Plans should be drawn of the plot. Club hotbeds should be started. Each child should help in the care of such a hotbed.

April and May

Succession of crops should be planned at this time. Accurate records should be kept of expenditures, and time involved. Older groups may want to study soil inoculation, let them free to experiment. Planting demonstrations, and actual seeding demonstrations should take place. A demonstration of preparing the soil should definitely take place. Take a nature hike.

June and July

Keep record of amount of produce and the value of the same. Weeds. Weed eradication. Cultivation. Killing of garden pests. Flower and vegetable show. Lessons on picking best specimens.

August and September

Canning surplus. Storing root crops. Record of savings. Planning permanent crops.

Award to District President for New Garden Clubs

An award of $5.00 will be given to the president of the District in which the largest number of new garden clubs are organized and affiliated with the Wisconsin Garden Club Federation. The prize is given by Mrs. C. H. Braman, Waupaca, Organization Chairman. The award will be presented to the district president at the annual convention. It will not be given to the district as stated in our last issue.

LIFE MEMBERSHIP IN NATIONAL COUNCIL $100

THE National Council of State Garden Club Federations would like to increase their life membership list. The money so received is invested in Defense Bonds. The cost of a life membership is $100.

The National Council makes the suggestion that some person in each state may be honored by being presented with a life membership. Life members receive special rates in hotels, on cruises, and a courtesy card for visiting foreign gardens. They also receive the National Council Bulletin.

Check for life membership should be sent to the National Council of State Garden Clubs. Inc., The Roosevelt, 45th Street at Madison Avenue, New York City.

TUBEROUS ROOTED BEGONIAS

Double Camellia, red, yellow, rose, white, orange, salmon. 1 to 1½ inches, 15 cents each postpaid; $1.50 per dozen. Klingbeil Nurseries, 2435 N. 6th Street, Milwaukee, Wisconsin.

"Do you act toward your wife as you did before you married her?"

"Exactly. I remember how I used to act when I first fell in love. I used to stand in front and look at her house almost afraid to go in. Now I do the same thing some nights."

Trial Garden Plant Report

Mrs. C. H. Brimmer, Wausau

THE following is a report of the trial garden varieties we planted in the spring of 1941.

Heuchera King of Hearts. Wintered well without covering. Makes a nice plant for the border, grows fast, so it can be divided. Makes a dainty bouquet if one has enough of it. Would recommend it to be grown any place.

Perennial Phlox Miss Kenosha. Wintered very well. Quite free from disease. Pretty in bouquet. Very beautiful as a flower for show in the garden. Would recommend it to anyone.

Asters, Beechwood Challenger, Mt. Everest. Wintered very well. Pretty in bouquet and effective in the garden. Seems to be disease resistant. Recommend it.

Chrysanthemums. Not too hardy in Wausau. I covered them all with straw this winter to see if they will live through better. They are disease resistant and if the weather lets them bloom they are very beautiful.

Anchusa myosotaflora are quite hardy and spread over the garden, but I like them especially among the tulips. Not good for cutting, but lovely with yellow and pink tulips.

Aquilegia Crimson Star and Mrs. Nickols. Just love them and so do others. I have them in half shade and they last for a long time. Quite disease resistant. Would recommend them highly for any garden.

Rudbeckia the King. Froze back but this year I covered them so hope they will come through better. Lovely for cutting and for show in the garden. Recommend them.

Shasta Daisy Snowbank and Nobilis did not survive the winter, though the plants were not in very good shape when received.

Heliopsis Summer Gold is beautiful all summer long and very effective in mass plantings. No trouble from disease. Would be very good as a cut flower, but have mine for garden effect. Tall growing.

Roses: World's Fair and Betty Prior wintered fine. Am ordering more and so are other members of our club. Seem to be disease resistant. We always bank our roses with about six or eight inches of dirt in the winter.

Pyrethrum are very hardy and people like them a lot. They came through the winter without protection.

PLANT TESTING REPORT

ALL plants in the plant testing project set out in 1941 came through the first winter well except shasta daisies and prunella, which was substituted for Myosotaflora.

The only plants to suffer from pests were the Floribunda roses. The underside of the leaves of these were covered with a small white fly or bug in late summer and until they froze. None of the sprays or dusting powders used seemed to have any effect upon them.

The roses, aquilegia, pyrethrum, phlox and asters all proved to be splendid for the borders and for cutting. Betty Prior especially was a mass of bloom even until frost and is a fine cut flower.

The five above named I can recommend for this locality.

Heuchera, Queen of Hearts, while making fair plants did not bloom. Chysanthemum Lavender Lady and Algonquin bloom a little too late for us. Only a few blooms were out when the hard freeze came.

Rudbeckia The King died a few weeks after planting, though it seemed to start out well. I had tried this before and it acted the same.

Heliopsis did well but the slugs like it too well.

—Mrs. Herbert A. Juneau, Superior.

GET BETTER ACQUAINTED WITH BIRDS

WINTER is a good time to become well acquainted with a few birds. A feeding station close to a window makes it possible to study their habits as well as their markings in detail. Of course, the English sparrows as well as the starlings are always something to contend with, but what is more satisfying than having so close to our windows, chickadees, white breasted nuthatches, downy and hairy woodpeckers, juncos, tree sparrows, blue jays and, most exciting of all, cardinals.

What better place to find that the female cardinal, which we are inclined to think of as rather drab compared with her mate, is, after all, a beautiful bird in her exquisitely shaded colors, almost more beautiful than her brilliant mate.

As spring comes, close acquaintance with the winter and resident birds makes for more interest in and easier identification of the birds as they arrive from the South. Why not become acquainted with these birds if only a few each year? We can not go so far afield these days but it is surprising what a variety does come to our gardens.

—Mrs. Carl M. Schwendener, Milwaukee, Chm., Bird Committee.

RADIO GARDEN PROGRAM

State Stations WHA, Madison, and WLBL, Stevens Point
10 to 10:45 a. m.

Tuesday, March 16. Prairie Bird Calls. Joseph J. Hickey, Madison.

Tuesday, March 23. Southern Bird Calls. Joseph J. Hickey.

Tuesday, March 30. Bird Calls From the Yard. Joseph J. Hickey.

Tuesday, April 6. Bird Calls from the Shade Trees. Joseph J. Hickey.

Tuesday, April 13. Bird Call from the Garden. Joseph J. Hickey.

Tuesday, April 20. Woodland Bird Calls. Joseph J. Hickey.

Tuesday, April 27. Spring Comes to Wisconsin.

Garden Club Directory

Officers for 1943

FOX RIVER VALLEY DISTRICT

District Officers

President: Mrs. F. J. Fitzgerald, 649 Broad St., Menasha
Vice-Pres.: Mrs. Chas. Engbretson, Park Ridge, Stevens Point
Secy-Treas.: Miss Bessie Pease, R. 1, Box 35, Oshkosh

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Antigo Garden Club

Pres.: Mrs. J. H. Hopkins, 926 Fulton St.
Vice-Pres.: Mrs. A. M. Weise, 418 Fifth Ave.
Secy-Treas.: Mrs. Robert Lehman, 228 North Ave.
Meeting: 1st Tuesday at 2:30 p. m. at Wisconsin Public Service Bldg.

Berlin Home Garden Club

Pres.: Mrs. A. J. Wiesender, 736 Spring St.
Vice-Pres.: Mrs. Earl Kolb, R. 2
Secy.: Mrs. J. C. Ziehm, 711 Spring St.

Brandon Community Garden Club

Pres.: Mrs. Ella Strodthoff
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Secy.: Mrs. J. J. Williams

FOND DU LAC

Fond du Lac Community Garden Club

Pres.: Miss Mary Martin, R. D. 3
Vice-Pres.: Mrs. A. A. Briggs, Peebles
Secy.: Mrs. W. J. Schaefer, R. D. 3
Meetings: 4th Friday at homes of members

Ledgeview Garden Club

Pres.: Mrs. Omar J. Kussow, 230 Fond du Lac Ave.
1st Vice-Pres.: Mrs. Leo J. Promen, 190 E. Johnson St.
Secy-Treas.: Mrs. Floyd McNaughtan, 33 Seventh St.
Meetings: 3rd Tuesday at homes of members

Green Bay Garden Club

Pres.: Miss Minnie Diekman, 308 S. Madison St.
Vice-Pres.: Sandy Duket, R. 6
Secy.: Mrs. Ralph C. Arnold, R. 6
Meetings: 1st Monday at 7:30 p. m.

Horicon Garden Club

Pres.: Mrs. Gordon Kovolski, 314 Palmatory St.
Secy.-Treas.: Mrs. John Radke, 409 N. Finch St.
Meeting: 3rd Monday at 8 p. m. in homes of members

Iola Garden Club

Pres.: Mrs. Helma T. Amundson, R. 1
Vice-Pres.: Mrs. Harris Amundson
Secy.-Treas.: Mrs. W. W. Roels

Kaukauna Garden Club

Pres.: Harry Wilson, 108 Brothers St.
Vice-Pres.: Mrs. Elizabeth Buerth, 223 W. 8th St.
Secy.-Treas.: Miss Marie Gossens, 216 Catherine St.

Marinette Garden Club

Pres.: Ralph Garland, 1217 Merryman St.
Vice-Pres.: Nels Nelson, 609 Odgen Ave.
Secy.-Treas.: Mrs. Jos. Clumb, 904 Miller St.

Menasha Garden Club

Pres.: Mrs. Chas. Bailar, 387 Naymut St.
Vice-Pres.: Miss Barbara Thom, 354 Naymut St.
Secy.-Treas.: Mrs. Paul J. Bach, 349 First St.

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WEST ALLIS

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Vice-Pres.: Miss Bertha Shuman, 136 S. 19th St.
Secy.-Treas.: G. C. Ellis, 234 S. 20th St.

Washington Island Garden Club

Pres.: Mrs. Arthur Wickman
Vice-Pres.: Mrs. Anne T. Whitney
Secy.-Treas.: Mrs. Claude Cornell
Meeting: 4th Tuesday afternoon

THE RARE SNOW TRILLIUM

Rena Bauer

I consider them rare in Wisconsin for have only heard of a few spots where Trillium nivale grows wild. That is around Green Bay and near Milwaukee. A lady in Waupaca will try to grow them in her wild flower garden, from plants transplanted.

This Dwarf White Trillium, as it is also called, grows only 2 to 4 inches high. The white petals are one inch long, and the leaves have distinctly petioled leaflets on stems ½ inch long.

The Snow Trillium is so called because it blooms early, when the snow is leaving in the Spring. It grows in Iowa, too, and flowers there between March 10 to March 20, never much later than April 1. In Wisconsin, Snow Trillium (T. nivale) blooms about 6 weeks earlier than does Trillium grandiflorum.

The seed-pod of T. nivale is the size of a large pea flattened on top and contains 20 or more seeds. Each seed has a protuberance, called caruncle (bloodroots and many other kinds of seed have it, too.) This caruncle being softer than the hard seed shell is eaten by insects, and is an inducement to carry them off, in this way disseminating the seed. The hard seed coat under the caruncle prevents injury to the seed from the loss of this external fleshy body. From a seed it takes 10 years before a leaf is full size, and many more years before they are old enough to bloom.

Have noticed in catalogs and elsewhere Trillium grandiflorum has been called Snow Trillium. This is wrong, for Trillium nivale is the proper Snow Trillium, so called. Can understand though why T. grandiflorum is apt to get the name of Snow Trillium. For in Wisconsin, where it grows (or shall I say grew) in profusion, it much resembles fields or drifts of snow in May and June, the time of bloom.

Trilliums are now protected by law in Wisconsin, but from my observation it hasn't meant a thing to any who wished the flowers.

COLOR IN THE GARDEN

DR. D. C. Watson has been the color authority for the Clinic of Good Taste at the Art Institute of Chicago and he says that in no field have greater mistakes been made than in planting flower gardens.

Green is the great problem in our mid-west American gardens, because it is monotonous and abundant—and must first be taken into consideration. Gardens become poetic, stimulating or restful through the color scheme achieved.

Red is the most difficult color to master, but it should not be eliminated as is so often done. White is the secret of success in making any garden, just as it is in most flower arrangements. The power and place of yellow are greatly misunderstood.

Shadow and sunlight, proximity to the house, architectural embellishments and the need for sculpture are considerations of great importance in the color schemes.

—*Condensed from Winter Lectures by Elizabeth Howland, Chairman, in January Garden Glories.*

PRAIRIE WHITE FRINGED ORCHIS

THOUGH the large and showy tropical orchids are known to all, their relations in Wisconsin, which are just as showy on a smaller scale are somewhat neglected because of their rarity. The lady slippers, to be sure, are known and admired by many, but the delicate orchises, rattle-snake plantains, ladies' tresses, and others are truly superb. Shown is a Prairie White Fringed Orchis, a fragile beauty which must be seen to be fully appreciated. Though it is late in the year for the *Orchidaceae* some few may be in bloom and one who has never seen a native orchid will be well rewarded by a trip to find a specimen. All orchids are protected by state law.

—Paul F. Cranefield, Jr., Lake Mills.

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Wisconsin Horticulture

APRIL-1943

ASPHALT EMULSIONS FOR GRAFTING WAX

Question: May asphalt emulsions such as Treekote and Tree Seal be used satisfactorily for grafting apples in place of grafting wax?

Answer: Such materials have been used extensively for this purpose with very satisfactory results, and they have the advantage of requiring no heat when used. In some instances, however, results have been disappointing. These asphalt emulsions, before they have an opportunity to set, are soluble in water and it is probable that some failures have resulted from grafting at a time when there is sap exuding from the cut surfaces. Investigators have found that asphalt water emulsions cannot be used successsfully for the grafting of walnuts and pecans, both of which "bleed" considerably when cut in the early spring.

—*From The Minnesota Horticulturist, March.*

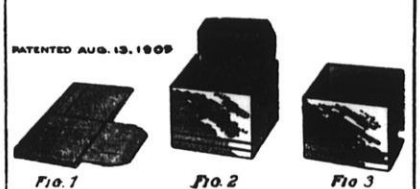

Fig. 1 Fig. 2 Fig 3

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

ESTABLISHED 1910

Entered at the postoffice at Madison, Wisconsin, as second-class matter. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1918.

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
424 University Farm Place
Madison, Wisconsin

H. J. RAHMLOW, *Editor*
Secretary Wisconsin State Horticultural Society

Office: Old Entomology Bldg., College of Agriculture
Tel. University 182

Volume XXXIII APRIL, 1943 No. 8

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PLEASE DO NOT SEND STAMPS

How to do Bridge Grafting

Mouse and Rabbit Injury the Most Extensive in Years

Injury by rabbits and mice to fruit trees has been most severe during the past season. At one county fruit growers meeting held in March, more than 20 growers present held up their hands in answer to the question as to whether or not there was injury to their trees from these pests.

Bridge Grafting Only Solution

If the bark has been completely removed from around the trunk of a tree, that tree will die the second year after the injury. It will probably live the first year if it is an old tree because moisture from the soil is transported to the leaves through cells in the wood just beneath the bark. However, food products produced in the leaves is transported downward in the bark itself and so if the bark has been removed, the root system will be starved during the season after the injury. By the second spring the roots will probably be dead and then the top will die as well.

The object of bridge grafting then is to provide a bridge through which the food produced in the leaves can be transported downward to the roots.

How Grafting Is Done

First, obtain cions by cutting strong, hard suckers from the center of the tree. They should be ¼ inch in diameter. If necessary, two-year old growth may be used. Use the lower half of the sucker as the top portion is usually too soft.

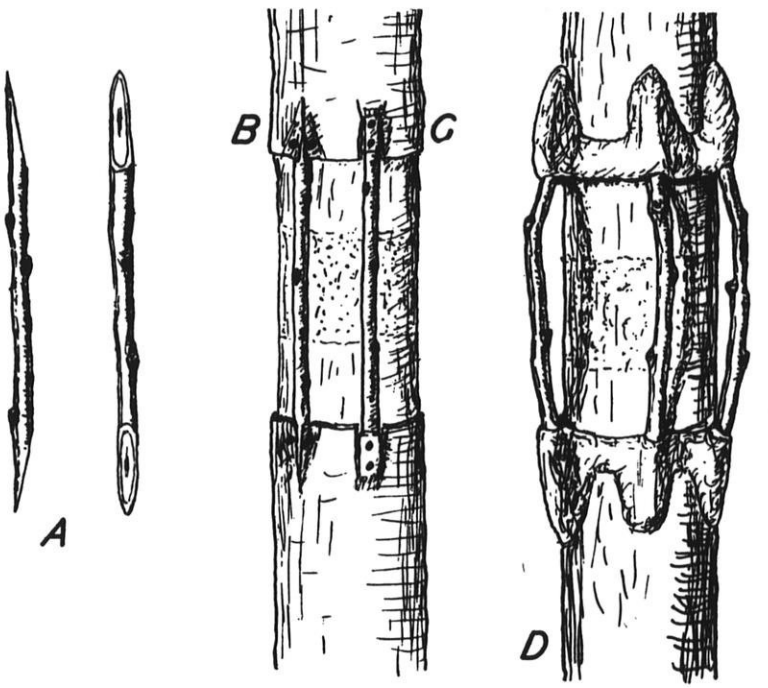
Next, trim away the bark around the edges of the wound sufficiently to insure firm attachment of bark at the edge where the bridges are to be inserted.

Opening to Receive the Cion

The easiest way to make an opening in the trunk to receive the cion is to use a ⅜ to ½ inch chisel. Make a cut an inch above and below the girdle through the bark of the trunk and into the wood at about a 30 degree angle, and about ½ inch deep.

Next use a small cigar box nail which is a ¾ inch nail with a thin flat head, and nail the cion to the trunk to insure close contact with the cambium. The cuts on the cions are made as shown in the illustration. Do not crush the bark when driving the nail.

The scions should be cut so as to expose as much cambium area as possible for contact with the cambium of the tree with a double wedge on both ends. The wedge cuts on the inside of the bridge are ¾ inch long, while on the outside they are only ½ inch long.



Bridge Grafting will save trees and is easily done.

A. Scion properly cut. B. Cambiums united and held in place by small nail. D. Waxed to prevent drying.

Homemade or commercial grafting wax is usually used. A grafting compound distributed by the Southeastern Fruit Growers Co-op, Waukesha, Route 2, has been used by many orchardists in late years. Anyone who has considerable grafting to do will find this a convenience.

For Sale

For sale. F. A. Harden Nursery, Weyauwega, Wis. 2 acres with about 6,000 evergreen trees including Blue and Green Col. Spruce, Douglas Fir, Mugho Pine, Arbor Vitae, Juniperus Virg., Pfitzers, Sabins, Spreading Yews, also some shrubs, with land; on highway 10. Liquidation of estate; reasonable. Mildred Harden, Weyauwega, Wisconsin.

Questions from Our Fruit Growers

Answered By Dr. R. H. Roberts

Question: How can I spray my Wealthy to stop them from overbearing? Racine County.

Answer: The use of sprays to thin the flowers on heavily blossoming trees is very definitely still in the experimental stage. This seems to be a correct summation of the situation in spite of the fact that some experimenters seem to be quite confident of their results. If anyone is interested in trying out this method, it is suggested that they use one-half percent of Elgetol at the time half of the blossoms are open.

Question: Will regular spraying of the orchard with lime sulphur and arsenate of lead injure the soil? If so, is there any soil practice to counteract this? Ozaukee County.

Answer: While the matter of accumulation of lime sulphur or lead arsenate in the soil of orchards sprayed with these materials, to a degree that it becomes injurious to the planting is an old question, there seems to be no clear cut evidence of difficulty in this connection.

Question: Do peach trees need more sulphate of ammonia than apple trees? Washington County.

Answer: Peach trees require more nitrogen fertilizer than apples. I do not know if sulphate of ammonia is an effective fertilizer. In general, nitrate is used in the peach growing sections.

Question: Is it practical to topwork young trees onto hardy stock under Wisconsin conditions? Door County.

Answer: It is practical to plant hardy stocks and topwork on these when starting the orchard. The difficulty is to know just what stocks to use particularly since some disappointing results have been secured with Delicious sports worked on Virginia Crab.

Question: Is budding or whip grafting most practical if topworking is done? Door County.

Answer: Under our climatic and growth conditions grafting seems to be more practical than budding when topworking young trees. Budding can be done and the operation repeated by grafting the next spring in case the buds do not grow, however.

Question: As a pollinizer for McIntosh, are Delicious and N. W. Greening both satisfactory? Door County.

Answer: Nova Scotia reports that Delicious is not effective as a pollinizer for McIntosh. The Michigan and Ohio stations report good success with this combination. I have seen no reports in the literature on the effectiveness of N. W. Greening on McIntosh. It is too late for McIntosh some seasons.

INSECT CONTROL QUESTIONS

Answered by Dr. C. L. Fluke

(1) Would like to have information on *dusting apples* instead of spraying, especially the later sprays, costs, practicability, effectiveness, etc. From Door County.

Answer: We have no information of value on the dusting of apples. Our best recommendations are to stick to spraying until more is known about dusting. For those who wish to dust they should use a combination of lead arsenate 10% and sulfur 90%. More applications of a dust are needed to get the same protection afforded through spraying.

(2) What spray or dust is best for muskmelons and watermelons? From Racine County.

Answer: Cucumber Beetle. Pyrethrum dust containing approximately 0.5% pyrethrins or Cryolite dust containing 1 part of Cryolite to 3 parts of pyrophyllite or talc. In small plantings protect young plants with screening.

Squash Bug. Pyrethrum dust containing 0.5% pyrethrins applied to small bugs soon after hatching in mid-summer. Destruction of adult bugs and egg masses in early summer.

Vine Borer. Nicotine spray containing one part of nicotine sulphate (40%) 6 ounces of Grasselli spreader to 100 parts of water.

---

(3) For safest *control of the apple maggot,* please state if it is safer to start the control sprays well in advance of hatching time or wait until the traps indicate the proper time. From Bayfield County.

Answer: Spraying to control the apple maggot is best started when the flies have emerged and before they lay their eggs. Follow the time as indicated by the bait traps. This time is determined by the emergence of the flies and is usually about two weeks after the first fly is caught in the trap. However, we usually wait until the traps catch more than one or two flies, often in the neighborhood of a dozen or so; then spray immediately. The flies feed about two weeks before starting to lay eggs.

USED SPRAYER FOR SALE

A used Bean sprayer for sale. Has triple cylinder pump. Tank 250 gallons capacity. Mamre H. Ward, Durand, Wisconsin.

Orchard Spraying Questions

Answered by Dr. G. W. Keitt and J. Duain Moore

Question: When spraying for scab on apple trees, what is the most efficient pressure to use? From Door County.

Answer: Since results at different pressures depend so much on other factors, such as rig capacity, type of outlet, size of disk, rate of movement of the rig, size of tree, etc., no simple answer can be given. With proper adjustment of these factors for the individual situation, good results can be obtained with pressure of 400 to 600 pounds.

Question: At what spray application would it be advisable to change from liquid lime-sulphur spray to some milder form of sulphur spray, in an orchard where scab is well under control? Must milder sulphur sprays be applied more frequently so as to obtain the same protection as liquid lime-sulphur affords? From Ozaukee County.

Answer: The petal-fall application. The milder sulphur sprays for apple scab should usually be applied at intervals of two to three weeks, depending on the weather and requirements for insect control.

Question: Will four summer sprays control scab and insects this summer? How many sprays should black raspberries have each year and what material should be used for the spray? From Washington County.

Answer: It is not safe to rely on a four-spray program for control of apple scab and insects. It is usually advisable to make three applications before bloom and four or more after bloom.

Two applications per year of lime-sulphur are recommended for spraying black raspberries. (1) delayed-dormant, when the earliest leaves have pushed out about ¾ inch, using the 1-10 concentration, and (2) about one week before bloom, using the lime-sulphur at 1-40.

Question: I am making a cement tank 10x10x5 feet deep to catch the water from the barn so I can have warmer water to use for spraying. Is soft water better than hard water pumped out of the well in spray tank and used right away?

Is lime sulphur spray for grapes good or does it injure them? From Racine County.

Answer: Either soft water or well water is satisfactory. Bordeaux mixture is much better than lime-sulphur for spraying grapes.

Question: I notice in a New York farm paper they talk of leav-

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ing out some of the early scab sprays when there is no spore growth. Is there any way in which the orchardist might be able to determine just how active the spores on the ground are and thereby omit some of these early sprays? From Bayfield County.

Answer: In Wisconsin ascospores of the apple scab fungus commonly mature so early that it is unsafe to omit any of the prebloom sprays.

APPLE TREE LEAF ROLLER SERIOUS PEST IN WESTERN WISCONSIN

The apple tree leaf roller has become a serious pest along the Mississippi river throughout western Wisconsin and notably in the Gays Mills area. There was a time a few years ago when the pest was serious in Door County, but there are few leaf rollers left there now. Neither are there very many in other eastern sections of the state.

Why this is true, our entomologists have not explained.

Drs. John Callenbach and C. L. Fluke, entomologists of the University of Wisconsin found that both in 1941 and 1942 the leaf rollers could not be satisfactorily controlled with lead arsenate applied in the regular pink and calyx sprays when the insect is in the larval stage. Even supplementing the lead arsenate with a thiocyanate failed to help.

Last year the entomologists tried oil sprays while the trees were still in the dormant stage to prevent the leaf roller eggs from hatching. Results were generally promising.

Leaf Roller Control

The best control was obtained with the use of Stanolind dormant spray oil at 5%—(5 gallons of oil in 95 gallons of water.)

The paraffine base oils, like diamond paraffin, when emulsified with blood albumin were just as good, however.

One of the best of the paraffin formulas was as follows:

Diamond paraffin oil, 4%.

Blood albumin, 2 oz. per 100 gallons of water.

Celite 209, 6 oz. per 100 gallons.

At Gays Mills the oils were applied on April 8-9, 1942. The oil must be applied so that it will be dry before freezing weather. The length of time for drying of course will depend largely upon the weather. Sometimes it dries as rapidly as four hours, but again it may take much longer. The oils must be applied in a perfectly dormant stage or before growth has started. This means that there is a relatively short period for applying oil sprays.

Parasites are beginning to bring about a natural reduction in the leaf roller population.

FRUIT MATURITY DETERMINED BY BLOOMING DATE

THE number of days from full bloom to maturity has been a more reliable index of maturity than the pressure test, ground color, seed color and starch test, is the conclusion of Dr. M. H. Haller of the U. S. Department of Agriculture.

Therefore, it might be advisable for Wisconsin fruit growers to keep a record of the date of full bloom of apple and pear varieties and prepare a chart, showing the number of days to maturity of the different varieties. Such a chart could be used in future years to determine maturity dates.

Dr. H. B. Tukey of the New York Experiment Station, Geneva, reports that this method of determining maturity has been quite reliable, and gives the following number of days for representative varieties at Geneva for maturity.

Days Between Full Bloom and Fruit Ripening

Apples

Early Harvest	77
Early McIntosh	90
Oldenburg	98
Wealthy	109
Twenty Ounce	122
McIntosh	127
Cortland	128
Delicious	132
Ben Davis	136
Northern Spy	143

Pears

Clapp	116
Bartlett	121
Seckel	137
Kieffer	147

Dr. Tukey states that in some regions it has been the custom to pick fruit with reference to the calendar date as just before or just after Labor Day. The records show that this system is far less reliable than the system based on counts of the number of days between full bloom and maturity. This applies equally well in an "early" season and a "late" one. Thus, he says, the early McIntosh apple at Geneva usually ripens about 90 days after full bloom. During the season of 1942 in spite of its being considered "early," 90 to 91 days were required for this variety. The records show that Bartlett pear trees blossomed 15 days earlier one season than another and the fruit ripened 17 days earlier one season than another, yet the interval of days between full bloom and fruit ripening differed only three days in the two seasons.

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Strawberry and Raspberry Plants For Sale

Latham, Taylor, Starlight, Sodus, Cumberland raspberry plants. Premier, Dunlap, Catskill and Gem Strawberry plants. Fruit trees and ornamental stock. Hall Nursery, Elmwood, Wisconsin.

County Fruit Growers Associations Have Annual Meetings

APPLE maggot control, the ground spray for apple scab control, the orchard mouse and rabbit problem, and bridge grafting were some of the important topics considered at the annual meetings of county fruit growers associations early in March. Meetings were held as follows:

Milwaukee County, March 9.
Racine County, March 10.
Washington County, March 11.
Ozaukee County, March 12.

Speakers were Mr. C. L. Kuehner, extension fruit specialist, Wisconsin College of Agriculture, and H. J. Rahmlow, Secretary of the Wisconsin Horticultural Society. They presented the topics listed above.

All meetings began at 10:30 a. m. with a pot luck dinner at noon. This provided an enjoyable type of meeting and the attendance was good with the exception of one day when a snow storm made the roads almost impassible.

Mr. Lester Tans, Secretary of the Southeastern Fruit Growers Association presented a report of the business done by the Association during the past year, indicating that the organization is doing a very successful business, and providing growers with needed supplies at a saving.

Officers Elected

Officers of the associati ns elected are:

Milwaukee County

President: Albert Schreiber, Sta. F., R. 1. Box 416, Milwaukee.
Vice-Pres.: Allen Guenther, R. 1, South Milwaukee.
Secy.-Treas.: Alfred J. Meyer, R. 1, Hales Corners.

Ozaukee County

Pres.: Martin Wiepking, Cedarburg.
Vice-Pres.: B. J. Otting, Cedarburg.
Secy.-Treas.: Arnold Nieman, Cedarburg.

Racine County

President: Charles Patterson, Franksville.
Vice-Pres.: Wm. Verhulst, Franksville.
Secy.-Treas.: Lyman Skewes, Union Grove.

Washington County

President: Jos. L. Morawetz, R. 4, West Bend.
Vice-Pres.: Elias Kopp, R. 3, West Bend.
Secy.-Treas.: E. E. Skaliskey, West Bend, Post Office Bldg.

Looking Ahead—"You mean to say you weren't at your own daughter's wedding?"

"No, I was out looking for a job for the groom."

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When properly applied, the fruit is kept free from disease infection ordinarily controlled by sulphur sprays and has a noticeable finer finish because the fruit is free from russetting, produced by the more caustic sulphur sprays.

Kolospray may be safely used in combination with Lead Arsenate, Nicotine, Rotenone, Zinc Sulphate, and the insoluble Coppers and Lime. It may also be used as an addetive to liquid or dry Lime Sulphur.

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Spray Program for Raspberry Anthracnose

SINCE 1942 was rather a wet year, it may be possible that there will be a large carry-over of raspberry anthracnose infection on the canes, especially those of black raspberries.

Anthracnose is such a serious disease of blackcap raspberries that they should be sprayed each spring. Otherwise it may be unprofitable to grow this variety.

Two Kinds of Spores

There are two kinds of spores produced by the anthracnose fungus. First, there is the kind that *overwinters in the cankers* on the canes which are shot into the air in the spring and spread by the wind.

The second kind are produced on cankers in the summer time and are spread throughout the patch by wind and rain. The disease is spread largely by splashing water from rain.

The greatest injury from anthracnose is the damage done to the small shoots or petioles supporting the fruit.

How to Spray

Liquid lime sulphur is recommended for best control. A spreader or sticker added to it has great advantage.

The first spray should be applied as a *dormant spray—just after a few new leaves have unfolded* as illustrated in the picture on this page. The strength should be *one part of lime sulphur to ten parts of water.* In case powdered lime sulphur is used, follow the manufacturer's directions on the package for dormant sprays.

Both the black and red raspberries should be sprayed at this time as a control for anthracnose and cane and spur blight.

A second spray should be applied about a week before the blooming period, using one part of lime sulphur to 40 parts of water.

Cumberland Black Raspberry. Above stems unsprayed showing anthracnose spots.

Below: Healthy stems. Result of semi-dormant spray and pre-blossom spray with lime sulphur. Stem on right shows time for 1st spray.

In making new plantings, be sure to cut off the old cane handles from the young plant roots, thereby eliminating a source of infection.

PRUNE BLACKBERRIES IN SPRING

IN EARLY spring blackberry canes which are to bear the crop are pruned. Spring pruning is chiefly for the purpose of thinning the crop and its severity may be governed by the moisture supply. In fertile soils that are retentive of moisture the canes may be expected to mature more berries and the laterals may be left longer than on light soils subject to drought. Vigorous canes may be expected to mature a heavier crop than weak canes.

The position of the fruit buds varies with the different blackberry varieties. With some sorts the buds are borne near the base of the lateral, with others the buds are borne farther out, while with still other varieties like Eldorado the fruit buds are scattered along the lateral. The basal buds of blackberries, unlike those of black raspberries, are either dormant or vegetative and are not forced into fruiting by close pruning. Cutting the laterals too short reduces the crop, but if too many fruit buds are left the berries will be small, seedy, and poor in quality. If the grower is not acquainted with the fruiting habit of the variety, he should delay his pruning until the fruit buds are visible in the spring.

In general, the laterals of Eldorado and Snyder may be left about 18 to 24 inches long. In an experiment in West Virginia the best results were obtained where 12 buds were left on the laterals and a nitrogenous fertilizer was used. The laterals of Blowers should be left about 6 inches longer than those of Eldorado.

—From Circular No. 193, Blackberries and Dewberries, by The New York State Agricultural Experiment Station, Geneva.

A girl with a good disposition makes a good wife, but the girl with a good position gets there just the same.

Rabbits and the Victory Garden

G. C. Oderkirk

THE cottontail rabbit loves the leaves of most legume plants. Hence, it would be well to anticipate damage to peas and beans if rabbits live near the garden plot. Cabbage, cauliflower, and other plants may be attacked but, as stated, the rabbit prefers legumes.

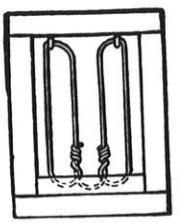
Do not experiment with repellent substances to be sprayed or dusted on plants because they may cause more injury than the rabbits and untried materials may have very little repellent value. Of the many kinds of insecticides commonly used, nicotine sprays at the strength used to destroy insects seem to have the most deterrent effect. A spray of nicotine applied in the late afternoon or evening and renewed every few days will usually reduce rabbit injury to plants.

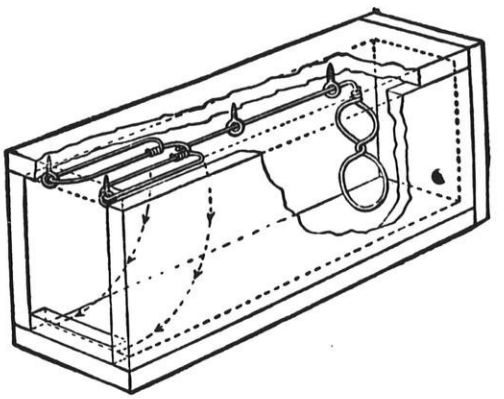
Trapping Rabbits

Trapping is, however, the best rabbit control to apply in and near towns and cities. It would be well for a gardener to get busy before planting time and trap the few rabbits that may be living near a garden, transporting and releasing them in areas where they will cause little or no damage. This can be done quite easily with several different kinds of traps, one of which, the Wellhouse trap, is illustrated.

How Trap Is Made

The box of the Wellhouse trap is 21 inches long, about 6 inches high, and 4 inches wide (inside measurements). Old one by six-inch boards should be used rather than new lumber, if obtainable. The box is closed in the rear and has a wire door in front which swings inward from the top, a cleat at the bottom preventing its opening outward. The trap is set and the wire door kept open by a wire trigger rod held in place by two staples in the top of the box. The





trigger rod is bent downward in a loop or figure 8 near the rear of the trap. As the rabbit enters and goes into the back part, it presses against the loop and moves the trigger rod backward, thus becoming imprisoned as the wire door releases and falls. Bait may be used but it is unnecessary, since cottontails frequently take refuge in dark places from enemies or inclement weather. The materials needed to make a Wellhouse trap are: Four boards 1 by 6, 21 inches long, for top, bottom, and sides; a piece 1 by 6, 8 inches long, for the back; a small cleat for the door stop; a 28½-inch length of fairly stiff wire for the door; 22 inches of wire for the trigger; 4 small staples for hanging the door and trigger; and nails.

Rabbits will be an important source of meat to many families this fall and winter and this important resource should not be wasted. Consult your state game law. Where the removal of rabbits by traps or other means is contrary to law, a state game conservation officer should be consulted.

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Hints for Strawberry Growers

EARLY planting of strawberry plants is very important. Experiments have shown that it is best to set the plants as early as possible in the spring. Such large and successful growers as the W. F. Allen Company of Salisbury, Maryland, state in their catalog, Plant Early—Early—Early!

July set runners produce more berries than runners set later. In fact, in Wisconsin the strawberry blossom buds are formed in September. Therefore only runners which have become well established will form fruit bud clusters of satisfactory size. Runners which are weak and small in September, will of course not set many fruit buds.

Uncover Early

The work of Dr. R. H. Roberts, Madison, has indicated that the covering should *not be left* on strawberry plants too long in the spring. Remove it just as soon as the weather is warm enough for growth to begin. Dr. Roberts found that plants uncovered early, as for example those uncovered by growers for digging plants for sale, made a better growth than those uncovered later.

Many growers think they can delay blossoming by leaving the covering on, and thereby escape late frosts. This does not seem to be true as blossoming is not delayed enough to be of any practical value. Furthermore, there has been a decrease in fruit production on patches left covered too long.

Space Plants Properly

Experiments have also shown that strawberry plants spaced so as to have sufficient room for each plant to develop, produced more fruit than those that are crowded. Spacing of 6 inches between each plant has resulted in larger crops than if the plants were more crowed. Crowded plants will not be vigorous and will not set a good crop of fruit buds in September and October.

It is not practical to thin strawberry plants that have become too crowded so the best thing we can do is to set the plants at the right distance in the spring. Such prolific plant making varieties as Beaver should be set 30 *inches apart in rows 4 feet apart*. On good soils and with plenty of moisture plants set at this distance will produce plenty of runners and make a good matted row. Varieties such as Premier which do not produce many plants can be set more closely —from 18 to 24 inches apart in the rows. It is also important to watch the setting of the runners and space them so they will not become crowded. That may mean some hand work while the plants are being hoed, but it will pay.

Strawberry Fertilizers

Practically every strawberry growing state has carried on experiments to determine what type of commercial fertilizer is best for strawberries and still we find nothing definite on this subject. On soils containing a good supply of humus commercial fertilizers have not given results to pay for the cost of the fertilizers. Most farmers report the best results from the use of manure used with a cultivated crop one year before the strawberry plants are set out, to get rid of the weed seeds.

The reason why humus is so important is that the strawberry plant has a shallow root system and that the strawberry fruit is composed of about 80% of water. Therefore the moisture supply is very important. A soil containing plenty of humus enables the plants to produce an extensive root system. This, together with the fact that a soil containing humus can hold more moisture, enables the plant to absorb both moisture and mineral plant food from the soil.

On light sandy soils heavy mulching between the rows is important to conserve moisture during and just before the picking season.

GROW ENOUGH VEGETABLES FOR YOUR FAMILY NEEDS

An all-year supply of vegetables can be grown on about one-tenth of an acre of land. A family of two adults and three children, or four adults will be adequately supplied by the following amounts of vegetable crops:

asparagus, 50-60 plants
snap beans, 250-300 feet
dry beans, 700-800 feet
beets, 120 feet
broccoli, 10 plants
early cabbage, 25 plants
late cabbage, 60 plants
early carrots, 60 feet
late carrots, 120 feet
chard, 15 feet
Chinese cabbage, 15 feet
cucumbers, 60 feet
leaf lettuce, 60 feet
New Zealand 'spinach,' 10 feet
onions from seed, 120 feet
onions from sets, 60 feet
parsley, 3 plants
parsnips, 60 feet
peas for fresh use, 240 feet
peppers, 10 plants
peas for canning, 480 feet
early potatoes, 500 feet
late potatoes, 1500 feet
radish, 120 feet
rhubarb, 10-12 plants
rutabagas, 60 feet
spinach, 120 feet
squash, 60 feet
sweet corn, 420 feet
tomatoes, 60-70 plants
early turnips for greens, 60 feet
late turnips, 60 feet

By the Horticultural Dept., Wisconsin College of Agric.

THE BERRY MARKET

Strawberry and Raspberry Plants For Sale

Latham raspberry plants, Beaver and Premier strawberry plants. Well rooted and freshly dug. Guaranteed satisfactory delivery. Relyea Dahlia Gardens, Taylor, Wisconsin.

How to Prune Raspberries

The Longer the Canes, the Larger the Production

A LETTER from Prof. W. G. Brierley, Horticulture Department, University of Minnesota, relative to pruning studies of raspberries, makes this statement:

"All of the pruning studies and also several of the growth habits of the raspberry plant, show clearly that yield is directly related to length of cane. You may recall that the largest yields are produced in the Puyallup Sumner district of western Washington, where the canes usually are left at 6 to 8 feet or more and supported on wire trellises.

"Our recommendations here are to prune the canes as long as the training system permits in order to take advantage of the greater expected yield of the longer canes. When it is necessary, as in the unsupported hedge row, to prune to short canes, we suggest that more canes be left in order to offset the reduction in yield due to short pruning."

Experiments on Pruning

The following is a summary of the results of pruning experiments conducted by the Minnesota Department of Horticulture, and reported in Bulletin 281 of the Minnesota Station by Dr. W. G. Brierley.

"In 1929 the volume of crop increased with length of cane, showing that when climatic conditions are favorable the Latham may be expected to repeat this performance. In 1928 the yield from the tallest cane was no larger than that from the canes pruned to 36 inches, this effect being due apparently to winter injury to the upper portions of the canes. In 1930, with vigorous canes unaffected by winter injury but exposed to severe drouth and unusually high temperatures, the yields were practically alike for canes of all heights. These results indicate that although vigorous Latham canes may be expected to produce in proportion to the length of the cane, the production often is affected by factors such as immaturity, winter injury, drouth, and high temperature. In view of these results it appears advisable for the grower not only to prune his Latham canes as long as his planting and training system allows, but also to follow a cultural practice that will avoid the effects of the other factors.

"The grower should realize that, with the raspberry as with other bush and tree fruits, pruning is only one of several items of field management and that all such practices may more or less directly affect the size of the berries or the volume of fruit produced.

"When other factors do not limit production, as in 1929, total yields have been found to be in proportion to length of cane."

COMMENTS ON RASPBERRY VARIETIES

Stanley Hall, Elmwood, Wis.

WE still like the Sodus and Potomac purple raspberries. We have found a good demand and apparently people have become educated to using them.

We still prefer Taylor and Newburgh to Latham. The Newburgh produces a larger crop, and we had a very large crop of Taylor this past season. In quality and appearance it excels any variety we have grown.

Indian Summer is a good early berry. It ripens before the strawberry season is over. The Starlight variety also ripens with Indian Summer and continues to bear throughout the summer and fall, but the fruit is rather small.

The fruit of the Ruddy purple raspberry is not to be compared with Sodus or Potomac, though it is a heavy producer.

NEW
BURGUNDY
STRAWBERRY

Formerly Minnesota No. 1192
This outstanding new strawberry originated by the Minnesota State Fruit Breeding Farm has just been christened "Burgundy." It's a moneymaker because of its high quality — dark red meat and late ripening, thus reaching the best market.

FREE CATALOG

FREE Catalog of other money-making fruits. New "Sunrise" Raspberry. "Victory" and "Fireside" Apples. New Nanking and Korean Cherries. Cut Grocery Bills with these new quick bearing fruits.

ANDREWS NURSERY

Faribault, Minn.

It may be true that two can't live as cheaply as one, but the young man often has a cheaper look.

Get extra savings on Sheboygan fruit and berry boxes

Whether you need a box approved for interstate shipment by the Federal Food and Drug Administration, or whether you plan to ship locally in old style boxes, you can be safe and save money too, by assembling either type box with the fast-working Neva - Clog stapler. Get everything you need for fruit or truck shipments at Sheboygan—as leading growers have for 63 years.
Write, now, for low prices and free facts on new shipping regulations.

Sheboygan Fruit Box Co.

543 Sheboygan, Wisconsin

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

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How to Install Those Package Bees

MANY beekeepers in Wisconsin have adopted the "direct-release" method of installing package bees as introduced by the Federal Division of Bee Culture.

This method has several advantages. They are:

(1) Quicker egg laying. On the average, queens introduced by this method began laying eggs in 18 hours, as compared with 4 to 4½ days by methods whereby queens were released from their cages by the bees, in experiments carried on by Dr. C. L. Farrar. Considering that a good queen will lay from 800 to 1,200 eggs per day, there is an important gain at a time when young bees are needed for brood rearing.

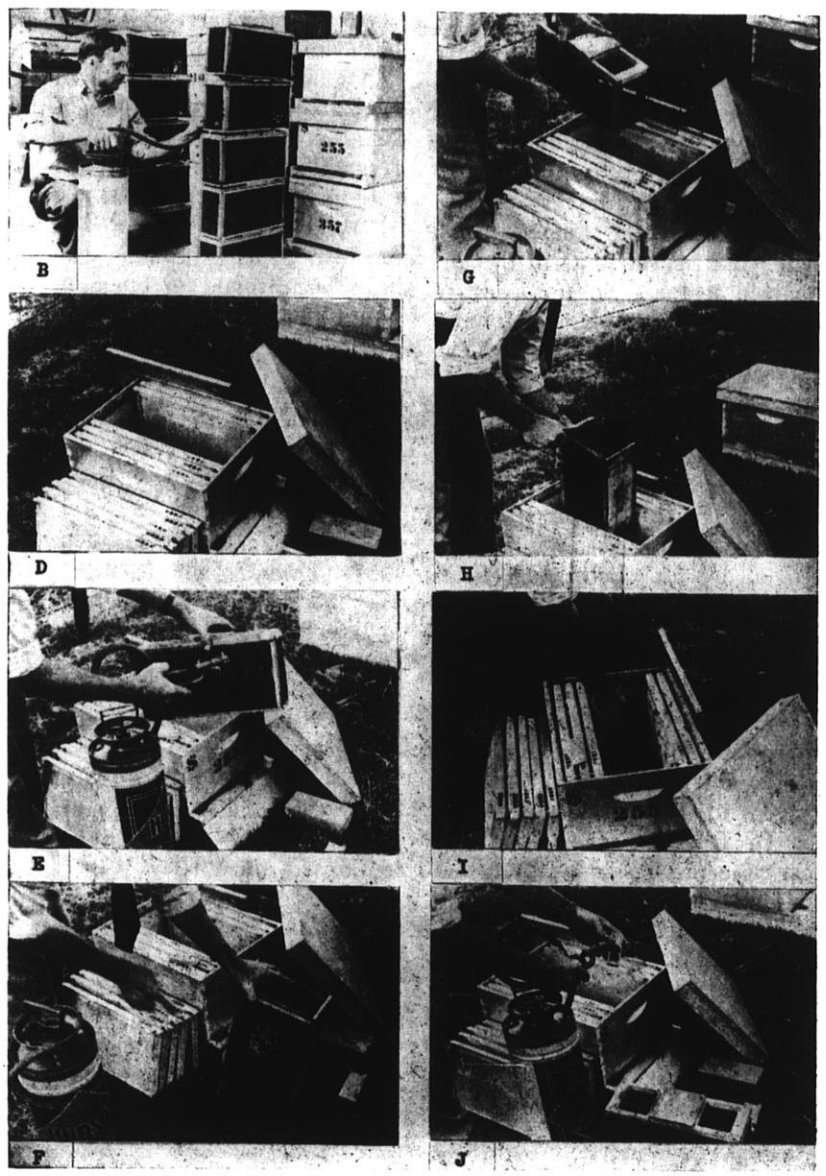
Only One Trip Necessary

(2) Now when we must conserve tires and gas, it is important that we adopt a method whereby we do not need to drive to outyards more than necessary. By the "direct-release" method the job is completed at one time, and with a saving of labor. No need to take out frames which must be stored elsewhere and later replaced. No going back to outyards to remove packages.

(3) There has been less loss of queens. Dr. Farrar's tests indicate that loss on installing 355 packages by this method was only 1.6% as against a loss of 2.9% with the older method.

How to Install Packages

It would be well to send for Circular E427, entitled "Recom-



Pictures By Central States Bee Laboratory, Madison.

mendations For The Installation of Package Bees Using A Spray and Direct-Release Method" from the Central States Bee Laboratory, College of Agriculture, Madison. However, we give the method briefly here, for those who may wish to follow it.

First we should place into a hive, combs containing from 15 to 25 lbs. of honey, depending upon when the packages are installed—the earlier the more honey will be needed. If we do not have honey, of course we must feed sugar syrup and from 15 to 25 lbs. per colony may be necessary for packages obtained the latter part of April. A comb or two of pollen, should also be added if available.

Spray With Syrup

When the packages are received from the express company they are gorged by spraying with a warm sugar syrup made of one part of sugar to one part of water.

The clusters should be sprayed on all sides several times. It is important that all bees be gorged. Feed them as long as they will clean up the syrup.

A knapsack type of low-pressure sprayer is such an important article for a beekeeper to have that he will never wish to be without one if he ever uses one.

Out in the apiary the packages are distributed near the prepared hives unless the weather is too cold. Five combs are taken out of the center of the hive to provide room for the bees. The regular 7-inch bottom board is used so that the bees can be spread out and the frames replaced without crushing them. The entrance is reduced and the smallest opening is plugged loosely with grass.

When all is ready the package is sprayed thoroughly again to quiet the bees and prevent them from flying.

Next we jar the bees so they fall into one end of the package. We then cut the screen for an opening through which to pour them. Last year we saved the packages by removing the feeder can from the hole in the top of the package and shaking the bees through that. With a few sharp blows of a mallet or fist, the bees are shaken into the hives. The combs are then replaced. The queen is sprayed with syrup so she cannot fly. Then she is carefully shaken onto the frames. The hive can then be closed and the job is done.

Three to five days later each new colony should be checked to see if the queens are laying. It is well to have an extra queen or two on hand to be given to any colonies which do not accept their queen.

BEEKEEPERS MEETING NORTHERN WISCONSIN DISTRICT BARRON COUNTY SALES PAVILION, BARRON

Wednesday, May 5

THE PROGRAM

10:00 a. m. Call to order by District President, Mr. Robt. Knutson, Ladysmith.

10:15 a. m. What is A.F.B.? How is it spread? What we know about Nosema disease and its effect. John F. Long, Madison.

11:00 a. m. Plans for 1943 in disease control. Newly organized National War-Time Beekeepers Conference and what it proposes to do. James Gwin, Madison.

12:00 m. Luncheon. Payment of state and district dues.

1:30 p. m. Business meeting, and election of officers.

2:00 p. m. Talk by County Agent J. O. Hembre, Barron.

2:15 p. m. How to manage our colonies for bigger honey crop. Causes of swarming and how to prevent it. Relationship of strong colonies to better wintering. H. J. Rahmlow, Madison.

3:30 p. m. Government regulations and price ceiling and how they affect the beekeeper. Robt. Knutson, Ladysmith.

Don't forget the date — Wednesday, May 5.

CONDITIONS AT LADYSMITH

ON March 19th there was still one and one-half feet of snow on the ground here at Ladysmith. We have not had any decent flying weather since the middle of November. The thermometer went up to 44 degrees for one hour in February, and has not been above 40 since. Many of my colonies are completely buried under the snow. Last week the thermometer went to 17 below zero. Bees in cellars seem to be about normal, about 10% of them showing some dysentery.

Robert Knutson, Ladysmith.

BEEKEEPERS' MEETING AT MEDFORD

TAYLOR County beekeepers are inviting beekeepers of adjoining counties to a special meeting on Monday, May 3rd at 8 p. m. at the County Court House, Medford.

The speaker will be H. J. Rahmlow, Madison, who will discuss colony management and apiary work in spring, summer and fall. Such items as swarm control, building large colonies, preparing for winter, and other details of management will be discussed. A colored movie on beekeeping methods will be shown. All beekeepers are invited to attend.

Bee Equipment for Sale

For Sale: 15 Lewis Modified Dadant hives with empty frames. 20 Modified Dadant empty shallow supers. 150 standard 10-frame hive bodies with empty frames. All painted and in good condition.

Wanted to Buy: Standard eight-frame hive bodies. Herbert H. Reim, 924 Labaree Street, Watertown, Wis.

Bees Need Plenty of Food and Plenty of Room in April and May

WHETHER or not we harvest a good honey crop this summer will depend largely on how well our bees are supplied with honey and pollen during April and May, and on how much room we provide them for maximum brood rearing.

Feed Sugar Syrup or Honey

A good colony may consume as much as one to two pounds of honey or sugar syrup per day in heavy brood rearing. That may mean more than 30 lbs. of feed per month. Now of course we expect that they will obtain some of this from the field, but the amount they can obtain will depend largely on weather conditions. It is up to us therefore to watch the colonies carefully and feed them in case of a shortage. Only loss can result from a neglect of this important job.

Best Way to Feed in April

While going through our colonies in such operations as clipping the queens, we can have on hand a can of sugar syrup made by dissolving 1½ to 2 parts of sugar in one part of hot water, and a sprinkling can. Whenever we find a colony that is light in stores we should fill both sides of several frames with warm sugar syrup. If the syrup does not flow freely from the spout of the sprinkling can, enlarge the holes with a nail. The combs may be filled rapidly if inclined in a wash boiler to catch the run-off. Sometimes we sprinkle a frame right on top of the cluster.

Pollen Necessary for Brood Rearing

Bees cannot raise brood without pollen. Weather conditions are often such in April that the bees connot fly for periods of a week or more. If there isn't much pollen in the combs they soon use up the supply and then brood rearing stops. That is the time for the beekeeper to watch the colony carefully. It is important to feed soybean flour during such times of shortage.

Everything we can do in April to increase brood production will pay dividends in June and July through increased honey yields.

Reverse Hive Bodies to Provide Room

Before the end of April good colonies should have filled one ten-frame hive body with brood and bees. If they have been wintered in one body a second should be given on top of the first. If they have beeen wintered in two hive bodies, the lower one should be placed on top. The reason is that the queen will *expand her brood nest upward* whereas she is slow to occupy space below.

According to Dr. C. L. Farrar, swarm control consists of giving the bees an *opportunity to expand normally*. By reversing brood chambers we place the youngest brood down and the sealed and emerging brood above. This is most favorable for the normal expansion of the colony.

By using two brood chambers, much labor will be saved over the system of raising frames of brood above a queen excluder. Saving of labor will be important this year.

Do Not Divide Brood

Never place empty frames in the middle of the brood nest. The colony should be allowed to expand normally, and the brood nest should be kept intact. If empty frames are placed in the middle of the brood nest, thereby dividing the brood nest, an unnatural condition is established which may lead the bees to build queen cells in an effort to supersede the queen.

If any shifting of frames is done in the brood nest, the brood itself should be kept in the same position as established by the queen. Additional room of empty combs should be given in an upward direction. If a frame of brood is taken from the brood nest and placed in an upper hive body the other frames of brood should be shoved together, and empty combs placed next to the brood on either side of the brood nest.

RECENT GOVERNMENT RULINGS AFFECTING BEEKEEPERS

THE production of beekeepers supplies other than hives and frames has been authorized up to 100% of 1940 or 1941 production. The previous allotment was 38%. There is no restriction on the manufacture of bee hives including frames. Replacements and repairs have a quota of 166% of 1940 or 1941.

Another amendment effective March 12th provides for an unlimited pack of honey in 60 lb. cans. This is an increase over the previous phrasing of the order which permitted the packing of only 100% of the 1942 pack, which in many areas was very short. Only two other items have this favorable ruling, blood plasma and nicotine sulphate. Beekeepers are therefore in a fortunate position and the value of bees for pollination is given special recognition.

No tin is allotted however, for honey containers smaller than 60's.

An exceedingly lively gent was astonished to read of his death in an obituary column. He called a friend.

"Did you see the paper? They printed my death notice in it."

"Yeah," said his friend. "I saw it. Where are you calling from?"

New Prices on Honey in Packages

Ceiling Prices Established on Small Containers

EFFECTIVE on March 29, the Office of Price Administration has placed a specific cents per pound maximum price on packaged honey. All beekeepers who have very much honey to sell in packages should write to the Office of Price Administration, Washington, D. C., and ask for Circular MPR 275, Amendment 4. It may also be possible to obtain circulars at the local O.P.A. Board.

The first important amendment provides for a maximum price of 15*c per pound* for bulk honey sold by the beekeeper or producer direct to the consumer at retail. Bulk honey is any container of more than 15 pounds. Consequently, *beekeepers may now charge consumers* 15*c per pound for* 60 *lb. cans.*

The wholesale price of bulk honey remains the same—12c per lb. maximum.

The regulations also cover the permitted mark-up for retailers and wholesalers. The mark-up for independent retailers of small volume is 1.32 times the net cost.

Ceiling Prices on Packaged Honey

The following prices are f.o.b. the packing plant before discounts of any kind. They are the maximum prices which beekeepers may charge the retail store or individual users. Prices to wholesalers, commercial, industrial, governmental or institutional users have been established. Those who sell in this way should get a copy of the order.

Size container	Price per case of 12 To retail store	Price per container Retail to consumer
8 oz.	$1.64	.15
16 oz.	2.93	.28
2 lbs.	5.43	.52
3 lbs.	7.81	.75
	Price per case of 6	Price each
5 lbs.	5.80	1.11
10 lbs.	10.99	2.12

Prices of many other sizes are also given in the order.

A tourist stopped in front of a little country store, dumbfounded at the sight of an enormous display of salt piled on the premises. Stack after stack, boxes, barrels and bags. Tons of salt, inside the store and out.

"Ye gods, man, you must sell a lot of salt!" exclaimed the tourist.

"No, I don't sell much," replied the storekeeper, "but you should have seen the guy that came here last week. He really COULD sell salt."

MORE COUNTY APPROPRIATIONS FOR DISEASE CONTROL

In addition to the county appropriations listed in our January, 1943 issue for bee disease control, the following have appropriated money:

Ozaukee County ---------$100.00
Pepin County ---------- 150.00

It is gratifying to note the way in which beekeepers are backing up the disease control work in Wisconsin. It should surely bring results.

HONEY WANTED

Cash paid for cars and less than cars comb and extracted honey. Mail sample and best price. C. W. Aeppler Company, Oconomowoc, Wisconsin.

NOTICE

After the present supply is gone there will be no more 5 or 10 lb. tin honey pails available.

We will have 100% of the 1942 supply of 60 lb. cans.

We can supply your 5 lb. glass jars as in the past.

Write for complete price list.

Order Through Your State Beekeepers Association.

HONEY ACRES
Menomonee Falls, Wis.

BUY LOTZ SECTIONS and Solve Your Packaging Problems

1943 is a year of problems for the Beekeeper. Sugar rationing has created a demand for honey.

Conservation Order M-81 issued by the War Production Board has banned the manufacture of tin containers less than 5 gallon size and limited the manufacture of caps for glass containers.

Produce comb honey. It furnishes its own container.

Lotz sections will give your comb honey a boost. They will save you valuable time because they will not break when being folded. Less breakage means lower cost. And too, the smooth white appearance of the surrounding section adds sales appeal.

AUGUST LOTZ COMPANY
BOYD, WISCONSIN

Editorials

COUNTY FAIRS TO BE BROUGHT UP-TO-DATE

County Fairs will revise their premium lists to emphasize all-out production for victory, and restrict entries to local areas, according to a newly appointed state committee on revision of premium lists for county fairs.

Some of the new ideas proposed for contest and educational exhibits, are canning, nutrition and vegetable storage demonstrations; the use and care of farm machinery; utilization of all cuts of meat; victory garden contests; dairy herd production, based on size of herds and butterfat delivered; labor saving devices; best use of farm labor.

A large state committee has been appointed to draw up definite recommendations. Included in this committee are Prof. J. G. Moore, College of Agriculture, for vegetables, flowers and Victory gardens; Mr. James Gwin, State Department of Agriculture, for dairy products, eggs and honey; Prof. O. B. Combs, Horticulture Department, for fruit preservation and storage.

This is a step in the right direction. Fairs need to be modernized. They can perform a definite function in our agricultural life, but they must be taken out of the horse and buggy days and brought up-to-date. Unless they do this, their life will be short. Here is a constructive, forward step and we hope all fairs will take advantage of the work of the committee.

It's worth recalling that the Statue of Liberty has a mouth three feet wide, but she keeps it tight shut all the time.

A NEW VICTORY GARDEN FERTILIZER

A UNIVERSAL Victory Garden fertilizer for use in all states in order to further the Victory Garden program was announced in January by the U. S. Department of Agriculture and the War Production Board.

This new fertilizer will carry 3 percent of nitrogen; 8 percent of phosphoric acid, and 7 percent of potash. About 85 percent of the nitrogen will be in organic form, composed of such materials as cottonseed meal, soybean meal, peanut meal, castor pumice, etc., while 15 percent will be chemical nitrogen in quickly available form for early stimulation of plant growth. It is assumed that this fertilizer will be available in most stores.

NEW RASPBERRIES NAMED BY CANADIAN STATION ON TRIAL IN WISCONSIN

FIVE new raspberry varieties have recently been named by the Experiment Station at Ottawa, Canada. A. W. S. Hunter of the Fruit Breeding Department gives the following names and description of the new varieties.

O-262, named *Rideau*. Mid-season variety with large, firm fruit. Somewhat susceptible to winter injury in cold climates.

O-264, *Trent*. Early, heavy yielder. Almost as hardy as Latham.

O-272, *Madawaska*. Very hardy. Hardier even than Chief and superior to that variety in fruit and yield. Excellent for canning and jam making.

O-275, *Ottawa*. Resembles Viking in many respects, but is hardier. A few days later, and a good shipper.

O-276, *Gatineau*. An outstanding early variety. Earlier than Brighton and Count and much better in size, quality and firmness. A heavy cropper before the main varieties are ripe.

All of the above varieties are on trial by growers in the Bayfield district where the climate somewhat resembles that of Ottawa, the plants have been sent us last year through the courtesy of the Ottawa Experiment Station.

AMERICAN ROSE SOCIETY PUBLISHES NEW ANNUAL

THE American Rose Society, R. Marion Hatton, Secretary, Harrisburg, Pa., has just published its annual Year Book.

Dr. J. Horace McFarland has been editor for 28 years and now at the age of 84, he writes his valedictory. He points out the vast change in the American Rose Society. In the first year he was editor, 1915, there were 289 members, of which 53 were amateurs. Today the membership numbers 2,500, almost all amateurs.

Fifty-eight new roses are described in the annual. The records of 25 years show introductions of 3,592 roses, an annual average of 144.

The 1943 Victory Garden Program

By H. W. Hochbaum

1. Every farm, where climate and water supplies permit, should grow all the vegetables needed for the family's entire year's supply in fresh and processed form.

2. All town and suburban home owners who have sufficient open, sunny space and fertile ground should likewise produce as much as possible of the family's yearly vegetable supply, especially green and leafy vegetables, tomatoes, and yellow vegetables. The larger the home lot the better for this purpose. Though every bit of vegetable produce grown at home will help, the earnest gardeners, especially those who tried their wings last year, will not be content with too small a plot.

3. In order to have larger garden plots than the home yard can provide, many Victory gardeners will seek garden space in a Victory community or allotment garden accessible by bus, street car, or bicycle, where on individual plots 30 by 50, or 50 by 100 feet or larger they can grow more of the needed vegetables.

4. Community gardeners likewise make it possible for many people living in densely populated metropolitan areas to have real gardens and to produce fairly large supplies of vegetables.

5. On farms and on many suburban homesteads people should plant strawberries, bush fruits, grapes, and certain tree fruits so that they may have more adequate supplies of these desirable foods.

6. In many town and rural schools, the school-garden effort should be directed specifically to growing supplies of vegetables for school lunch purposes.

7. Not one bit of garden produce should be allowed to go to waste. All surpluses from home gardens, or where available, local market surpluses of good-quality vegetables and fruits, should be canned or otherwise preserved for use in homes, school lunches, or for welfare purposes.

Editor's Note: Mr. Hochbaum is in the Extension Service, U. S. Dept. of Agriculture, and is chairman of the committee on Victory Gardens of the U.S.D.A.

EXCHANGE THE CAN OPENER FOR THE HOE

AMERICANS must exchange the can opener for the hoe, and many a waistline will heave a sigh of relief. This is the opinion of many in the U. S. Department of Agriculture.

Americans must emulate their British allies in this big job of making up food deficiency by hard work and tender tilling. Many of us stay-at-homes are seized with the impulse to swoon in despair beside our grocer's sparsely furnished shelves, forgetting a solution which used to be regarded as an old American custom—the exertion of muscle.

The English have already beaten the food shortage with strong backs and plenty of sweat when it looked as though malnutrition and all the ills it causes would strike through the entire population, especially the children.

GOOD SOIL AERATION IMPORTANT

It is my opinion that good aeration of the soil is important for growing glads, states David Puerner of Milwaukee.

"I recently heard a lecture by Prof. Alex Laurie of Ohio. He said that correct aeration is obtained by several ways, one by plowing under sod or green crops, and two by the use of barnyard manure which contains straw. Straw and similar vegetation supplies little tubes to help supply air for the growing roots of the plants."

DON'T BE A FAIR WEATHER PATRIOT

Use Your Rainy Days On The Farm To Get In The Scrap!

YOUR scrap quota is 1,000 or more—1,000 pounds of tough, fighting steel to help our boys win. That's your share of the 3 million tons that must be collected from the Nation's farms by July.

What are you doing about it? Are you saying, "There isn't that much Scrap on my place?" Are you complaining, "I haven't got time to spend on gathering up junk?"

Here's Your Answer

If you think you haven't got half a ton of scrap then pitch in and prove it. Dig out every pound of busted or rusted metal you can find — in your barns — in your fields—in your house. If you can't get 1,000 pounds you've still done your best . . . but chances are you'll find that much and *more!*

The soldiers who need that steel —crouched in a filthy foxhole or a rain-filled trench—they can't call it off and get into dry clothes. The boys on the bridge of a storm-tossed ship can't leave their posts and run to shelter. Americans didn't quit at Valley Forge . . . they never have and they never will, no matter what the danger or discomfort.

That puts it up to you to do this job of Scrap collection. If you can't find any other time—then do it in the rain. Be proud to share their discomfort . . . just as you've always shared the blessed Freedom for which they're so bravely fighting!

Farm Press Scrap Committee,
Room 3303, Empire State Building,
New York City.
Please send a copy of
☐"Scrap—And How to Collect it"
☐"National Scrap Harvest"

Your name _____

Address _____

City _____ State_____

Gladiolus Tidings

By the WISCONSIN GLADIOLUS SOCIETY

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Gladiolus Troubles

III. BULB MITES

Noel F. Thompson

THERE are a number of insect and disease troubles of glads which may be considered of minor importance. Among these are the bulb mites. And yet there has been a noticeable increase in the incidence of this pest during the last few years. Since it is one of the minor troubles, it may be overlooked or neglected until it becomes of major importance. At least this may be true with the individual grower.

These mites are small, pearly-white insects scarcely visible to the unaided eye, but easily recognizable with a hand lens. During storage they are found on the base of the corm, under the scales, or even within the corm.

The first indication of their presence are numerous small, red, slightly raised spots. Larger spots have a dark, almost black margin and are slightly sunken. At first the mites feed on the surface of the corm, but later they get beneath the skin causing sunken areas several mm. across. These areas may coalesce, eventually involving a major portion of the surface of the corm. The spots have a dark, almost black border, but within this the color is lighter, being reddish or grayish in color. Under the surface is a dry, powdery mass within which the mites are found.

MITE INJURY
Both small dots and large spots caused by mites feeding on corms.

A light infestation injures the appearance of the corm, and as the feeding progresses the corm dries out and may mummify, becoming worthless. Or rots may follow the mites, destroying the corms either in storage or in the field.

Control

Bulb mites are not easy to control. Warm, humid conditions are favorable for the development of the mites, so when glads that are not well cured are stored in deep boxes in a warm room injury from this pest may be severe.

The activities of this pest in the field are not well known, but it is probable that it can live over winter on crop refuse, so an infested field should not be replanted immediately to glads.

Once this pest has become established, it seems to be very difficult to eliminate it. Dry, cool storage will help. When the glads are dug the corms should be placed in shallow trays in a well ventilated place. Much moisture is given off during drying and curing, and good ventilation is essential. Storage during the winter should be below 50 degrees. If possible, a temperature between 35 and 40 degrees is best, as this will also tend to control thrips.

Mites are very resistant to fumigation, but a hot water treatment, 110-111.5 degrees for 2½-3 hours has given good control. Possibly the most effective method is to fumigate with methyl bromide. This requires a well constructed fumigation chamber, but it not only eliminates mites and all other insects, but does not injure the corms. Where only a few corms are infested they should be burned.

MORE MEMBERSHIPS THIS YEAR

OTTO Kapschitzke, our Recording Secretary-Treasurer, writes: "I am enclosing another membership list. You will notice that this year we are getting more members than in 1942, which shows that folks are getting more interested in glads than ever."

SOILS FOR GLADIOLUS

GLADIOLUS like an open, porous type of soil. Such soils enable the roots to make their best development so they can absorb necessary moisture from the soil containing the elements necessary for growth.

Sandy soils are loose and open and enable the roots to penetrate readily. The limiting factor on sandy soils for best growth is the availability of phosphorus, potash and nitrogen fertilizer. The soil should be tested and enough fertilizer applied so that there will be 200 *pounds or more available phosphorus per acre, and from* 300 *to* 400 *pounds or more of available potash per acre.*

Looking over the fertilizer situation, the most economical way of getting these plant foods for large plantings will be to buy muriate of potash and acid phosphate, and then for the nitrogen use milorganite. These are available at most stores.

To grow glads well on heavy soil it must be loosened up. This can be done by the use of sand, coal ashes, and organic matter such as peat. Humus can be obtained from four sources—cover crops, manure, peat and compost material. Soils lacking humus become hard during the dry weather of summer and do not permit the root system of plants to grow well. Consequently good glads cannot be produced on such soils.

Nitrogen

Heavy soils should also be tested and phosphorus and potash added to meet the minimum requirements given above. The amount of nitrogen to apply will depend upon what type of organic matter has been used. Manure supplies considerable nitrogen. Peat will supply some, but not as much as manure. Nitrogen will stimulate the development of leaves, and plants will grow taller than if not enough nitrogen is available. It will probably be impossible to get ammonium sulphate this year so we can substitute milorganite.

REQUIREMENTS FOR GOOD COMMERCIAL GLADIOLUS

J. R. Hopkins Takes Issue With Walter Krueger

COMMENTS on the definition of a commercial gladiolus by Mr. Krueger.

I am not an authoritiy on commercial gladiolus, but I do think about it considerable and have these comments.

"Grow a salable flower-head without irrigation." I contend that just to be "salable" is not enough. We should encourage what are known as "fancy" that get better prices than run of the mine glads. Some "salable" glads are a disgrace—Picardy with 3½ inch florets and 3 to 5 open are an example.

Likewise a "tall cutting spike without irrigation" simply is not in the cards. Water is about everything in growing tall glads—take away "enough water" and you always have short spikes.

I doubt if a salable spike can be produced from all sizes of bulbs. The No. 5 is a 5/8 inch bulb and No. 6 is "½ inch or under." Growers can't expect more than half size florets from half size bulbs. Also the number of buds is less—number open at one time is less.

On "a floret size and substance to permit piling of bunched dozens without breaking or scuffing florets." I do not favor present practice of packing as if glads were railroad ties and am sympathetic with the wholesalers who want to receive glads with two or three open, packed looser and to market for a better price.

On glads being resistant to scab, fusarium, rot and without storage sprouts—"there ain't no such animal." Best glad variety in the world will contract disease if bulb is permitted to stay wet and cold for two weeks after harvesting. We all know that from last fall when we had to dig them out of the mud. Who is there to say that any bulb will "resist" those diseases. How are you going to prove it?

My main point is to start an argument so that a lot more of us will do more thinking than we ever did before on what are the requirements of commercial glads. In the end we may greatly improve the quality of glads sold commercially. I know Walter won't mind this friendly disagreement especially when I admit I don't know much about it. *J. R. Hopkins.*

WHAT DO THE BOYS IN THE ARMY WANT US TO DO?

SHALL we keep up our garden organizations, our gardens, and our interest in ornamentals as well as growing vegetables for food these days?

That is the question many of us who cannot be in the army are asking ourselves.

Perhaps we should ask the boys in the service what they would like

Continued on page 221

GLADIOLUS SHOW DATES

August 7-8. Indiana Gladiolus Society probably at Peru.

August 14-15. Midwest Gladiolus Societies at Chicago.

August 17-18. Canadian Gladiolus Society at Winnipeg.

August 18-19. N.E.G.S. Show in Boston, Mass.

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Home and Garden

Mrs. C. E. Strong

WHAT GARDEN CLUBS ARE DOING

NATURE BRINGS CALM TO HARRASSED MINDS

THE State President of the Federation of Garden Clubs of California said in her greetings to the garden clubs of the Third District as they met at the Exposition Museum for an all-day session, "In times like these, it is our belief that a deepening appreciation of Nature and all her handiwork may bring a certain calm.

"For harrassed minds, for hearts assailed by ills.
For all abrasions of the soul, all scars,
There is a panacea of tall hills,
The healing balm of rediscovered stars;
The scent of dew on sleeping ferns and grasses.
The flight of homing winds to waiting trees.
And there are clouds that brush the moon and pass
Shadows and dark's pulsating subleties."

Value of Gardens

"This we know, that to every person who makes a garden comes, without fail, a deeper affection for home, and city, and state, and nation."

There were a good many clubs represented in this meeting, so about three or four minutes only could be given for each report. But they managed beautifully to tell us what they had been doing. Ninety percent of the club members were doing war work as well as keeping up their garden club work. "Because," as was said in one of the reports, "being a garden club member is a privilege. We can do so many things to help ourselves and others. We grow our own vegetables to help out, and grow flowers so we and others who do not have the time may enjoy their beauty. We feel this is very essential in times like the present."

Garden Centers

Besides the regular club work they are raising money for a garden center. One club has bought a $100 war bond by raising plants and cuttings and holding a sale. Others have raised specimen plants and sold them to raise a fund for the preservation of Redwoods and Azaleas; to buy garden books for the library so more people can study them. They donate money for children's gardens, sent seeds to England. They have given flower shows in communities where they felt they would be helpful, with no charge, and given specimen plants as door prizes. (A very good idea to induce attendance.) Several clubs urged that meetings be held in the evening and husbands be included, with a social hour before or after the meeting.

They bring flowers, fruits, nuts, and vegetables to the hospitals. They put flowers, attractively arranged, in public buildings. In fact, they seemed to have kept very busy doing the things garden clubs should do for others, as well as getting a lot of pleasure for themselves.

Several speakers emphasized the mistakes a few people were making by spading up their lawns and flower borders because with trees, there was too much shade for vegetables. They urged, instead, the using of vacant lots.

Junior Gardens

A boy and a girl, first prize winners in last year's garden contest, told what it meant to them to have a garden. The girl said she really never knew how good vegetables were when gathered fresh, and how proud she was when her parents told her how much her garden helped in the budget. "I really felt I had become a useful member of the family."

The boy said, "I liked the work. It was hard but it was fun too, and I made a little over a hundred dollars selling the fresh vegetables. That will help me in school. I'm sure having a garden again."

There was a fine exhibit of very artistically arranged flowers, and the president of the Pacific Rose Society had a fine exhibit of vegetables, as well as a silver bowl filled with exquisite roses.

Glamorizing Vegetables

The cauliflowers were so immense, photographers from the "Times" took pictures of state and district presidents each holding one of them, thus glamorizing the humble vegetable by having its picture taken with orchids worn by the two ladies.

Magnolias, flowering Peach and Plum, Iris, Daffodils, Clivias, Hyacinths, Viburnums, as well as fruit

trees beautify both city and country, and iris shows will start here in Los Angeles next week, and the rose show at the Rose Bowl May 1st. Five thousand roses at Exposition Park are beginning to show color.

To Grow Cork

California hopes in a few more years to be quite independent of foreign shipments of cork. They are planning on planting 10 million cork oak trees. It has been proven that the cork oak thrives here, for in 1858 the federal government imported a small quantity of acorns from Spain and arranged to have them planted by farmers in several counties. Through the years there have been other plants so now there are several thousand large cork oaks in the state. One of these trees is 50 inches in diameter, 75 feet tall. Recently it yielded 851 pounds of cork. Th cork is the outer bark and can be removed in great sheets without damaging the trees in any way. The trees produce commercially at 15 years, and have steadily increasing yields every six or eight years thereafter as they become larger. One company uses about 5,000 tons of cork per year in the production of discs to line crown bottle caps.

What Boys in the Army Want Us to Do

Continued from page 219

to have us do. What do they expect of us when they return, and what do they think we should do while they are gone.

We have one answer to the question from Private Otto Kapschitzke, Jr., son of our Recording Secretary-Treasurer. He is at Camp McCain, Mississippi, and writes:

"Keep the Gladiolus Society going. I think that the gladiolus fans like to know as much as possible about new varieties, hybridizing, and growing glads. I know for one I like to read about these things even if I am in the army. I am trying to keep in touch with gladiolus as much as I can."

HINTS FOR GROWING ROSES

PLANT roses early. They like the cool, moist days of early spring and the roots will make their best growth during that time.

The rose bed is a good place for cow manure. Dig some down deep under each plant. If unable to get manure, use peat moss and also fertilizer containing a small amount of nitrogen, especially in organic form such as Milorganite.

Roses do not grow to best advantage on soils with sandy subsoil because they are inclined to dry out easily and the summer bloom will be short. Lots of organic matter will be required in such soils.

Set the plants so that the knob or the place where the rose has been budded is three to four inches below the surface of the soil.

Roses planted after May 1st seldom amount to much, so be sure to plant them as early as possible.

After planting, hill soil around the stems of the roses. That will help to prevent the stems from drying out in case of dry weather before the roots have become established and can obtain moisture sufficient for the growth of the leaves.

As soon as the leaves have developed, start dusting the roses with sulphur dust to protect them from black spot, which is the most serious trouble we have with roses. A few insects trouble roses and may be controlled with arsenate of lead, using nicotine for the aphids. If insects appear which are not easily controlled with dusts or spray, perhaps they can be controlled by picking them off by hand and destroying them.

Watch your roses carefully throughout the summer and act quickly when the needs of the plant become apparent.

TUBEROUS ROOTED BEGONIAS

Tuberous Rooted Begonias, Camellia type, $1.65 per dozen. Will have "started" begonias later.

Ismene bulbs, 25c. Hyacinthus candicans, each 10c.

Tuberoses, double, 10c each. No postage stamps please. Klingbeils Nursery, 2435 North 6th Street, Milwaukee, Wisconsin.

Spring Time
is Planting Time . .

Plant fruit trees and small fruits as an aid to our war economy and to build up and maintain our health.

Plant shade trees, flowering shrubs, evergreens, roses to build up and maintain our morale.

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GARDEN GLEANINGS

Start dusting the flower garden with sulphur dust containing an insect poison as soon as such plants as are troubled with fungus diseases and insects show a few new leaves. It is much easier to control pests by beginning early than by waiting until they have become established.

Take iris, for example. Spores of iris leaf spot winter over on the old dead leaves. The eggs of the iris borer are laid in fall on the top of the rhizomes near the surface of the soil. Spores are discharged and the eggs start to hatch when the leaves begin to grow and both can be controlled more easily if we start to dust at that time. Such diseases as peony leaf spot, rose black spot, apple scab, cherry leaf spot, and others require the same treatment. Aphid or plant lice eggs, which winter over on the branches of trees and shrubs can best be controlled by dusting or spraying when they first hatch out, which is about the time the buds open. We cannot get rotenone for use on flowers this year but we can use nicotine dusts and sprays. For chewing insects we must use a stomach poison such as arsenate of lead.

Kentucky Wonder Pole beans will produce an amazingly heavy crop if properly fertilized. There is always room upward in the small city garden. The pole type of bean will yield much more food than will a similar area of bush beans. However, vegetables need at least one-half day of sunlight or more and **will not thrive** if there is much competition from tree or shrub roots for food and moisture.

The Buttercup type of squash does not produce such long vines and is therefore adaptable to the small garden. It may be possible to plant squashes at the edges of the garden and trail them out over the lawn, wall or fence.

TO THE STATUE OF LIBERTY

She holds the torch of freedom
As her hand points to the sky,
She sees the tears of grief and joy
From ships that pass her by.

She stands for a democracy
Where peace has been supreme,
She keeps awake the spark of hope
That this is not a dream.

—*Marion F. Haugseth, Hayward*

Hilling of potatoes and other crops is recommended only in climates where there is considerable rainfall or on heavy soils that do not dry out readily. On the average Wisconsin soil, level or flat cultivation will be more conserving of moisture during our dry summers than if the crops are planted in ridges or potatoes are hilled, after the tops are about a foot high.

Neither does it make any difference if the eyes of the potato or of lima beans are placed upward or downward when planted. When a boy I was taught to plant potatoes by carefully placing the eye upward. Later I tested the idea and found that those plants came up first which had the eye placed downward — perhaps because they were in better contact with moisture that way.

Garden plans and suggestions for both the farm garden and the city garden are available from the county agent in each county. Wisconsin gardeners should use these plans. They are better adapted to our climate and conditions than are plans which may be found in magazines with a national circulation. The Wisconsin plans were prepared by Prof. J. G. Moore and Prof. O. B. Combs who have had many years of experience in gardening in this state.

Can we grow blueberries in Wisconsin? is a frequent question these days. Articles in magazines tell about the wonderful success folks in some states have had growing the Highbush blueberry.

For more than 20 years I have watched attempts to grow the Highbush blueberry in Wisconsin, and have yet to see a successful planting. I wish I could say something more encouraging about it, because it would be most interesting to be able to tell how it can be done. But for that matter, we have yet to see a successful planting of peaches in this state, and Highbush blueberries are not any hardier than peaches. Furthermore, blueberries require an acid soil and most of our Wisconsin soils are not acid enough to grow them successfully.

We still think, however, that the native lowbush blueberry which grows wild on the acid, sandy soils of this state might be improved and grown to better advantage. It would require clearing the land of some of the competing brush and trees, planting windbreaks to hold the snow, because our wild blueberry too is often winterkilled without protection, and providing fertilizer so that the plants might make their best growth and produce good crops.

Leander Lillesand, president of the Cambridge and Lake Ripley Garden club writes a column "Garden Echoes" in the local paper. He encloses a recent column with a poem from an inscription at Edw. Bok's Singing Tower in Florida, as follows:

"Tis we who be of simple mind
And work in gardens, often find
While bending o'er the lowly sod
The highest thoughts of life and God."

H. J. Rahmlow.

Pointers for the Vegetable Garden

HERE are a few helpful hints for growing vegetables in our Victory Garden this year. We are mentioning those vegetables most easily grown and of the highest food value.

For varieties, planting distances and planting dates, we refer our readers to page 190 of the March issue of Wisconsin Horticulture. Best varieties are given on the garden plan. We earnestly recommend this garden plan for your careful study. It was devised by Prof. J. G. Moore and O. B. Combs after many years of study and work. Plans are available through your county agent's office.

BEETS AND BEET GREENS

Beet greens are high in vitamins A and C. The beets contain minerals and so the combination of the two is an excellent one. We should grow beets throughout the season. Pull them when the beets are about an inch in diameter. It is a green that all members of the family will like. Sow beet seeds thinly. Each seed will send up two or three sprouts, so one seed per inch is enough. After covering press the soil firmly on the seeds.

BEANS

Beans grow in almost any soil and anyone can grow them. They are a warm weather vegetable and should not be sown outdoors until danger of frost is over. Probably the best pole bean is the Kentucky Wonder, though there are sections in which this variety rusts badly, no doubt due to excessive moisture or dew. They need a fairly rich soil with a little manure at the bottom of the hills.

Never cultivate beans while they are wet with rain or dew because it spreads the blight disease. Even picking beans should be delayed until the vines dry off. Also use care in picking beans not to disturb the roots. Always hold the vine in one hand while the other is picking pods. Go over the beans practically every day and remove all pods of desirable size.

BROCCOLI

Broccoli thrives anywhere. Grow the same as cabbage, but give more space. Set plants in open ground when danger of frost is over in early May. Broccoli is becoming increasingly popular because of its vitamin content and for its ease of culture.

CARROTS

Carrots are easy to grow and can be successfully grown during the summer months in southern Wisconsin. For best root development, heavy soils should be given humus. The most shapely carrots can be grown on sandy or sandy loam soil.

CAULIFLOWER

Cauliflower likes a rich soil, one with plenty of humus and also potash in order to produce the large heads we like to see. When the heads begin to form the leaves must be tied over them to provide shade so the sun will not burn the heads and turn them brown. It is, however, rather an uncertain crop.

SWISS CHARD

Swiss chard is an excellent vegetable whether or not you like it. It makes large, ornamental plants which produce food all summer in the form of large leaves and thick, bushy stalks. The leafy portion is cooked like spinach. Perhaps many will prefer to grow the kind of vegetables they like best so don't plant more than a short row in your garden unless you are sure you like it.

LETTUCE

Head lettuce grows well only during the cool days of spring, or late fall. As soon as the weather turns hot it will burn and the heads will not form, especially on upland soils. However, head lettuce can be used as leaf lettuce with excellent results.

Leaf lettuce has a higher vitamin content than head lettuce.

ONIONS

History records that laborers erecting the pyramids in 420 B. C. were fed on bread and onions. Sow onion seed early, quite shallow, in heavy soil. A quarter inch in heavy soil, and one-half inch in light soil is about right. Onions require rich soil for best development. If large onions are desired be sure to thin them early. The thinnings may be used as green onions.

PARSNIPS

Sow the seed of parsnips early and thin plants to stand 4 inches apart. They require about 130 days to reach full size and may be dug in fall and stored, or left in the garden to be dug in the spring as frost really improves the quality of the roots. The roots develop fast in a loose, pliable soil. They are not poisonous at any time.

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An Expert Discusses Pruning Methods

Montague Free Does Not Wholly Approve of Some Common Practices

PRUNING has been defined as the removal of parts of a plant for the purpose of improving it from the standpoint of the cultivator. This may mean periodical shearing, as, for example, when the object is to produce plants of definite formal outline for hedges, or plants of geometrical shape for use in the formal garden. It may mean correcting unsymmetrical or faulty habits of growth or it may be used to bring trees or shrubs to the age of blossoming earlier. The number of growth buds on certain shrubs may be reduced by pruning so that those remaining will develop larger flowers on longer stems. Pruning may also be made to aid in the rejuvenation of aged plants, and sometimes it may help in the control of insect pests and fungous diseases.

Results of Severe Pruning

According to one of the principles of pruning, if the shoots are cut back severely while the plant is dormant the usual result is the production of very strong leafy shoots during the following growing season. If the cutting back is too severe, it may mean that these shoots will be produced at the expense of flowers, especially when the shrubs in question blossom on old wood. Contrariwise, when pruning is carried out during the growing season, it often is effective in causing the development of flower buds.

Early-blooming plants, blossoms of which are produced from old wood, such as forsythias, weigelas and lilacs, cannot be pruned during the time they are dormant without the loss of flowers. Late blooming plants which produce their flowers on shoots of the current season may be pruned, often to advantage, by cutting them back in early spring.

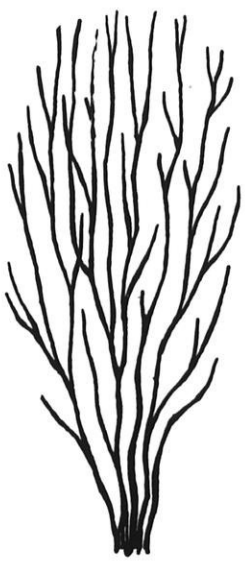
When to Prune

Let us consider a few concrete examples. What can be done in the way of pruning at this time of the year? Most books on gardening tell us that forsythias must not be pruned except right after flowering. This is good enough advice as far as it goes, but I would not hesitate to prune forsythias any time between the first of February and blossom time if I could use the prunings by forcing them into bloom in water indoors. This pruning should be a thinning process, with the object of removing some of the branches which are more than three years old. This will allow plenty of room for one and two-year old shoots to develop laterals which, because they are not crowded, can receive ample air and sunshine to enable them to produce an abundance of flower buds. A properly pruned forsythia is more beautiful than an unpruned one because the gracefully arching branches are more effectively displayed after the pruning than they were when overcrowded.

Prune by Cutting Flowers

When it comes to blossoming shrubs which produce their flowers a little later in the season, there is much to be said in favor of killing two birds with one stone. In the case of lilacs and weigelas, for example, it is possible to cut plenty of flowering branches for use indoors and, at the same time, do a fairly good job of pruning. Cutting lilac blossoms with long stems helps greatly in preventing the bushes from becoming too tall and leggy; at the same time one does not have to sacrifice potential flower clusters, which would be the case if the branches were cut back during their period of dormancy. One should remember, however, that it may also be desirable to remove spindling shoots and overabundant suckers, and it may be done any time during the dormant season.

Removing long sprays of weigelas for use as cut flowers provides just the type of pruning that this shrub needs, namely, a thinning of the bush by the elimination of those shoots which have flowered. The same practice may be followed with other early blooming plants, but always one should keep in mind that the ideal is to maintain the natural habit of growth of the shrub.



Stem structure of mockorange.

Pee-Gee hydrangea, when each growth of the past season is cut back to one or two buds, is capable of producing extraordinarily vigorous shoots with an enormous head of bloom on each. Personally, I think such heads are overwhelming and not beautiful. I would much prefer not to cut back hydrangeas of this type in the spring, but if one likes these large flower heads, he can get busy with the shears before growth starts. These hydrangeas can be cut back without loss of bloom, but if hydrangeas of the hortensia group were to be cut back in the same way the result produced would be a thicket of very vigorous leafy shoots without a blossom. Many varieties in this group refuse to bloom when they are cut back severely; therefore, one's pruning practices should be restricted to the removal of injured cane tips and spindling shoots.

Severe and Light Pruning Compared

Roses-of-Sharon bloom freely on wand-like sprays if cut back severely before growth starts in the spring. Here again, to my mind, more is lost than gained by pruning because the result of cutting back is an unnatural-looking and ungainly bush. In the case of Hybrid tea roses, severe pruning i practiced when a few large flowers on long strong stems are required; light pruning is used when many flowers are required for garden decoration.

One of the principles already mentioned is that pruning while the plant is active checks exuberant shoot and leaf growth and tends to promote the production of flower buds for the following season. This principle is followed in certain forms of fruit pruning, and it is one of the methods helpful in inducing wisterias to come into bloom. In this latter case, the long trailing shoots of the current season are cut back to two, three, or four buds some time during July.

Judicious pruning can be an important aid in controlling plant diseases and insect pests. If, for example, lilacs are infested with oyster-shell scale and the bush has to be pruned anyhow, select for removal those branches which are most severely infested if it can be done without destroying the symmetry of the bush. Similarly, when pruning roses, branches infected with cane canker are the ones which should be cut off first.

Habit of Spiræa vanhouttei.

There is one kind of pruning that can always be done without any ill effects, and that is the removal of dead and diseased branches. While this form of pruning never does any harm, it is possible to carry it out in such a way that it can be beneficial. To derive these benefits, cut off the offending branch close to and parallel with the healthy branch from which it springs. By so doing, the wound will heal quicker.

—*By Montague Free, Brooklyn, N. Y., Botanic Garden, in January 15 Horticulture.*

Flower Garden Complete (5 varieties) and Garden Guide and Seed Catalog, All for 10 cents. Winnebago Seed Co., P. O. Box 185, Fond du Lac, Wisconsin.

WHO CAN EQUAL THIS CYCLAMEN PLANT FOR BLOOMING

A CYCLAMEN plant which has bloomed continuously for 28 months is reported by Mrs. Gordon Kavolski, president of the Horicon Garden Club. The plant belongs to Katherine Freeman. It was obtained in November, 1940, and placed in an east window, no drafts, and is given one small glass of water each morning. One-half teaspoon of commercial fertilizer was given once a year. It now has 14 blooms and there are many buds.

Who else can report a plant with this length of blooming?

Establish a Garden Center

The Horicon Garden Club has established a garden center at their library with catalogs and clippings on file, and on Saturday nights an advisor is present to aid and assist local gardeners.

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Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

OFFICERS

Mrs. H. S. Bostock, President
15 W. Main St., Madison

Mrs. R. H. Sewell, 1st Vice-President,
957 No. 70th St., Wauwatosa

Mrs. F. E. Willard, 2nd Vice-President,
Oakfield

Mrs. Floyd E. Ballard, Recording Secretary-Treasurer
Badger Park, Route 62, Madison

H. J. Rahmlow, Corresponding Secretary,
424 University Farm Pl., Madison

DISTRICT PRESIDENTS

Mrs. F. J. Fitzgerald, 649 Broad St., Menasha; Fox River Valley District
Mrs. Martha Lowry, Lakewood, Madison Madison District
Mrs. Geo. Adami, 2466 No. 46th St., Milwaukee; Milwaukee District
Mrs. Gilbert E. Snell, 414 Erie Ave., Sheboygan; Sheboygan District
Mrs. Bentley Dadmun, 604 Main St., Whitewater; South Central District

MESSAGE FROM THE PRESIDENT

FOUR regional meetings of the Wisconsin Garden Club Federation were held in connection with District meetings the latter part of February.

The large attendance and enthusiasm proved a real interest in meeting the challenge of the production of food and to assist in this world war emergency on a scale never dreamed possible.

The plans and programs for the year of the various state chairmen were presented at these meetings.

The Milwaukee Meeting

At the first of the regionals held in Milwaukee, Mrs. Geo. Adami, Milwaukee District President, opened the meeting with the Pledge of Allegiance to the Flag. After a short business session she presented Mrs. H. S. Bostock, President of the Wisconsin Garden Club Federation.

Mrs. Bostock gave the address of welcome. She stated that several new committees were added this year to take up work which seems necessary during war time. She stated that some garden clubs had expressed the preference of carrying on their work as they had in previous years, while others felt they must convert some of their effort to fit into a war-time program, along with their regular club work. She stressed the fact that the Federation is an *essential organization* in all phases of work.

She asked those present to take back to their clubs the various papers handed to them covering the programs of the state chairmen and redistribute them to the chairmen in their own garden clubs, and asked District Presidents to do likewise with their District Chairmen. In this manner, local, district, and state chairmen may obtain a closer alliance and the work that is carried on in the districts from then on could be correlated with that of the state chairmen, thereby creating a stronger Federation.

The Sheboygan District Meeting

(1) First regional ever held here.

(2) Previous to the present call for scrapbooks, the Kohler Club had made and delivered to hospitals for the aged, veterans, etc., over 500 books.

(3) Support was unanimously voted for the memorial planting.

(4) Voted to support the two conservation bills, state and national.

Mrs. Gilbert Snell, President of Sheboygan District and the Sheboygan Garden Club, presided and held a brief district meeting, preceding the state session.

Mrs. Sewell presided for the State Federation, and Mrs. Willard, General Chairman, presided during reports by state chairmen, as follows.

Mrs. R. R. Hibbard, Horticulture and Victory Gardens; Rev. A. H. Otto, Rural Clubs and Victory Gardens; Mrs. Alfred Kieckhefer, Conservation; Katherine Melcher, Program and Lecture; Mrs. Sewell co-chairman, membership and organization.

Reports of other state chairmen were read. Representatives from Manitowoc, Kohler, Plymouth, West Bend and Sheboygan were present.

At the luncheon, an arrangement of Jonquils, iris, narccissi, pussy willows and forced lilacs was placed on the speakers' table. Corsages of pussy willows and jonquils were given those who appeared on the program.

Fox River Valley District Meeting

The Fox River Valley meeting was held in the English Room of the Athearn Hotel, Oshkosh. Mrs. F. J. Fitzgerald, District President, held a short district business meeting. Mrs. Sewell was introduced and presided for the State Federation.

Mrs. Willard introduced the fol-

lowing State Chairmen: Memorial Plantings, Mrs. C. L. Dean, Madison; Conservation; Mrs. Alfred Kieckhefer; Garden Centers, Mrs. Thomas Mullen; Program and lectures, Katherine Melcher; Rural Clubs and Victory Gardens, Rev. A. H. Otto; Membership and Organization, Mrs. C. H. Braman.

Other reports from state chairmen not attending were read.

Conservation resolutions were adopted. An outstanding membership report presenting two monetary incentives for the organization of new clubs: (1) A $5 award to be given by the Wisconsin Horticultural Society to each of the first 20 clubs sending in a new or reinstated registration.

(2) A $5 award presented by the Membership Chairman, Mrs. Chas. H. Braman to the district chairman for the largest number of new and reinstated clubs.

The Fox River Valley District voted to plant and dedicate to those in service, a memorial highway planting on State Trunk No. 41 from Oshkosh to Little Chute as far as the Highway has been completed.

Splendid district reports were given by the radio, and junior garden club chairmen.

The Madison Meeting

The Madison meeting was held at the University Club. The South Central District combined with the Madison district. Mrs. Martha Lowry, President of the Madison District presided with Mrs. Bentley Dadmun, President of the South Central District as co-hostess. After a brief business session the officers of the two districts were introduced.

Mrs. Lowry introduced the State President of the Federation, Mrs. H. S. Bostock, who gave a brief address of welcome and who then presented Mrs. Willard, General Chairman of State committees, who then took charge and presented the following state chairmen:

Memorial Planting, Mrs. C. L. Dean; Program and lectures, Katherine Melcher; Rural Clubs and Victory Gardens, Rev. A. H. Otto; Plant Testing, Mr. E. L. White; Co-Bird Chairman, Mrs. R. A. Walker; Co-Membership, Mrs. R. H. Sewell; Conservation, Mrs. Alfred Kieckhefer.

Two conservation resolutions were adopted, one a copy of which will be sent to President Franklin D. Roosevelt, stating that the group went on record as requesting the Federal government to take the necessary action to exercise efficient control over the care and cutting of timber on private lands to safeguard the public interest, stop injury to our resources, and keep the lands in a productive state for the generations to follow.

The other pertained to the immediate passage of Bill 132A designed to insure proper cutting practices on all forest lands, a copy to be sent to Gov. Walter S. Goodland.

Prof. Moore, U. of W. spoke at the opening of the afternoon session on war-time gardening and the O.C.D. plans on Victory gardens.

—By Mrs. H. S. Bostock.

RADIO GARDEN PROGRAMS WTMJ, 3:15 P. M.

The following garden program over Radio Station WTMJ has been arranged by Mrs. R. H. Malisch, Radio Chairman, for the months of April and May. Programs will be heard at 3:15 p.m.

April 10: The Garden in April. Mrs. Conrad Biebler, Milwaukee.

April 24: Growing Salads. Mrs. F. E. Willard, Oakfield.

May 8: A Program by the Ravenswood Garden Club.

May 22: Victory Garden Problems. Mrs. Ralph Hibbard, Wauwatosa.

NATIONAL COUNCIL OF GARDEN CLUB FEDERATIONS TO MEET

Sherman Hotel, May 4-6

The annual meeting of the National Council of State Garden Clubs has been changed to the Hotel Sherman, Chicago, on May 4-6. An interesting program has been prepared. The registration fee of $11 will cover the cost of registration and certain meals.

Anyone interested in attending should contact Mrs. H. S. Bostock, 15 W. Main Street, Madison.

The Board of Directors of the Wisconsin Garden Club Federation voted to send their president Mrs. H. S. Bostock, Madison and 1st vice-president, Mrs. R. H. Sewell, Wauwatosa, to attend this meeting. Only a portion of the expenses will be paid.

RIPON GARDEN CLUB MARKS OLDEST TREE

A MARKER designating it as "the oldest living thing in the community" has been placed on an ancient oak tree by the Ripon Garden Club. Club members hope that by placing the marker they would help to preserve for future generations the "Signal Oak," which served as a landmark to guide early nineteenth century travelers from the prairies to the trail to Green Bay.

Historical records indicate that there were two treees of similar stature which served as a beacon for travelers coming over the prairie from the southwest. With the building of a road from Ripon to Fond du Lac, the historic trail became only a memory—a memory which members of the garden club hope the marker will keep alive.

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THREE NEW GARDEN CLUBS ORGANIZED

THREE new garden clubs were organized in March and affiliated with the Federation and Horticultural Society.

The Lake Wauzecha and Two Mile Garden Clubs of Wisconsin Rapids were organized by Mrs. Wm. Liebe of the Wisconsin Rapids Garden Club. Officers of the clubs are as follows:

Fox River Valley District

Lake Wauzecha Garden Club

Wisconsin Rapids

President: Mrs. John O'Day, R. 1, Box 180B.

Vice-Pres: Mrs. Fred Braun, R. 1, Box 262.

Secy.-Treas.: Mrs. Glenn Moore, R. 1, Box 184.

TWO MILE GARDEN CLUB
Wisconsin Rapids

President: Mrs. S. G. Corey, R. 5, Box 256.

Vice-Pres.: Mrs. Harold Hoffman, R. 5.

Secy.-Treas.: Mrs. R. A. Mullenix, 2710 Third St. S.

The Whitnall Park Garden Club was organized by Mrs. Fred C. Marquardt of Hales Corners. Officers are:

Milwaukee District

Whitnall Park Garden Club

Hales Corners

President: Mrs. F. C. Marquardt, R. 1, Box 63.

Vice.-Pres.: Mrs. Robert Froeming, R. 1.

Secretary: Mrs. R. Simpson, R. 1.

Treasurer: Mrs. S. N. O'Malley, R. 1.

The $5.00 award offered by the Wisconsin Horticultural Society will be presented to the organizers.

The Sturgeon Bay Garden Club, a branch of the Woman's Club, was affiliated in February. The names of their officers were included in the Garden Club Directory appearing in the March issue.

We welcome these new clubs to membership.

FOR THE JUNIORS

Dear Garden Club Members:

Be sure dear Juniors rows are straight,
It will be easier for him to cultivate.
Each little seed you know
Must be so far apart, and in a row.
And not so very, very deep,
So the plant through the soil can creep.

Are there any weeds a coming?
Just watch for them before they start their sunning.
Did you save some space for flowers?
They'll give the sick some sunny hours.
A good garden isn't quite enough,
Good garden morale is necessary stuff.

Your Junior Garden Club Chairman, Mrs. Peter Cooper.

GARDEN CLUB RADIO PROGRAMS

FOND DU LAC STATION KFIZ, 450 K. C.

THE following broadcasts can be heard the last Friday of every month at 11:15 a. m.

The following have already been given:

January 29. Should Garden Clubs Disband? War Gardens. By Mrs. Frank Willard, Oakfield.

February 26. English Flowers. Mrs. Wm. Mowbray, Fond du Lac, Ledgeview Garden Club.

March 26. Kitchen Gardens. Mrs. Lawrence Skilbred, Fond du Lac Community Garden Club.

FOR APRIL

April 30. Garden Names and Legends. Mrs. O. V. Neeb, Oak Center, Oakfield Garden Club.

Wife: "Goodness, George, this is not our baby. This is the wrong carriage."

Hubby: "Shut up. This carriage has rubber tires on it."

IDEAS FOR PUBLICITY CHAIRMEN

AN EDITOR is at times obliged to change your story and must consider his readers and subscribers when he selects news for publication. He must choose news which will appeal to all types of people. He frequently changes stories submitted to him, making the items conform to the space available, to time elements, and to reader interest. The amateur may resent having his story changed. The experienced reporter is grateful that the busy editor found his story worth changing. When the editor rewrites, condenses or withholds a news item, publicity chairmen should seek a conference with the editor to find what can be done to make the story acceptable; avoid making the same mistake twice, and above all, do not blame the editor.

Ten recognized rules for writing news are:

(1) Type double space, or write plainly, on one side of the paper, leaving a wide margin.

(2) Write the name of your garden club, your own name and address and phone number at the upper left hand corner.

(3) Use short words, short sentences and short paragraphs.

(4) Present the gist of the story in the first paragraph.

(5) Put an important idea at the beginning of every sentence.

(6) State facts only, omitting personal opinions of the facts.

(7) Be brief, tell only the important things, but article should be complete.

(8) Be accurate. Tell exactly what is happening, where, how and why, and who is involved. Check carefully initials, the spelling of names, dates, hours, places, statistics and complete details.

(9) Conform strictly to your newspaper's requirements as to style, length and deadline.

(10) Submit neat copy to the editor on time or before the appointed day.

—By Mrs. F. C. Marquardt, Publicity Chairman, Wisconsin Garden Club Federation.

Plant Testing Report

Mrs. Theo. J. Peterson, Waupaca

Heuchera, Queen of Hearts. This variety was perfectly hardy in my garden and free from disease and insect injury. Had lovely green thrifty foliage and flowers very good color on long stems, but blooms very sparingly for me. I consider this very fine and will try peat in our soil as ours is sandy loam.

Phlox Miss Kenosha. This variety is very hardy and has a fine landscape value. It had just a little mildew in a rainy season. It is a very thrifty plant and should be recommended for increased planting.

Astors Beechwood Challenger and Mt. Everest. Personally, I do not care for Beechwood Challenger at all. Mt. Everest is hardy and has both landscape and cutting value, especially if used with early chrysanthemums. The lower leaves blighted some this season. Mt. Everest is a fine thrifty plant which increases rapidly and soon makes a fine showing.

Chrysanthemum Algonquin. This appears hardy and is free from disease and insect injury. It is excellent for cutting and landscape work. Should be included in every collection of mums.

Chrysanthemum Lavender Lady. I certainly was sold on Lavender Lady the first season. I made cuttings and potted some for indoor bloom, and with those in the garden had some of the lovliest mums ever grown. This year the plant grew two kinds of foliage—a fine cut-leaved type which came into bloom early with small, single blooms. I pulled these and discarded as worthless.

Borers destroyed all my Aquilegia plants this year.

Rudbeckia The King. This doesn't do well for me. Only two or three blooms in a season.

Shasta Daisy Favorite. This variety came through the winter fine. Had some leaf spot. Each plant was about as big as a bushel basket and full of large glistening white blooms on strong, sturdy stems. Recommend it highly.

Heliopsis Summer Gold. This is a very hardy variety, free from insect and disease pests. Has good landscape value. Blooms continuously and the blooms are quite long lasting. Consider it worth while and would recommend it for increased planting where a tall plant is desirable.

Roses

World's Fair. This is a fairly hardy variety and had very little black spot and mildew in spite of a wet season. It is beautiful in the garden and excellent for cut flowers. Would recommend it for cutting and landscape value.

Donald Prior. This is also fairly hardy, but mildewed rather badly last season. Is excellent for landscaping as the bush does not get leggy, but has foliage and bloom almost to the ground. It is a good cut flower, especially for patriotic bouquets. Would recommend it for extensive planting.

Betty Prior. This is also hardy but had some leaf spot and mildew. Excellent for landscape work, beautiful as a cut flower. For anyone who likes a single rose, it is an excellent choice.

Summer Snow. This did not do very well.

Pyrethrum James Kelway. Personally, I do not care for Pyrethrum as there doesn't seem to be any way to stake them so they look well. Wind and rain surely leave them flat.

Erigeron. This is hardy with no disease and insect pests in our garden. It is not a striking flower for landscape work, but is a good cut flower.

Our dwarf apple trees are growing well and one should fruit this year.

WAR SERVICE "COMMUNIQUE"

SCRAP books and scrap books—98 of them were brought in by garden clubs of Milwaukee County.

"Scrap book matinee" as held at the Y.W.C.A. on March 24th from 2 to 4 o'clock was very well attended and termed by the large and enthusiastic audience a grand performance.

The scrap books were all beautifully done and proved again the creative and artistic abilities of garden club members.

In addition to the scrap books, a total of 28 lovely and useful vases and containers were donated by the members.

Several pieces of pottery donated by members were offered as door prizes and this made possible the raising of a tidy sum to be added to the War Service fund to which contributions are now coming in from many of the clubs.

Gratifying indeed was the response for scrap books. Reports coming in from other clubs in the state indicate a possible 250 to 300 scrap books to be sent to Camp McCoy and Truax Field hospitals.

Your chairman is highly pleased with the splendid support being given the War Service program and is confident that the call for financial assistance as made in her recent letter, will bring in the necessary funds so that the War Service program as planned by the Federation can be carried through to a most successful conclusion.

Thanks again, dear members, for your loyal and very generous cooperation and assistance.

Mrs. Chester Thomas,
Chairman,
War Service Program.

Doctor — "Never mind saying 'Ah', yet; I'm not ready to look at your tonsils."

Patient—"Sorry—I should have said 'Wow!" I just caught a glimpse of your new nurse."

Plans for Conservation

Willows Offered by Conservation Chairman

THERE is nothing more gratifying than to have a cherished dream take shape and show signs of becoming a reality. After I had stated the rather limited conservation program for 1943 at the four regional meetings of the Wisconsin Garden Club Federation held the last of February in Milwaukee, Sheboygan, Oshkosh and Madison, I asked their cooperation in a long term project.

The first part of this was an idea some of us had had in regard to school children. The children's forest is completed—now we would like to give them a practical demonstration of bank erosion and silting. There should be a national timber policy to prevent the cutting of trees along the edge of any stream or waterway. Their value in preventing this erosion and loss of top soil is so obvious. The plan was for each garden club to find some such spot where the stream bank was stripped of trees and erosion had followed. Then each club should arrange for the transportation of children of a suitable age, say seventh or eighth grades in the primary schools. It could all be tied up with their Arbor Day plans. Some competent person, either a county agent or perhaps a garden club member, should explain how the damage was done and how a planting of some good quick growing trees would hold the bank in place with their matting of roots. The children could be given willow slips and shown how to plant them in the soil. Willows are almost fool proof and this demonstration would carry the lesson home so they should never forget it.

Willows Recommended

The second part is my choice of Salix alba, var. chermesina (Hartwig) listed in Rehder. Manual cultivated trees and shrubs. I have lived with these willows for fourteen years and know them to be of quick vigorous growth and the added value that when the leaves fall, the small branches are a beautiful reddish brown color that glisten when wet, like a bittersweet berry. Mine came from the large Uihlein farm at Fox Point just north of Milwaukee. Mr. Joseph Uihlein has planted these broad fields with many handsome groups of trees. I ride horseback there all year long and have reveled in the cheery winter landscape due to the skillful way large clumps of these red willows are mixed with the other planting. Mr. Robert Uihlein gave me a big armful of slips when we first moved out to our place in River Hills and helped me intersperse them with the native trees on our ten acres. I never come up our drive in the winter and see my lovely birch and pine banked and flanked by the warm reddish haze of these willows that I am grateful all over to Mr. Uihlein for insisting I plant them.

Willow Slips Offered

This was a long time project to start with and now gasoline rationing has added even more years. But we can make a start just the same. At these meetings I offered to send each conservation chairman who would write me for them, a package of these willow slips. I want the letters for my records and hope to have many. There must be some one in each club who would have four or five extra feet in her garden where she can plant these twigs. They require very little care. Just don't let the weeds crowd them out and water them in a dry spell. By the time we can make the suggested pilgrimage these willows will have grown enough to make many more cuttings. I hope to have many requests and Mr. Uihlein has promised to supply all I need when my stock runs low. I have arranged with our state entomologist at Madison, Mr. E. L. Chambers, for inspection. Mr. Alfred Boerner of our County Park Commission moved some of mine to Brown Deer Park and placed a few in the Arboretum in Whitnall Park.

So please ask for them. There are so many places they can be used. Mrs. Dean thinks they would make a fine addition to the High Memorial Planting. But let me warn you—if you want them only for color—plant them to the north, never south of you. It will be a real pleasure to forward these willow slips, and so gratifying to realize how we can not only help to correct some erosion, but also give our drab Wisconsin winter countryside a glow of color—all due to our garden clubs.

—*Mrs. Alfred Kieckhefer, Conservation Chairman.*

NATIONAL OFFICE FOR VICTORY GARDEN HARVEST SHOWS TO BE DISCONTINUED

A LETTER from the Secretary of the National Office of Victory Garden Harvest Shows contains the following information:

"As of April 1st, 1943, the National Office of Victory Garden Harvest Shows for the benefit of our armed forces will go out of existence.

"It would seem that harvest shows this year are even more important than last as a tie-in with the general Victory garden movement. It is unfortunate that under the regulations issued by the President's War Relief Council no authority can be given by us for the staging of shows for the benefit of our armed forces."

SPRING BIRD INTERESTS

TRAVEL restrictions and wartime economies are forcing us to seek outdoor pleasure and beauty closer to our homes. A better acquaintance with our more common bird friends will provide us with an endless variety of enjoyable and profitable experiences.

Learn the names of your birds. Try to recognize their calls and songs. Study their plumage and markings with binoculars or even opera glasses. It is a most interesting and challenging game. The following lists will give some guidance in knowing what to look for and when the birds may be expected:

March:

Robin, Bluebird, Red-winged Blackbird, Song Sparrow, Horned Lark, Killdeer, Meadow Lark, Bronzed Grackle, Yellow-bellied Sapsucker, Red-headed Woodpecker, Flicker, Phoebe, Sparrows (Vesper, Savannah, Field, Fox), Mourning Dove, Kingfisher, Cowbird, Tree Swallow.

April:

Sparrows (White-throated, Swamp, Chipping), Ruby-crowned Kinglet, Hermit Thrush, Myrtle Warbler, Purple Martin, Barn Swallow, Towhee, Rough-winged Swallow, Bank Swallow, Brown Thrasher, Waterthrush, Whippoorwill, Chimney Swift, Baltimore Oriole, Least Flycatcher, House Wren.

In your study of birds you will tap a source of rare pleasure. The birds will repay, many times over, all the favors you may do for them. They will not only cheer you with their songs, but they will glean from your plants, shrubs, and trees a most amazing total of injurious worms and insects.

Know your birds and be happier!

Mrs. R. A. Walker,
Co-chairman,
State Bird Com.

Principles of Flower Arrangement

By Emma C. Schipper

WE ARE often surprised and sometimes confused by what we see and hear at flower arrangement lectures, which is to be expected, since there are many of us whose ideas about flower arrangement are based entirely upon personal opinion instead of knowledge. It is becoming more and more apparent that we must have some sort of basis for our understanding of beauty. Confusion and guesswork will vanish just as soon as art principles, which form these bases, are understood and applied.

The Third Dimension

Some of us still remember how puzzled we were on one occasion on being told that our arrangements lacked depth or third dimension. Somehow we never considered this in creating an arrangement which was to be viewed from one side only. According to our understanding at the time, it was the speaker's contention that an arrangement should balance from front to back as well as from side to side. In other words, in looking at an arrangement from the side it should have balance and not appear to be leaning forward too far, thus upsetting the balance.

There are some differences of opinion about one-sided flower arrangements. Some arrangers insist that a flower arrangement to be beautiful need not be observable from the side any more than is a picture hanging on the wall. However, we must admit that depth, which gives form and contour, decidedly improves the appearance of one-sided arrangements.

Color Harmony

Recently at an illustrated flower arrangement lecture, we were flabbergasted to see, among many beautiful flower arrangements, flashed before us on the screen, a bouquet of red dahlias with a single large white flower placed at the top, slightly off center. No repetition of white anywhere else in the picture was apparent to us, for our eyes immediately became riveted upon the single white flower. The speaker made no attempt to call this an arrangement but referred to it as a bouquet. They were beautiful specimens and undoubtedly she could not resist showing them to us as such. However, as a floral composition, in the opinion of our group, it had no rating. Why? First: Since there was, from the impression we got, no repetition of white anywhere else in the picture, it lacked harmony. The white had nothing in common with anything else in the picture. A color if used at all should be echoed somewhere else so as to bring it into harmony. Having something in common makes for harmony. Second: The red and white were too contrasting. A medium color value, a tint of red halfway between the white and red, was necessary to act as the transition in tying them together. Thus by the application of the principles of repetition and transition we have the answer to what's wrong. A good understanding of art principles may be gained by studying the following books:

Art in Everyday Life by Harriet and Vetta Goldstein, *Art and Nature Appreciation* by George H. Opdyke, *Design in Flower Arrangement* by John Taylor Arms and Dorothy Noyes Arms and *The Principles of Flower Arrangement* by E. A. White.

The emptier the pot the quicker it boils. So watch your temper.

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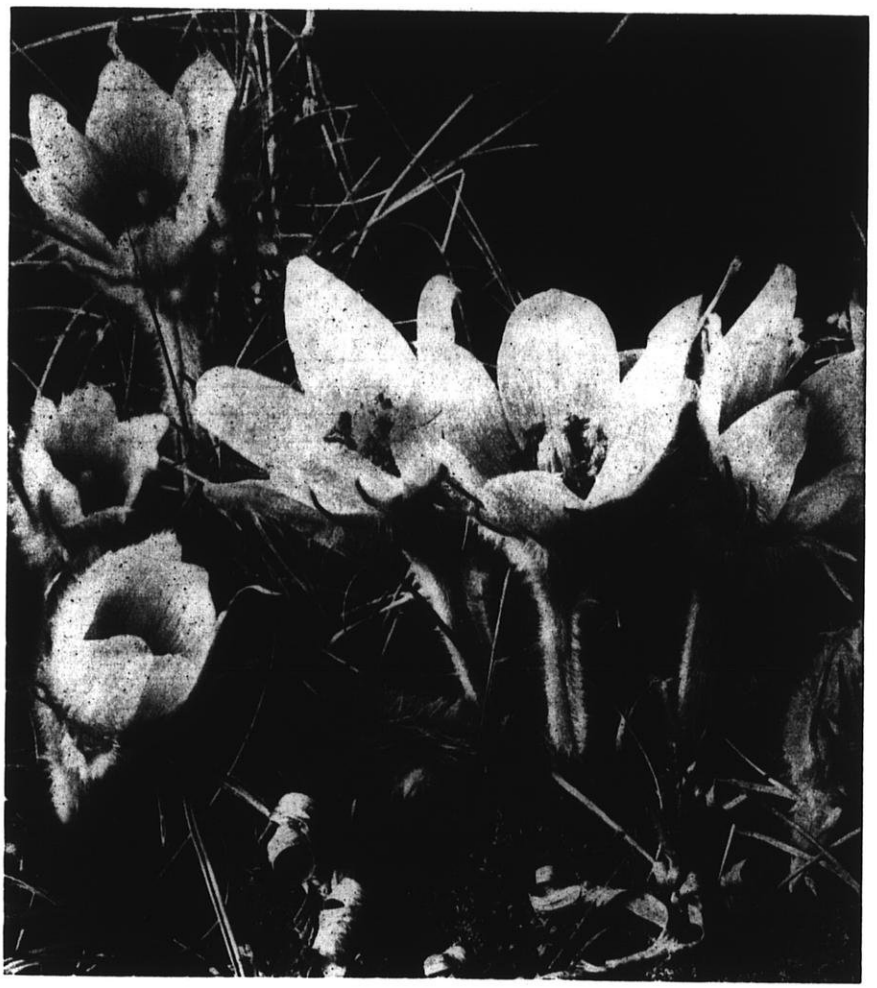

The Pasque Flower

MAY - 1943

Two fussy traveling salesladies were riding in opposite seats in the train. One thought the car was too hot, the other said it was too cold.

Just then a dusky porter came through.

"Porter," commanded the first lady, "I wish you'd open that window. I'm nearly smothered."

"Don't you do it!" snapped the other. "If you do I'll freeze to death."

The porter scratched his head.

"What you 'spose Ah should do in a case lahk dat?" he asked a portly-looking traveling man, about two seats to the rear, trying to enjoy a little reading.

"Open it a while and freeze one; then shut it and smother the other."

Critics — people who go places and boo things.

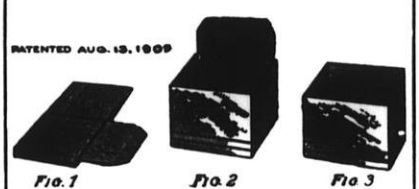

Fig. 1 Fig. 2 Fig. 3

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

ESTABLISHED 1910

Entered at the postoffice at Madison, Wisconsin, as second-class matter. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1918.

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
424 University Farm Place
Madison, Wisconsin

H. J. RAHMLOW, *Editor*
Secretary Wisconsin State Horticultural Society

Office: Old Entomology Bldg., College of Agriculture
Tel. University 182

Volume XXXXIV MAY, 1943 No. 9

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PLEASE DO NOT SEND STAMPS

Managing Sod Orchards Without Nitrogen

By R. A. Van Meter,

Massachusetts College of Agriculture

THE many methods of soil management applied to sod orchards in the Northeast lean heavily on high-nitrogen fertilizers. Increasing scarcity of the nitrogen carriers commonly employed will force a change in soil management methods in many orchards.

Nitrogen Important

There has developed a reasonable and effective system of fertilizing sod orchards which involves the broadcast application of mixed fertilizers at intervals of several years but often enough to keep the grass in vigorous condition. The grass is fertilized much as if it were in a meadow. Residues from these applications are depended upon to keep the trees from running short of phosphorus and especially potassium. These applications are supplemented each spring by an application of enough nitrogen in the form of nitrate of soda, sulphate of ammonia, or cyanamid to give the trees the nitrogen they need. This nitrogen application is considered the *most important part of the management of trees in sod,* and a high yield of well colored fruit depends largely upon the skill with which that nitrogen application is adjusted to the needs of the trees.

We are advised that nitrate of soda, sulphate of ammonia and cyanamid, the big 3 of orchard fertilization, will be cut to not more than half the amounts usually applied and perhaps to a much lower figure. Potassium and phosphorus are available and have their place, but they cannot substitute for nitrogen on fruit trees.

There are other things that will help. The grower who has his orchard in good, vigorous condition is in an enviable position. His trees probably will grow well in early spring and set a crop without an

application of readily available nitrogen. If he uses a more slowly available mixed fertilizer the trees will pick up nitrogen as it becomes available and be in pretty good shape in the spring of 1943. Such orchards will often coast for a year or two without fertilization and still grow enough to come back quickly under proper feeding. But if growth falls to a low level for two or three years, it takes time and thought and a lot of nitrogen to restore trees to good condition, and if a cold winter intervenes they may never come back.

Manure

Where stable manure is available a light application each year will carry trees in good condition indefinitely, but the heavy application needed to set a crop on weak trees may keep the trees from hardening off in the fall and result in aggravated winter injury. An enormous amount of poultry manure is dumped annually by Northeastern poultrymen because they have no other outlet for it. This should be salvaged, but if you use it on trees treat poultry manure with profound respect. Scatter it thinly. We have known orchards that were almost ruined by heavy application of poultry manure.

Pruning

In the absence of fertilizers and manures or to supplement a small supply there are some other things that may be done. There was a time, for instance, when the need of trees for nitrogen was not known, and trees were kept fairly vigorous and productive even through maturity by heavy pruning. That old-fashioned tree butchery is not to be advocated now, but it is a time when weak, dropping, cull-producing branches might be weeded out more thoroughly than usual. This is a good time to do the pruning that should have been done three or four years ago.

—*Condensed from May 30, The Rural New-Yorker.*

COMMENTS ON CORTLAND APPLE AT NEW YORK HORTICULTURAL SOCIETY MEETING

All Answers By Growers

Question: Is Cortland a profitable variety to grow?

Answer: We set it out primarily as a pollinizer for McIntosh. When the trees began to bear we handed the apples out to the customers and said "Try them," and as a result we cannot raise enough to supply the demand.

I think that the Cortland is growing in popularity. The more it is known, the more call there is for it. We do not have any trouble getting rid of them.

If you do not start pruning the Cortland right from the beginning, you are licked at once.

The chain stores want a red apple and they can get higher color on Cortland than on McIntosh. It is cutting in a little on McIntosh.

The chain stores take to the Cortland since they can buy it a little cheaper than the McIntosh.

We can afford to sell them cheaper and still make more money because they are an annual bearer, and you can be assured of a crop, good size, and with less labor. It is an apple that has to be picked at a certain time. Most of them wait too long.

The Cortland cannot be kept in modified air storage as it scalds badly.

From 1943 *Annual Report New York State Horticultural Society.*

Ceiling Prices on Apples Being Considered

The National Apple Institute tells us that the U. S. Department of Agriculture, Office of Price Administration, is planning ceiling prices for apples before the next crop comes in.

A hearing by OPA will be held in Chicago for mid-Western growers on May 14 to consider ceilings for apples and possibly other fruits. Six hearings in all will be held.

Our President Mr. Arno Meyer has appointed Vice-president Don Reynolds of Sturgeon Bay to represent the Wisconsin Horticultural Society at the Chicago hearing.

Meeting Held in Washington

On April 22nd a meeting was held in Washington to decide how best to support the government in holding back inflation. A letter from the National Apple Institute, dated April 28th, gives the following information about the meeting.

Reason for High Prices

"Apple growers remembered that they had grown a bumper crop last year, that prices were unusually high, that not enough apples had gone abroad or to our forces to account for such prices. And so they reasoned that the ever increasing purchasing power which the government had failed to draw off caused high prices for which they as growers could hardly be blamed.

"All day long the National Planning Committee heard about methods of price ceilings tried on various farm commodities. They learned that in the beginning prices had been frozen at the retail sale and that some parts of the country and some stores had not gotten supplies because their ceilings were too low.

"There seemed to be three requirements for a price control method which would accomplish the desired result and enlist the support of apple growers. First, and most important, it must actually limit the price the public may pay. Second, the price must be high enough to encourage maximum production, and finally, the method must be simple enough so that it can be understood by all, particularly by the grower and the consuming public.

Pledge Help

"With these considerations in mind, the delegation of the nation's apple growers said to the government, 'WE ARE OPPOSED TO PRICE CEILINGS FOR APPLES AND OTHER PERISHABLE COMMODITIES, BECAUSE WE DO NOT BELIEVE THEY WILL WORK. However, if you insist, we recommend ONE RETAIL CEILING PRICE FOR THIS NEXT SEASON BASED ON THE BEST GRADE OF THE LEADING COMMERCIAL VARIETY OF APPLES WITH THAT CEILING ESTABLISHED AT A LEVEL HIGH ENOUGH TO INSURE MAXIMUM PRODUCTION IN THE MOST REMOTE PRODUCING AREAS. We can get behind such a plan and help.'

"The Planning Committee figured that such a method would place a ceiling where the Mrs. Consumer could see it, that all lesser grades and kinds of apples would find their natural level below the ceiling; that with over 4,000 known varieties of apples and some 20 grades any other method would be too complicated to administer; in fact that such a method was the only possible way control could be placed on apples.

"The delegates thought that apples lent themselves particularly to a simple retail ceiling, because apples are commercially grown in 32 of the 48 states and therefore in no section would store managers be unable to buy supplies to sell under the ceiling because of high transportation or handling costs. Furthermore it appeared that this method would encourage growers to sell locally and discourage unnecessary use of critical transportation facilities.

"They were told by the government representatives that next week or next month the government would impose price ceilings upon their product. Their answer was 'To help control inflation, we volunteer to fight. All we want is a gun that shoots and a chance to fight clean'."

THINNING FRUITS WITH SPRAY

N. B. Hoffman of the New York State College of Agriculture has developed a spray to replace hand thinning of apples. The method, however, is in the experimental stage and while some growers may wish to test it this year, all our members will await with interest the further development of the method.

The spray is applied when sufficient blossoms have been pollinated to insure a desirable yield. Terminal blossoms are early maturing and when their appearance indicates to the experienced orchard man that they have been pollinated, then the spray is applied on the later developing lateral blossoms.

It is hoped that this spray will enable growers will test it this year. The stage such biennial varieties as Wealthy.

The spray has also been used effectively to prevent fruiting on trees which have only a few blossoms. Such trees which would bear only a few apples are better off if they produce no fruit at all because then they will not need to be sprayed for apple maggot, codling moth, and other fruit insects.

The chemical to be used in this spray is listed by at least one chemical company and we hope that a few Wisconsin growers will test it this year. The stage of bloom when the spray can be applied is very critical and improper timing may do considerable harm.

The Apple Maggot in 1943

Whether or not loss from apple maggot will be as serious this fall as it was last year is unpredictable at this time. If during July the soil is dry, the flies may not emerge from the soil in any great number and we will have no more trouble from the apple maggot than we had in years past.

However, in orchards where the drops infected with maggot were not picked up and large numbers of the maggots went into the soil, the emergence of flies during July and early August may be large if there is plenty of rainfall and conditions are favorable.

If the soil is very dry during July a large percentage of maggots may remain in the soil for another year, emerging in 1944, so no matter what happens this year, we must not let down our guard.

The apple maggot flies can be destroyed by spraying with arsenate of lead, but only if it is done at the right time. After the flies emerge from the soil they feed for a week or so on the leaves and fruit are at that time covered leaves, but by lapping the surface. If the leaves and fruit are at that time covered with arsenate of lead, the flies will be killed before they lay their eggs. To determine that proper time is our big problem this year.

Importance of Bait Traps

There are no records of when flies emerge in various parts of the state. Therefore, no accurate information can be given as to when to spray. We know that it is sometimes the latter half of July and the first part of August. But that information is not enough for good results.

Order Bait Chemicals Now

In order to determine just when the apple maggot flies have emerged and are present on the trees, the Horticultural Society has decided to make available to growers chemicals for making bait traps. This project will be carried on in cooperation with Dr. C. L. Fluke, Chief of the Department of Entomology, Wisconsin College of Agriculture.

The price of the chemicals will be 50c for enough to make up four pails of solution. This is sufficient for any small orchard. Complete instructions will be sent with the chemicals. Any fruit grower wishing to place bait traps in his orchard this year should send to the Wisconsin State Horticultural Society, 424 University Farm Place, Madison, 50c for the chemicals. These will be sent out shortly after July 1st.

The names of all growers in the county using traps will be made available to the county agent, in order that the information as to when the flies are out and in what numbers, may be sent to growers all over the county. This is an important project for this year in order that our fruit may be saved from this serious pest.

USE CARE IN BUYING VEGETABLE SEEDS

Reports that amateur gardeners wishing to grow vegetables and lacking experience, are buying far more seeds than they can possibly use in their small gardens come with disturbing frequency.

Follow the garden plans put out by the Horticulture Department, Wisconsin College of Agriculture carefully. It will prevent much waste and bring efficient results.

SAVE DOLLARS ON . . .

PRUNING EQUIPMENT

Saws
Snips
Blades
Grafting Wax
Grafting Tape

SPRAY MATERIALS

Arsenate of Lead
Lime Sulphur
Calcium Arsenate
Copper Sulphate
Cucurbit Dust
Bordo
Nicotine Sulphate
Kolofog
Mike Sulphur
Elgetol
Spreader Sticker
Kolo-Spray

SPRAYING EQUIPMENT

Spray Hose **Swivels** **Spray Guns**
Couplings and Clamps

SPRAYERS

WRITE FOR PRICES

All Inquiries Promptly Answered

SOUTHEASTERN WISCONSIN FRUIT GROWERS CO-OP, INC.

WAUKESHA. WISCONSIN

Lester Tans, Secy.-Treas. **Telephone: Big Bend 2821** **Route 2**

FRUIT NOTES

The Sweet Delicious apple is the best sweet variety available today according to growers, at the New York Horticultural Society meeting.

The Stanley plum is the most important new plum variety in Michigan, according to reports. More than 50 per cent of the new planting during the past few years are of this variety. The Stanley has also been successfully grown is southern Wisconsin and should be more widely tested. It is a blue plum and produces regularly.

Apples will keep longer in storage if covered with a thin film of water mistible wax applied during packing operations, according to the Maryland Experiment Station. The film of wax is especially helpful to such varieties as Golden Delicious which shrivel easily. The cost is said to be low.

We can't see much merit in the suggestion to use repellents to protect plants against rabbits. One magazine advocates the use of fresh ground red pepper mixed with lard and painted on the tree trunks. Where would we get all the lard, and how would you like the job of painting the trunks of everything the rabbits might eat, with that mixture?

Read Mr. Oderkirk's article again in our April issue and build a live rabbit trap according to his plan.

Our president, Arno Meyer of Waldo made the comment in a letter he wrote late in April, that just as he was feeling badly about all the work he had to do to repair rabbit injury to his trees, along comes the April Wisconsin Horticulture with a picture of a bunny on the front cover. We reminded him, however, that we had a design for a trap on the inside of the magazine for the bunny on the outside. So if you follow our advice, bunny won't get far.

WILL MIXED FERTILIZERS IMPROVE COLOR?

Question: What is the value of mixed fertilizers (such as 3-10-10) in this year of poor color?

Answer: An application of fertilizer such as 3-10-10 would have a tendency to improve color due to the **low percentage of nitrogen** included. Tree growth would normally be restricted with such a fertilizer application and fruit size and total production cut down materially. However, the color would probably be improved.

From Annual Report Washington State Horticultural Association, 1942.

HAND POLLINATED DELICIOUS

Question: Has hand pollination of Delicious proved profitable?

Grower: I have checked carefully with many growers the last few years who have been hand pollinizing Delicious apples and in almost every case they report an increase of 25 per cent to 75 per cent in production. Practically all growers who have been hand pollinizing, have been grafting pollinizers in Delicious the last few years and will depend upon bees to do this work from now on. It is now almost impossible to find orchards where pollen can be gathered, and with the labor situation as it is I believe hand pollinizing will be discontinued or nearly so for the duration at least.

From Annual Report Washington State Horticultural Association, 1942.

Used Sprayers

1 Myers—150 gallon
2 Myers—200 gallon
1 Friend—400 gallon
Can be cut down to 300 gallons

1 Bean—300 gallon
1 Myers pump and power take-off

ALL OVERHAULED

Food Helps Win The War

Produce More GOOD Fruit

SAM GOLDMAN

Sturgeon Bay, Wisconsin

NITROGEN OR CULTIVATION

QUESTION: If nitrogen fertilizer is difficult to obtain, can I maintain proper vigor in my orchard by increasing the cultivation?

Increasing the cultivation will maintain growth and vigor for several years, but at the same time it is likely to deplete seriously the reserve organic matter in the soil. This will result, eventually, in reduced yields, probably increased soil erosion, and all the bad effects of depleted soil fertility.

From March Minnesota Horticulturist.

WISCONSIN WILL HAVE RECORD ACREAGE OF CANNING PEAS

Present planting intentions, according to the Wisconsin and U. S. Departments of Agriculture, are that Wisconsin will have one-third of the nation's acreage of peas for canning.

Indicated acreage for this state is 168.000, or 8,000 more than was planted last year, and a new record. Government orders are expected to take a large portion of the crop.

DO NOT REMOVE GRAPE LEAVES

QUESTIONS are always received at this time of year about removing grape leaves so that the sun can reach the fruit, the belief being common that this practice will cause the grapes to mature more satisfactorily. This notion is a mistaken one. Grapes will ripen even in a black bag, showing that light is not necessary for the development of color in this fruit. This, of course, is contrary to the effects on apples and other tree fruits, which need sunlight to give them their true color.

Removing the leaves from grape vines is a harmful rather than a beneficial process, because it causes the grapes to ripen more slowly and to have a lower sugar content than otherwise would be true. The result is just the same, of course, when the foliage is reduced by hand or by the activity of insects. This fact is emphasized in the publication of the New Jersey State Horticultural Society, which states, "Every effort should be made to maintain ample and vigorous leaf surfaces throughout the growing season.

—From October 1 Horticulture.

Get extra savings on Sheboygan fruit and berry boxes

Whether you need a box approved for interstate shipment by the Federal Food and Drug Administration, or whether you plan to ship locally in old style boxes, you can be safe and save money too, by assembling either type box with the fast-working Neva - Clog stapler. Get everything you need for fruit or truck shipments at Sheboygan—as leading growers have for 63 years.

Write, now, for low prices and free facts on new shipping regulations.

Sheboygan Fruit Box Co.

553 **Sheboygan, Wisconsin**

For Larger Production Protect

Your Crops From Insects and Diseases with the Following

NIAGARA PRODUCTS

Lead Arsenate
Kolodust
Dinitro Dry 40%
Dusting Sulphur
Dry Lime Sulphur

Liquid Lime Sulphur
Colloidal Spreader
Nicotine Sulphate
Nicotine Dust
Rotenone Dust
Cucurbit Dust

Calcium Arsenate
Copper Lime Dust Mixture
Copper Oxychloride Sulphate
Blue Vitriol
Dry Bordo

Pota-tox

Fruit Dusting Machines
Crop Dusting Machines
Fruit Sizing Equipment

Fruit Brushers
Potato Brushers
Hand Dusters

NIAGARA SPRAYER & CHEMICAL CO.

J. Henry Smith, Wisconsin Representative

Waupaca, Wisconsin

In the Berry Patch

STRAWBERRIES AT WARRENS
H. H. Harris

ON April 1st it was enough like spring so that I uncovered my little strawberry bed. The plants seemed to have wintered in good shape. Until the latter part of March the ground was covered with snow and when the snow melted there was no frost in the ground.

My description of the test strawberry bed in the December issue of Wisconsin Horticulture was read by the president of the North Dakota Agricultural College, Fargo. He wrote me a letter in regard to it.

BEST EARLY RASPBERRY IN NEW YORK

Question: Has the N. Y. State Experiment Station developed a better berry to take the place of Early June?

Prof. Slate: June is still best.

From 1943 Annual Report New York State Horticultural Society.

MAY IN THE STRAWBERRY FIELD

Frequent cultivation is the order of the day in the newly set strawberry field during the month of May.

There are two reasons for frequent cultivation. First, to control weeds, and second, to keep the soil loose in order that the runners may root easily.

Train Runner Plants

One reason for mid-season hoeing is not only to kill weeds, but to train runner plants and set them so they will root.

They should be trained to stand so the plants will be 6 to 9 inches apart and form a matted row about 24 inches wide. Throwing a little loose dirt on the runners will hold them in place during high winds.

It will help the growth of the plants to pinch off the blossoms at each hoeing. If labor is available to do this it will pay.

Cultivate Shallow

Never cultivate more than 1 to 1½ inches deep. Remember that 60% of the roots are in the top 4 inches of soil. Strawberry plants are very susceptible to drought conditions. Frequent cultivation will help conserve the moisture in the soil which is the real reason for maintaining a dust mulch. It need not be a deep mulch.

Do Strawberries Need Spraying?

If clean, healthy plants are used, there will probably be no need for spraying, either for insects or diseases. Both of these pests can best be controlled by sanitation methods. That is, pull off all the old leaves in setting the plants if there is danger of leaf spot. Move the patch to a new location at some distance from the old patch if there has been trouble from leaf roller. This is probably the best way of controlling the leaf roller, plowing under a badly infested field where the roller has obtained the upper hand. That should be done as soon as the fruit has been picked, even sacrificing a few late berries.

HOW TO GROW EVERBEARING STRAWBERRIES

To succeed with everbearing strawberries, several rules should be kept in mind as follows: (1) Plants should be set early. Unless the plants become well established and develop large crowns, there will not be very much fruit in the early fall. (2) All spring blossoms should be removed as soon as they appear until about August 1st.

To grow everbearing strawberries requires a soil higher in organic matter, which means plenty of manure, than with the June bearing kind. The reason is that the everbearings set fruit (which is 80% water) during the month of August when the weather is likely to be very dry. Soil without humus will dry out rapidly and poor berries will result unless water is applied. Furthermore, a soil high in organic matter increases the development of the root system and the number of fine feeding roots.

Mulch Heavily

To further conserve moisture during the dry summer months, the plants should be heavily mulched with at least three inches of marsh hay, straw, or other rubbish covering the entire beds. Mulch should be applied early. Such a mulch will conserve moisture and greatly increase the production of fruit.

THE BURGUNDY STRAWBERRY

A NEW strawberry has been named at the Minnesota Fruit Breeding Farm. It is the Burgundy, formerly Minnesota No. 1192. An article in the March issue of the Minnesota Horticulturist by Profs. Wilcox, Alderman, Haralson, Winter, Brierley and Weir, state that the new variety is exceptionally cold resistant. The fruit is late in season, unusually firm, deep red, and attractive. The plants are vigorous, sturdy and hardy, and have shown better winter survival than Premier.

The season of this variety is late, about two weeks later than Premier, the first picking being made about a week later than the height of the Premier season. It is therefore useful in extending the season, and making more efficient use of the labor for picking and taking advantage of the increased demand that often apply late in the season in Minnesota.

It is a high yielding variety and has out-yielded commercial varieties at the Station.

It has a pistillate flower and must therefore be cross-pollinated with a perfect-flowered variety in order to set fruit. It should be planted in alternate rows with another variety as was the case with Warfield, popular here years ago.

This variety is on test in Wisconsin, a few plants having been sent some members of the Wisconsin Horticultural Society by the Minnesota Station in 1942. No doubt more growers will wish to try it.

Visitor: "Don't you cut yourself pretty often with this straight-edged razor?"

Mountaineer: "Nar. I been shaving nigh on to five years now and I ain't cut myself either time."

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

OFFICERS

Walter Diehnelt, Menomonee Falls, President
Corneluis Meyer, Appleton, Vice-president
H. J. Rahmlow, Madison, Cor. Secy.
Mrs. Louise Brueggeman, Box. 60, Menomonee Falls, Recording Secretary-Treasurer

DISTRICT CHAIRMEN

Robt. Knutson, Ladysmith
Newton Boggs, Viroqua
C. C. Meyer, Appleton
Ivan Whiting, Rockford

We Can Control Swarming

100% Prevention May Be Impractical

THE best method of swarm prevention is the one which will give practical results with the least amount of labor and still give us the largest crop of honey.

We know of no practical method to prevent swarming 100%, which will also allow the beekeeper to make a profit on his labor.

Never Reduce Brood Rearing

The first requirement for a practical method of swarm prevention is that it must never, at any time, reduce brood rearing. If we reduce brood rearing in the month of May or June it will affect our honey crop in July and August. If we reduce brood rearing during the late summer months it will affect the size of the colony before winter. Many colonies die every year because of small populations in late fall.

To Demaree May Reduce Brood Rearing

To Demaree by placing tde queen on one frame of brood in an empty hive on the bottom board, raising all the remaining brood to the top of the colony with empty bodies in between, will control swarming. However, it may also reduce brood rearing because the queen will find herself with but a few bees to cover and care for the eggs she lays.

Colony Expands Upwards

According to Dr. C. L. Farrar of the Central States Bee Laboratory, the swarming impulse may begin when the colony cannot expand normally in an upward direction. We must therefore watch our colonies carefully and give the queens plenty of room to expand upward. In late April our colonies will need two brood chambers for brood rearing. Only if the queen is forced to do so will she move downward to the lower of the two. Queens lacking in vigor may confine their egg laying to the upper of the two brood chambers, create a congested brood nest and swarm with plenty of room below. Colonies of medium strength may surround the brood with honey and pollen, blocking off and occupying only a small portion of the hive. This area may soon become so crowded that queen cells will be started. The colonies must be watched carefully and an empty brood chamber given above before this congestion takes place.

Strong Colonies Expand Freely

Strong colonies may not require as much attention as medium sized colonies. A good queen in a strong colony will fill the upper brood chamber and then move downward to lay in the one below, but a queen with less vigor may not.

As soon as the upper brood chamber is filled with bees and brood the brood chambers should be reversed. The one with the largest number of empty combs should be placed on top so that the queen can expand in an upward direction.

This system of reversing brood chambers has given us as good results as any we have tried with a considerable saving of labor.

How to Reverse Brood Chambers

The first time to reverse brood chambers is as soon as the upper brood chamber is filled with bees and brood, usually around May 1st, or even a little sooner, especially this year when we have strong colonies.

(2) About 14 to 18 days later, a good queen should again have the upper brood chamber filled with eggs and larvae, and will again be looking for space to expand upward. We must now reverse the brood chambers again. The older brood in the lower brood chamber will have hatched, leaving many empty cells for the queen when she is ready to go upward.

(3) After the two brood chambers are filled with bees, the queen will be laying at the top of her ability—from 800 to 1,000 eggs per day. The brood chambers may then have to be reversed again in about 10 days.

During Fruit Bloom

During the dandelion anl fruit bloom period nectar may come in which may create a crowded condition so a third empty hive body should now be placed on top of the brood chambers. It is best to leave off the queen excluders at this time because colonies of me-

dium strength may refuse to go through the excluders and will store honey in the brood chambers, thereby reducing the size of the brood nest. This should be avoided at all times.

After fruit bloom we can place this body with dandelion honey on the bottom boards where it can be used in brood rearing or brought up later for winter stores.

The Queen Excluder

The queen excluder may act as a barrier through which bees pass reluctantly. Strong colonies will pass through and store honey above it. During a heavy honey flow the bees will carry the honey through it readily. With weak colonies or during a light flow the tendency will be to store the honey in the brood nest, thus reducing brood rearing and weakening the colony.

The time to use excluders, if our system of management calls for them, is during the main honey flow, to prevent the queens from laying in extracting supers.

Top Supering

Top supering, or placing empty supers above supers filled or partly filled with honey, acts in the same way as an excluder. The honey is a barrier and incoming nectar will be stored in the brood nest during a slow flow or by weak colonies. It no doubt works fine in sweet clover regions where the colonies have time to build up and the flow is heavy.

Honey barriers may cause swarming, especially with medium strong colonies. They may store so much honey around and above the brood nest that they refuse to go into empty supers above, but start queen cells. In such cases the only thing we can do is to place empty combs on each side of the brood for the queen to lay in, and destroy the queen cells.

Failing Queens

If a queen has been laying well in the spring, but starts failing, then supersedure queen cells will no doubt be built. If this happens during the swarming season of March or June, then swarming will result. If we destroy these cells before they are sealed it may be possible to stop the swarming impulse. However, if the cells are sealed and the queen already shrunken preparatory to swarming, about the only thing we can do is to Demaree the colony. Place the queen with one or two frames of brood in the lower story and all the remaining brood on top, with empty bodies between.

To Get Results

Years ago a wise Scotchman said, "The eye of the master fattens his cattle." The eye of the master will also be necessary to get a good crop of honey this year. Fifty strong colonies which do not swarm will produce more honey than a hundred weak ones.

HONEY LIMITATION ORDER IN MANUFACTURE OF FOOD PRODUCTS

REGULATIONS have been made limiting the amount of honey that can be used in the manufacture of food products. The administration of manufacturers' quotas were transferred to the U. S. Department of Agriculture in order FDO No. 47.

During the 3-month period ending June 30, 1943, and during each subsequent 3-month period, no firm nor individual may use in manufacturing other products more than 600 pounds of honey, or 120 per cent of the quantity of honey so used by him during the corresponding 3-month period of 1941, whichever is the greater.

This order will benefit the beekeeper eventually because it will keep honey on the shelves of our stores where consumers may continue to get it. Family cinsumers will eventually be our largest customers, and we must not now deprive them of honey.

FOR SALE: 4 frame extractor and Kelly double boiler, 450 lb. capacity. Write Wis. Hort. Soc.

SUMMER MEETINGS OF BEEKEEPERS PLANNED

Boscobel, Appleton and Menomonie Are Probable Locations

BEEKEEPERS at District meetings stated that they wanted summer meetings in July conducted by the State Association as in past years. These meetings have become very popular.

Probable locations for the July meetings will be Boscobel for the Southern and Southeastern District; Appleton for the Fox River Valley and Eastern Wisconsin; and Menomonie for the North and Northwest.

Outside speakers are now being contacted and there is every indication that we will have the usual interesting program.

THE HONEY PRICE SITUATION

DURING April the new regulations on honey prices published in our April issue were discussed at a number of county association meetings. Beekeepers expressed themselves as heartily in favor of the prices. In fact, many indicated that they thought the retail price ceilings were somewhat high on various sizes of containers, at least for the middle-west. Many beekeepers said that if the honey crop is good this year, they will probably offer 5 lb. pails at the retail price of $1.00 instead of $1.11, which is the ceiling.

These beekeepers feel they wish to enable their customers to purchase honey now, so that they will continue to be buyers later. Many families have not had their income increased very much, but have had their expenses increased greatly. Consequently they are not in a position to pay high prices.

However, this situation will be one of the points for discussion at the annual summer meetings of the various districts of the State Association.

THE POLLEN SUBSTITUTE SITUATION

A substitute for pollen which will fully take the place of pollen has not yet been found. Soybean flour can only be called a supplement. This fact has been definitely proven by repeated experiments carried on by Dr. C. L. Farrar of the Central States Bee Laboratory.

Dr. Farrar found that soybean flour mixed with one-fourth as much pollen will enable the bees to rear brood normally. However, *without the pollen* they will raise brood for only a short time and then stop. This indicates that there is something lacking in the soybean flour which is found in pollen and without which the bees cannot raise brood for a very long period.

Neither has Dr. Farrar found that the addition of any other product such as skim milk powder will make up this deficiency. In fact, he states that his results with soybean flour, if it is a flour made by the expeller process, gives just as good results and perhaps even better than if mixed with skim milk powder.

We have found that one real need so far for soybean flour is during the month of April when the bees are trying to raise brood in increasing amounts, but when rainy and cold weather often prevent them from getting out to gather pollen for days at a time. If they get some fresh pollen and then soybean flour is fed in addition, it will increase brood rearing and give us those bees we need so badly in May and June.

BEE LOSSES VARY IN STATE; DUE TO STARVATION

Reports from county association secretaries during April indicated that winter losses ran from 15 to 40 per cent. It varied more with the beekeeper than it did with the method of wintering.

Practically every report indicated that loss was due to starvation with Nosema as a second cause.

Many small, inexperienced beekeepers seem to have been wiped out completely, but indications are that hundreds of beginners are entering the field.

RETAIL HONEY PRICES IN APRIL

The 1 lb. jar was the only honey package available in some chain stores in Madison during April. One chain store had on display in considerable quantities 1 lb. jars from each of three large packers. The price was the same on each brand, *being 35c for a 1 lb. jar.* This has caused some discussion among beekeepers. Can the consumer afford to pay this price for honey? Will consumer demand drop off and continue so when prices go down again?

These are serious questions.

COUNTY BEEKEEPERS ASSOCIATIONS ACTIVE

The editor attended some excellent meetings of county beekeepers associations this spring. Outstanding in attendance was the meeting of the Manitowoc County Association at Reedsville on April 7th with about 60 beekeepers present. The Dodge and Shawano County Associations also had good meetings in April.

The function of county associations in our humble opinion, is to hold meetings at which we (1) discuss problems on honey production to gain information on latest developments in beekeeping; (2) to talk over marketing and the price situation so all may become familiar with the new laws and regulations and government rulings; (3) to discuss problems of disease eradication and how to keep our counties clean of A.F.B. To this end each association should have Mr. James Gwin or Mr. John Long appear on their program at least once each year and should organize so that their County Boards may appropriate money to help in this disease eradication project. (4) To enable beekeepers to become better acquainted. This is one of the important reasons for our meetings. At all of the well attended county meetings we found a friendly spirit. The beekeepers were glad to get together, many not having seen each other since last year.

To this end the officers must be careful to promote harmony and good will and conduct the meetings in such a way that there is a friendly spirit throughout. Much is gained by a free exchange of information among individual beekeepers. In fact, beekeepers are noted for being willing to help each other by discussing their experiences.

POLLEN

Chemical analyses of pollen from 34 species of plants indicate that, in addition to being rich in minerals, pollen also has a valuable vitamin content. The fat content of pollen ranges from about 1 to 14 percent. Pollen shells are hard and resistant to chemical action, and have been found in coal, peat bogs, and ocean slime; they may therefore have characteristics of possible value for plastics or fabrics.

From Report of the Chief of the U. S. Bureau of Entomology and Plant Quarantine.

HONEY WANTED

Cash paid for cars and less than cars comb and extracted honey. Mail sample and best price. C. W. Aeppler Company, Oconomowoc, Wisconsin.

HONEY CANS

We can give you immediate delivery on 60# cans.

Order your glass supply for the new crop now, as it takes from 3 to 6 months to receive same from the factory. We now have a good supply of 5#, 2½#, 1# and ½# on hand, and can make immediate shipment.

To insure prompt service, order your Association labels now for your new crop of honey.

Write for Complete Price List.

Order Through Your State Beekeepers Association

HONEY ACRES
Menomonee Falls, Wis.

BUY LOTZ SECTIONS and Solve Your Packaging Problems

1943 is a year of problems for the Beekeeper. Sugar rationing has created a demand for honey.

Conservation Order M-81 issued by the War Production Board has banned the manufacture of tin containers less than 5 gallon size and limited the manufacture of caps for glass containers.

Produce comb honey. It furnishes its own container.

Lotz sections will give your comb honey a boost. They will save you valuable time because they will not break when being folded. Less breakage means lower cost. And too, the smooth white appearance of the surrounding section adds sales appeal.

AUGUST LOTZ COMPANY
BOYD, WISCONSIN

Editorials

SEND FOR APPLE MAGGOT BAIT TRAP CHEMICALS NOW

Chemicals to make four bait traps to determine when the apple maggot flies have emerged in July or early August will be sent to any member for the price of 50c. See article in this issue describing the situation. Send the money to the Wisconsin Horticultural Society. The chemicals will be sent out after July 1st.

THE FOOD SITUATION

WE in the United States will have to get along on 75% of the food produced this coming year which will have to feed 93% of our population.

Washington officials tell us that about 25 to 40 percent of certain foods will be required for the armed forces and for our lend-lease commitments. The civilian population must get along on 75% of the normal supply of beef, 50% of the pork, 70% of the eggs, 80% of the butter, 55% of the cheese, and 70% of the lard, 55% of the dried fruits, and 50% of the canned vegetables.

It is easy then to see the reason for rationing of foods. When the total supply is reduced to 60 to 75 percent of normal, then the great danger is that some people would get 100% of their needs while others would not get enough to get along on.

Our observation as we pass around the state of Wisconsin is that everyone seems to be reacting favorably towards rationing, realizing that it is necessary.

The middle-west is the bread basket of the nation and so it is now up to us to produce. The big project for horticulturists is to produce more fruits and vegetables. That is an important contribution to the war effort.

Young Carrots From Your Garden May Taste Different!

TO KEEP RABBITS AWAY

THIS may or may not work, but Otto Zillmer, Milwaukee, says that rabbits can be kept out of the garden by the simple process of filling some milk bottles full of water and placing them in different spots throughout the garden. A neighbor who tried it many times told him about it. Their opinion is that the rabbits see their reflection in the bottles of water at night and consequently are frightened and keep away. Mr. Zillmer said he tried it and it worked.

We would like to hear further reports.

THE RABBIT PROBLEM

In the April issue of Wisconsin Horticulture we published an article on rabbit control by G. C. Oderkirk and a sketch of a rabbit trap which can be made by any man handy with tools or by a carpenter.

Eliminating rabbits is the only way of successfully taking care of this menace. No matter how much affection we may have for the cute bunny, there is a limit to where they can be allowed to feed.

A farmer or orchardist may hunt rabbits any day of the year on his own land. In the cities, however, there is a restriction on the use of fire arms, and that is where the trap comes in. However, if we trap rabbits, it will do little good if city folks take them out in the country and dump them near some farm to continue to destroy crops.

The rabbit population is high now and there is no danger of eliminating them. In fact they seem to thrive in thickly settled communities better than they do out in the forests where they are thinned out rapidly by their natural enemies.

Danger From Tularemia

In many communities they say it will be impossible to grow victory gardens because of danger of having the plants eaten by the rabbits. Thousands of fruit trees were ruined this past winter by having the bark eaten by rabbits. However, it must be remembered that there is some danger of infection by tularemia in handling rabbits. It is well to wear rubber gloves at all times in handling them. This is especially true if the rabbit looks at all sick. The percentage of rabbits infected with tularemia is very small, especially in well settled communities. The disease is spread largely by the rabbit tick and it is a bacterial infection. The danger is less in late fall and winter when the ticks leave the rabbits and the diseased rabbits soon die. However, it may be worse in spring and summer. Infection occurs from the blood or the sputum of the rabbit getting in contact with the skin.

Cooking will destroy the bacteria, and so there is no danger as soon as the meat has been cooked.

POLE BEANS CAN REPLACE ORNAMENTAL VINES

STRING beans are a very important food item. A suggestion is that we grow pole beans in place of annual vines such as morning glory during the emergency period when food production will be more popular than flower production.

Wherever there is a good location with sunshine and good soil, it will be possible to grow pole beans on trellises, along porches where they can be allowed to grow on strong string or cord, or even on fences.

Kentucky Wonder Bean Good

The Kentucky Wonder pole bean is one recommended for this purpose. It matures in about 65 days. It climbs well, bears a heavy crop of large bean curved pods, 7 to 9 inches long in clusters. When the pods are young they are free from string or fiber, although small strings develop later.

The beans should be planted when all danger of frost is over. Cover the seeds with about 2 inches of soil, sowing seed about two inches apart. Later the plants can be thinned to the desired number.

DO NOT USE LIME ON YOUR VICTORY GARDEN IN WISCONSIN

VICTORY gardeners should remember that vegetables and flowers prefer a slightly acid soil, one testing from pH 6 to pH 7, although they do well in soils with slightly more lime.

About 95% of the garden soils of our members in cities, tested at the request of the Wisconsin Horticultural Society, were found to be high in lime, from pH7 to pH 8. Only 5% tested less than pH 7.

That means that we are in a limestone area and that we are probably watering our gardens with water high in lime, or have already applied too much lime or wood ashes. Soils testing as high as pH 8 are **too high for best results** with flowers and vegetables.

So in spite of what you read in magazines published outside of this state about the value of lime, remember that conditions in Wisconsin are different and our city garden soils do not need lime for vegetables.

If in doubt, however, have your soil tested.

DELPHINIUM SOCIETY OFFICERS

THE American Delphinium Society has announced that the following officers have been elected as a result of balloting by mail:

President: Thomas J. Newbill of LaGrange, Ill.

Western vice-president: Frank Reinelt, Capitola, Calif.

Central vice-president: Berg Madison, Moline, Ill.

Eastern vice-president: L. G. Bruggemann, Hingham, Mass.

Secretary and Treasurer: Stanley Ohala, Chicago, Ill.

Editor: Professor R. C. Allen, Ithaca, N. Y.

As with all other special plant societies, the organized delphinium growers plan to preserve the gains made through the research of past years and so ably reported in their year books.

From April 1 Horticulture.

USE OF ROTENONE RESTRICTED TO FOOD CROPS

THE use of rotenone is restricted by WPB's Conservation Order to be used only on the following crops:

(1) Peas—protection against the pea weevil and pea aphid.

(2) Beans.

(3) Cole crops, other than cabbage, including: broccoli, brussels sprouts, cauliflower, kohl-rabi, mustard, kale, turnips, and collards —for protection against caterpillars and aphids.

(4) Sweet corn—for protection against the European corn borer.

OUR LARGEST COUNTY FAIRS

ACCORDING to the State Department of Agriculture, over half the total gate admissions were accounted for by 12 county fairs last year. These fairs had a total attendance of 390,031. The following are the county fairs and their total attendance for 1942:

Superior, 64,022; Marshfield, 47,399; Elkhorn, 45,868; Chippewa Falls, 41,537; Manitowoc, 35,450; La Crosse, 29,887; De Pere, 25,354; Oshkosh, 25,039; Wausau, 21,203; Beaver Dam, 20,084; Plymouth, 18,683; Monroe, 15,505.

CROSS POLLINATION IN VEGETABLES AND CORN

Affects Both Quality and Color of Corn

WHILE fruits and vegetables which contain seeds may be cross pollinated without affecting the quality or appearance of the edible portions the first year, this is not true in the case of corn.

Sweet corn, if planted beside a row of field corn, will, if pollen of the field corn falls upon the silk on the ears of the sweet corn, have its color changed and quality reduced slightly. While this may not be serious to the average person, it should be understood that it will happen. However, a farmer can reduce his labor of cultivating and caring for the sweet corn by planting it in the field next to the field corn.

If we get mixtures of melons, pumpkins or squash it is because the cross pollination occurred the year before, as only the seeds are affected the first year.

OUR COVER PICTURE

Our cover illustration this month is the Pasque Flower, one of the earliest spring flowers of the Prairie States. Cut loaned us through the courtesy of the Minnesota Horticultural Society.

Gladiolus Tidings

By the WISCONSIN GLADIOLUS SOCIETY

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Noel Thompson, Madison

Gladiolus Troubles

4. Mosaic of Gladiolus

Noel F. Thompson

What do we know about mosaic in gladiolus? The answer is, very little. By "Mosaic," pathologists usually mean one of the virous diseases characterized by a mottling of the foliage of the affected plant. Instead of an even green color the leaves are mottled with lighter green areas. Other characters may accompany the mosaic pattern of the leaves. Sometimes the plants are stunted as in raspberries and dahlias. With raspberries and potatoes the leaves are more or less curled, and in tulips the colors of the flowers are marred with flecks and streaks.

In 1928 Miss Dosdall described a mosaic-like disease of gladiolus in which there was a mottling of the leaves and flowers and a roughening of the corms. She did not succeed in transmitting the disease by the juice of the plants and suggested that it might be transmitted by insects. Since this method of transmission is very common among the virous diseases, this is a very logical suggestion. However, so far as I have found, no one has as yet demonstrated that this disease can be transmitted from a diseased to a healthy gladiolus.

The insects most commonly found as vectors of virous disease are aphids, leafhoppers and thrips. The last is very naturally a suspect in the case of gladiolus mosaic, but its causal relation has not been demonstrated. In fact, insect transmission of this disease has not been demonstrated.

The most noticeable character of this gladiolus disease is a "breaking" or mottling of the color of the petals. Dimock states that the mottling is "always in the form of light colored flecks or blotches on a background of the normal color. In many cases, indeed, very little of the normal color remained." He further states that in a few cases there appeared to be very slight mottling of the foliage.

Our experience has been, at least late in the season, possibly with the advent of cooler weather, that the mottling or mosaic type foliage is definite. In many lots examined this mottling of the foliage was definitely associated with the breaking of the flower color and flowers with normal color showed no mosaic pattern on the leaves. We have been unable to detect or associate a roughening of the corms with the other symptoms.

Until someone shows definitely that this disease can be transmitted from a diseased plant to a healthy one, it cannot be definitely ascribed to a virous. However, it has all the earmarks of such a disease, and for practical purposes should be assumed to be one unless proof to the contrary is given.

Disease Serious

At any rate, mosaic is a very serious disease of gladiolus. It has caused serious losses and, unless clean stocks of certain varieties become available in quantity, it will no doubt cause the abandonment of some of our best varieties. Picardy is threatened at present.

Control is difficult but not impossible. The grower must first become thoroughly familiar with all aspects of the disease. He must then ruthlessly rogue out and destroy all infected plants. At the same time, by means of sprays, he must keep insect infestation at a minimum. A similar situation faced the raspberry industry a few years ago and was successfully met. The hard part is getting started.

WISCONSIN GLADIOLUS SHOW

THE 1943 Wisconsin Gladiolus Show under the auspices of the Wisconsin Gladiolus Society will be held in cooperation with the Sheboygan Chapter in August. This was decided by a vote taken at the annual meeting in accepting the invitation of the Sheboygan Chapter.

The show is bound to be a big success if held in this way. The Sheboygan Chapter has annually staged a very successful show. The enthusiasm of gladiolus fans in Sheboygan County also means a good attendance.

The State Gladiolus Show is really a convention of gladiolus growers and fans throughout the state and northern Illinois.

TIMELY THOUGHTS
Dr. Geo. Scheer, Sheboygan

HAS it ever occurred to you, Mr. Glad Fan, that now is our golden opportunity to cultivate the interest and enthusiasm of many a small amateur grower whose sphere has been heretofore confined entirely to his own little community? There is many an amateur who is perfectly satisfied with the knowledge that he grows better glads than anyone else in Podunk; he may grow them very well, but the chances are that most of the varieties that he grows are the greats of twenty or thirty years ago, such as Peace, Flaming Sword, or Schwaben, for how does he have a chance to see the wonderful new ones?

This is your opportunity, Mr. Glad Fan, to do some effective missionary work for the gladiolus. There are very few people who are not susceptible to the appeal of flowers and there are none among the common flowers that surpass the modern gladiolus in all-around appeal. To gain converts to the ranks of gladiolus lovers it is only necessary to show them your wares. The average amateur and small gardener is rather timid about displaying his blooms. He may have some perfectly grown spikes but he is sensitive about showing them at a big show, so much so that he does not even dream of entering them. This fellow needs only a little education and you can provide the opportunity for that by arranging a local show for your own community. No matter how small the town, you will always find a village hall, church, school, bank, or store which will be only too glad to provide the necessary space for such a show, for it provides advertising for them. A local show will draw entries from almost everyone who has anything to show for there is none of the sense of restraint that keeps them from trying their hand at a larger show; and, having once won one or two awards, the small grower will be ready for competition in more advanced company — and there you have another fan in the bud.

A SUCCESSFUL CHAPTER

Such local shows lead to the next development: the county chapter. How this can be developed is well illustrated by our own Sheboygan County Chapter which now has close to 50 members. Our dues are only nominal, 25c a year, but no one can join the chapter only. He must also join the State Society. Our chapter is in excellent financial condition, thanks to income derived from our annual show and bulb auction. While most of our members are from Sheboygan County, we have members from nearby counties which have no chapters of their own. Other successful chapters have been started at Madison and at Manitowoc but these three chapters are not nearly enough. We need quite a few more.

The advantages of local chapters are quite obvious. They bring together the fellows who are interested in glads and provide an excellent chance for discussion and for interchange of experiences and ideas. Perhaps most important of all, they stimulate effort and interest through friendly competition afforded by the annual shows. Since none of the members live very far from the site of the show the matter of travel is no serious problem and nearly every member is anxious to compete—and does compete.

I believe that Iowa was the first state in the middle-west to develop the local chapter plan, and now has at least five such chapters large enough to stage Regional State Shows. There is no reason whatsoever, why we in Wisconsin cannot do as well or better. There are various sections in the state that would seem to provide excellent ground for the organization of local chapters. It takes some man or a group of enthusiasts to start the ball rolling. How about it, you fans in the various sections?

GLADIOLUS TRIAL GARDENS TO CONTINUE

According to James H. Odell of the N.E.G.S., the West Virginia Trial Gardens at Oglebay Park, Wheeling, West Virginia, is to continue under the supervision of R. B. Apperson of 13 Lenox Avenue.

A small fee is required for entry and also membership in the West Virginia Gladiolus Society. Wisconsin growers who wish to have their varieties grown in the trial garden should contact Mr. Apperson.

TO HOE OR NOT TO HOE

I HAVE been interested to notice that the argument about whether or not the hoe is the gardener's best friend has jumped the Atlantic. It appears that in England there is also just as much division of opinion as to the value of the dust mulch as a means of retaining soil moisture. E. M. Bear writing in the "Gardener's Chronicle" puts it aptly when he says, "Tell an old gardener that the theory that you can protect crops from drought by maintaining a dust mulch has been exploded, and he will nearly explode himself."

Even so, it is reported that the famous Rothamsted experimental station after trials extending over a period of 12 years, has found that cultivation beyond the amount necessary to keep down weeds does not pay. If I remember correctly this English conclusion is borne out by equally careful tests in the United States.

Deep Cultivation Not Good

Those who have broken away from the age-old idea of deep cultivation have found that except when extra aeration is needed, stirring of the soil is not necessary. Wet, heavy soils or new plantings often benefit from cultivation, but, on the whole, garden crops grow just as well if the weeds are removed by hand and the hoe never used. It is much less work, however, to kill weeds when they are tiny by surface hoeing.

(Continued on next page)

Home and Garden

Mrs. C. E. Strong

HERB GARDENS

Now that necessity has made
More hands feel earth and guide the spade
In Victory gardens, should we slight
Another day the appetite
Of heart that yearns for sweet and tang
Of herbs? Again bright pods must hang
In long festoons from rafters here,
With sage in silvery bundles near
The teasing scents a touch can stir
From catnip clusters; lavender
And bergamont may breathe once more
The fragrance old chests held before.
And even sassafras may be
Again a subtle joy in tea—.
Strange hungers come from wistfulness.
So—wishing more and having less,
We must seek nearer earth . . . and then
Things lost too long we find again.

—Glen Ward Doesbach, "In Household."

With other countries as well as our own soldiers to feed we are everywhere finding it more and more difficult to secure canned goods at the grocers. Prices at the green markets are going up and up.

Organizing Victory Gardens

The Hollywood Garden Club and the Hollywood branch of the American Begonia Society decided they might pass on to others the wisdom they have acquired. They hold their meetings in the Club house at Plummers Park, a bird refuge, planted naturally with trees and shrubs, but with a quite considerable space of clear ground. A committee prevailed city officials to loan this portion to Victory gardeners under the supervision of club members. After some thought the officials decided it was worth trying. Ground was ploughed, plots 18x30 were laid out and three to five paths, and water pipes were laid. To the committee fell the responsibility of choosing the right sort of people to work the gardens.

As the plots are given out each applicant must agree to care for the plot he receives for the whole season, keeping down weeds and cultivating and watering properly. A failure to keep this agreement will result in the loss of the plot. Members of the clubs have helped applicants in choosing the proper seeds, teaching them not to waste seeds or plants, urging systematic care. "You cannot be lazy with a vegetable garden."

The results are showing in the neat, orderly, thrifty rows of plants now coming up. Park officials were so pleased with this venture they are seriously thinking of other park areas that can be used for gardens under the right supervision. The club members are earnest and honest in their belief that working with flowers is good for the morale—any kind of a garden helps, but working with flowers, the plants you love, will lift your thoughts to a higher plane. So as a poet once said, "Grow cabbages, that you may eat and live; grow flowers so you may have and give. For life is complex and its needs demand—That cabbages and flowers go hand in hand."

The New Broad Leaf Endive Is a Fine Summer Salad

Soil Preparation Important

As I listen to the talks at the club meetings I am glad to hear every speaker stress preparation of the soil. As one speaker said, "Soil preparation is the Alpha and Omega of gardening. You just have to get your ground in good condition if you want plants and blooms that are something near perfection."

Western Hospitality

At nearly every meeting there are seeds and cuttings free to anyone who wishes them. New gardeners are especially urged to help themselves; also to pass some along to others. Especially fine potted plants as well as cut flowers are on display at the meetings. Roses that are simply marvelous in size and beauty. Imagine roses cut in your garden with 20 inch stems, as thick as your thumb, and the flower over seven inches across, thick waxen petals with glossy foliage. Am quite sure a "movie star" would not attract more attention than that rose did on the bus going home. You see they welcome visitors most graciously out here in the West. They ask them to stand up so they can tell them personally how glad they are to see them in their meetings. You just cannot feel like a stranger with everyone so friendly.

Keep Young With Apples

A clever advertisement for a California apple sauce.

"In Scandinavian mythology, goddess Iduna had an apple tree the fruit of which kept the gods young. Then an evil spirit, Loki, kidnapped the goddess and her tree and all the gods were growing old and infirm. Finally all the gods joined forces and made Loki restore Iduna and the tree — and their youth."

Californians eat plenty of apples, along with their many other varieties of fruit and "garlic." So far haven't noticed any recipes for "pie" with garlic in the ingredients, but keep expecting.

TO HOE OR NOT TO HOE

(Continued

Experience

My own opinion in regard to these matters comes from a recent experience. Corn, tomatoes and other sizable vegetable plants grew and produced exceptionally well for me the past summer with no hoeing at all. I avoided the weeding problem by repeated mulchings with lawn clippings of which my overly neat neighbors were anxious to rid themselves. Of course, the mulch would have prevented excessive drying out had not rainfall been ample.

—From Rambling Observations of a Roving Gardener, in October 15 Horticulture.

Vanquish Vicious and Vexing Victory Garden Vagrants or Vice Versa

E. L. Chambers

Everyone on the home front is being urged to assist in meeting the acute food shortage by planting a victory garden. This, like any other patriotic duty, requires undivided attention, and certainly no one should attempt it unless they are willing to go "all out" for its success.

Once the seed is properly planted on a carefully selected and prepared plot, the first stage of the battle is completed. The second stage follows immediately with the appearance of the plants, which are subject to attack by hordes of insect pests and plant diseases, and a carefully planned defense must be maintained throughout the growing season. An experienced and successful gardener would eliminate many of the pest problems when he selected the spot for his garden. Whenever possible, he rotates his garden plot and avoids using the same piece of ground year after year. In picking a new area he avoids white grub and wireworm infested sod land and cleans up and burns or buries all crop refuse from the previous season as well as the weeds and other trash which serve as hibernating quarters for many of the more serious pests including cutworms, borers, slugs, plant lice, beetles, bugs, and fungi.

Trap Crops

The next step he will take is to eliminate all pest intruders possible by the use of a trap crop. The principle of this method of attack is simply that any pests present in the immediate vicinity are attracted to a few of their favorite host plants and are destroyed at a time when there is no other food to their liking available. Wireworms in the soil, for instance, will migrate to pieces of cull potatoes planted two or three inches deep as soon as the soil has been prepared and once attracted they can be destroyed. In large fields the worms are killed by drilling calcium cyanide into the same rows two weeks after planting the potatoes, but in small gardens it is simpler to dig up and burn the infested pieces, the location of which have been previously marked by stakes. Other effective bait materials include slices of fresh vegetables, cabbage or lettuce leaves, and germinating seeds such as peas, beans and corn. These, like the pieces of potatoes, should be dug up *ten days after planting* and destroyed, and a second lot of bait may be set if needed.

Onion Maggots

Onion maggots can likewise be controlled similarly by planting cull onions and destroying them after the female flies have layed their eggs. Squash bugs can likewise be controlled by planting a few hills of an early variety of squash and the bugs attracted killed by a strong concentration of nicotine sulphate. Where the European Corn Borer is a problem, a few hills of early planted corn will attract the female moths which lay their eggs on the first stalks of the season and these stalks can be destroyed together with the infestation before the midsummer. In much the same way the populations of such insects as the cabbage curculio, flea beetle, squash vine borer, asparagus beetle, and other serious pests, can be reduced to a minimum by intelligent use of suitable trap crops. Naturally community effort in trap crop efforts is desirable and where practiced will yield gratifying results.

Variation in Time of Planting

The time of planting likewise has a very great influence on the infestation of the crop by some insects. By changing or carefully selecting the time when a crop is planted we may avoid the egg-laying period of a particular pest: get young plants well established before the attack comes or allow a shorter period of susceptibility during which the insect will attack. Take, for example, the seed corn maggot, which plays havoc with beans, peas, seed potatoes and sweet corn just as they begin sprouting, frequently causing widespread and serious damage during a cold, wet spring. This loss could be reduced by delaying the planting until more favorable growing weather. On the other hand, early planted radishes and cabbage usually escape damage from the cabbage maggot, and early planted sweet corn is not so likely to be hurt by the corn ear worm, and early potatoes dodge a heavy infestation of potato bugs.

The Use of Resistant Varieties

Some strains or varieties of cultivated plants are more or less resistant to certain insects and fungi that attack them and should, wherever possible, be chosen in preference to others. Rust resistant asparagus, Yellows resistant cabbage, Wilt resistant cucumbers, Yellows resistant asters are examples of such selections which mean much in reducing garden troubles.

Pistillate varieties of strawberries are not attractive to the strawberry weevil, staminate box elder trees are shunned by the box elder bug, and staminate alpine currant bushes are immune to the white pine blister rust fungus. These are examples that indicate that even the selection of the sex of the plant is sometimes important.

Other Cultural Control Measures

Too much emphasis can not be placed upon the importance of good husbandry as defined by agronomists, horticulturists, entomologists and plant pathologists, who, working in close cooperation, have repeatedly demonstrated its merit. The use of good seed, excellent preparation of the seed bed, conservation and regulation of soil moisture, proper pruning and thinning when necessary, and the judicious use of fertilizer all offer possibilities of stimulating growth in such a way as to make possible successful gardening, where the neglect of one or more of these factors may result in loss or disaster.

Watch for Insects to Prevent Injury

Once insects become abundant they are much more difficult to control. Be your own inspector and examine your plants frequently for evidence of insect attack.

(Continued on page 250)

PROTECT YOUR VICTORY GARDEN

with

NIAGARA DUSTS and SPRAYS

Vegetable plants need some attention from beginning to end to assure you a maximum yield. They are constantly subject to diseases and insect pests of one sort or another which may be kept in check by the use of the proper materials.

Equip yourself with a Niagara Duster and materials for increased yields.

NIAGARA SPRAYER & CHEMICAL CO., Inc.
Middleport New York

Wisconsin Representative
J. HENRY SMITH,
Waupaca, Wisconsin

GARDEN GLEANINGS

New Zealand spinach tastes very much like other spinach, but the plant is quite different. While ordinary spinach does well only in the cooler seasons of the year, New Zealand spinach may be grown all summer long. It is one of the important sources of greens which we need in our diet from day to day to furnish vitamins A and C.

Many folks have not yet realized the need of growing vegetables for greens. Vegetables which are important in this respect are beets with tops, broccoli, and lettuce.

Nutritionists tell us that we should eat leafy green and yellow vegetables at the rate of 2¼ lbs. per week per person.

From the first of February until April 20th the writer spoke to approximately 65 garden clubs, with an attendance of about 1,800 gardeners. Our observation at these meetings was that very few gardeners have in the past planned their vegetable garden on paper. Very few indeed made plans which would enable them to grow two crops in the same row, or in other words, to make the best use of the land available. Some gardeners made the statement, "I don't need to do that because I have plenty of land." Often these same gardeners complained that they were unable to keep the weeds down in their gardens. The answer is, "Why not have your garden smaller, and grow the same crops on a small area which would require less work than the larger garden?"

This can be done, but only if we use plans made with that in mind. That is why we continually emphasize that gardeners should study the plans prepared by Prof. J. G. Moore this spring for both city and country vegetable gardens.

Victor Ries of Ohio makes the observation that in his work with victory gardens he finds three outstanding needs. First, garden surveys which were made last year and the year before, indicate that vegetable gardens, whether in the town or country, are seldom prepared as early as they should have been. Second, they didn't have half the varieties from the standpoint of nutrition they should have had, and third, they did not have as much for fall use and for winter storage as they could have had. That is our observation as well, in Wisconsin.

Interest is already developing in victory harvest shows for this fall. Such shows should be held because it will increase interest in vegetable gardening, and we may have even more need for vegetable gardens next year than we do this year. Secondly, it is an opportunity for gardeners to gain information by contacting other gardeners at the show, studying varieties, and discussing methods of culture, disease and insect control, storage, canning, and many other things. While we do not think we should hold shows covering large areas such as state shows, because to get to them would require considerable travel, local shows should be planned now in every community. Proceeds should be used for some worthy cause to help the war effort.

The important work for May in the vegetable garden is to control weeds and to thin the plants of vegetables coming from seed.

It is not necessary to do more cultivating than to control the weeds. The matter of aeration of the soil by cultivation has been greatly exaggerated in its beneficial effects. Unless the soil is aerated by organic matter, there is little chance of us getting air down to the root system because if we cultivate deeply we will cut too many of the feeding roots and do more harm than good.

Thinning, however, is very important. We cannot expect a good vegetable crop, such as carrots and beets, without thinning them so that each one will have room to develop.

—H. J. Rahmlow.

MUCH MISINFORMATION ABOUT GARDENING BEING SPREAD

As interest in gardening increases, so do the suggestions for controlling insects, diseases, and making the plants grow well. Many of these suggestions are simply fancies and will do considerable harm if they are followed by the amateur gardener if he fails to get results, but goes to a lot of expense and labor in carrying them out. We have for example, the suggestion to sprinkle our victory garden plants with garlic to keep the rabbits away. The use of pepper and many other things for the same purpose is being advocated. Let us say bluntly that there is no successful rabbit repellent, especially one that can be put on green plants. Some of the repellents may make the plants selective. Rabbits will prefer to eat plants not covered to those that are covered for a short time, but we must remember that plants send out new leaves and grow rapidly and soon the effect of any repellent is lost.

Then we have suggestions about insect control, such as dusting with wood ashes, lime, sulphur, and many other things as a sure cure.

Entomologists tell us that sprinkling sulphur in the rows underneath the seeds of radishes or onions will not keep worms away, nor will matches stuck around plants head down repel cutworms, at least not for any length of time or with any assurance of success.

Use only approved methods in caring for your garden. Information from Colleges and Experiment Stations is sound.

VANQUISH INSECTS

(Continued from page 249)

While there are thousands of different species of insects attacking garden crops, all having more or less distinct habits and life cycles, so far as control is concerned they may be roughly grouped under two heads.

1. Foliage Feeders. Caterpillars, beetles, grasshoppers, slugs, etc., bite off the solid foliage tissue or plant material and take it into their stomachs for food. These voracious feeders are easiest to control since it is simply necessary to coat their food with an arsenical poison which they will not detect.

2. Sucking Insects. Scale insects, aphids, leafhoppers, and the like, weaken plants by extracting the sap through their sucking mouth parts. Because they pump out the plant juices from beneath the surface without feeding upon the surface, they naturally are not affected by coating the leaf surface with any arsenical poison. Instead we must depend upon sprays which kill by contact. Contact sprays kill either by burning or corroding the body tissue, clogging up the breathing pores on the sides of the insect and thus suffocating it, or by entering the body through these spiracles and affecting either the blood or nervous system.

(To be continued in June)

BARABOO FLOWER SHOW MAY 20-21

First Methodist Church

The Baraboo Garden Club will hold an apple blossom and tulip time flower show in the First Methodist Church on Thursday and Friday, May 20-21.

All garden club members are invited.

Pointers for Growing Vegetables

(Continued from April)

RADISHES

Radishes have far less food value than most vegetables and their value has probably been over-rated excepting as a relish. A short row is sufficient in any garden with successive plantings if desired. They deteriorate quickly and are subject to maggots which ruin the roots.

SPINACH

Spinach is distinctly a cool weather crop. Sow it early with three successive plantings, and begin to use the lower leaves of the plants as soon as they are large enough to use, picking the leaves from the bottom upward, as the plants grow taller. As soon as the weather turns hot the plants go to seed and should then be pulled out and another crop planted such as late turnips or even beets for greens. New Zealand spinach will withstand heat better and can be grown in the summer.

TOMATOES

Here are a few hints about tomatoes. Do not buy tall spindly plants, especially those planted in flats where the roots must be pulled apart. Seed may be sown in the garden as soon as danger of frost is over in early May. Plants from seed sown in the garden will ripen only a week or so later than poorly grown plants.

Blossom-end rot is really the only serious trouble of tomatoes we have to contend with and is caused by a drought condition. To reduce danger of blossom-end-rot, mulch the plants with a mulch at least 3 inches thick to conserve the moisture in the soil, and water if at all possible so that the soil is uniformly moist throughout the season.

If tomatoes are pruned and tied to stakes each plant will not bear as many tomatoes as if they are not pruned, but the tomatoes will be larger and ripen a little earlier. It will, however, be less work to allow them to grow without pruning or staking.

NUTRITIOUS GREENS EASY TO GROW ALL SUMMER

SOME nutritionists say that the vitamin-rich "green, leafy vegetables" should be served in some form once a day, to insure that your family has an abundance of vitamins.

If this is to be done, the Victory Garden must provide a good variety of these leaves; and some of the most important of them are served as cooked greens.

Of these, **spinach** is not the most important item. It can be grown for the early summer, to be harvested before hot weather sends it up to seed, but its place on the menu will be a few weeks only, while other greens can provide vitamin-rich green leaves for months.

Swiss chard, a member of the beet family, is one of the best. Sown in the early spring, it matures in 45 days. Its leaves may be cut off at the ground, and the roots will send up new crops until freezing kills them. Chard has a distinctive flavor which some prefer to spinach, and others do not.

New Zealand spinach, sown when the ground warms up, soon produces huge bushes of green leaves which taste like spinach, and may be cut as needed, while the plant continues to grow. One full grown plant will fill a bushel basket, and a row needs plenty of room to spread out.

For Sale

For sale. F. A. Harden Nursery, Weyauwega, Wis. 2 acres with about 6,000 evergreen trees including Blue and Green Col. Spruce, Douglas Fir, Mugho Pine, Arbor Vitae, Juniperus Virg., Pfitzers, Sabins, Spreading Yews, also some shrubs, with land; on highway 10. Liquidation of estate; reasonable. Mildred Harden, Weyauwega, Wisconsin.

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MADISON

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

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957 No. 70th St., Wauwatosa

Mrs. F. E. Willard, 2nd Vice-President,
Oakfield

Mrs. Floyd E. Ballard, Recording Secretary-Treasurer
Badger Park, Route 62, Madison

H. J. Rahmlow, Corresponding Secretary,
424 University Farm Pl., Madison

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Mrs. Martha Lowry, Lakewood, Madison Madison District
Mrs. Geo. Adami, 2466 No. 46th St., Milwaukee; Milwaukee District
Mrs. Gilbert E. Snell, 414 Erie Ave., Sheboygan; Sheboygan District
Mrs. Bentley Dadmun, 604 Main St., Whitewater; South Central District

Highlights of the National Convention

As we go to press reports about the National Convention of the National Council of State Garden Clubs, held in the Sherman Hotel, Chicago, May 4-6, were received from Mrs. H. S. Bostock, State President, and Mrs. F. C. Marquart, Publicity Chairman, and give us the following highlights.

The report on the Wisconsin Garden Club Federation by our state president was outstanding. Several states asked for copies for their state bulletin.

Delegates to the convention were given copies of Wisconsin's 1943 Program booklet, prepared by Miss Katherine Melcher of Milwaukee, which was considered of great value.

The National program chairman called for unity of purpose and complete coordination between clubs, their state Federation, and the National Council. Club programs must have unity and direction.

One of the most interesting reports given was that of the national conservation chairman. This was followed by a talk by Mr. E. J. Peterson of the Soil Conservation Service who stated that an area eight times the size of the state of Wisconsin in the United States had been completely destroyed by soil erosion. He urged garden club members to continue their Highway Beautification program and to plant trees, shrubs, and more trees.

A pleasant moment at the convention for the Wisconsin delegation was the appointment of Mrs. Charles Dean, Madison, as National Roadside Development Committee Chairman.

Central Region Meets

Our Central Regional Director assembled her six states for a separate meeting, and requested the following:

(1) That highlights of the history of states be incorporated in the Regional history.

(2) That a complete list of the native plant material in each state be compiled. This project was started some time ago.

The region has at present six states, 669 clubs, and 24,000 members.

All states have been asked to have a fiscal year identical with that of the National Council, beginning and ending on March 31st.

Elect Officers For Two Years

Each state is requested to have election of officers at the same time as the National Council. The Council suggests that all state officers be elected for a term of two years, the same as National and Regional officers.

Dr. Allen of Cornell University, New York, was appointed National Horticultural Chairman. He spoke at the convention, stressing the fact that we are the ones who must supplement the food supply in the nation.

Among the names of the new life members which were read at the convention was that of Merle Rasmussen of Oshkosh.

Mrs. Bostock as state president is on the Board of Directors of both the Central Region and the National Council and attended meetings of both. One of the meetings was given over to plans and programs of national officers, regional vice-presidents, and national chairmen.

The Garden Club of Illinois arranged many of the details of the convention.

Our delegates had the opportunity of meeting many national and state officers and enjoyed every moment of the time spent at Chicago.

New Officers

The new president of the National Council is Mrs. E. Wesley Frost of Arkansas. The vice-president is Mrs. William H. Champlin, New Hampshire; Corresponding Secretary, Miss Marcella Hayes, Indiana; Recording Secretary, Mrs. G. C. Spillers, Oklahoma; Treasurer, Mrs. Randall D. Warden, New Jersey.

New Regional Vice-president for the Central Region which includes Wisconsin, is Mrs. Warren W. Shoemaker of Illinois.

WISCONSIN GARDEN CLUB FEDERATION SENDS DELEGATES TO NATIONAL MEETING

WITH eleven delegates attending the annual convention of the National Council of Garden Club Federations at the Hotel Sherman, Chicago, May 4-6, Wisconsin was officially represented with a full quota of delegates. Those appointed officially by the Board of Directors were Mrs. H. S. Bostock, State President, Madison, and Mrs. R. H. Sewell, State Vice-president, Wauwatosa.

Invitations to act as delegates were sent to all members of the Board of Directors and State Committee Chairmen. The following were appointed:

Mrs. F. E. Willard, Oakfield, Second Vice-president; Mrs. Geo. Adami, Chairman Milwaukee District; Mrs. Gilbert Snell, Sheboygan, Chairman Sheboygan District; Mrs. F. J. Fitzgerald, Menasha, Chairman Fox River Valley District; Mrs. Chester Thomas, Milwaukee, War Service Chairman; Mrs. F. C. Marquardt, Hales Corners, State Publicity Chairman; Mrs. Chas. L. Dean, Madison, Memorial Highway Chairman; Mrs. R. H. Malisch, Hales Corners; and Miss Merle Rasmussen,, Oshkosh.

Alternate was: Mrs. Van Buren Watkins, Menasha.

One of the highlights of the national convention will be a forum on war activities for garden clubs, horticultural activities, and conservation. A full report will be given in our next issue.

Easter was on April 25th this year. Do you know that next time it will fall on that date is in the year 2038? Well, guess we won't be here.

AWAKEN GARDENERS!

Far-flung are battle fronts:
Bomb wrecked, shell torn, devastated earth;
Where reigned peace, good will, contentment,
Jollity and mirth.

All fields are God's gardens:
Desolate, green growing, treasure filled;
He places health, courage, and pleasure
In soils tilled.

Awaken gardeners to the cause!
Be healthy, courageous, turn the clod;
Return peace, good will, contentment,
Work with God.

—H. J. Sonn for Oakfield Garden Club.

WANTED! GARDEN CLUB YEAR BOOKS

I would like to have all garden club program chairmen or presidents send to me a copy of their garden club year book containing programs. I wish to pass on to other clubs the many valuable suggestions which these books contain.

Club presidents should be sure to pass the books of program materials, given out at the regional meetings, to their various committee chairmen. Keep your club alive. Continue to grow through the constant practice of the skills you have gained.

—Katherine Melcher, Wisconsin Hotel, Milwaukee, Program and Lecture Chairman, Wis. Garden Club Federation.

VICTORY GARDEN HARVEST SHOWS

WITH the victory garden idea taking hold as it has all over the nation and with every town, village and city in our own state encouraging the planting of Victory Gardens, it means that thousands of persons will participate in the nation-wide program to grow vegetables and help the world's food supply.

What a grand opportunity this offers for the sponsoring of Victory Garden Harvest shows.

All over the state it should be possible to hold large and small Harvest shows, festivals, bazaars or Community fairs to display vegetables, fruits, and other garden products.

The show committee is getting started on plans for bigger and better Victory Garden Harvest shows for 1943 and will welcome ideas and suggestions from garden club members.

—Mrs. Chester Thomas, State War Service Chairman.

Wife (reading paper): "Think of it! Here's a couple who got married after a fifty-year courtship."

He: "I suppose the old fellow was too weak to hold out any longer."

RADIO GARDEN TOPICS

Stevens Point Station WLBL 11:30 a. m. Every Last Wednesday of the Month

April 28. Waupaca Garden Club.
May 26. Rosholt Garden Club.
June 30. Iola Garden Club.
July 28. Park Ridge Garden Club, Stevens Point.

By Mrs. U. F. Ammell, Fox River Valley District Chairman.

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GARDEN CENTER EXPERIENCES

Madison Garden Clubs Gain Knowledge and Experience in Conducting a Successful Center

Considering victory gardening as one of the important projects for garden clubs this spring, the five garden clubs of Madison undertook to establish a garden center to give information to those who might desire it.

The following materials were displayed and information given:

The victory vegetable garden plans prepared by the Wisconsin College of Agriculture were displayed and distributed. Answered questions and explained the plan.

There were timely displays of plants. One of the first was of onion seeds and sets, showing the difference in the crops obtained from each.

An exhibit of bird houses. Booklets from the Conservation Department on how to attract birds and on bird life were given to those interested.

Leaflets from W. A. Toole of Baraboo on garden herbs were available.

There was an exhibit of the fertilizers at local stores.

A display of soil types with suggestions for improving soils. Answered questions along that line.

There was an exhibit of garden seed put up by one of the local seed companies.

The exhibit was changed from time to time so that the topics to be discussed were timely.

The chairmen of the Madison Garden Center are Mrs. H. R. English and Mrs. B. W. Wells of Madison. They state that it is important that experienced gardeners be in attendance who are able to answer questions satisfactorily. It is also important that the center be located where many people pass. Quite often persons going by will stop and get information who probably would not be contacted if it were in an out-of-the-way location.

We need more information and experience in conducting garden centers in order to make them successful. Only by actually working them out will we gain such experience.

It is, however, a project through which garden clubs can be of service to their neighbors.

"Give me a pound of those grapes. My husband is fond of them. Do you know if they have been sprayed with any kind of poison?"

"No, ma'am! You'll have to get that at the drug store."

FOR YOUR GARDEN CLUB PROGRAM

Study Groups

LET us have more Horticultural Study Groups. "Plants must be better grown, much better grown," if we do not wish to acknowledge ourselves failures. These programs not only hold the interest of members participating, but give them an opportunity to express themselves and encourage them to talk in public, which helps to develop leaders — and we do need leaders now more than ever before.

Nutrition Courses

As food producers we should equip ourselves for food uses through the Red Cross course in Nutrition. In doing this, Mrs. Hull warns that we must not get into the too prevalent though fallacious satisfaction of thinking that "taking courses" is in itself war service. The war service to use the training in Nutrition involves further training in Disaster Feeding and serving in the Red Cross Canteen Corps under Civilian Defense.

Memorial Plantings

Let us do our share in planting those "Memorial Highways" in honor of the boys in service; let us grow flowers for beauty; for our family; for our sick neighbors; the sick in the crowded local hospitals; the homesick in the government hospitals; the lonesome soldiers in the USO Service Clubs and Red Cross Recreational Centers.

By Katherine Melcher, Milwaukee, Federation Program Chairman.

RADIO PROGRAMS GARDENING FOR VICTORY

Milwaukee County Victory Garden Committee Series

WTMJ Saturdays, 3:15 p. m.

May 15. How to Transplant, Control of Cutworms, Beans, Corn, etc. Mr. D. E. Perfect.

May 29. Garden Pests—Control—Equipment. Mr. E. L. Chambers, Madison.

June 12. The Care of the Garden—Cultivation, etc. Prof. O. B. Combs, Madison.

June 26. Nutrition. Mrs. B. L. Griem.

RADIO PROGRAMS OF THE WISCONSIN GARDEN CLUB FEDERATION

WTMJ Saturdays, 3:15 p. m.

May 8. Ravenswood Garden Club program.

May 22. Victory Garden Problems. Mrs. Ralph Hibbard, Wauwatosa.

June 5. Utility and Beauty in Vegetables. Mrs. James Livingstone, Milwaukee.

June 19. Whitnall Park Victory Garden. Mr. Alfred Boerner.

RADIO PROGRAMS STATE STATION W.H.A. HOMEMAKERS' HOUR

May 11. A Soldiers' Camp Made Attractive. Lieutenant-Colonel Isley, Mrs. Walter Dakin and Mrs. Martha Lowry.

May 18. "Waste Not, Want Not." Eleanor Hoesli.

A Garden Center. Mrs. H. R. English, Mrs. B. W. Wells, Madison.

May 25. Flowers Build Morale. H. J. Rahmlow.

June 1. The Garden Center in June.

June 8. Honey in Early Fruit Canning. Mrs. Harriett Grace, American Honey Institute, Madison.

Plotting Against Garden Pests. E. L. Chambers, State Entomologist, Madison

June 15. How Does Your Garden Grow? J. G. Moore, Department of Horticulture, Madison.

June 22. The Flower Garden in Summer. H. J. Rahmlow.

June 29. Memorial Highways of Wisconsin. Mrs. Charles Dean, Madison.

GARDEN NEWS

ROSES TESTED FOR BLACK SPOT RESISTANCE

Prof. E. C. Volz of Iowa State College reports that a careful study was made this past year of over 250 varieties of roses in the trial garden at Iowa State College for resistance to the fungus disease black spot.

The list may be of value to our members in selecting roses for spring planting.

Hybrid Teas, Resistant to Black Spot

Adoration, Charlotte, Condesa De Sastago, Lady Mandeville, Mandalay, Mme. Virgilio Pirola, Peachblow, Texas Centennial.

Varieties Slightly Susceptible

Betty Uprichard, Carillon, Countess Vandall, Cynthia Brooks, Dainty Bess, Dicksons Red, Editor McFarland, Elite, Empire State, Flambeau, Golden Dawn, Grenoble, Gruss an Teplitz, Hector Dean, Kardinal Piffl, Magic Red, Miss America, Mme. Jean Gaujard, Mrs. Lovell Swisher, Mrs. Pierre DuPont, Nurzisse, Neville Chamberlain, Opal, Patrick Anderson, Pearl Buck, Pink Radiance, Radio, Rocket, Rouge Mallerin, Sierra Glow, Souvenir De Mme. C. Chambard, Sunkist, Viscountess Charlemont, W. E. Chaplin.

Varieties Susceptible

Betty Stielow, California, Charlotte Armstrong, Grand Duchesse Charlotte, Heart's Desire, Hinrich Gaede, Lilette Mallerin, Mark Sullivan, McGredy's Sunset, McGredy's Triumph, Mme. Henri Guillot, Mme. Jules Bouche, Mrs. Paul R. Bosley, Mrs. Sam McGredy, Neige Parfum, Padre, Pan America, Riviera, Rosaleen Dunn, Rose Bampton, Rose d'Or, Satan, The Bishop, The Chief.

JUNIOR GARDENS

Dear Garden Club Members:
How is Junior's garden plot?
Is it spaded deep or not?
Have you helped him order seeds?
Just as many and no more than he needs.
Has he made a small hotbed?
Does he know how soil is fed?
Has the soil been worked quite fine?
Does he know the best planting time?
How deep and far apart those precious seeds to sow,
So they will have plenty of room to breathe and grow.
Ah! You've told all this to Junior,
Why didn't you adopt him sooner?
Keep up your good garden work,
Victory vegetables won't let you shirk.
Your garden club must be right proud,
No garden Gremlins are allowed.

—Mrs. Peter Cooper,
Junior Garden Club Chairman.

HOW TO START THE ASPARAGUS PLANTING

FOR nearly 15 years we have been carrying on work here at the Iowa Station to answer such questions as: What age and size of plants or crowns are best for planting? Do male or female plants yield best? How soon after planting can spears be harvested? How late in the season can spears be harvested without reducing yields in future years? How should the plants be spaced to secure the best yield and large spears? How can weeds be controlled best? Do plants produce more spears and greater weight when cut at 6- to 9-inch lengths or 9 to 12 inches?

Here in brief is what we have found and the conclusions we've drawn:

1. Plants 1-year old are superior to 2- or 3-year old plants for setting out. We found little difference in the results from crowns weighing ½ ounce to about 2 ounces, but when the crowns weighed less than ½ ounce, results were not so good.

2. Male plants yield more spears and larger total weight than females, but the spears from female plants are larger individually and of better quality. Whether male or female plants are the better is not important, however, because one cannot afford to leave the plants 2 or 3 years in a nursery row to determine their sex before planting them.

3. Spring planting is best in Iowa. We had heavy loss with fall planting. (Massachusetts experiments have shown that deep planting as usually recommended is not necessary. From 4 to 6 inches from the top of the crown to the surface of the soil is sufficient.)

4. Do not harvest any asparagus the first season it is planted. The second season after planting, harvesting for a couple of weeks may do no harm to future yields. Harvesting never should continue more than 2 weeks the second season. The third season, do not harvest after June 1.

5. On a highly fertile soil, the fertility of which is maintained by manure and commercial fertilizer, space plants 2 feet apart in the row and have the rows 3 to 4 feet apart. On less fertile soil, this spacing may be too close. It's easier to cultivate between rows spaced 4 feet apart.

—By E. S. Haber. Condensed from Farm Science Reporter, Iowa State College, Ames.

"I know that soldier is the man for me, mother. Every time he takes me in his arms I can hear his heart pounding."

"Better be careful, daughter! Your pa fooled me that way for almost a year with a dollar watch."

SISSON'S

JUNE is the month for peonies

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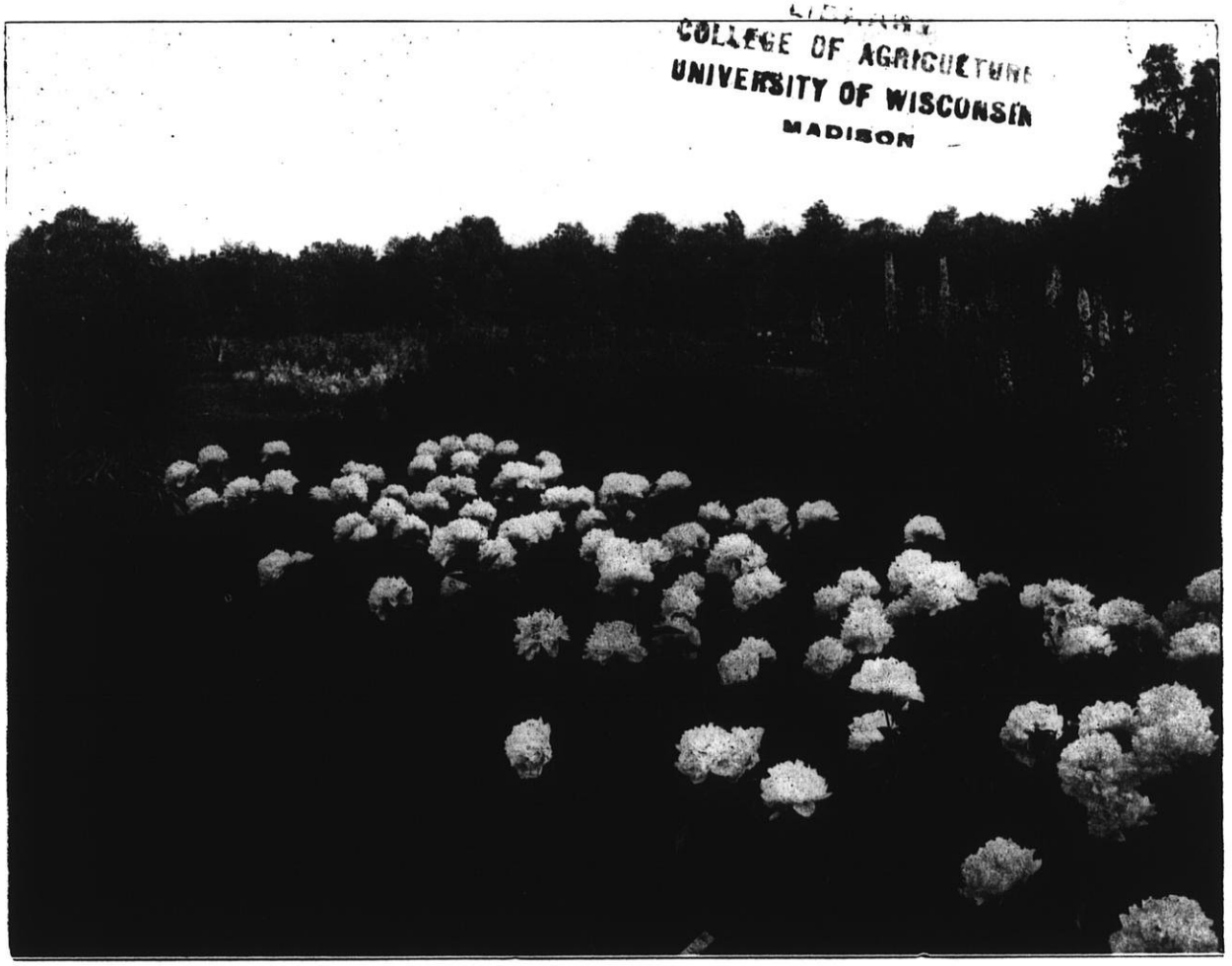

JUNE-1943

BIRDS DESTROY CODLING MOTH LARVAE

BIRDS eat the larvae of codling moths. Entomologists at the New Jersey experiment station report that in orchards located near a woodland, birds killed practically all the larvae on the trunks of the trees. As an illustration, on tree number 1, fifteen codling moth cocoons were found from which the birds had picked every larva. Tree number 2 had forty-five cocoons, and only one larva was missed by the birds. There are many other destructive insects, and so conservation of bird life becomes important to all of us.

Bill—"I thought you expected to get married on your last furlough."

Will—"So I did, and I almost made it—two of us were willing, me and the minister."

Many girls are getting men's wages these days, but then they always have, one way or another.

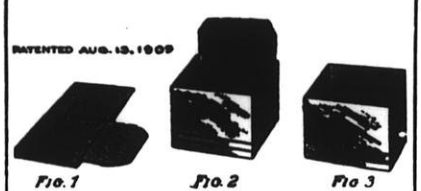

Fig. 1 Fig. 2 Fig 3

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

ESTABLISHED 1910

Entered at the postoffice at Madison, Wisconsin, as second-class matter. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1918.

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
Madison 6, Wisconsin
Madison, Wisconsin

H. J. RAHMLOW, *Editor*
Secretary Wisconsin State Horticultural Society

Office: Old Entomology Bldg., College of Agriculture
Tel. University 182

Volume XXXIII June, 1943 No. 10

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Subscription to Wisconsin Horticulture is obtained by membership in the Wisconsin State Horticultural Society for which the annual dues are $1 per year or $1.50 for two years. Garden Clubs, Horticultural Societies, and other Horticultural Organizations are affiliated at a reduced membership rate. Fifty cents of the annual dues paid by each member is for a year's subscription to Wisconsin Horticulture.

PLEASE DO NOT SEND STAMPS

Will The Apple Maggot Be With Us Again?

Wet Soil In July Means Another Outbreak

IT is during July that orchardists must be on their guard for the apple maggot. Will we have another outbreak such as we had last year? That will depend largely upon weather conditions. If the soil is dry during July the small seed-like pupa may not turn into a fly and come out of the soil, but may remain in the soil for another year. If, however, the soil is moist as it was last year, then we may have another serious outbreak. This is especially true in orchards where apples containing the worms fell to the ground last year, enabling the worms to come out and dig their way into the soil.

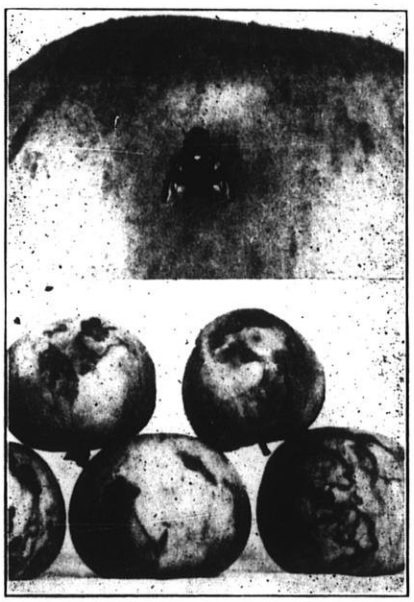
When to Watch for Maggot Flies

The work done by entomologists under the direction of Dr. C. L. Fluke in Gays Mills orchards indicates that spraying must be done from July 17th to August 3rd in that section. The time will, of course, vary with weather conditions. It will vary also in different sections of the state.

Since we do not know just when flies begin to appear in other sections of the state, it is highly desirable that several orchardists in every county in which considerable fruit is grown have bait traps.

Order Bait Trap Chemicals Now

The chemicals for preparing as many as four bait traps are available from the Wisconsin State Horticultural Society, 424 University Farm Place, Madison, at a cost of 50c, postpaid. The bait trap should be placed in the orchard soon after July 4th. County agents will be advised of the names of growers having bait traps so that information gleaned from them may be given to other growers. This can only be construed as a patriotic move this year to help protect our fruits from loss. Full instructions for preparing and using bait traps will be sent to each grower who orders the chemicals.



Above: The mother of the apple maggot. Below, the work of the maggot, showing why it is sometimes called the Railroad worm.

The bait traps will not only enable growers to tell accurately when and how many flies appear so that they may determine when to spray, but it will also give Dr. C. L. Fluke records of fly activities in various sections of the state.

One reason why we did not get good results from spraying last year was because we did not know just when to spray, and much spraying was done at the wrong time.

Life History of the Apple Maggot

After the flies come out of the soil they may be seen flying among the trees on a bright sunny day, alighting on leaves or apples. For about two weeks they feed upon the secretions on the leaves and fruits before they begin to lay their eggs. That is the time the trees must be covered with arsenate of lead to destroy the flies. If the spray is applied too late and the females have started laying their eggs, the damage of course will go on.

After feeding for about two weeks the females begin laying their eggs, making punctures in the apples so small they are hard to see with the naked eye. Egg laying may continue for a month or so. The eggs hatch within a few days and then the young maggot starts feeding inside the apple. Nothing we can do will kill the maggots once they have hatched because they are inside the fruit.

Sweet or non-acid varieties of apples are preferred by the flies. Such varieties as Tolman Sweet, Dudley, McIntosh, Wealthy, Snow and N. W. Greening are usually found heavily infested when flies are numerous. As long as the fruit is firm and solid the maggots grow slowly, but as soon as decay or soft rot sets in they begin to grow rapidly. As the apples become mellow they may fall to the ground. When the maggots are mature they leave the fruit and enter the soil, and then repeat the cycle. In winter varieties the maggot seldom survives, but the fruit may be ruined just the same.

How to Control the Maggot

Spraying with lead arsenate, 1 pound to 50 gallons of water will control the maggot. It is, of course, very important that the spray be applied at the right time as already stated. The fact that the flies feed for about two weeks before starting to lay eggs gives us the opportunity of controlling them.

Flies Appear at Different Times

We must also bear in mind that flies which develop in early maturing apples will be the first to emerge the following summer. Those which came from a late variety will appear later Furthermore, flies which have wintered as pupae for only one winter will come out earlier than flies which have been in the soil for two years. Bait traps should therefore be maintained from early July until about the middle of August as it may be necessary to apply a second spray for the later emerging flies.

Apple Price Ceiling Discussed at Chicago Meeting

A LARGE delegation of apple growers from the mid-West attended a hearing of a committee of the OPA in Chicago on May 14th.

From Wisconsin went a sizable delegation: Wm. F. Connell, Menomonie; M. B. Goff, Sturgeon Bay; Nieman Brothers, Cedarburg; H. J. Rahmlow and Dr. R. H. Roberts, Madison; Judge C. D. Rosa, Gays Mills; J. Henry Smith, Waupaca; Mr. H. S. Snell, Milwaukee; and C. J. Telfer, Green Bay, and Mr. Friedlund of the Friedlund Orchard Company, Ellison Bay.

Each state presented a report of the opinion of its delegates, which were discussed by Mr. Geoffrey Baker, Chairman of the OPA committee. Most of the growers' reports favored no price ceilings on fruits, but stated that if one seemed necessary, they favored a retail price ceiling. All points made by growers were discussed by Mr. Baker who made a favorable impression on the group, although not always agreeing with them. He pointed out many difficulties in any type of price ceiling program. There are many ways of circumventing ceilings with resulting black markets and profiteering. As a matter of fact, after carefully considering the retail only ceiling proposal, it would seem that this might prove disastrous to the grower in case of a good crop year, and the retailer in a poor crop year.

Three Ceilings Suggested by OPA

Since OPA had several hearings previous to the one in Chicago, it seemed that the committee had definite views on the subject. Mr. Baker stated it was likely that the plan which would be adopted would be a three-ceiling program as follows:

(1) A grower's base price at the terminal market on carloads or truck-loads of apples;

(2) A definite dollar and cents mark-up to be allowed the wholesaler over the prices paid;

(3) A percentage mark-up to be allowed the retailer on the cost price.

Some of the growers took exception to a percentage mark-up, stating that when a commodity becomes high in price, a percentage such as 35% will allow a very large profit and result in high prices to consumers. Some favored a dollar and cents mark-up per unit, such as per pound or bushel to be allowed the retailer, which also presents difficulties.

Many problems were presented by growers. For example, sections of Illinois produce Yellow Transparents for the early market. The cost of production is high. The season is short and the crop perishable. Therefore they ask for consideration of these points. There are other varieties which present the same problem.

Support Prices

A representative of the U. S. Department of Agriculture stated that support prices are being considered in order to salvage the lower grades of fruit so that we may have as much food as possible. Lower grades can be used for processing, drying and canning. Sometimes the price is so low that the grower cannot get them picked with high priced labor. It was also stated that a school luncheon program may be inaugurated next fall.

Only about 50% of the tin for canning available in 1942 will be available for apples this year.

In the end, Mr. Baker made these promises: that ceiling prices will be as simple as possible; that he will consult with growers and shippers on all questions; that OPA will make regulations flexible. There may not be any ceilings on soft fruits such as grapes. He indicated a willingness to work with people who know the problems of the industry.

Short Peach Crop

Representatives of Michigan, Ohio, Indiana and Illinois stated that there will be a very short peach crop due to winter freezes and also spring frosts. In some sections the crop may be as low as 10 to 25% of normal. As a result, there may not be any ceilings on peaches.

Mr. Baker stated that he hoped that ceiling prices on apples might be announced by the end of June.

ARE SMALL APPLES ECONOMICAL?

ONE hundred pounds of 2 1/4 and 2 1/2 inch apples will contain about 350 apples and will yield about 66 pounds after peeling, coring, and trimming. The same weight of 2 1/2 inch and up apples will contain about 306 apples and will yield about 75 pounds at a labor cost almost one-half that of the smaller sizes. —From Pennsylvania Horticultural Association News.

Unexpected Ending—Jim—"Yep, the engagement's off — she won't marry me."

Joe—"Why's that? Didn't you tell her about your rich uncle?"

Jim—"I sure did—now she's my aunt."

REALIZED

"Have any of your childhood hopes been realized?"

"Yes. When mother used to comb my hair I wished I didn't have any."

Fermate -- A Promising New Fungicide

May Have a Place in Spray Program for Apples and Stone Fruits

By J. M. Hamilton and D. H. Palmiter, Geneva, N. Y.

RESULTS of investigations with Fermate which have been in progress at Geneva, New York since 1940 indicate that it may have a place in the spray program for apple and stone fruits. Chemically, it is known as ferric dimethyl-dithiocarbamate. Fermate is a fine, fluffy, black powder which does not contain a wetting or spreading agent. It is extremely adhesive. The material has an advantage over heretofore available and widely used fungicides in that it is effective at low concentrations, and injury is not an appreciable factor. The cost is high because Fermate is a synthetic material and is not as yet made on a commercial basis. With due respect for the fact that Fermate is still in the promising stage, a sufficient supply has been made for evaluation by growers in 1943.

A particular effort should be made to test Fermate for the control of scab in the cover sprays, for cedar rust fungi, and for brown rot on stone fruits.

Fermate at the rate of 1½ pounds to 100 gallons should control apple scab and the addition of an equal amount of spray lime is suggested if scab becomes established in the tree. Liquid Orthex and DuPont spreader-sticker will satisfactorily spread the Fermate and arsenate of lead. Liquid Orthex should be used where codling moth is a major problem. While Fermate has a greater lethal action against the fungous spores than a wettable sulfur, it is essential that the spray application precede infection periods as for all mild fungicides.

Fermate, 1½—100, should control cherry leaf spot on Montmorency. Lime, 1½—100, should be added to the Fermate when it is used in orchards where leaf spot is a real problem. Cherries sprayed with Fermate keep longer on the roadside stand.

Fermate is black and a good spreader is necessary to obtain a complete and uniform coverage on the fruit and to avoid an unsightly residue.

Condensed from April, 1943 Farm Research, Geneva, N. Y.

FERMATE LOOKS PROMISING IN WISCONSIN

Dr. G. W. Keitt reports that he obtained promising results in experiments with Fermate in Door County this past year, and is repeating his tests this year. We will therefore hear more about Fermate at our meetings this fall.

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How Mulch Helps The Soil

George D. Scarseth, Soil Chemist
Purdue Experiment Station

I have presented the following problem to boys in my courses at Purdue, "Here is a dry soil. I throw a board on it and leave it there for a couple of weeks. Then, there is moisture underneath it. Why?"

They will tell me something about evaporation being cut off. We know that the soil was dry before we put the board on it so how could the soil be moist when there was no moisture present to be saved by cutting down the evaporation? Therefore, their answer was not entirely right.

Mulch Increases Soil Moisture

Mulch does increase the moisture content of the soil, but how? In the summer time you have all noticed that if a water pipe passes through a room it sweats and drips. Why? For the same reason that the soil was moist under the board. The pipe was cooler than the atmosphere around it. In a warm temperature, the moisture particles in the air wabble and wiggle. All particles are circulating at a certain speed. But if we cool the air down enough the circulating or wabbling becomes slower. If we apply more heat to water there is more rapid circulation until the water boils. At a given temperature the atmosphere has a certain capacity to hold water before we get any condensation. At cooler temperatures the atmosphere cannot hold as much water in the vapor stage as at warmer temperatures. Cooler air cannot hold as much moisture so some of the water vapor condenses. In the case of the board on the soil, it shaded the soil and kept it a bit cooler than the unshaded soil. There was sufficient contrast in temperature between the uncovered soil and that of the atmosphere above it to cause condensation in the cooler soil beneath the board.

A Russian by the name of Lebedev spent his lifetime working this out but we did not learn about it until his writings were translated in 1927. When we first read it we didn't pay very much attention to it but we now see some rhyme and reason to it and some practical applications are coming from it.

How Increase Occurs

In the spring and fall we have cool nights. The sun comes out and the air warms up. During the night the air underneath the board cools. The sun advances. There will be a period in the morning when the air will be warmer than the soil under the board. When that condition prevails, there is going to be movement of the moisture from the air into the soil under the board and there will be a certain amount of condensation. This process conserves water; not only the water in the soil but actually by adding to the soil from the atmosphere. We have not taken enough recognition of this fact in our thinking and practices.

Stretch your own imagination and think of a forest with its many trees, where there is a tremendous loss of water by evaporation, and ask why the woodland soil seems to be more moist than the cultivated fields? One of the reasons is that the leaves of the upper trees kept the ground shaded so that the ground was cooler than the surrounding air and condensation kept going on.

Mulch shades and cools the ground so that there is condensation of water into the ground. There will be increased moisture underneath mulch. Mulch holds water in the ground and retards its loss. In this manner we really get more water into the soil than that provided by the rainfall.

When Condensation Takes Place

If mulch cools the ground sufficiently to help increase the moisture content, will it do that equally well in the spring and fall as in the mid-summer season? No. During those hot mid-summer nights we do not find the soil cooling much when the days are hot and the nights do not cool very much. Under these conditions there is not enough cooling to allow condensation into the ground. Possibly most of this condensation takes place in the spring and into June and probably begins again in late August.

Very few nitrates are washed into the soil from straw mulches, but from legumes the quantity may be considerable. This looks like an argument for a legume mulch rather than a straw mulch. Legumes will rot faster.

Condensed from March, 1943 Hoosier Horticulture.

WHY DON'T DELICIOUS TREES BEAR?

Question: What will cause an orchard of Delicious apple trees to have a big bloom and have a light set of fruit?

Dr. Tukey: This may be either a problem of nutrition or a problem of pollination. The Delicious is a variety which apparently demands a goodly supply of nitrogen. It is also a variety which tends to set fruit lightly. These two factors may be associated, suggesting that Delicious trees must be kept in a good state of vigor and especially must have available nitrogen in early spring at the time of full bloom. This means that the nitrogen must be applied in the early spring so as to be available to help in fruit set. As for pollination, Delicious is self-unfruitful, and will not set fruit with its own pollen. Some other variety, excepting such triploid varieties as Baldwin, R. I. Greening, Gravenstein and Tompkins King, must be planted nearby for pollination purposes.

From 1943 Annual Report New York State Horticultural Society.

COMMENTS FROM FRUIT GROWERS

I have heard that there has been much winter-killing of raspberries in this county. We have none. Folks are begging to have their orchards sprayed, and not even asking the cost. They just say, "Can't we leave it to you to take care of the orchard?"

—Virgil Fieldhouse, Dodgeville

Prospects are for a big apple crop in this section unless we have a freeze.

—C. J. Telfer, Green Bay

The season was late and cool this spring at Bayfield. At this writing, May 12th, it looks like the heaviest apple crop in the history of Bayfield county. Every tree seems to be loaded with the exception of those loaded last year, and they also have some.

—Olaf Selfors, Bayfield

The cherry crop looks good in Door County. The sleet storm on March 15th curtailed this year's crop 5 to 10 per cent. Everyone is working on the picker problem from all angles.

The apple crop looks good and there should be a heavy bloom. We are hoping for a good set. Many growers report serious damage from rabbits and mice. We only had about 50 trees in over 900 acres in cherries and apples injured.

—D. W. Reynolds, Sturgeon Bay

BEES PREFER WEALTHY

Recent investigations by F. R. Shaw and Max Turner of Massachusetts State College show that bees have distinct preferences in the matter of apple blossoms. Wealthy was the most attractive of seven varieties tested, with McIntosh in second place.

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BETTER THINGS for BETTER LIVING . . . THROUGH CHEMISTRY

Factors Influencing Injury to Cranberry Plants During Flooding

Digest of an Article Appearing in the Transactions of the Wisconsin Academy of Sciences, Arts and Letters

Neil E. Stevens and Noel F. Thompson

COMMERCIAL cranberry bogs are constructed so they may be flooded or drained at will and a head of water for flooding is an essential for the successful culture of this crop. Flooding is used to protect the vines during the winter, to ward off frosts during the growing season, as an aid in harvesting, and for insect and weed control.

For many years, submerging the cranberry plants on which they were feeding was the standard control measure for the black-headed fireworm (*Rhopobota vacciniana Pack*). Except in extreme cases this was used only during the larval stage of the first brood. Since this usually occurred in June, the "June reflow" became almost a routine practice of many cranberry growers.

Injury to the cranberry plants themselves has frequently occurred during the June reflow. Blossom buds are most easily injured; they may be killed outright, or they may be injured on one side only. In extreme cases, the tender young leaves soon turn brown. Injury of this type was unusually severe in the Mather-Warrens district of Wisconsin during early June of 1942. In the present paper, the factors believed to be important in relation to this injury are reviewed in the light of observations made in Wisconsin during that season.

The amount of dissolved oxygen in the water appeared to be the factor determining injury. One marsh, A, was flooded for 60 hours with no injury to the buds. The temperature of the water ranged from 65° to 72° and the O_2 in parts per million varied from 4.2 early in the morning to over 8.0 in the afternoon. A second marsh, B, flooded for 36 hours had no injury, though the O_2 went as low as 1.8 at night. During the days, however, it went as high as 6.9 and was well above 4 most of the time.

Injury occurred on two other marshes. One, C, submerged only 24 hours lost from 10% to 25% of the buds. The O_2 readings were around 3 most of the day, though they went to 4.2 late in the afternoon. The other marsh, D, lost 30% to 35% of the buds in a 10-hour flood during the daytime. In this case 2.7 was the highest O_2 reading, the others going down as low as 1.0. The water temperature was 62° to 72°.

Water Temperature

It is recognized that the temperature of the water is an important factor. At higher temperatures the worms are more easily killed but the metabolism of the plant also increases and more O_2 is needed to support it.

Light also plays an important part. During a bright day photosynthesis should be active and the plant should give off an excess of O_2. However, the light also raises the temperature of the water so more oxygen is needed. In the first marsh mentioned above it was evident that photosynthesis was supplying an abundance of oxygen, but in the last marsh this did not occur.

Some marsh waters are very dark in color. This undoubtedly has considerable to do with the amount of photosynthesis especially with deep flooding or on dark days. However, the two marshes mentioned above did not differ greatly in this respect. In A, a white porcelain plate was visible at a depth of 29 inches and in the other, D, at a depth of 20 inches.

Importance of Carbon Dioxide

Photosynthesis, the manufacture of carbohydrates from carbon dioxide and water, is brought about by the green chlorophyl of plants in the presence of light and suitable temperatures. All of these factors were known to be present except the carbon dioxide, CO_2. A considerable number of tests were therefore made for CO_2 in cranberry flooding waters. Free CO_2 was found in amounts varying from 2 parts per million to 53 parts, and bound CO_2, that is in such compounds as carbonates, in amounts from 0. to 28. The four marshes mentioned had respectively: A, 28 parts of bound CO_2; B, 13 parts; C, 9 parts; and D, 6 parts.

To test the possibility that the lack of bound CO_2 in the flooding water might be the limiting factor in photosynthesis and the presence of a sufficient supply of oxygen in the water, a small scale experiment was made. Three wash tubs were secured and sods of cranberry vines were cut and fitted in these tubs. These were then partially submerged in the reservoir and the tubs filled with water from Marsh D. Tub No. 1 received no further treatment. Tub No. 2 was covered to exclude light. Tub No. 3 had about 4/5 oz. of sodium bicarbonate added to the water.

The following morning at 8:00 A. M. the O_2 content of the water in these three tubs was 2.7, 2.5, and 1.9 respectively. At 11:30 A. M. the readings were 5.7, 0.5, and 7.9 and they remained at approximately these levels during the day. The test was continued for about 48 hours when the sods were removed from the tubs and placed on a moist bank. Injury to No. 2 was severe, to No. 1 somewhat less, and very little injury was noted in the No. 3 sod. In fact,

though these vines were in bloom at the time of the test, a fair number of berries were matured in the fall by sod No. 3.

The most obvious conclusion from the observations recorded above is that experience on one marsh does not furnish a safe guide for use on another unless conditions are known to be very similar.

While in general, injury to submerged plants is less likely to occur if flooding is done on clear, or at least only partly cloudy days, there appear to be certain Wisconsin marshes where the photosynthesis of the plants is so limited by other factors that little is gained by the presence of abundant light. Among these limiting factors appears to be extreme scarcity of bicarbonates in the flooding water.

In most reservoirs where there is little movement of the water and the amount of dissolved oxygen is small, the lower levels of water are extremely deficient in oxygen. The practice of draining flooding water from the bottom of the reservoir for the sake of obtaining cooler water thus appears to be very dangerous.

If experience has proved that the flooding period must be very short, the best practice would appear to be to flood the marsh during one night or early morning, and remove it the following night or early evening.

APPLE THINNING PAYS

"THINNING of apples costs nothing," advises President V. V. Clarke of the Indiana Horticultural Society, who adds, "the larger fruit from thinned trees picks and packs so much faster that the thinning costs are more than offset by the time saved in these harvest operations. It actually costs us almost twice as much to pick a bushel of 2¼-inch apples as it does to pick a bushel of 2¾-3-inch fruit. When figured from this angle, thinning becomes an important wartime operation as a labor saver."

Without thinning there will be much undersized and undercolored fruit and the harvest job will be that much more difficult. Thinning is an operation which is too often neglected in the apple orchard and is a labor saver in the end.

Thinning of Golden Delicious can begin as soon as the apples are big enough that they can be handled for there is usually only a very slight June drop in this variety.

Condensed from May, 1943 Hoosier Horticulture.

GOVERNMENT BUYS LESS CANNED FOOD

THE war food administration sharply reduced the quantity of canned fruits and vegetables that canners must set aside of the 1943 production for government requirements. Reductions amount to about seven million cases of fruit juices and 23 million cases of canned vegetables. The change will mean a net gain for civilians of 30 million cases above what they otherwise would have received of the 1943 pack.

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MADISON

How to Freeze Fruits and Vegetables

J. D. Winter

SUCCESS with frozen foods depends largely on selecting a product of good quality, preparing it properly, providing adequate protection by proper packaging, and freezing and storing it at proper temperature.

Freezing, unlike canning, does not sterilize the product, but the low temperature prevents harmful yeasts, molds, and bacteria from growing and developing. Many of these micro-organisms are killed by freezing storage, but some survive. Consequently, cleanliness and sanitary methods in handling foods for freezing are very important. Make sure that the water supply is clean and pure. See that all utensils are scrupulously clean and do not allow anyone to handle and pack the product until the hands are thoroughly washed.

Use containers made especially for storing frozen fruits and vegetables. Glass jars with tight covers preserve these products well, but the jars are bulky and add to storage cost.

Freezing Fruits

If possible, pick fruit when fully ripe and freeze the same day. If this is not practicable, the fruit may be held in a cool place or under refrigeration until the next day. With perishable fruits a few hours' delay will lower quality. Choose varieties known to be suitable for freezing.

Sugar Pack — Coat the fruit with dissolved sugar and fruit juice before freezing by stirring sugar and washed fruit together in a pan or large bowl. The normal amount of sugar used may be reduced, but the fruit's color and quality may not be protected if less than 1 pound of sugar to 5 pounds of fruit is used. This is referred to as a 5 + 1 pack. A 4 + 1 pack would mean 4 pounds of fruit to 1 pound of sugar.

Sirup Pack — Prepare by dissolving the right amount of sugar in clean, cold water. The sirup must be cold when poured over the fruit. Leave a space one-tenth the height of the container for expansion. Sirups made by dissolving less than 12 cups of sugar in a gallon of water may not properly preserve color and quality. Sirups must be freshly mixed and should not be allowed to stand for more than a few hours unless under refrigeration.

Unsugared Pack — With few exceptions, fruit should not be frozen without adding some sugar or other sweetening material. Blueberries and raspberries may be frozen without sugar for cooking but a 4 + 1 sugar pack will retain quality better. If it is necessary to freeze strawberries without sugar, the fruit may be crushed so that the juices will retard excessive drying of the tissues during storage. When frozen without sugar, berries for dessert use are best thawed in sugar sirup.

Preparation for Freezing

Apples—Apples may be sliced into cold water or light sugar sirup to avoid discoloring. Remove and scald soft-fleshed varieties in steam for 3 to 4 minutes, firmer varieties 6 to 8 minutes. A 4 + 1 sugar pack is preferred. For ordinary use, cellar or cold storage is preferable to freezing.

Cherries (sour) — Cherries are usually pitted and packed in a 3 + 1 sugar pack.

Raspberries (black) — Excellent for jam and preserves. May be handled like red raspberries.

Raspberries (red and purple)— A sirup pack is preferred for dessert use. Use sugar pack for cooking.

Strawberries — After the berries are hulled and washed they may be packed whole or chopped. The chopped fruit usually retains a little better flavor. An ordinary kitchen food chopper with stainless steel blades may be used to chop the berries before sugar is added. A 4 + 1 sugar pack is preferred. Unsweetened strawberries are much less desirable except for persons who cannot eat sugared products.

Some persons will like equal parts by weight of sugar and honey as a pack for strawberries, peaches, and cantaloupe.

Condensed from Extension Folder 111, Freezing Fruits and Vegetables by J. D. Winter, University of Minnesota.

RE-USING CONTAINERS FOR FROZEN FOODS

CAN frozen food containers be used a second time, and should they be re-waxed if the wax appears to be gone?

Bacteriologists do not recommend the re-use of such containers. I know that some containers of this type are re-used, but it is not the best practice from the food sanitation viewpoint. Often much of the wax coating is lost when attempts are made to clean them for re-use, and they cannot be re-waxed satisfactorily. The loss of wax greatly impairs the value of the containers for frozen food storage, aside from the other considerations I have mentioned.

From April, 1943 The Minnesota Horticulturist.

WIDE STRAWBERRY ROWS DECREASE YIELD

IS there any evidence to show that a relatively narrow matted row of strawberries will yield more fruit than a very wide row?

Yes, there is ample evidence to show this, both experimentally and from practical experience. One of the most recent experiments, with Blakemore at the Maryland Experiment Station, showed decreasing yields as the width of thinned rows was increased from 10 inches to 40 inches.

REPORTS FROM STRAWBERRY GROWERS

From Bayfield

Only about 25% of the usual space was planted to strawberries this spring. The beds are in fairly good condition; no frost last winter. Mostly Premier and Beaver are planted, with a few Catskill and Dorsett.

Picking will probably start later than usual, not until after July 4th.

Olaf Selfors.

From Warrens

All new strawberry beds I have seen are in extra good shape for fruiting. Continuous cold weather in May held the fruiting growth back, so there were no blossoms even on May 15th.

There was less acreage planted on heavy soils than usual, but about the usual amount on lighter soils. Lack of help was the reason rather than lack of interest. The prospect for a crop is fair to good. All new varieties look promising.

Early and frequent cultivation saves a lot of later hard work if weeds get numerous. I like to go over the newly set field with the cultivator or even with the garden rake immediately after the plants are set and after every shower.

H. H. Harris, Warrens.

From Door County

The strawberry crop in Door County doesnt look very good and frost may make it look still worse.

Don Reynolds, Sturgeon Bay.

N. C. Jacobs Ill

We are sorry to report that Mr. N. C. Jacobs has been very ill for several months and on May 15th was still confined to his bed. It is his opinion that there won't be many strawberries shipped from Door County this year.

AT LAST

Rationing has been defined: The customer simply points to what he wants, and the grocer tells him he can't have it.

SMALLER STRAWBERRY ACREAGE THIS YEAR

A smaller strawberry crop than in 1942 is in prospect for Wisconsin this year, according to the Wisconsin and U. S. Departments of Agriculture Crop Reporting Service.

A similar situation seems to exist all over the nation.

Strawberry beds throughout the state came through the winter in good condition. The reduced supply of labor at planting time is one of the factors in this year's smaller crop.

The strawberry acreage is estimated at 2,100 acres, which is slightly above the 1932-41 average, but nearly 11% below the 1942 acreage.

TIP BLACKBERRIES IN JUNE

IN June the growth in height of the new blackberry shoots is checked to stimulate the development of the laterals. If the new shoots are permitted to grow unchecked, the resulting canes will attain a height of 8 to 10 feet and be sprawling and unmanageable. As soon as the new shoot reaches the height of 2½ to 3 feet, its terminal is pinched off. This check to the tip forces the lateral buds into growth and produces a compact, well-branched plant instead of long sprawling canes. The planting should be gone over at weekly intervals for this operation as not all of the canes will reach the required height at the same time. The tips should be cut off promptly as soon as the requireed height is reached, otherwise much growth will be wasted.

From Circular No. 193, Blackberries and Dewberries, by the New York State Agricultural Experiment Station, Geneva.

Pat says, if he had a face like a Jap he wouldn't care if he lost it or not.

—From Kablegram.

MORE POTATOES SOON

THE U. S. Department of Agriculture reports that the potato shortage may continue until mid-June. Larger shipments of new potatoes from the South are improving the supply. Many sections began harvesting the crop by June 1, and production in these areas is expected to be larger than last year.

The present shortage of potatoes is said to be due to heavy civilian buying; using a greater portion of old crop potatoes for seed or increased acreage, and requirements for the armed forces. There was some hoarding with resulting waste, because it requires considerable care to keep potatoes long.

SOME COMFORT

Winston Churchill, the story goes, was walking through the ruins of some blitzed streets when an old woman greeted him. The prime minister asked her how she felt after the night of bombing. "Well, theree's one thing about these air raids," she replied cheerfully, "they do take your mind off the war."

Whether you need a box approved for interstate shipment by the Federal Food and Drug Administration, or whether you plan to ship locally in old style boxes, you can be safe and save money too, by assembling either type box with the fast-working Neva - Clog stapler. Get everything you need for fruit or truck shipments at Sheboygan—as leading growers have for 63 years.

Write, now, for low prices and free facts on new shipping regulations.

Sheboygan Fruit Box Co.

563 **Sheboygan, Wisconsin**

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

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H. J. Rahmlow, Madison, Cor. Secy.
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DISTRICT CHAIRMEN

Robt. Knutson, Ladysmith
Newton Boggs, Viroqua
C. C. Meyer, Appleton
Ivan Whiting, Rockford

The 1943 Price of Honey

Can We Provide the Consumer With His Needs at a Fair Price?

Stepping into a Madison chain store in April, we looked for the honey counter. To our surprise we found a plentiful supply of honey from three large packers on the shelves. The only size of container available, however, was the 1 lb. jar, and the price—35c per jar on each brand.

We can well remember a little more than a year ago an important meeting at Chicago at which was discussed the necessity of preventing the honey crop getting into the hands of large manufacturers, and keeping it in the hands of the consumer, and at a fair price so he could afford to use it. The consumer, it was said, would be our customer after the war was over, and we should not deprive him of honey now because we do not want him to get out of the habit of using it, or to change his desire for it to other things.

Then you will remember, the producer was satisfied when his ceiling price was placed on honey to him at 12c per pound, wholesale, but today it is practically impossible to buy anywhere a jar of honey of more than 1 pound at a price of less than about 30c per pound.

We cannot imagine that the consumer will use much honey at this price, at least in quantity for such purposes as the American Honey Institute is trying to promote, namely, in cooking, candy making, preserving, and baking.

Yet it could be argued that if honey were available in larger containers such as 5 lbs., fewer people would be able to get it because there isn't enough to go around.

Its up to the beekeeper, of course, to produce more honey to supply the demand. Of one thing we are sure. Unless the beekeeper will sell to his regular customers in larger quantities and at lower prices than the above, there is danger that later these customers wont come back.

The indication at beekeepers' meetings this spring has been that the producer will sell direct to the consumer or the retail store in larger containers, and at lower than ceiling prices. Some said they would sell a 5 lb. jug at $1.00 retail.

Shall We Sell at Lower Prices Than Retail Stores?

It has been pointed out by beekeepers that if they charge the ceiling price by multiplying the cost by 1.32, that the stores' selling price will be quite a bit higher than the ceiling retail price of the beekeeper, which in the case of the 5 lb. jug is $1.11. Beekeepers state that stores do not like to have beekeepers undersell them. Perhaps this can be overcome by the beekeeper selling only in large containers at his home—such as 60 lb. cans, or 10 lb. pails, selling the smaller sizes to the retail store.

This whole matter needs considerable thought and should be discussed at beekeepers' meetings.

E. S. HILDEMANN

WISCONSIN'S oldest beekeeper, E. S. Hildemann of Shawano, passed away in a Madison hospital on May 30 at the age of 91 years. Visiting with him a few days previous, he expressed the desire to get home and take care of his bees. So until the last he was a beekeeper at heart.

The Society extends sympathy to his children and grandchildren.

Mr. Hildemann will be missed by both the Shawano Beekeepers Association and the Shawano County Fruit Growers Association. He was an active force even this year in both organizations.

MORE ABOUT WINTER LOSSES

FROM the reports of beekeepers about the country, it is entirely possible to winter bees successfully outdoors with little or no wrapping. However, to do this requires more knowledge, experience, and better beekeeping than to winter them in the cellar.

Bees will come through satisfactorily if placed in the cellar with a smaller amount of stores and the stores may be located anywhere in the hives and the bees will still probably get it. In outdoor wintering there must be enough stores directly above the cluster so that they can move upward onto it during long periods of cool weather. Otherwise they might starve with honey in side frames.

A good windbreak is also essential. Mr. G. M. Ranum of Mount Horeb writes: "In our home yard we had 15% loss, and in our outyards, 10%; in the cellar 5%. In one of our outyards which had poor protection against the wind we had a loss of 30%."

Mr. Ranum reports sweet clover plants are rather scarce, but white clover is more abundant than in many years past. All we need now is good weather and strong colonies.

Mr. Ranum also states that a part of his loss may have been due to poor queens. One lot which he received last year are superseding this spring. Nosema may be a possible cause here too.

ANNUAL SUMMER MEETINGS WISCONSIN BEEKEEPERS ASSOCIATION July 21-22-23

JULY 21, 10 a. m. Assemble at University East Hill Farm on Highway 12 and 13 one mile west of Madison. Watch for sign, "East Hill Farm" on south side of Highway. Noon and afternoon program in park in front of College of Agriculture, Livestock Pavilion. Turn where railroad track crosses Highway 12 and 13 at College.

JULY 22. Assemble at apiary of Cornelius C. Meyer, Appleton. Location: Northeast of Appleton on County Trunk E, ½ mile south of Highway 41. Noon and afternoon at Pierce Park, Appleton, on Highway 125, four blocks west of Highway 10. Southeast part of the city.

JULY 23. Assemble at apiary of S. P. Elliott, Menomonie, 2206 5th Street. One mile south of Main Street. Noon and afternoon at Wakanda Park Menomonie, north of city on Highway 25. Watch for sign.

PROGRAM

10 a. m. to 12 m. Forenoon devoted to inspection of apiary, honey extracting equipment, and beekeeping methods. Demonstration of new equipment. Discussion leader, H. J. Rahmlow, Madison. (Dr. C. L. Farrar and staff in charge at Madison meeting.)

12 m. Picnic luncheon. We will **not** hold a pot luck dinner as in past years due to food rationing. Each family will eat separately. Those who do not bring food may eat at the restaurants on their way through town to the afternoon program.

AFTERNOON PROGRAM

1:30 p. m. Can We Keep Up Consumer Interest In Honey? Mrs. Harriett Grace, American Honey Institute.

2:00 p. m. Recent Government Regulations Affecting the Beekeeping Industry. Harold J. Clay, Food Distribution Administration, U.S.D.A., Washington. Questions on Honey Price Ceilings and Other Government Regulations on Honey Industry will be answered by Mr. Clay.

2:45 p. m. Talk by M. F. Deyell, Editor, Gleanings in Bee Culture, Medina, Ohio.

3:15 p. m. Our Heavy Winter Losses and Bee Diseases. Mr. James Gwin or John F. Long, Madison.

3:45 p. m. As I See the Honey Market. Walter Diehnelt, State President, Menomonee Falls.

4:00 p. m. Message On Beekeeping by Roy Grout, of Dadant and Sons, Hamilton, Ill.

WOMEN'S AUXILIARY MEETING

Attend men's meeting until 2:45 p. m.

2:45 p. m. Special session. Talk by Mrs. Harriett Grace, Madison. Chairman in charge at Madison, Mrs. Newton Boggs, Viroqua, Chairman Southwestern District. At Appleton, Mrs. A. H. Seefeldt, Kewaskum, State President Women's Auxiliary. At Menomonie, Mrs. George Hotchkiss, Eau Claire, Chairman Northwestern District.

NOSEMA AND PACKAGE BEES

HERE and there we have considerable complaint that package bees aren't doing well this spring. We have reports of queens laying a few eggs and then disappearing. Also packages dwindling to where there are no bees left.

There is a wide difference in the quality of the stock, this year especially. Some beekeepers report excellent results with certain stock.

Dr. Farrar states that he has found considerable Nosema in package bees and also queens, and in some stock a number of the queens died from Nosema. Possibly this disease is the real cause for some of the losses sustained. At any rate, it's a problem.

BEEKEEPERS' MEETINGS WELL ATTENDED

BOTH county and district beekeepers associations were very well attended this spring. The secretary spoke at a meeting of the Taylor County Association at Medford in early May, with an attendance of 35, while about 50 beekeepers and their wives attended the meeting of the Clark County Association at Neillsville.

At the Northwestern District meeting at Barron the hall was again jammed to the doors, as it has been in past years. The program contributed by Mr. James Gwin, Mr. John F. Long, Mr. Robert Knutson, County Agent J. O. Hembre of Barron, and H. J. Rahmlow, was very well received by the beekeepers.

Encouraging is the interest expressed by the beekeepers as shown by their attention to the speakers, and the intelligent questions asked on some of the most recent discoveries of our beekeeping laboratories about improving their methods of taking care of their bees. This should result in increased honey and wax production so badly needed at this time.

CONDITIONS AT KENOSHA

THE winter losses in the Kenosha territory were heavy this year and much feeding has been necessary. Our own winter losses were light because our bees had plenty of stores. They built up slowly, however, due to bad weather.

We winter our bees in two-story hives with the upper story completely filled with honey, and that doesn't mean filled the first of August, but at the beginning of the winter. We don't pack any more, and we like a middle entrance best. All colonies so wintered are strong in bees. Strong colonies had sealed brood the first of March. Honey prospects look good at this time.

Richard Hansen, President Kenosha County Beekeepers Association.

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Vice-Pres.: Guy Sherman, Seymour
Sec'y-Treas.: Leonard A. Otto, Forest Junction

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SWEET CLOVER ALONG HIGHWAYS SHOULD BE CUT AFTER BLOOM

MR. H. A. Schaefer of Osseo writes that committees were appointed by the Board of Directors of the Sioux Honey Association at the semi-annual meeting in February to contact the Highway Commission in regard to cutting sweet clover after the blooming period.

Highway crews he states often cut the clover at the time of bloom. Since we have been given a war quota, it is necessary that we have all the clover possible for the bees to work on.

Beekeepers are therefore asked to contact their Highway Commissioners and try to have them delay cutting the roadsides until after the sweet clover is through blooming.

It might also be suggested that

It might also be suggested that

if clover is cut early when it is about a foot high, above the crown, it will branch out and still bloom that summer.

It was also suggested that Soils Departments of Colleges of Agriculture be asked to recommend planting sweet clover as soil builders and that it be plowed under after bloom instead of during the bloom.

More sweet clover for pastures wocld also be profitable for the farmer.

LARGE ENTRANCES NECESSARY DURING HOT WEATHER

STRONG colonies must have large entrances for best results during the summer months. The full depth entrance on the standard bottom board is none too large. During the hottest weather, additional ventilation by boring holes under the hand hole of the brood chamber, and space between the hive bodies is of value.

Not only do the bees need plenty of air, but during the honey flow the nectar cannot be ripened rapidly without plenty of ventilation. Experiments have shown that in colonies having only the small winter entrance of the standard bottom board available during the summer, the nectar never ripens properly. That may be the cause of some of the thin honey our buyers complain about.

So it isn't altogether the length of time you leave the honey on the hives to be ripened, it's the condition of the hive as well. Given plenty of ventilation, the nectar may ripen in a relatively short time.

GOOD ADVICE

TO all those who need consolation because of heeavy winter losses, it is necessary to remember that bees cannot live without sufficient stores and although you made the mistake of taking away honey in the fall that rightfully belonged to the bees and in the end that has proved disastrous, you need not repeat that mistake. We should profit by our past mistakes.

By James E. Starkey, Secretary, Indiana State Beekeepers Association.

THAT SWARMING PROBLEM

Not All Colonies Can Be Treated Alike

The more we study the swarming problem, the more we realize that not all colonies swarm from the same cause, nor can they be treated alike.

Failing Queens May Cause Swarming

A queen may wear out at any time. If she begins to fail and the bees decide to supersede her, queen cells will be built. Coming during the swarming season it practically always results in the colony swarming. The usual method of treatment of providing plenty of room for the colony will not control the swarming at this stage. If we discover the situation early, before the cells are capped over and the queen is shrunken, we may prevent swarming by simply killing queen cells. However, if the cells are capped and the colony is ready to swarm, the only thing we can do is to Demaree the colony. That means placing the queen on one or two frames of brood in the lower hive body and all the remaining brood on top of the colony with the queen excluder between. Queen cells must also be removed.

Supersedure cells do not always result in swarming. During the honey flow in July and August, we seldom pay attention to them and find that such colonies are re-queened without any swarming.

Weak Colonies May Swarm

There is another type of swarming that is difficult to control. Colonies with a small or medium population may cause more trouble than strong colonies. The population may be so small that the bees will not occupy more than one or two hive-bodies. They proceed to store the honey above the brood, and this honey acts as a barrier to the bees going through and above it, so that as the colonies increase in strength, they become crowded even though we put supers above, and swarming takes place. The only thing we can do in that case is to move some of the frames of brood and honey up into a hive body placed above the brood chambers so that the bees are forced to occupy more than one or two hive bodies.

In both of the cases mentioned above, the practice of reversing brood chambers is not enough to control swarming. It means that we must watch the individual colony and know what goes on and treat them according to their needs.

HONEY WANTED

Cash paid for cars and less than cars comb and extracted honey. Mail sample and best price. C. W. Aeppler Company, Oconomowoc, Wisconsin.

HONEY CANS

We can give you immediate delivery on 60# cans.

Order your glass supply for the new crop now, as it takes from 3 to 6 months to receive same from the factory. We now have a good supply of 5#, 2½#, 1# and ½# on hand, and can make immediate shipment.

To insure prompt service, order your Association labels now for your new crop of honey.

Write for Complete Price List.

Order Through Your State Beekeepers Association

HONEY ACRES
Menomonee Falls, Wis.

LOTZ QUALITY SECTIONS

The Best Money Can Buy

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TOP QUALITY MATERIAL
GLOSSY POLISH
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DO NOT DELAY—
ORDER NOW

We can still fill your section orders promptly

With the ever increasing demand for comb honey, why not produce more, and increase your profits?

Write for our price list for Bee Supplies.

AUGUST LOTZ COMPANY
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Editorials

HISTORY OF WISCONSIN HORTICULTURAL SOCIETY TO BE PUBLISHED

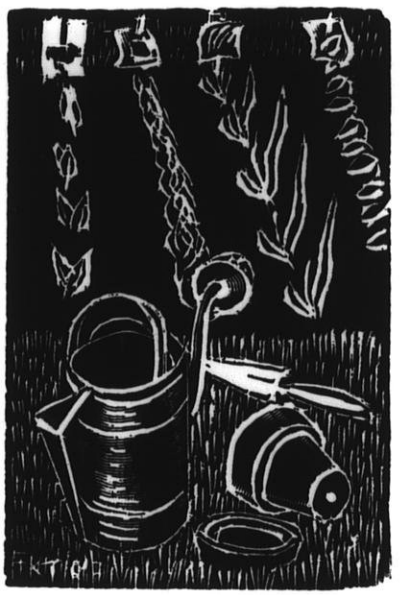
A HISTORY of the 75 years of active service of the Wisconsin State Horticultural Society will be published in September. At least that is the program authorized by the Board of Directors of the Society at their meeting last November.,

Mr. W. A. Toole of Baraboo was asked to write the history. Mr. Toole, however, due to shortage of help and increased business in herbs, found it impossible to do the work last winter. It will require a great deal of time. He has asked the Secretary to write the history. We hope to find time to do it this summer and will attempt to publish the history as the *September issue of Wisconsin Horticulture,* sending it to each member. At least such is the plan at the moment.

RED MELBA APPLE TREES RECEIVED FROM OTTAWA STATION

TWO trees of Red Melba were received by the Wisconsin Horticultural Society through the courtesy of the Central Experimental Station, Ottawa, Canada, sent us by Dr. M. B. Davis, Dominion Horticulturist, early in May. The trees were turned over to prof. J. G. Moore for planting in the College orchard for trial and observation.

Our fruit testing committee had heard about the value of Red Melba on a trip to Ottawa, but stock was not available until this year. Last fall we wrote to Dr. Davis and he very kindly consented to send us a few trees this spring.



MAKING A GARDEN

Man plows and plants and digs and weeds,
He works with hoe and spade;
God sends the sun and rain and air,
And thus a garden's made.

He must be proud who tills the soil
And turns the heavy sod—
How wonderful a thing to be
In partnership with God!
—*Anonymous, Gulf Coast Gardener.*

Red Melba is an improvement on the standard Melba which has become so popular in Wisconsin, because of its solid red color. It may prove to have other desirable characteristics. As more stock becomes available, we hope to send cions and trees to members of the Society.

Melba is today the most popular early apple among Wisconsin growers who have tried it. It was originated by the Ottawa Experiment Station, Canada, as an open-pollinated seedling of McIntosh.

JUNE IS THE MONTH OF PEONIES

JUNE is the month in which to select peony varieties for your garden, and to visit peony gardens to get better acquainted with this gorgeous flower.

Wisconsin's largest peony growers are W. A. Sisson of Rosendale and Walter Miller of Sun Prairie. You are welcome to visit them any time during the blooming season.

To read a list of the varieties of peonies is hopelessly confusing to the amateur. The only way you can really successfully decide upon the kinds you want is to select the varieties as you see them during the blooming period. Then you can decide upon the colors, the form, whether you want the single, double, or Japanese in many shades and colors, in a wide price range. Order them in June and plant them any time after September 15.

DON'T CUT ASPARAGUS TOO LATE

Do not cut asparagus later than the middle of June to the first of July. From then on the plant should be allowed to grow so that the leaves may produce food to be stored in the roots for next year's asparagus tips. Late cutting will result in a starved root system and poor cutting next year.

NO MAGAZINE IN JULY

THERE will be no issue of Wisconsin Horticulture in July. The July and August issues are combined, and will appear about August 1st.

Material for the next issue should reach us by July 5th.

ROSES IN WAR-TIME

A young man of our acquaintance, about to finish college and join the armed services, was asked to select a graduation present. He chose a small collection of the new hardy roses, to be planted in the garden of the family home. The folks will care for and enjoy them while he is gone, and he will picture them as he expects to find them when he returns — both the folks and the roses. They will stand as symbols of home, and beauty and peace, some of the important things that he'll be fighting for.

Yes, roses are important, and all beauty is important, not only to us at home but also to those whose enjoyment of home is a memory and a dream until the war is over.

Editorial in The Minnesota Horticulturist—May, 1943.

JAPANESE - AMERICANS TO HELP IN FRUIT AND VEGETABLE PRODUCTION

AFTER nearly a year of living behind barbed wire, thousands of Americans of Japanese ancestry are being sent to farms to help with the production of fruits and vegetables, as well as other occupations, according to the Florist's Review.

Information has been assembled on all the adults on their past record and attitude. Those whose records are satisfactory are eligible to secure employment. Studies are also made of the communities to which the evacuees propose to move to insure that their presence will not result in a disturbance or danger.

Cooperative committees have been formed in cities of the middle-west to give assistance in this project.

Most of the farmers of Japanese ancestry were engaged in the production of vegetables and fruits, and many were skilled poultrymen and nurserymen.

If you and your job are not friends, part company.

IT'S TOUGH FOR FARM BOYS TO STAY AT HOME

FARM boys are finding it difficult to remain on the farm and do the job so badly needed. Far too many farm boys have already been drafted and we now realize that a serious food shortage is a possibility. Draft Boards are now deferring boys where they are needed to do the work on the farm, but they are finding it difficult because misguided people too often talk about them as being slackers.

No less a magazine than the Country Gentleman writes about this editorially. As a result of criticism, farm boys are enlisting when they should remain on the farm. If that keeps on, the food situation will get worse instead of better.

Public sentiment, therefore, will have to change if we want to keep from going hungry.

IF YOU RECEIVE PACKAGE BEES, YOU MUST NOTIFY THE INSPECTOR OF APIARIES

A new law was passed by the Wisconsin Legislature which provides that *any person receiving package bees in the State of Wisconsin must report the importation of these package bees to the Inspector of Apiaries,* Department of Agriculture, State Capitol, Madison.

Members of the Wisconsin Beekeepers Association should advise people who have received package bees to make this report, not only to comply with the law, but for the protection of Wisconsin against A.F.B. The reason for passage of the law is that there is evidence that during the past few years A.F.B. has been imported from outside of Wisconsin in package bees. If the inspector of apiaries can be advised where all package bees have gone, the inspectors can be notified and can make inspections of such bees, thereby *protecting all other beekeepers in the neighborhood.*

It is therefore to your interest to advise your neighbor who gets package bees, to make the report.

EUROPEAN PLUMS TESTED FOR HARDINESS IN CANADA

MR. W. R. Leslie of the Morden, Ontario Experiment Station, writes that for the past 10 years practically all European varieties of plums grown in Canada have been tested at the Morden Station for hardiness. Also a large number of varieties from Russia. Many made good growth the first year, but few were alive after three years.

Concerning the hardy varieties, Mr. Leslie writes:

"The most promising varieties considering hardiness, productiveness and quality are Raynes, Morden No. 802, Russian Green Gage, Mount Royal, two Reine Claude x Voronesh seedings from F. L. Skinner, Dropmore, Manitoba, Shorospelka Krassnaja and Tiorn Dessertny from Russia.

"A considerable number of varieties, such as Carleton, Prescot, Nepean and Lanark, from the Central Experimental Farm, show considerable hardiness but have not commenced to bear. Other varieties, such as Kozlov and Krikon are in poor quality."

Ornamental Evergreens
Deciduous Shade Trees
Wild Perennial Flowers and Ferns
Price List On Request
C. WILSON'S NURSERY
Pembine, Wisconsin

For Sale

For sale. F. A. Harden Nursery, Weyauwega, Wis. 2 acres with about 6,000 evergreen trees including Blue and Green Col. Spruce, Douglas Fir, Mugho Pine, Arbor Vitae, Junipedus Virg., Pfitzers, Sabins, Spreading Yews, also some shrubs, with land; on highway 10. Liquidation of estate; reasonable. Mildred Harden, Weyauwega, Wisconsin.

Gladiolus Tidings

By the WISCONSIN GLADIOLUS SOCIETY

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Fred Hagedorn, Sheboygan
Dr. Geo. Scheer, Sheboygan
Archie Spatz, Wausau
Frank Blood, Stevens Point
Chester Harrison, Waldo
Walter C. Krueger, Oconomowoc
E A Lins, Spring Green
Walter Miller, Sun Prairie
Noel Thompson, Madison

June in the Gladiolus Garden

Walter C. Krueger

JUNE in the glad garden is usually one of happy anticipation of the coming glorious bloom, but it should be one of both anticipation and preparation. During June much of the quality of a later bloom is determined. Research tells us that the embryo spike begins to form at about the time that the second leaf is one-half full grown. All the care that is lavished upon the King of summer flowers, in the blooming season, can only bring to full fruition that which is already formed in June, and hidden below the ground. Beneficent August culture cannot change a 15 bud spike to a 20 bud spike, it can only achieve the best results from the former. Provided that sound bulbs were planted, June culture, deeply influences the end result.

Watering Important

If at all possible, see to it that glads have ample water at all times, but especially so in June and at blooming time. All the potentially available fertilizer elements in the soil, or in any fertilizer used, is of no value unless there is water present to dissolve the soluble plant foods and make them available to the flowers. Surprise yourself as to how much plant food is in your soil by the use of adequate water.

Don't forget to cultivate frequently. It kills the weeds that use the plant foods that our favorite flower should have available to it alone. Cultivation to stop surface evaporation is important, doubly so where the garden hose cannot reach. Keep each drop of water that falls on your garden in the soil. Do not allow it to evaporate. Cultivation assists in the process of making more plant foods available from the rock particles present in most soils.

Thrips Control

Spray during the month of June to kill the pesky thrips, or at least to keep them under control. If you use a contact poison, like Rototox, spray once early in June, spray again in a week, then fool the thrips during the third week, by spraying every other day for three sprayings. Spray again during the fourth week, and again during the first week in July. The week that the first spikes appear (they carry the thrips that you missed by not dipping) assumed to be the second week in July, give them successive sprayings on alternate days. Do this at about 5 p. m. C.W.T. (the time the thrips come out of hiding). This program followed by a weekly spray should give you 98% clean bloom.

If you use stomach poison sprays that cling to the foliage, spray once a week all during the season, or after each rain (if any).

If you wish glorious glad bloom, water, cultivate, and spray.

GLADIOLUS THRIPS

Noel F. Thompson

THRIPS are the most serious pest of Gladiolus. They are very small insects and frequently pass unnoticed until the flowers fail to open. *If you grow Glads it is safe to assume that they will be infested.* This is especially true in the cities where this pest passes from one garden to the next.

Control

The first indication of the presence of this pest is a silvering of the leaves especially along the line where one leaf is separating from the one below. Thrips can be controlled by spraying if it is started in time and done thoroughly. The first spray should be applied when the plants are six to eight inches high, or at the first signs of the pest, and repeated at intervals of a week or ten days. If the pest becomes very abundant three or four applications at 2 day intervals should be made.

Don't let Glads fade and die in the patch. They may harbor many thrips. Keep them cut.

Tartar emetic is one of the best thrips sprays: The formula consists of:

SPRAY FOR GLAD THRIPS

1 oz. tartar emetic
2 oz. brown sugar
3 gallons of water

If brown sugar cannot be secured, use 2 2/3 oz. of either honey or molasses.

If tartar emetic is not available, Paris Green may be substituted, using about a teaspoonful to 3 gallons of spray.

Molasses or honey may be substituted for the brown sugar. Since these contain water a little more should be used. A little more won't do any harm but don't skimp on the sweetening. Its the bait to attract the thrips and also sticks the poison to the plant.

Apply as a fine mist. Get a good coverage but don't have a lot run off. Paris Green is not soluble in water so keep the spray well agitated as it is being used. Paris Green also has a tendency to burn the foliage if too much is used. Several light applications are better than one heavy one.

Tartar emetic and Paris Green are active poisons—Be careful of them.

BULB AUCTION NETS TIDY SUM FOR SOCIETY

THE bulb auction held in connection with the annual spring meeting of the Wisconsin Gladiolus Society at Milwaukee on March 28th netted a total of $52.85 to the Wisconsin Gladiolus Society. Most of the donators of the bulbs told our treasurer to keep in the treasury, their 50% of the receipts, which was certainly very kind of them.

Donators of bulbs which were auctioned and to whom the Society extends its sincere thanks, were as follows: Dr. Geo. Scheer, Sheboygan; J. R. Hopkins, Deerfield, Ill.; A. S. Haugen, Stoughton; W. C. Krueger, Oconomowoc; A. E. Zamzow, Beaver Dam; Archie Spatz, Wausau; Oren Baxter, Edgerton; and Mr. Milton Shaw, Milton.

FOXTAIL SAYS: An income tax blank is goin' to every soldier, sailor and marine. Our boys at the front may be lucky enough to escape death, but not taxes.

From Prairie Farmer.

Wisconsin Gladiolus Show

MUNICIPAL AUDITORIUM, SHEBOYGAN

AUGUST 21-22

THE fourteenth annual Wisconsin Gladiolus Show under the auspices of the Wisconsin Gladiolus Society, cooperating with the Sheboygan Chapter, will be held in the new Municipal Auditorium in Sheboygan on August 21-22. The decision was made at a meeting of the Sheboygan Chapter. It was decided that these dates were preferable even though they coincide with the opening of the State Fair. The large number of exhibitors in Sheboygan County alone assure the success of the show.

The show will also include a Victory Garden exhibit sponsored by various Civic Clubs of Sheboygan. All the profits of the show after deducting expenses will be donated to the National War Fund. In that way the Auditorium will be given rent free. The Auditorium has a floor space of 90 x 95 feet.

President Harold Janes has appointed the following committees for the show:

Show Manager: H. J. Rahmlow.

Assistant Show Manager: Walter Axel, Sheboygan.

Supervisor of Judges: Dr. F. X. Graff, Freeport, Illinois.

Premium Schedule: Walter C. Krueger, Oconomowoc.

Entry Committee: Sheboygan County Chapter.

Finance and Tickets: Bernard Nichols, Sheboygan; Otto Kapschitzke, Ass't., Sheboygan.

Banquet: Mrs. Geo. Scheer, Sheboygan.

Tabulation of Points: Fred Hagedorn, Sheboygan, Chm.

Nominating Committee: Frank J. Blood, Stevens Point, Chairman; George C. Morris, Madison; Leland C. Shaw, Milton; Walter C. Krueger, Oconomowoc.

Executive Committee: Otto Kapschitzke, Chairman; Harold E. Janes, Whitewater; Roger B. Russell, Madison; Chester Harrison, Waldo; Walter Miller, Sun Prairie; Orin Baxter, Edgerton.

Classification: E. A. Lins, Spring Green, Chairman; Dr. Geo. H. Scheer, Sheboygan; W. C. Krueger; David Puerner, Milwaukee; Archie Spatz, Wausau.

A THRIPS INFESTED GLADIOLUS FIELD

A friend in the country who raises many fine gladiolus had bad luck last year on account of thrips. He always treated his bulbs, but he bought some new bulbs that had not been treated. These he planted by themselves on a plot at such a great distance that should they have thrips they would not be near enough to affect his own field of glads.

When his own flower spikes were not developing properly, he noticed that thrips were the cause and was puzzled as to how thrips had found them.

Then it dawned upon him he had picked some slightly thrippy glads from the farther field and brought them into the home. The old bouquets had been tossed outside on a spot close to his glad garden. In no time the thrips from the bouquets got onto his own gladiolus. The thrips multiplied so rapidly that his flowers made a sad picture—an entirely ruined field. I never saw so many thrips. The budded spikes were covered with the tiny black-colored insects.

Some of his seedlings that had bloomed for the first time with florets over 8 inches across were ruined. One salvation, the bulbs were not ruined and you can wager the bulbs will be treated properly for thrips this year.

—*Rena Bauer, Colby, Wis.*

Home and Garden

Mrs. C. E. Strong

SLIPPIN'

My grammaw, she wud nip a pinch
From sumpin' 'at was growin';
Oft-times it warn't but a inch—
She had a way of knowin';
She nailed little woody stands
An' hanged 'em out th' winder;
She'd tuck the slip in with her hands,
An' nary us'd hinder;
Sum folks'd say, "My that won't grow,
My sis she tried it offen"—
Us kids'd wiggle our big toe
An' kinda git t'coughin';
They dinnot see the things she done.
W'en grammaw was a'puttin';
She had the "magic"—it waz fun
T'watch th' thing a'rootin';
My sis, she stole my grammaw's dirt,
An' putted in a penny;
But lawk, she duzzent feel so pert,
It dinnot grow, not enny;
An' so we knowed my gramma had
Th' "magic," not from bookin';
An' all of us wuz awful glad
She 'lowed us to keep lookin'.

Nell R. Maddocks, California.

AT THE IRIS SHOW

AT the Hollywood Garden Club Iris Show, goodly crowds admired the iris, large clumps in beds on the floor. Vases of one variety, three blooms—one perfect bloom, displays of native iris, Louisiana iris, Hybrids—every shade and type you could imagine; not crowded, all given space so you could really enjoy their beauty. Practically each room in the club house was given to one or two classes. There was one room filled with arrangements of iris — also iris combined with other flowers. Each arrangement was given the space of a card table so it stood out. On a step shelving table in one corner was a display of miniature bouquets that were like jewels. The crowd came back again and again to marvel at their exquisite beauty.

Kale Is One of the Best Green Leafy Foods.

Orchids Easy to Grow

In one of the rooms there was a fine display of hardy orchids in a large round bed on the floor. "Very easily grown" so they say. Those needing shade are grown in lath houses along with ferns and Rex Begonias. Some of these lath houses are like a beautiful outdoor living room with brick or tile floors, comfortable chairs and the choice flowers and plants close to the house where they are most easily cared for. The lath roof keeps out the hot sun.

Victory Garden Show

In a patio was to me one of the very best exhibits of the show. A large and beautiful display of vegetables from the victory gardens of Fairfax High School, grown by the students under the supervision of the science teacher, an enthusiastic gardener. He invited people to come and see the gardens.

Junior Gardens

"Victory gardens on school grounds," he said "are a step in the right direction, one I have advocated for years. The teaching of horticulture right through the grades and high school as a regular study, not as an emergency fill-in—or a fad. There is nothing that can be taught a child that is so worth while as gardening. They learn so many things along with it—patience, the habit of observation; they learn to look for beauty wherever they go, and they find it. The knowledge of how seeds and plants grow is something they never forget, for it gives them a feeling of competence, an inner strength that will be of help in some most crucial moment in later life. We need to give the children this feeling of competence, this inner strength that opens the eyes to beauty, the heart to peace and understanding."

Evolution of Youth

He leaned forward — speaking even more earnestly. "If you could have seen some of my students—girls who looked like painted dolls, bored with life — boys — tough — jeering — looking on while others worked, then suddenly those girls kicking off high heeled shoes and socks, walking barefooted in the moist earth—careless of fingernails and frocks as they tried with all the enthusiasm of little children to transplant small plants into upright straight rows.

"The boys—they too were mastering the making of a straight row, though at first awkwardly—soon with ease, planting at just the right depth. As they worked, all of them looked back at the rows of plants as though they were something precious, going back to straighten a plant that was a bit out

of line, faces smudged, hair awry. They had forgotten everything but the joy of working in a garden. They had found out something no one could ever take from them—something every child in this country of ours should have a chance to discover, and it's up to parents and teachers to give them this chance."

SOUP FROM A STONE

A good French cook, according to a story, can make excellent soup from a stone. After he boils the stone in a pot of water, he adds a few sprigs of sage, thyme, parsley, marjoram, an onion—some potatoes, salt, pepper and a bone. The result is fit for a king.

NEW GARDEN GADGETS SOMETIMES VERY IMPRACTICAL

SOME pointed and very practical comments come from the pen of George L. Slate of the New York Experiment Station in the March issue of the Rural New-Yorker on the [illegible] some garden gadgets. He writes on fertilizing the lawn with a garden hose sprayer and concludes that while it is finished in beautiful chromium and advertised by a picture of a beautiful young lady spraying a rose bush, it has little value. For example, a fertilizer cartridge priced at 35c is marked as containing not less than 2 ounces of a 10-18-12 formula.

The standard recommendation for the lawn in the spring he writes, is 15 lbs. of a 5-10-5 mixture, or seven and one-half pounds of the formula in the cartridge per 1,000 square feet of lawn. At the price stated, the cost of the material for fertilizing this area would be $21.00. Commercial fertilizers carrying about the same amount of plant food may be purchased for 22½ cents.

It took 30 minutes to dissolve a two-ounce cartridge, and at that rate it would take 30 hours to apply the seven and one-half pounds needed to properly fertilize 1,000 square feet of lawn. He concludes that if all gardeners could be induced to fertilize their lawns with this device unemployment would be eliminated.

The use of the device to control insect and disease pests in the garden would be on the same basis.

VITAMINS IN LEADING VEGETABLES

Percentage of your daily requirements supplied by an average serving.

	Carotene A	Thiamine B-1	Ascorbic acid C
Asparagus	10	10	40
Beans, green snap	20	5	20
Beans, yellow snap	10	5	20
Beans, bush lima	10	23	2
Beet greens	300		70
Beets	5	3	10
Broccoli	180	7	100
Brussels sprouts	4	12	80
Cabbage, early, kraut	10	5	80
Carrots	42	4	7
Cauliflower	1	10	100
Celery, green	10	2	7
Chard	180		50
Chinese Cabbage	20	4	25
orn	20	20	15
Eggplant		3	13
Endive	80	6	18
Kale	400	10	170
Kohlrabi		4	60
Lettuce, leaf	80	5	20
Lettuce, head	5	5	10
Muskmelons	40	4	40
Onions		2	10
Parsley	2		2
Parsnips		8	30
Peas	20	28	35
Peppers	70	2	150
Potatoes	1	9	12
Radishes		2	8
Soybeans	15	30	55
Spinach	500	8	100
Squash, summer	20	3	5
Tomatoes	20	5	30
Turnip greens	200	8	200
Turnips		2	40
Raspberries (red)	8	2	40
Rhubarb	2	1	27
Strawberries	1		70

Physical examinations for the army have now got to the point that when you come before the medical officer he just feels you. If you're warm, you're in.

THE VICTORY GARDEN PROGRAM IN MILWAUKEE COUNTY

Alex Klose, Garden Supervisor

MILWAUKEE County has organized under the Civilian Defense Council, a coordinating committee for the garden program. The duties of this committee are to coordinate the efforts of all the groups interested in the garden program. These groups, about twenty in number, are made up of committees covering the entire field of the garden program activities.

A partial list of these are as follows:

- Training classes
- Soil preparation
- Garden Information Centers
- Rural activity
- Publicity—Radio and newspaper
- Demonstration Gardens
- Block Leaders
- Youth Organizations, including
  - Scouts
  - C. Y. O.
- Fairs and Exhibitions
- Use and Preservation.

We have approximately 125,000 victory gardens in the county; five to six thousand of these gardens are planted on city or county-owned lands.

Throughout the county we have planted about 25 demonstration or model gardens. From these the neighborhood gardeners were able to learn just how to plant their own victory gardens. Later in the season these model gardens will serve as outdoor classrooms at which the home gardeners will be shown the best methods of controlling insect pests and disease.

Later in the season, Miss McCannon, our Home Agent and head of the Use and Preservation Committee, will give canning demonstrations throughout the county.

Hitler is said to be writing a book to be published posthumously. We can hardly wait.

GARDEN GLEANINGS

INTEREST in culinary herbs has increased by leaps and bounds during the past year or two. Visiting with Mr. and Mrs. W. A. Toole of Baraboo during May we found them swamped with orders for herb garden plants from gardeners all over the United States. They were very busy all winter filling orders for herbs for culinary use. With food rationing upon us, many an otherwise unappetizing dish can be made delectable by the use of herbs.

As time goes on, we are faced with the conclusion that the food situation may become worse instead of better during the coming year or two. We are inclined to think that more serious consideration will be given to the vegetable garden next year than has been given this year. To help the amateurs who are not experienced in growing vegetables should be one of the principal projects of all gardeners and horticulturists. Vegetable growers not only help themselves, but help the entire nation because if they grow some of their own food, they need not purchase as much. There is still plenty of land available for vegetable gardens — no need of abandoning or digging up the flower garden. Most folks will find it possible to take care of a much larger garden than they have been doing. A little more staying at home, a good deal of determination, and a lot more willingness to sweat and toil is a contribution many people can make in the present emergency.

We have observed much puttering and inefficiency among vegetable gardeners this year that must be overcome. With a labor shortage we must make every move count.

The notion that vegetable gardens need lime still persists in Wisconsin. Last month we observed

large piles of ground limestone on the edges of plots being prepared for gardening. The notion comes, of course from reading national publications on gardening that stress the value of lime because in some states it is of value — soils there being very low in lime. In Wisconsin we have repeatedly stated that tests show no lack of lime in most of our soils for growing such crops as flowers and vegetables because those crops prefer a slightly acid soil. Horticulturists can render a service by giving this information to gardeners and at least suggesting that they have their soils tested before applying much limestone.

Another idea that seems to persist is that deep cultivation is a good thing because it aerates the soil. Deep cultivation may do more harm than good if it cuts off any of the feeding roots of the plants. It is mainly by the presence of humus in the soil that we get real aeration for the root system. In other words, if we cultivate deep enough to loosen the soil around the roots we cut the roots. If we do not cultivate that deeply then the roots are still surrounded by uncultivated soil. So, cultivate shallow to keep the weeds out and let it go at that. Prepare your soil well by giving it humus. We may of course, cultivate deeply when the plants are small, before the roots extend into the cultivated area.

Another hindrance to efficiency in planting gardens and avoiding a lot of puttering is the suggestion that our plants be given fertilizer or plant food with a teaspoon. A vast amount of time would be wasted feeding a sufficient number of plants to provide food for the family by giving each plant fertilizer with a teaspoon. In a well planned garden the roots of the plants will take up the entire garden space. Therefore the fertilizer should be broadcast over the entire area, and worked into the soil. Then all plants can get the necessary elements.

From the Gallup Polls we learn that two million families planted gardens this year that never had gardens before. A survey in January showed that 19 million families planned to have a garden this year. On April 1st, this figure was increased to 21 million families, which exceeds the government's goal of 20 million gardens.

We find too that in large cities of over 100 thousand population, the gardens averaged in size 20x25 feet. In smaller towns and cities they average 40x95 feet. The farm gardens will average about one-half acre in size.

A writer in the Prairie Farmer says he would like to locate some of that daylight we are supposed to save in wartime. He thinks there are plenty of dark places that it should be turned into.

Dr. L. E. Longley of the Minnesota College of Agriculture suggests combining flowers with vegetables. Asparagus, he says, grows well with Cosmos, parsley or carrots with marigolds, or painted daisy; New Zealand Spinach with Calendula. Now is the time for a landscape architect specializing in the flower border to show us how to grow vegetables artistically in the flower garden.

No danger at all now in going out for politics, with tomatoes, eggs, anl grapefruit so scarce.

Here are a few *suggestions for your garden.* If you are growing sage mound up the dirt around the branches. It will induce them to root. Later cut the branches as separate plants and set out. Old plants degenerate after a time.

Don't put lime on the potato patch. It favors scab development.

Sow some more table beets, either for late storage or to be used when small as greens.

Sow turnips broadcast over a wide row, about a foot wide, and as late as the first week in August, for fall storage.

Plant New Zealand spinach for summer use. Common spinach doesn't do well during hot weather. Keep the tomato patch well watered or mulch with a heavy mulch to conserve moisture. A drought period will induce blossom end rot. It doesn't make much difference if you stake your tomatoes or leave them unstaked and spread over the ground. The more you prune them, the fewer tomatoes you will have, but they may be larger and ripen earlier, and the plants will have a neater appearance.

H. J. Rahmlow

She: "Would you like to see where I was operated on for appendicitis?"

He: "No, I hate hospitals."

Know Your Poisons to Vanquish Vicious Insects

E. L. Chambers

Stomach Poisons. A stomach poison is one which, when taken into the stomach in sufficient quantities, poisons or kills insects. Because Paris green was the first arsenical poison to be extensively employed for this purpose there seems to be a popular conception that white arsenical poisons are less effective than this green one. Regardless of this idea the most generally used stomach poison today is, without a doubt, arsenate of lead.

This arsenical poison can be applied either in the form of a spray or dust. As a spray one and one-half pounds is used in fifty gallons of water or, in smaller quantities, nine level teaspoonfuls to the gallon. This is the standard strength recommended for most partially developed insects, while larger insects and nearly full grown caterpillars may require from one and one-half to two times as much of the arsenical to be effective. In applying this poison as a dust it should be mixed one part with four parts hydrated lime or with superfine sulphur dust. Calcium arsenate has some advantage over lead arsenate in that it is nearly ten per cent more active as a poison and is prepared especially for dusting purposes. In handling these arsenicals it should always be kept in mind that they do not go into solution but are merely held in suspension in the water and consequently must be thoroughly agitated at frequent intervals to keep the materials in suspension. If more than a trace of these arsenicals were soluble in water they would burn the foliage as do soluble forms of sodium arsenite, etc., used so extensively for weed control.

Contact Insecticides. Insects which obtain their food by puncturing the plant and sucking out the sap can not be controlled by stomach poisons. Contact insecticides are used either in liquid or dust form to kill the insect by coming in contact with or entering into the body through the spiracles. They either clog the respiratory organs, causing suffocation, paralyze the nervous system, act as a narcotic or toxic, or else coat the skin or cover the insects, thus causing death. These insecticides include, principally, such organic substances as nicotine, pyrethrum, derris, quassia, rotenone, and other alkaloids. Inorganic compounds, such as lime sulphur, oils, soaps, sulphur and other dusts, are likewise extensively used.

The standard summer garden spray for the many species of aphids and leafhoppers attacking various plants, is nicotine sulphate. A teaspoonful or two is used for each gallon of water in which an inch cube of Ivory soap has been previously dissolved.

Fungicides

There is an essential difference between insect and plant disease control. Plant diseases are, in a restricted sense, due to fungi and bacteria, which are low forms of plant life, attacking the plant. In most cases they work within the plant and are not susceptible to chemicals applied to the surface. Prevention, rather than cure, is therefore the aim of most of the fight against plant diseases.

The following are some of the more useful fungicides and control measures:

Bordeaux Mixture. This spray is made from blue stone (copper sulphate), lime, and water in varying proportions. The proportions are indicated by a formula such as 4-4-50. This means 4 pounds of blue stone, 4 pounds of quick lime, and 50 gallons of water. To make 50 gallons of 4-4-50 Bordeaux proceed as follows:

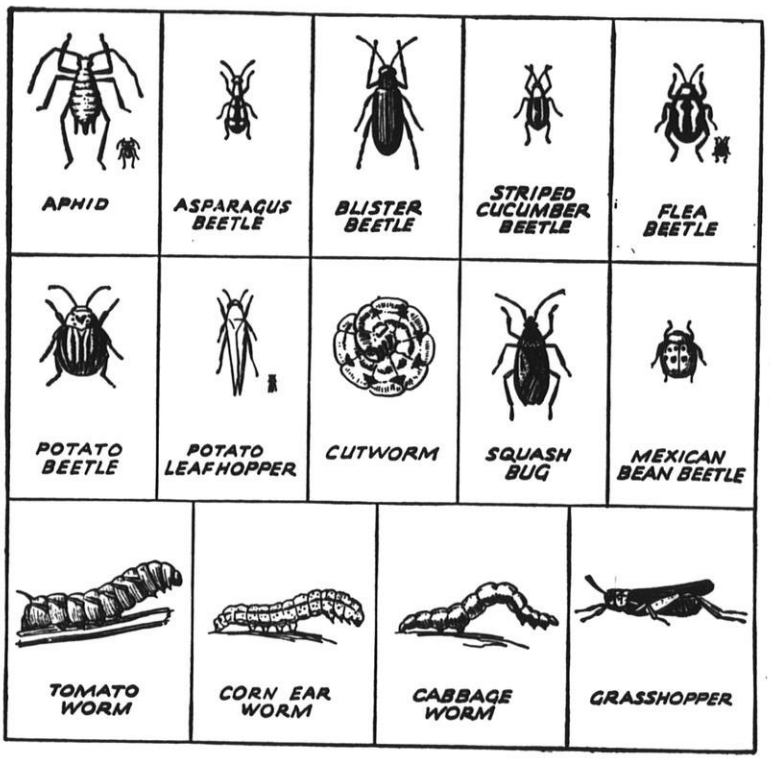
1. Dissolve 4 lbs. of blue stone in water and dilute to 25 gallons.
2. Slake 4 pounds of good quick lime (6 pounds of hydrated lime), strain and dilute to 25 gallons.
3. Pour the two solutions together through a strainer into the spray tank.

Bordeaux mixture should be freshly made whenever needed. The stock solutions, however, will keep a long time. Where small quantities only are needed, dry Bordeaux may be purchased. This needs only the addition of water. Either or both arsenate of lead and nicotine sulphate may be added to Bordeaux.

Potassium Sulfide Solution. This is a standard spray particularly for mildew. Dissolve one ounce of potassium sulfide (liver of sulphur) in 3 gallons of water. Use while fresh.

Sulphur Dust. When sulphur is to be used as a dust, care must be taken to get an extremely finely divided form. Do not buy the ordinary flowers of sulphur but insist on a superfine dusting sulphur. The addition of one part of arsenate of lead dust to 9 parts of sulphur improves the dusting qualities of the latter. A dusting sulphur that is stained green is on the market if the yellow sulphur is objectionable in color.

Spot These Victory Garden Invaders And Learn How to Destroy Them



Spotting Chart of Garden Enemies—These Are the Insects That Will Attack Your Victory Garden. Learn to Know Them So You Can Fight Them.

SAVE YOUR GARDEN

E. L. Chambers

Explanation of picture: These are some of the more common insects that attack garden plants—be on the lookout for them. (The Mexican bean has not yet been established in Wisconsin.)

Certain insecticides known as contact poisons kill insects only when they come in contact with the pest's body. They are used to kill insects that suck the juices from plants such as the Aphids, Leafhoppers and Squash Bugs. When using a **contact spray or dust** such as **Black Leaf "40," Pyrethrum or Rotenone,** it is necessary to apply the materials so that the pests will be hit with the spray.

Another group of insecticides known as stomach poisons kill insects only when the material is taken in as food. They are used to control insects that eat away portions of the plant such as the Potato Beetle. When using the stomach poisons such as Calcium Arsenate, the entire plant should be covered with the poison so that even though the pest feeds on the underside of the leaves it will get a killing dose of the poison.

Supplies of Rotenone and Pyrethrum are short. If Rotenone is available it will be found to be more or less effective against all of the above pests except Squash Bugs, Grasshoppers and Cut Worms. This plant root extract acts very slowly, often requiring several days to kill. The poisonous principles all deteriorate rapidly when exposed to sunlight and air. Both sprays and dust usually lose their effectiveness within a week after application. Rotenone is harmless to plants and is relatively non-toxin to man and acts both as contact poison and stomach poison To meet the needs of our Government in the war efforts most of the Rotenone supply has already gone to war.

Cut Worms and **Grasshoppers** are most effectively controlled by using the poison from bait made up by using ¼ pound Paris Green with ½ pint of cheap molasses to which 2 quarts of water are added. This solution is sprinkled over 5 pounds of coarse bran. Broadcast thinly, scatter at sundown for Cut Worms and on a warm sunny morning for Grasshoppers.

Striped Cucumber Beetles not only riddle the foliage but spread the Cucumber Mosaic disease. The best control consists in the use of a dust, Calcium Arsenate, 1 pound mixed with 10 pounds of Gypsum.

Squash Bugs

Squash Bugs are difficult to control in the adult stage but the **young ones** can be killed with a Pyrethrum dust, having 2% Pyrethrin or Black Leaf "40" at the rate of a tablespoon full to a gallon of water in which an inch cube of Ivory soap has been previously dissolved.

Aphids, Flea Beetles, and Leafhoppers sprayed with Black Leaf "40" at the rate of 1 teaspoon full to a gallon of soapy water will be killed. Spraying foliage attacked by the latter two with a standard 4-4-50 Bordeaux to which Calcium Arsenate is added at the rate of 1 tablespoon to the gallon will be found more satisfactory since this will be effective against the Blister Beetle, Potato Beetle and other foliage eating insects such as the Asparagus Beetle.

The **Corn Ear Worm** feeds on the corn silk and injury can be prevented to the Sweet Corn ears in the small gardens by injecting ¼ teaspoonful of the Medical Mineral Oil in the silk channel of each ear soon after pollination.

FLY PAPERS

Non-poisonous fly papers can be made at home by boiling equal parts (by weight) of honey and glue. Using an old knife, spread the mixture, while hot, over thick brown paper. Put a piece of the paper in each room of the house and you will soon be rid of flies. But be careful not to sit on it.—British Bee Journal.

Garden Notes

CANNING VEGETABLES WITHOUT A PRESSURE COOKER

It is quite difficult to purchase a pressure cooker, and only a limited number are available this year. Many gardeners will find it necessary to do their canning without a cooker. We can well remember that in the old days a great many vegetables were canned by the water bath method. Many families simply used the wash boiler with a false flatted bottom which would hold quite a large number of cans. Of course, any straight-sided kettle deep enough to allow jars to be covered one inch with boiling water is suitable.

There is some misunderstanding about what causes food poisoning. According to bacteriologists, there is only one deadly poison, the toxin of the bacillus botulinus. If this organism is in the soil and comes in contact with the vegetables (and this is rarely the case), it will not be killed by canning unless under high temperatures as in a pressure cooker. However, and this is important, it is only the toxin given off by the organism that is poisonous, and this is driven from the food at a boiling temperature. Therefore **all vegetables** taken from a can should **always be heated to a boil** before being served. Then they will be safe. If we remember to do that, then we need have no fear of canning in a water bath.

The organisms which cause gases to form in a can will spoil the food, but are not of the deadly kind, as botulinus. Of course, spoilage can be detected by smell and taste, and such foods should not be eaten.

According to the extension nutritionist of the Minnesota College of Agriculture, as published in the Minnesota Horticulturist, the following timetable should be followed for canning vegetables in a water bath:

TIMETABLE FOR PROCESSING NONACID VEGETABLES

Constantly boiling water in water bath.

	Pints Min.	Quarts Min.
Beans fresh lima	180	180
Beans snap	180	180
Beets, baby and carrots	120	150
Corn whole grain	210	210
Greens, including spinach	180	210
Peas green	180	210

BLOSSOM END ROT OF TOMATOES

BLOSSOM end rot is the most serious trouble which amateur gardeners will encounter in growing tomatoes. It is not caused by any organism. The trouble first appears as a slightly darkened and watery spot at the blossom end of the fruit. The spot enlarges, darkens, and becomes sunken, and the center develops a very black velvety surface.

The only control of the disease is to control the moisture supply. Blossom end rot is worse in dry years and on dry ground. It is thought to be the result of a physiological breakdown of tissue caused by the failure, for any reason, of water to reach the more remote parts of the fruit. Good tillage, additions of humus, and irrigation are helpful. A heavy mulch of hay, straw or rubbish of any kind applied fairly early to maintain a constant supply of moisture in the soil will help.

WHEN TO MOVE IRIS

THE best time to move iris or transplant them, is as soon as possible after the blooming season. Remember too that it is well to divide and transplant iris every three or four years or as soon as the clumps become somewhat crowded. Much better blooms will be obtained from small uncrowded clumps than from crowded ones.

Soon after the blooming season new roots are sent out by the rhizomes, which then become established where they are to grow. Rhizomes transplanted early will become established and bloom the next year.

UNAWARE

He: "I can't see what keeps girls from freezing."

She: "You're not supposed to."
—Cal Engineer.

THE SNOW TRILLIUM

I read Miss Rena Bauer's statement in the March issue of Wisconsin Horticulture regarding Trillium nivale—the snow trillium. This trillium is found in much of the River Falls section of Wisconsin along the Rush River and Cave Creek in Pierce County. I have seen the hills along these rivers white with patches of this trillium early in the spring.

The snow trillium is just as easy to grow as any other trillium found in Wisconsin. I have two or three clumps in my wild flower garden.

—James I. Malott, River Falls State Teachers College.

Judge: "You maintain that you threw your wife out of the third story window through forgetfulness?"

Prisoner: "Yes, we used to live on the ground floor, and I'd forgotten we'd moved."

PROTECT YOUR VICTORY GARDEN

with

NIAGARA DUSTS and SPRAYS

Vegetable plants need some attention from beginning to end to assure you a maximum yield. They are constantly subject to diseases and insect pests of one sort or another which may be kept in check by the use of the proper materials.

Equip yourself with a Niagara Duster and materials for increased yields.

NIAGARA SPRAYER & CHEMICAL CO., Inc.
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Waupaca, Wisconsin

Garden Club News

By the

WISCONSIN GARDEN CLUB FEDERATION

OFFICERS

Mrs. H. S. Bostock, President
15 W. Main St., Madison

Mrs. R. H. Sewell, 1st Vice-President,
957 No. 70th St., Wauwatosa

Mrs. F. E. Willard, 2nd Vice-President,
Oakfield

Mrs. Floyd E. Ballard, Recording Secretary-Treasurer
Badger Park, Route 62, Madison

H. J. Rahmlow, Corresponding Secretary,
424 University Farm Pl., Madison

DISTRICT PRESIDENTS

Mrs. F. J. Fitzgerald, 649 Broad St., Menasha; Fox River Valley District
Mrs. Martha Lowry, Lakewood, Madison District
Mrs. Geo. Adami, 2466 No. 46th St., Milwaukee; Milwaukee District
Mrs. Gilbert E. Snell, 414 Erie Ave., Sheboygan; Sheboygan District
Mrs. Bentley Dadmun, 604 Main St., Whitewater; South Central District

ADDITIONAL NOTES ON THE NATIONAL MEETING

YOUR president and first vice-president considered it a privilege to act as delegates to the annual meeting of the National Council of State Garden Clubs Inc., held at the Sherman Hotel, Chicago.

Wisconsin had its full quota of 11 delegates and one visiting member present. Although the meeting was streamlined and given over almost entirely to the business and annual election, many helpful suggestions and plans were exchanged.

We were surprised to learn that state presidents were in attendance who had come from long distances. We met and visited with delegates from California, Arkansas, Oklahoma, California, Kentucky, West Virginia, Virginia, Louisiana, Texas, New Jersey, Indiana, Michigan, and New Hampshire.

Mrs. Randall D. Warden, New Jersey, National Council Treasurer, stated "No longer can a chairman be chosen because she is a lovely

The purchase of $2,500 in U. S. War Savings Bonds this year was announced, making a total of $21,000 in war bonds which the National Council now holds. Total assets including bonds are $28,-764.99. A large amount of the money for war savings bonds is obtained from the life membership fund.

person,—*she must be a capable person*, thorough and willing to do the work connected with the office she has been chosen to fill."

Harvesting Green Sprouting Broccoli.

National Bulletin

The "Bulletin" is the largest expense item. The National Council sends three subscriptions to each garden club president, as well as one to each state officer. Any member may subscribe to the National Council "Bulletin" at the rate of $1.00 for two years.

Meeting in General Assembly room began at 9 a. m. Mrs. Lewis M. Hull, National Program Chairman, conducted a forum on "Programs and Wartime Activities." During this time she spoke of the booklets which had been compiled and assembled by Wisconsin as being outstanding and recommended that other states follow our procedure. National Council had purchased 40 of these books and they were given out to each state president to take home with her. Mrs. Hull asked for a rising vote of thanks for Miss Katherine Melcher of Wisconsin who had worked so hard in assembling this material of all of Wisconsin's State chairmen into this one book for the National Council.

Mrs. D. J. Lybrook, Advance, North Carolina is the new National bird chairman. She wants each bird chairman of each state to have a slogan.

Mrs. Clarence Avery, 1560 Wellesley Drive, Detroit, Michigan, was reappointed conservation chairman. She asked that we keep in touch with government plans, work in coordination with regional chairmen, and follow plans of the National Council.

National Council is having a guide book printed which will explain the duties and work of the officers and chairmen and will be of great help.

Mrs. Wallace reported that there will be an additional award, namely, a special achievement award ribbon.

Mrs. Brewer gave her report, stating that the National Council had worked on assignments given us by our government such as vic-

tory gardens, war service, harvest shows, scrap drives, making of scrap books, keeping our gardens beautiful.

National Council has gotten out four books as follows: "Judging School Book"; "First Aid to Gardeners"; "New Constitution and By-Laws"; "Guide Book containing information and Instructions for Incoming National Chairmen."

Arkansas has planted 5,000 roses at one of their camps.

In Kentucky someone donated a large pumpkin to the Victory Harvest Show. The pumpkin was sold to the highest bidder each time, and then turned back in again, until finally the sheriff bought it and stopped the bidding. Then it was turned over to a group of women who made pumpkin pies and sold them, and the seeds were sold for $1.00 each. Mrs. Wallis who had charge of the show stated that she bought one of these seeds for $1.00. A total sum of $115 was realized from this one pumpkin.

Scrap Signs

When the chairman asked if there was any other business before adjourning, your president stated that since our National government had asked all gardeners to turn over all old tools and garden implements to the scrap drive, she moved that the National Council recommend to the national government that all farmers, highway men, owners of metal signs, snipe signs and billboards, and all other civilians interested, collect and turn in all such signs, snipe signs and billboards to the national scrap drive. This motion was heartily seconded, and an amendment was then offered and seconded and passed that it also be recommended to state and local government.

Each individual club president will be asked to make a survey of her membership to note how many are partaking in some phase of war activity such as victory gardens, USO, camp or field planting projects, victory harvest shows, etc.

Your president feels that the new national and regional officers and chairmen are capable and willing to work with all states. If more members could attend state and national meetings a better understanding would exist. However, we realize that traveling must be greatly curtailed until after the war. Our local, state and federal governments realize that we are an essential part of the war effort and can do much to help avert a food shortage.

Mrs. H. S. Bostock.

WAR SERVICE COMMITTEE REPORT

CONTRIBUTIONS to the War Service Fund have been received from a large number of clubs.

The committee is most grateful for the cooperation shown and the contributions so generously given.

The committee will be pleased to hear from any clubs which have not yet sent in their contribution.

All garden club support for local war service activities should write to the War Service Chairman, explaining the nature of the work being done. Also advise what, if any, financial or other aid the War Service Committee might give your project.

The following are the contributions received from garden clubs by May 20th:

Waupaca Garden Club, $3; Blue Beech, Milwaukee, $10; Milwaukee District, $20; Oakfield, $5; Kaukauna, $2; Kenosha, $2; West Allis, $2; Cambridge and Lake Ripley, $2; Green Tree, Milwaukee, $10; Neenah, $2; Shorewood Woman's Club, Garden Section, $2; Milwaukee County Horticultural Society, $5; Proceeds Milwaukee County Scrap Book Project, $8; Hillcrest, $3; Brookdale, $2; Namekagon, Hayward, $2; Berlin Home & Garden Club, $2; Elm Grove, $5; Sturgeon Bay Home and Garden Club, $2; The A. A. U. W. Garden Club of Manitowoc, $10; Yard & Garden Club, Ripon, $2; Waukesha Town, $5.

Jefferson, $3; Ceresco, Ripon, $4; Edgerton, $2; La Belle, Oconomowoc, $5; Hales Corners, $3; Horicon, $2; Ripon, $2; Iola, $2; Blue Mound, Wauwatosa, $5; Sum-Mer-Del, $3; Town & Country Club, Lake Geneva, $4; Ottawa-Dousman, $3.20; Wauwatosa, $5; Ravenswood, Wauwatosa, $10.

West Bend, $2; Fort Atkinson, $4; Fond du Lac Community, $5; Racine, $5; Menomonee Falls, $5; Elkhorn, $5; Tess Corners, $2.50; Wisconsin Rapids, $2; Washington Island G. C., $2.

(Clubs listed in order of date contribution received) Mrs. Chester Thomas, War Service Chairman.

VICTORY HARVEST FESTIVAL MILWAUKEE AUDITORIUM AUGUST 27-28-29

Auspices Milwaukee County Harvest Festival Committee

ALL garden club members, victory gardeners, and horticultural groups are invited to exhibit and take part in this gigantic show which will cover the entire Milwaukee Auditorium, including the main auditorium hall. Watch for further information and details.

It is not hard to keep from being annoyed by a howling dog if you own it.

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The Truax Field Planting Project

ALMOST outstanding piece of work conducted by Madison garden clubs is the planting of Truax Field, army radio school located northeast of Madison.

Madison clubs were approached last fall by officers in charge of Truax field, and were asked to help beautify the area. Mrs. Walter Dakin of Madison is chairman of the project, Mrs. George Harbort, Madison, is finance chairman, and Mrs. Martha Lowry, president of the Madison District has been active in the organization work.

Prof. G. William Longenecker and Mr. George Simmons of Madison donated their services as landscape architects. A study of the situation convinced the committee that a few focal points should be chosen to bring the greatest pleasure to the greatest number. Selected objectives were the entrances, the flag pole area, the main entrance to the hospital, the Service Club, the guest house, and the three chapels.

A large card party brought in the first funds, and a very successful party it was, bringing in several hundred dollars. Gifts from individuals and groups brought the total to $700. Nurseries donated more than 1,000 trees and 350 shrubs. A local nursery furnished material at wholesole. Men from Truax field did the digging and planting. Army trucks transported the material. A nursery was established, and plants brought there until they could be put in proper place.

Flower borders in red, white, and blue flank the walk leading to the flag pole. A low hedge encloses a bed of annuals in the national colors. This planting is in memory of "Bud" Truax, Madison's first air casualty, for whom the field is named.

Lindens and white oaks form large groups at each end of the area with elms in front of that section facing the plot. Incorporated in the plantings are groups of flowering crabs, prunus triloba, mock orange, and lilacs. The parking section in front of the hospital is enclosed with tall trees and masses of shrubbery. Foundation planting will mask the bare walls of the administration building and soften corners.

At the Service Club, trees, hedges and a foundation planting will serve an excellent purpose.

The Madison garden club women planted all the flower beds. There is a 50 foot rectangular informal flower border in front of the sun porch of each of the hospital wards.

This is but a beginning of what we can do at Truax field.

Mrs. Walter Dakin, Chairman War Service, Madison District.

WISCONSIN HAS MANY RADIO GARDEN PROGRAMS

MRS. Martha Malisch, Hales Corners, radio chairman for the Wisconsin Garden Club Federation, reports that the following stations are giving gardening programs:

KFIZ, Fond du Lac, Mrs. U. Ammell, Chairman.

WFHR, Wisconsin Rapids, Mrs. Don Waters, Chairman.

WLBL, Stevens Point, Mrs. Horace Coleman, Chairman.

WOSH, Oshkosh, Mrs. A. E. Steves, Chairman.

WHBI, Sheboygan, Mrs. W. H. Newman, Chairman.

WHA, Madison, Madison District.

This magazine will be glad to publish the radio programs *scheduled after* the time the magazine comes out which is about the middle of each month, excepting July. Copy should reach the office of the Horticultural Society, by the middle of the month preceding month of publication. We cannot publish reports of programs already given.

The July-August magazine will come out about August 1st.

PLANT TESTING GARDENS TO BE CONTINUED

Eight Gardeners Plant Varieties Selected by Committee

THE plant testing committee with Mr. E. L. White of Fort Atkinson as chairman, selected a new list of varieties for the plant testing gardens this year, and these varieties were provided for eight trial garden established in 1942. Mr. Dawson Hauser of Bayfield cooperated by furnishing the plants at a low price. The Wisconsin Horticultural Society pays 50% of the cost, the gardener paying the balance.

Varieties On Trial

The following varieties will be planted in the gardens this year:

6 Vinca Bowles
6 Campanula Carpatica White
12 Tigridia
6 Red Cushion Mums
6 #81 Mums
6 Phlox Subulata atropurpurea
6 Spirea Philipendula Hexapetalla

Location of Trial Gardens

The following gardeners are cooperating in this work:

Mrs. C. H. Brimmer, Lock Box 334, Wausau.

Mrs. Harry F. Howe, 302 W. Walworth St.. Elkhorn.

Joseph L. Morawetz, R. 4, West Bend.

Mrs. Nels Nelson, Hayward.

Mrs. Theo. J. Peterson, 319 Harrison St., Waupaca.

Mrs. E. C. Pfeifer, 3701 Kinzie Ave., Racine.

Mrs. Arthur Triller, Menomonee Falls.

E. L. White, Box 334, Fort Atkinson.

You can keep a woman guessing if you put your mind to it, but you can't keep her from usually guessing right.

Wrong Precinct — Citizen — "I wouldn't vote for you if you were St. Peter himself!"

Candidate—"My friend, if I were St. Peter, you couldn't vote for me —you wouldn't be in my district."

GET ACQUAINTED WITH BIRDS

THE brown thrasher — the long slender bird of bright rufous color heavily marked on the breast —is often called the brown thrush. However, the thrasher is not a thrush but of the same family as the catbird and mocking bird. All are excellent singers, especially the mocking bird and the thrasher. The thrasher and the catbird are common summer residents nesting not far from our homes. The mocking bird is very seldom seen in our state.

The members of the thrush family that we know, are the robin and the bluebird, both with red breasts. The young of both birds give definite indication of their relationship to the thrush family by their speckled breasts. Then there are the hermit thrush, the olive backed, the gray cheeked, the Wilson's, the wood thrushes. We know the hermit, the olive backed and the gray cheeked as migrants. The hermit is the first of the thrushes to arrive in the spring and is easily recognized by his bright brown tail.

The gray cheeked and olive backed are much alike in color and breast marks, but the gray cheeked has a plain cheek, the olive backed an eye ring, and a buffy wash on the face. The Wilson's thrush, also called Willow thrush or Veery, is a uniform bright brown with very few marks on the breast. It likes the low damp woodlands. The wood thrush has the bright brown head and heavily spotted breast. He likes the deciduous woodlands of the state.

It is easy to become acquainted with the brown thrasher and the catbird—not so the thrushes. But the time spent learning to tell them apart is more than worth while especially if we have the opportunity to learn their songs too.

—Elizabeth H. Schwendener, Bird Chairman

Following the line of least resistance is what makes rivers and men crooked.

THE FUTURE OF GARDEN CLUBS

"The immediate future of Garden Clubs in the United States is dependent upon your conclusions. This is a serious charge and I mean every word of it." These are the words of Mrs. Lewis M. Hull, National Program Chairman written in the November issue of the National Council Bulletin.

"The inventory of 1942 will show that many Garden Clubs, in their zeal to be of war service, have taken into their programs a diversity of projects which are nable in purpose, but which have little or nothing to do with the skills of gardening. These etend to dissipate the possibilities of our service to our communities as gardening organizations. No one would question the worth of these activities, but they should be done as individuals, or by committees organized for the purpose, and not as part of a Garden Club program. Scattering the objectives weakens an organization, and Garden Clubs are no exception. In bringing in outside activities you are more or less apt to defeat the very purpose for which your club was organized—GARDENING."

From Program Material Bulletin by Miss Katherine Melcher, State Program Chairman.

THE HIGH-BUSH CRANBERRY

THE high-bush cranberry is often found in landscape plantings where it is appreciated for its white flowers in June, and its clusters of glistening red fruits in the fall. All too few housewives are acquainted with the virtues of this fruit when made into jelly. Someone should tell them that the average masculine heart can be more completely stirred by the combination of roast duck and high-bush cranberry jelly than by any other known food. The bushes are tall enough for a background planting.

W. H. Alderman, in April, 1943 The Minnesota Horticulturist.

PROGRESS

"I am Brave Eagle," said the Red Indian chieftain, introducing himself to the paleface visitor. "This is my son, Fighting Bird."

"And here," he added, "is my grandson, Four-Engined Bomber."

RADIO GARDEN PROGRAM FOX RIVER VALLEY DISTRICT

Fond du Lac Station KFIZ, 1450 K.C.

Last Friday of Each Month at 11:15 a. m.

COMING PROGRAMS

June 25. Topic to be announced. Mrs. Allmen J. Hammen, Ripon Home Garden Club.

July 30. Amateur Gardening. Miss Bertha L. Bock, Fond du Lac.

August 27. A Conservation Project of Our Club. Miss Maud Russell, Ripon Yard and Garden Club.

By Mrs. U. F. Ammell, Fond lu Lac, Fox River Valley Radio Chairman.

RADIO PROGRAMS GARDENING FOR VICTORY

Milwaukee County Victory Garden Committee Series

WTMJ Saturdays, 3:15 p. m.

July 10. Late Seeding. Mr. Charles Newmeister.

July 24. Keeping the Garden Trim. Compost heap. Mr. R. Greiten.

August 7. Canning and Preserving. Miss Nellie McCannon.

August 21. Harvesting and Storage of Vegetables. Prof. O. B. Combs, Madison.

September 4. Preparing the Soil for the Winter. Mr. Kermit Berger.

RADIO PROGRAMS OF THE WISCONSIN GARDEN CLUB FEDERATION

WTMJ Saturdays, 3:15 p. m.

July 3. Taking Care of the Garden in Hot Weather. Mrs. Harold Peterson.

July 17. Plants to Be Potted for the Indoor Winter Garden. Mrs. O. Reuss.

July 31. Using Vegetables in Arrangements. Mrs. Roy Sewell.

August 14. The Victory Garden Harvest Show. Mrs. Chester Thomas.

August 28. A Talk by the President of the Wisconsin Garden Club Federation, Mrs. H. S. Bostock, Madison.

Victory Gardens and Garden Clubs

Mrs. C. W. Avery, Nat'l Conservation Chm.

NOW what can our Garden Clubs do to help in the Victory Garden Program?

I hear it intimated in the realm of gardeners, outside our Garden Clubs, that we haven't done much, at least not as much as should be expected.

The intimation is—here is a National crisis calling for gardens, here are the Garden Clubs. The natural inference is that we should be in the forefront, leading the way.

Instead, Garden Clubs mostly are in the vanguard, trying to keep in sight of their leaders and impatient that their leaders are not giving them orders. "Here we are," they say, "ready to do something—if we just knew what to do. We want to fit ourselves into the war program, but we don't know how to do it."

Shall We Disband?

Some Garden Clubs even talk of disbanding for the duration. If we call ourselves gardeners, and if food will win the war and write the peace, why then, in heaven's name, should we disband or why should we ask for leadership?

Each Garden Club should, at least, be a power in its own community for a Victory Garden Program. We are the leaders by virtue of training. One speaker at the Institute in New York, called us "Nurses for the novices."

Service

Our experience should be at the service of non-garden club members wherever possible.

To be sure, we have been more interested in roses than in carrots, but these are times when we go back to the fundamentals of life.

Programs

Garden Clubs have been in existence for fifty years, and they are beginning to suffer from dry-rot at the core. We have about worn out our material at hand. We go over the same old story year after year, and don't go ahead, or go anywhere.

We listen to speakers on spring bulbs, annuals, perennials, rock gardens, flower arrangement, and on and on through nine to twelve months, till we end with "Putting the Garden to Sleep" in November.

Do Something Useful

So, Garden Club members, put on your overalls and plant a Victory Garden, and as you work in the sun and in the rain, keep this thought uppermost in your mind, "I am doing something useful. I am helping to win a war. I am joining myself, by this effort, with all the forces operating over the whole earth to put down greed and oppression."

When the war is over, and peace times come, our Victory Gardeners will have learned the lessons we so sorely needed. We will demand that our organizations stand or fall by the criterion of their usefulness.

It is a time of cosmic change, a new world order will soon be upon us. Will our Garden Clubs survive?

Those who have planted and harvested to survive will hold the key to the new order.

Condensed from April-May 1943 Bulletin National Council of State Garden Clubs, Incorporated.

NO MAGAZINE IN JULY

AS has been our custom for several years, there will be no July issue of Wisconsin Horticulture. The July-August issues are combined and will appear about August 1st. Copy for the next issue should reach us by July 5th.

WHY WORRY?

Captain: "All hands on deck. The ship is leaking."

Voice from forecastle: "Aw, put a pan under it and go back to bed."

—Pelican.

VICTORY HARVEST SHOWS TO BE HELD

Shows Will Be Modernized To Meet Needs of the Times

ANNOUNCEMENT of the Milwaukee County Victory Harvest Show to be held in the large Milwaukee Auditorium on August 27-29 is an indication of what is to come in the fall.

Several garden clubs have announced that they will sponsor Victory Harvest Shows. In Sheboygan one will be held in connection with the State Gladiolus Show. Such shows held throughout the state in many communities will have real educational value and will increase interest in growing vegetables which may be badly needed next year.

Produce, Save, and Share

Following the lead of the junior exposition of the Wisconsin State Fair, whose theme is "Youth Produces, Saves, and Shares For Victory," we suggest that all Victory Harvest shows adopt a similar theme. A slogan such as "Gardeners Produce, Save, and Share for Victory," would be in line with the times.

We note too that the premium schedule at the State Fair has been entirely reorganized to be in keeping with the times. Non-competitive displays and activities will be the order of the day. Victory garden shows should adopt the policy of exhibiting along the same lines, emphasizing demonstrations on production, saving, and sharing food for Victory. In many cases, judging by the merit system will have real value. Information on this system may be obtained by writing the Wisconsin Horticultural Society.

At shows we suggest demonstrations on garden planning and food saving. Make the shows educational. It will be a lot of work, but here is a real challenge for us to help the war effort.

Modern Trend in Flower Arrangement

Emma C. Schipper

ALTHOUGH flower arrangement with us in America is of rather recent origin, enough time has elapsed for us to have gained a perspective.

The Massed Bouquet

Our early ideal, we all know, was the massed bouquet. We gathered a lot of flowers, tied them together and stuck them into a container. Flower holders were unheard of, at least outside the trade, and if the bouquet needed propping green cuttings were tucked into the container. According to my own recollection the glass block was the first flower holder to appear upon the scene. This was back in the days of the cut glass era when the popular centerpiece consisted of a cut glass bowl on a mirror reflector.

It was not until the early '20's that we first became interested enough to want some rules or standards upon which to base the judging of floral compositions. Inasmuch as we had no Western school of flower arrangement it was inevitable that we come under the influence of Oriental flower arrangement. This influence with us marks the beginning of linear arrangements and also the beginning of the conscious application of principles to flower arrangement. The standard of proportion, that is, the flowers one and one-half times the height or width of the container was adopted and it became, until a few years ago, a hard and fast rule. Flower show schedules began calling for three line, five line and seven line flower arrangements. "The maximum effect with the minimum of material" was the ideal of that time. New types of flower arranging gadgets began to appear on the market which facilitated this kind of an arrangement; the most popular one being made of strips of sheet lead.

Buxom Bouquets

It was during the '30's that Mrs. Constance Spry, well known floral artist of London, England, visited this country to introduce her particular type of flower arrangement, which has been adequately described as "buxom" and multiferous." No inhibitions about quantity were expressed in these arrangements — mass was the dominating element! Novelty combinations of material and color were Mrs. Spry's special forte. These were enthusiastically received everywhere and are believed to have been influential in creating a revival of the massed bouquet, which from then on began to evolve into a "massed arrangement." Chicken wire mesh was the favorite flower holder used by Mrs. Spry. Other popular flower holders for massed arrangements are the bird cage type and the hair pin holders.

Design in Arrangement

Another influence to make itself felt was that exercised by John Taylor Arms, noted etcher who popularized the meaning of "design" in flower arrangement. It implies that we have a definite premeditated plan or idea of what we wish to do and then proceed to carry it out according to certain basic fundamental principles which underlie not only flower arrangement but everything we do. Since the words "design" and "composition" are synonymous, Mr. Arms' influence undoubtedly marks the beginning of composition in flower arrangement, inasmuch as we now understand, and are quite consciously working or composing with the basic elements of design or composition, which are: line, mass or form, and color. There can be nothing haphazard about a modern arrangement since all ingredients are very carefully selected and put together, thus eliminating the element of chance. The needle point holder is probably the most popular one for modern arrangements.

From a resume of the above it will be seen that we have today three distinct classifications in flower arrangement. Namely: Line, in which the emphasis is on rhythm of line; massed, in which the emphasis is on form and color; and composite (combination of line and mass), in which the focal point is accented or emphasized by form or color.

In planning your arrangement decide on one of these types and then proceed to "follow through," so as not to confuse it with any other type.

Emma C. Schipper.

EARLY FLOWER SHOW ATTRACTS

THE Baraboo Garden Club held a very successful spring flower show on May 20-21. Due to the late spring season, one wonders how flowers could be obtained for such an early show. When the show opened, however, the hall was filled with beautiful arrangements which attracted a great many people.

A number of persons interested in flower shows maintain that a larger attendance can be expected at an early show than at a later one, because people are more interested in seeing flowers early in the season.

It is not work that kills men, it is worry.

The longer you live, if you live right, the less you think of yourself.

Determination reduces hard work to nothing; procrastination makes hard work out of nothing.

To keep watching, to keep working, to let the brain and head go together—that is the secret of success.

SISSON'S

JUNE is the month for peonies

Rosendale, the Peony Town, invites you.
Please write us for the best date.

SISSON'S

ROSENDALE. WIS.

Hi-ways 23-26 intersection

The Dionne QUINS use our Estey organs exclusively

SMALL SIZE ORGAN
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We have advertised in Wisconsin Horticulture since 1928

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CHEMICAL TO KILL POISON IVY AGAIN AVAILABLE

New Weed Killer Very Effective

THERE is good news for those who wish to kill poison ivy. For a time it looked as if the war would prohibit the manufacture of ammonium sulfamate which has been found very effective in killing poison ivy and other weeds. We have been informed that it is again available and is sold by dealers under the name DuPont Weed Killer.

This weed killer leaves no residue dangerous to livestock. There is no danger of fire. It is clean and odorless and dissolves easily in water. It has no permanent sterilizing effect on the soil. It, of course, will not only kill weeds but other plants as well, so care must be used in spraying.

Reports of last year's tests indicated that if ammonium sulfamate is sprayed on the leaves of poison ivy, the entire plant is killed. This is good for orchardists, gardeners, and beekeepers who have trouble with this plant.

Fig. 1 Fig. 2 Fig. 3

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

ESTABLISHED 1910

Entered at the postoffice at Madison, Wisconsin, as second-class matter. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1918.

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
Madison 6, Wisconsin
Madison, Wisconsin

H. J. RAHMLOW, *Editor*
Secretary Wisconsin State Horticultural Society

Office: Old Entomology Bldg., College of Agriculture
Tel. University 182

Volume XXXIII July-August, 1943 No. 11-12

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PLEASE DO NOT SEND STAMPS

The Wisconsin Apple Crop

Growers Report Shorter Crop Than Last Year

WISCONSIN apple growers report a crop in prospect which in some areas will be as large or larger than last year, and in other sections smaller. Especially noticeable is the good crop in prospect on many small farm orchards.

Prospects at Bayfield are the best in the state. Both Olaf Selfors and Dawson Hauser of Bayfield report 150 to 200% above last year, with a very good crop of McIntosh, as well as other varieties. Scab control has been good.

Prospects in Door County are not so good. D. E. Bingham and Don W. Reynolds report that the McIntosh crop will be 25 to 30% of last year, and the prospects for all varieties about 30 to 50% of last year. There will be few Delicious, but Northwestern Greening and Dudley may be good. Scab control has been good in Door County and according to Mr. Bingham, not so difficult to control this year. There has been a little hail injury in spots.

At Green Bay C. J. Telfer reports a crop larger than last year with McIntosh about the same. Wealthy, 100% increase, and a larger crop of Greenings, Transparents and Dudley. Very little scab except on leaves.

A. K. Bassett of Baraboo reports a total crop the same as last year, with a small McIntosh crop, but a big crop of Wealthy and Tolman Sweets. Delicious very poor, but early apples good. Not much scab.

Swartz Orchards, Waukesha, report 10% increase over last year, with McIntosh about the same. No scab except on McIntosh. On most varieties the crop looks promising.

Elroy O. Honadel, Milwaukee, reports a total crop 40% larger than last year, including McIntosh. Scab not difficult to control, and the apples are clean.

Nieman Bros., Cedarburg, report a crop the same as last year, with McIntosh the same. Scab has been easy to control. Orchards close to buildings they say have a good set, but commercial orchards away from buildings have a very light set.

Jos. L. Morawetz of West Bend reports a crop 10% less than last year, but McIntosh about the same, with Cortland 20% more. Scab well controlled throughout the county.

From Western Wisconsin

Ellery Teach of Sunrise Orchards, Gays Mills, reports a crop as large as last year, with McIntosh the same. A larger crop of Dudley and a full crop of McIntosh. There is no scab on the fruit, but plenty on foliage and danger of McIntosh becoming infected.

Wm. F. Connell of Menomonie reports a crop 25% larger than last year, with McIntosh 75%. He has a very large crop of Duchess and Wealthy. Much rain made scab difficult to control.

Ralph A. Irwin of Lancaster reports a 60% crop, with a 40% McIntosh crop. Wealthy, however, are heavily loaded. More scab than usual in this section.

Carroll P. Krippner, Fort Atkinson, reports neglected orchards have no crop, but good orchards have from 25% less to 25% more than last year. The McIntosh will be about 60% of last year, with a full crop of Cortland. Very little scab so far in that section.

Forrest B. Kelsey of Delavan reports a 30% crop, with McIntosh 5% of last year. Practically no Snows, but a good crop of McIntosh. Not much scab. Blight has been bad.

Charles Patterson of Racine County reports a 30% crop, with a 10% crop of McIntosh. Wealthy, however, are heavily loaded. Scab has been well controlled. Very few cherries.

Arno Meyer of Waldo reports as many apples as last year, but last year was a poor year. McIntosh are 30% of normal. There is a heavy crop of Snows however. Well sprayed orchards are free from scab.

Eugene Wood of Peshtigo reports a crop 110% of last year, with McIntosh 250%. A good crop of Wealthy and Duchess is expected. Scab was hard to control. There was a heavy drop in early July, and much fire blight.

H. A. Dvorak of Casco reports prospects for another fine crop of both cherries and apples. The orchard looks fine and healthy.

J. C. Schubert of Gays Mills reports a crop 20% less than last year, with McIntosh 10% less. Wealthy will be good, averaging about the same as last year; Dudley about 10% less. There is plenty of scab where not properly sprayed.

Early apples will be 10 days later than in 1942.

Mother was telling stories of the time she was a little girl. Little Harold listened thoughtfully as she told of riding a pony, sliding down the haystack and wading in the brook on the farm.

Finally he said with a sigh, "I wish I had met you earlier, mother."

Tests of the Harvest Spray

Many Growers Satisfied With Results

C. L. Kuehner

IN the past three years a number of Wisconsin apple growers tested some six or seven different brands of Harvest spray materials with varying degrees of success. Most of the testing was carried out with Wealthy and McIntosh, some with Snow, Golden Delicious and Jonathan.

Reports from these growers indicate that the results are not so much dependent on the brand of hormone spray used as upon the factors of timeliness and thoroughness of application, and repeated application within 8 to 10 days in the case of McIntosh.

It was interesting to observe that practically every grower who used the spray in 1940-1941 used it again in 1942. Apparently the practice looks hopeful to these growers and they are anxious to learn more about its proper use and its full value when properly used. The following letters are typical of the reports sent to us by those who tried the harvest sprays:

Reports From Growers

From Ozaukee County, December 2, 1942. "I used three different brands of hormone sprays on Wealthy and McIntosh. All seemed satisfactory to me. The drop was very little compared to my severe losses in previous years. As stated in letter, I won't be without it again. Very pronounced on the Wealthy especially."

From Kenosha County, Dec. 4, 1942. "With all the rain and wind we had this fall, it would be next to impossible to draw any accurate conclusions. I do believe on Wealthy considerable benefit was obtained. On McIntosh results were much more evident on some trees than on others. I think possibly if weather conditions had permitted a little earlier application results on McIntosh would have been more outstanding. On the whole, I believe results from the harvest spray are encouraging, but are much overdrawn in the horticultural press generally. Considerable work and study still remain to be done before unqualified endorsement should be given."

Conclusions

From these reports and close observations in other orchards I believe we can draw the following conclusions:

(1) Hormone on harvest sprays are new in the experience of apple growers and need to be studied more fully before the best results can be obtained on the different varieties under varying conditions of weather and trees.

(2) Growers are anxious to adopt the practice if it will result in delay of the fruit drop and give promise for some increase in size and color.

(3) Different varieties need different treatment. McIntosh apparently requires more frequent sprayings than Wealthy. McIntosh seems to need sprays at 8 to 10 day intervals, while on Wealthy an application appears to be effective for about two weeks.

(4) Effective results depend largely upon the timeliness of application and absolute thoroughness of spray coverage, particularly of the stems of the fruits. The spray can be applied too early as well as too late. It can probably be said that the application is too late when many of the fruits are already dropping. The right time seems to be when only an occasional sound, hard ripe fruit is dropping. This will vary with the seasons, the weather and the orchards as well as the varieties.

(5) It is a mistake to hold the fruit on the tree until overripe as is sometimes done by repeated applications of the spray.

(6) From tests conducted by Dr. Roberts last fall, apples can be held on the trees even after a freeze such as we had last September 25-27, if the hormone spray is applied immediately after the freeze.

COMMENTS ON APPLE PRICE CEILINGS BY NATIONAL APPLE INSTITUTE

WE have stated at all the OPA hearings that we are opposed to price ceilings. This feeling is based on human repugnance to regimentation, on fear, after seeing what has happened to some vegetable industries under ceilings, and on the honest belief that natural forces will control prices on any normal crop better than any imposed ceiling can.

However, the apple industry can not view with equanimity the possibility of an extremely short apple crop, when idle money jingles in the hands of consumers, without any means of checking unwarranted and exhorbitant prices. We know such a situation would fan the flames of inflation, would brand us as profiteers and would definitely impair the reputation of our industry of which we are justly proud, particularly if we had been instrumental in defeating a reasonable ceiling proposition. Perhaps it is just as well for all of us that the OPA officials state that they are "directed" to place ceilings on all foods. That simple statement clears the air and leaves us free to turn our attention to working out with the OPA officials the best possible plan.

Condensed from Bulletin No. 108, National Apple Institute.

Factors Which Make for Success in Orcharding

Every orchardist should read Circular Bulletin 181 by H. P. Gaston of the Agricultural Experiment Station at East Lansing, Michigan. This publication is entitled "Factors Which Make for Success in Orcharding."

The author found that ultimate success, to a considerable extent, depended on horticultural information, and that many essential orchard operations can be effectively directed or performed only by growers who are well informed. The men in the Successful Group seldom missed a horticultural meeting held in their vicinity, and they took pains to read the latest publications pertaining to their work. All the men in this group were characterized by the ability to recognize needs for ney methods and devices and act accordingly. Most of them had been born and raised on either fruit-type farms or farms where at least some fruit was produced, showing that fruit growing is a business that cannot be learned quickly.

Growers who consistently received high prices were careful to study crop estimates, check market quotations from day to day, and keep in touch with important producers and buyers. They almost invariably were aware of what they had invested in their crops and what they must receive to make a profit. Before talking with buyers, they usually decided on a minimum price—thentried to get more.

From March Minnesota Fruit Grower.

WHAT ABOUT THE LOWER GRADES OF FRUIT?

"SELL only good quality fruit" has been the trend of advice to orchardists for years. The object of course is to stress the necessity of producing higher quality fruits, which is sound advice. We find now that the only profit to a commercial orchardist is in the No. 1 fruit he produces. If his percentage of No. 1 runs high, and the price is good he makes money. Otherwise he does not.

It would seem that now more attention should be paid to making a little profit off of the lower grades. It's not an easy problem either. The price that can be paid for apples for cider or apple juice is very low. Perhaps the price can be increased if the demand for the product can be increased.

Dehydrating and processing plants may be another answer. In Wisconsin this year the small orchardist will no doubt be able to sell practically all his fruit of utility grades right at the orchard, but the problem is not so easy for the large commercial grower who must ship most of his products.

FOR SALE

For sale, apple orchard of approximately 700 trees, 20 acres, house, barn, drilled well equipment ¼ mile north of Bayfield, Wisconsin, on State Highway No. 13. Cash $2,500. E. G. Gilbertson, 608 Summer Street, Eau Claire, Wisconsin.

"Dad intimated that your playing was heavenly."

"He did?"

"Yes; he said, 'Where do those unearthly sounds come from?'"

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National Apple Institute Highlights

ON June 21 the National Apple Institute sent out its estimate for the 1943 apple crop. It is 26% less than in 1942. The northeastern states reported McIntosh somewhat lighter than last year, while the central states reported good prospects for Golden Delicious. Other varieties showed a decided decline, but early varieties better than winter varieties.

In the northwestern states the principal reason for indicated reductions is due to a 50% deduction in the Delicious crop.

Containers

The Institute says there are 30 million used orange crates floating around the country. These can be converted to apple crates quickly and easily by simply cutting down the length.

Machinery: The WPB says that a new order allowed an increase in production of spray machines and equipment to 63% of the 1940 to 1941 production, whichever was greater.

Industry Clamors for Apple Syrup

Dr. H. H. Mottern, USDA Eastern Regional Research Laboratory, reporting on new uses for the apple syrup developed at the Philadelphia Laboratory, said that the cigarette industry alone would require 20 million lbs. of apple syrup although less than 3 million pounds were produced last year. This product, sweeter than sugar and as good a humidicant as glycerine is being used in making leather, cellophane, rope, cork and toothpaste; in addition to its many good uses, the most important of which are jellies and jams. Ice cream, soft drinks, table syrup, doughnut mix, bread and pastry are beginning to use apple syrup. Many of these uses are war babies, but Dr. Mottern hoped to find some that will stick after the war.

No Need to Load Your Transparents More Than Four Tiers High

Mr. J. L. Pease, Transportation and Warehousing Branch, WFA, reported on the permit recently issued by ODT changing the minimum car loading requirements for summer varieties of apples in baskets from 31,500 lbs. to four tiers, which approximates the old 24,000 lbs. minimum, until Sept. 15, 1943.

Land Army of 12,000 Lacks Gasoline

President Reuben Benz of the Apple Institute told how the Food for Victory Farm Labor Committee, of which he is Chairman, in a house to house canvass in the Yakima Valley signed up 12,000 housewives, business and professional men and women, and young people as volunteers to harvest the crops in the district. However, the first time they were called on to serve in the field a part of this great army, because of difficulty in their securing issuance of emergency gasoline supplies became immobilized. National Apple Institute will ask reconsideration by the OPA.

38,000 War Prisoners in the United States — More Coming Up

Lieutenant Colonel W. R. Buie, WFA, outlined the plans contemplated for making prisoners of war available to work on farms. He said that War Prisoners Camps will be established in various parts of the country. Camp Commandants may release prisoners for farm work by the day within a radius of 50 miles, in units of not less than 15 men with guards. Growers should apply for this type of help through their County Extension Service, both for the establishment of camps and for prisoners of war for farm work. At present, he said there are 38,000 war prisoners quartered in some 20 camps in the United States.

Success of Harvest Labor Program Rests With Growers

President Benz in closing the labor discussion reminded the growers that they would be dealing with people, many of whom will have had no farm experience, but yet have a patriotic urge to help in the emergency. He asked that growers everywhere maintain an attitude of consideration toward those workers, that they arrange for adequate transportation, that they give sympathetic supervision and patient instruction not usually extended to transient workers, and that they provide the amenities of life, such as clean drinking water and cups and sanitary toilet facilities.

APPLE MAGGOT FLIES APPEAR

Minnesota Finds First Flies on July 15th

A letter from Prof. A. C. Hodson of the Minnesota College of Agriculture states that the first apple maggot flies in the Minnetonka district appeared on Thursday, July 15th. He advised spraying not later than July 22. He is recommending 3 pounds of lead arsenate, spray lime 1 pound, wettable sulphur 4 pounds, and water to make 100 gallons.

All trees in the orchards should be sprayed regardless of whether or not they bear fruit. The sulphur is included to prevent late apple scab which develops further on apples in storage.

Home orchardists, he says, can supplement spraying by trapping flies in bait pails. Use one teaspoon of household ammonia and a pinch of granulated soap to a quart of water. Add one teaspoon of ammonia every week and keep the bait pails filled to within one inch of the top with water. It might pay to do it yet.

Apple Syrup Will Help Fruit Growers

THE National Apple Institute since its inception has been advocating research to develop by-products of apples both as food and for industrial uses.

The Eastern Regional Research Laboratory of the United States Department of Agriculture at Philadelphia, Penna., which was designated to work on apples, among other agricultural products has recently developed Apple Syrup. This interesting new by-product is today replacing glycerine as a humectant in cigarette tobacco.

Apple syrup is made from fresh apple juice. If its popularity and extensive use, which has been greatly stimulated by the shortage of glycerine and sugar, continues after the war, the cider apple has a good chance of being permanently elevated from its present lowly station.

The process for making apple syrup developed by the Philadelphia research laboratory begins with the usual method of making cider. Off-grade apples are washed, ground and pressed. The fresh sweet juice is treated with lime and heated to precipitate the pectin. It is then filtered, and treated with acid to lighten the color and eliminate any alkaline flavor. The filtered juice is then concentrated under a vacuum to a syrup of 75 per cent soluble solids. The resultant product is a clear amber-colored syrup one-third sweeter than a cane sugar syrup of the same density, but otherwise tasteless.

One hundred pounds of apples make approximately a gallon of syrup weighing about 11½ pounds. For several months during this past season the OPA ceiling price on apple syrup was 16 cents a pound, equivalent to $1.84 a gallon. This ceiling was removed during the latter part of the season when apples for juice became scarce and higher in price, to permit further manufacture of this product so badly needed by the tobacco industry, and since then the price has not materially increased. It is estimated that at 16 cents a pound for syrup, the manufacturer can pay 60 cents or higher a hundred pounds for apples. As the price of apples and labor advance a higher relative price must be obtained for syrup.

Although cigarette manufacturers, deprived of glycerine, have given apple syrup its big war time boom, many food uses are appearing which can take advantage of the sweetening and moistening qualities of apple syrup. For instance, it is ideal as a base for fruit syrup for soft drinks and is a good sweetening agent for ice cream, adding body to a product which is now handicapped by the shortage of cream. Being very sweet, apple syrup is excellent for blending with maple syrup and is also in demand by the pharmaceutical industry in the manufacture of medicinal syrups and other products such as toothpaste.

In the field of industry the manufacturers of leather, cellophane, paper, textiles, rope, and cork, are all interested in this new product. Probably there are many other possibilities which have not yet come to light.

We realize that the rapid expansion of apple syrup is caused by war shortages. Nevertheless we believe that out of the many new uses developed under the stimulus of war, some will be found which will be permanent, adding even more uses to the most adaptable fruit grown.

John Chandler, Executive Secretary, National Apple Institute.

HONEYED FRUIT STRIPS

Orange peel, water, salt, honey.

Remove peel from 3 oranges; cut peel in strips. Cover with water to which 1 teaspoon of salt has been added. Boil 30 minutes; drain; cover with fresh water; boil until peel is tender. Drain. Add honey enough to cover, from ¾ to 1 cup. Let *simmer very slowly* until peel is clear (about 45 minutes). Lay on waxed paper and let stand 2 or 3 days before using.

Variations: Grapefruit peel and lemon peel may be similarly prepared. Fruit strips may be rolled in cocoanut, nuts and used as a confection.

Peel may be coated with confectioners' chocolate.

Peel may be chopped and used in cookies, nut bread, muffin mixtures.

SOLDIERS MAY HELP HARVEST APPLES NEAR ARMY POSTS

ARMY Regulations Relative to Soldiers for Emergency Harvest Labor:

Brigadier General H. B. Lewis, Acting the Adjutant General in a recent letter to Senator Walsh said:

"Commanding officers of all posts, camps, stations, divisions, and lower separate units have recently been authorized to permit soldiers to engage in farm work in nearby communities during normal off-duty periods or to grant passes for this purpose, not to exceed three days on any one occasion, if in the opinion of the commander concerned, an emergecy exists in a nearby farm community due to shortage of available farm labor.

"This service is contingent upon the fact that the soldier concerned desires permission or a pass; such action will not interfere with the customary employment and regular engagement in farm work of local civilians; will not interfere seriously with training, and no expense to the Government will be involved.

"Farmers or farm organizations in need of emergency aid in harvesting crops should contact the commanding officer of the nearest military establishment."

John Chandler, Executive Secretary, National Apple Institute.

EXPERIMENT ON VALUE OF FILLER TREES IN ORCHARD

HANDLING of filler trees is discussed in Bulletin 474, June 1942, published by Purdue Agricultural Experiment Station, Lafayette, Indiana. Some of the conclusions of experimental findings were, briefly: In the blocks of Grimes and Delicious trees (set 20x20 ft. and semi-fillers removed after 17th season leaving trees 28.5 ft. apart) the permanent and semi-permanent trees outyielded the filler trees due to restrictive (heavy) pruning of the fillers. The spaced trees (28.5 ft. apart) outyielded the permanent and semi-permanent trees in the same relative positions in the thickly-planted parts of the plots, showing the depressing effects upon these trees from crowding. Measurements of trunks, new growth, and foliage condition were in favor of spaced trees, and there was much weak wood in the lower parts of the crowded trees.

Better Fruit On Spaced Trees

Color and finish of fruit were better in the less crowded plots. Spraying was more difficult and control of pests not as effective in the crowded plots. Heavy restrictive pruning of filler trees caused abnormally large fruits in both varieties, which were subject to bitter-pit, and were undesirable for market. In dry weather the crowded trees lost leaves and fruit while the spaced trees came through without such losses.

The lower yield of the permanent and semi-permanent trees continued after removal of fillers at the end of 17 seasons, showing detrimental effects of crowded conditions.

From Maryland Fruit Growers' News-Letter, June, 1943.

"Papa," asked Willie, "what is middle age?"

"It's the time of your life, son," he replied, "when you would rather not have a good time than recover from it."

THE PROBLEM OF FRUIT POLLINATION

OBSERVATIONS in Wisconsin orchards has led fruit extension specialist C. L. Kuehner to remark that trees in the small farm orchards definitely have a better set of fruit this year than in the large commercial orchards.

There may be a number of factors contributing to this and the observation is an important one. It may be that the small farm orchard contains more varieties, making cross pollinization easier. The percentage of bee population to the number of trees in the small farm orchard it much greater than in the large orchard. Even though there are only a few hours when the weather is just right for pollination, the small orchard may be visited by enough bees to do the job. This, however, may not be true in the large orchard unless large numbers of bees are introduced.

It is in rainy seasons like this that the problem is a serious one.

At any rate, it will pay the orchard man to encourage beekeepers to locate nearby and cooperate by not spraying in such a way that bees will be killed. We know for a fact that many beekeepers have moved away from orchards during past years because they lost too many bees from spray poisoning.

FORECASTING FRUIT RIPENING

GAUGING the time to pick fruit by the number of days elapsed between full bloom and maturity rather than by calendar date, as is frequently done, is recommended by Dr. H. B. Tukey, horticulturist at the state experiment station at Geneva, N. Y., as being far more reliable and enabling the fruit grower to plan orchard operations more efficiently.

Based on a study of 61 varieties of apples, 15 varieties of pears, 46 varieties of cherries, and 14 varieties of peaches growing on the station grounds over a period of years, Dr. Tukey finds that each variety has a remarkably constant interval in days between full bloom in the spring and full maturity in the summer or fall.

One noticeable exception among the dwarf evergreen kinds is Waight's Brilliant, a splendid long-blooming plant which is brilliant without being obtrusive. It commences in April and keeps on until August, with a return engagement in the autumn. The orange-scarlet flowers on six-inch stems are a pleasing shade and give little trouble in color schemes. In a section where Lady Stratheden and Mrs. Bradshaw are quite useless, *Fire Opal* has given the most satisfaction so far, possessing both hardiness and an attractive orange-scarlet color that carries a suggestion of bronze.

—From *Horticulture.*

NEW BELT FOR PICKING POTATOES

IN NEBRASKA, Idaho and California many growers furnish pickers with a canvas belt which eliminates the need for baskets, pails or crates. A bag is suspended from two leather straps and dragged along between the legs of the picker as he straddles the row. This allows use of both hands and makes for rapid work. About a bushel is picked into each bag, after which the bag is unsnapped, set upright and replaced with an empty one which is carried rear of the belt. Users of this belt claim that less bruising results than where baskets or crates are used. It may not be adapted where the ground is stony or where bags are scarce. This method is practically unknown in the East and should be introduced for trial.

—*Market Growers Journal, September.*

1943 SPRAY RINGS

C. L. Kuehner

AN unusual number of new spray rings were organized this spring. Farm folks realize that the farm orchard is of no value unless it is properly protected from disease and insects. High retail prices of shipped-in apples as well as rationing of canned fruits, did its share in stimulating interest and initiative toward home production of the family's fruit needs. According to reports from county agents, many more spray rings could have been organized this spring if spray machines had been available. It is hoped that it will be possible to obtain more sprayers next spring. The outlook is for increased production of power spray outfits.

New Rings Organized This Year

County	No. of New Rings		Farms Involved
Calumet	1		13
Dane	1		16
Columbia	2		22
Dunn	1		22
Eau Claire	1		—
Fond du Lac	2		39
Green Lake	1	commercial	39
Juneau	1		27
Lincoln	1		3
Marinette	1		12
Oconto	2		31
Shawano	3		48
Washington	1	commercial	22
13 counties	18 rings		293 orchards

Probably there are other groups that were organized this spring which have not yet been reported to us. We may have the complete list by fall.

WISCONSIN'S APPLE CROP

C. L. Kuehner

ON the whole, farm orchards carry a better set of fruit this year than is the case in most commercial orchards. In commercial orchards it appears that old high trees have a better set than the younger trees. On the whole, the unfavorable weather conditions of little sunlight, much rain and fog, and low temperatures had much to do with the poor set.

It appears that the farm orchards being sheltered by high shade trees and buildings allowed for favorable, though short, periods of insect activity when the sun came through for a short time. This, together with the complete mixture of varieties in the farm orchards as against variety blocks in the large orchards, probably helped considerably in more effective cross pollination. It is of course possible and entirely probable that other factors also played a role in the 1943 fruit set.

APPLE ICE CREAM

Apple ice cream is a recent addition to the list of delectable apple products. O. C. Roberts submits this recipe which he recommends:

8 qts. 20% cream, 24 whole eggs, 3½ lbs. granulated sugar, 1 teaspoon salt, 5 lbs. whole apples. Mix all ingredients except apples and cook in a double boiler or steamer until they just barely reach a boil, then cool. Slice the unpeeled and uncored apples and cook in as little water as possible until they are soft enough to run through a sieve. After this allow to cool and add pulp and juices to the cream mixture. Pour into freezer. This mix will make approximately 5 gallons of apple ice cream. — From News Letter of the Illinois State Horticultural Society.

Do you know that—

In the fifteen days that Maj. Gen. James Doolittle and his 12th Air Force command fought in the skies above Tunisia, their planes used up enough gasoline to empty every tank in every city and village in every state in the Northeast coastal shortage area; and to keep them empty for more than a month?

How to Assure a
BIGGER
BETTER
APPLE CROP

Use Niagara Stik

To prevent premature apple drop, and benefit by the following results:

Better Color.
Better Quality.
Better Flavor.
Better price and more profits.
Permits an orderly harvest period.

NIAGARA SPRAYER & CHEMICAL CO., INC.
Middleport, New York

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Sales Representative
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GARDEN AND ORCHARD SUPPLIES

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- Sprayers—Dusters
- Pruning Tools
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Write for Price Lists

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MADISON

In The Berry Patch

DON'T ALLOW STRAWBERRY PLANTS TO BECOME TOO CROWDED

DURING August it is well to watch the new strawberry runners to see that plants do not set too closely together. At each hoeing the runners should be placed out between the rows of plants spaced at least 9 inches apart, and a little dirt thrown on the runners to hold them in place and enable them to set roots better.

A number of experiment stations report that it pays dividends to thin excessive runner plants. That if plants are closer than 6 inches they will be so crowded as to produce small berries and the yield will be greatly reduced.

Of course the problem is to thin the excessive runner plants cheaply enough to make it practical. One experiment station rcommends the use of a rake to rake the runner plants out into the middle, there to be cut off with a hoe or some other implement.

Of course whether or not we should cut off any of the runners will depend entirely upon the growing season. With many varieties such as Premier, not enough runners are formed, especially if the season happens to be dry. With varieties like Senator Dunlap and Beaver, if plants have been set fairly close together, thinning runners may be a good practice.

At any rate, it is not unusual to see patches in which the yield has been definitely reduced and the berries are quite small because of the crowded condition of the plants.

It takes a long time to get acquainted but only a minute to fall in love, and the tragedy of many is that they fell in love before they got acquainted.

SUMMER CARE OF STRAWBERRIES

By Arnold Ulrich, Rochester, Minn.

THE success you will have depends to a great extent on how well you care for your planting. We cultivate once a week, or after every rain if it rains before the week has elapsed. We always go twice in the row with the cultivator. In this way you can get much closer to the plants, do a better job, and save hours of hand hoeing by going up one side of the row and down the other. We hoe whenever necessary. It is a good plan, especially on the first hoeing, to loosen the ground around the plants. When hoeing, if any soil is removed from the row, always replace it with some soil from between the rows. Try to keep the field as nearly level as possible.

When the runners start in early July, we place the first ones in between the original plants and over them at the tips with soil. By doing this they will almost immediately catch root and you soon have a continuous row. If the weather is very dry it is a good plan to cover all the runners in this manner, as you will get larger, heavier fruiting plants for the following year.

We continue cultivating up to about September 15. We stop then because cultivation stimulates growth and we believe that stopping at that time helps a little in hardening up the plants for the winter.

Covering and Uncovering

For many years we have used slough hay for covering and found it quite satisfactory. We have also used millet, which seems to give good protection and does not blow off as easily as slough hay. You can grow enough millet on two acres to cover one acre of strawberries. Sometimes we grow millet on an old strawberry bed. After the spring crop is picked you can plow the field, plant millet, and still get a good crop of covering material. Good clean straw, perhaps is the best winter protection for berries. It will not lay as tight to the ground and therefore provides better insulation and gives better protection, especially in years when there is not much snow.

Condensed from The Minnesota Fruit Grower, July, 1943.

STRAWBERRIES AT WARRENS

A letter from Mr. H. H. Harris of Warrens, on July 12th, tells of the results of his variety test of strawberries this year. He writes that none of the new varieties fruited as well as Premier, Beaver and Catskill. Minnesota #1192 named Burgundy, set quite a lot of berries, but many were of the "monkey faced" kind. The row of Burgundy was between Catskill and Red Star.

Mr. R. E. Harris, his son, stated that the only one of the new varieties he likes is Dr. R. H. Roberts' #125.

The Warrens Association sold 2,782 cases. Prices on the platform on the various brands were as follows: Cardinal, $4.25 per 16 quart case; Royal, 3.75; and field run, $3.00.

GROWERS' PRICES FOR BERRIES

THE WFA on July 5 announced grower prices for seven types of berries which will go into the 1943 packs of canned and frozen berries.

The ceiling prices will permit processors to pay berry growers prices of 15 cents a pound for red raspberries, 13 cents for black raspberries, 12 cents for youngberries, boysenberries, loganberries and

blackberries, and 8 cents for gooseberries. Ceiling prices for frozen strawberries have been established on the basis of a grower price of 12 cents a pound for stemmed berries.

HARDY RASPBERRY VARIETIES NEAR WINNIPEG

SUPT. W. R. Leslie of the Morden Experiment Station, Canada, which is near Winnipeg, reports that the Sunbeam and Moonbeam raspberries wintered nearly to the tips and the fruit crop will not be affected. Rideau, a newly named variety from the Ottawa Experimental Farm, wintered about 75 per cent. It produces large fruit of excellent quality, though promises to be a good variety.

Herbert, Latham, Indian Summer, Newburgh and Taylor all killed over 50 per cent, but will produce small crops this season. All black raspberries were damaged too severely to produce much of a crop this year.

Considering the fact that this was the most severe winter in 20 years at the Morden Experiment Station, and that many plants considered hardy were winter-killed, it is surprising to note that some varieties came through well. In fact, it looks as if the raspberries came through as well at Morden as they did in southern Wisconsin. That seems to be further indication of the fact that it is the degree of maturity of the plants in the fall and also warm periods in midwinter as in February, which break dormancy, that is the real factor in winter-killing in this state.

With berries selling at good prices, might it not pay to cover the tips of raspberry canes with soil in the fall?

Evolution of the Automobile
1940 No running boards.
1941 No gear shifts.
1942 No car.

HOW TO PRUNE CURRANTS AND GOOSEBERRIES

AT picking time, it is easy to locate the canes which bear the smallest berries. Usually the smallest branches of currants and the smallest gooseberries are those on canes which make very little growth. Most of these canes will be much darker in color than the canes which bear the nicest fruit. The suggestion is to cut these weak, poor producing canes at picking time. It is a sure way to remove the poorest wood from the bush. Also, look for wilted tops of young shoots; cut them off, and burn them to destroy the borer on the inside. Weak canes which bend to the ground should also be pruned away. Cultivate and weed between the bushes as soon as the harvest is over.

By C. L. Kuehner in June 30 Wisconsin Orchard Letter.

GROW COVER CROP IN RASPBERRY PATCH

A cover crop of such annuals as oats is desirable to grow between rows of raspberries to prevent late fall growth of plants in a wet season. It is a well known fact that plenty of summer and fall moisture induces a late growth of the young raspberry canes. This results in late dormancy and susceptibility to winter injury.

One reason why raspberries seem to winter better on sandy, well drained soils, especially on higher elevations, is that they mature earlier in the fall, and consequently are hardier. On low heavy ground, richer in nitrogen, they do not stop growth early enough and often winter-kill badly. Sowing oats between the raspberries during August will result in competition for nitrogen and moisture and may be of some help. The oats will hold some snow in winter and of course will be winter-killed and provide humus in the spring.

STRAWBERRIES AT ALMA CENTER

OUR berry crop at Alma Center this season was about two-thirds of last year, and about one-half of the five-year average. Beaver and Premier ran about even with Catskill the biggest yielder. Due to the fact that Catskill blossomed late, they were the best yielding plants this year.

New plantings for next year are about 80% of last year and they look good.

Our best berries average $4.00 or better, and the poorer, around $3.50.

Continuous rain injured the quality.

Earl J. Randles.

A lady visitor at one of the busy Kaiser shipyards on the Pacific Coast recently stooped over to tie a knot in her shoe lace. The next thing she knew, a bottle of champagne was broken across her stern and she was launched!

Whether you need a box approved for interstate shipment by the Federal Food and Drug Administration, or whether you plan to ship locally in old style boxes, you can be safe and save money too, by assembling either type box with the fast-working Neva - Clog stapler. Get everything you need for fruit or truck shipments at Sheboygan—as leading growers have for 63 years.
Write, now, for low prices and free facts on new shipping regulations.

Sheboygan Fruit Box Co.
573 **Sheboygan, Wisconsin**

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

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Ivan Whiting, Rockford

August in the Bee Yard

IF there is such a thing as the beginning of a new year for bees, we would like to say that it is the month of August. It is in August and September that we must produce the young bees which will carry the colonies through the winter. If we fail to do so we will have weak colonies for winter, or colonies composed of old bees which will die off and leave them weak by spring.

Give Plenty of Room in the Brood Chamber

The first requirement for brood rearing during the remainder of this fall season, is plenty of room for the queen to lay, in the brood chamber. We know that one hive body is not enough if we allow any amount of honey in that hive body for winter. Two hive bodies may be enough, but three are still better. If we leave the bees from 50 to 60 pounds of winter stores together with the pollen they carry in during the remaining months, this alone will fill more than one hive body. The lower of three hive bodies is of advantage in giving space for pollen so that it will not compete for room with brood rearing. This lower body will be empty by October and may be removed if desired, or may be allowed to stay there all winter.

Requeening in August

If we give our colonies plenty of room and there is plenty of food for brood rearing, queens wear out normally and are superseded by the bees under normal conditions. We should not worry too much about swarming during this month. If we have plenty of room, queen cells probably indicate supersedure which may be essential to maintain good queens.

MAXIMUM HONEY PRICES FOR PRODUCERS

THE Office of Price Administration has amended maximum price regulation 275 on honey and we will attempt to give a review of it as it applies to beekeepers or producers when selling both at wholesale and at retail as briefly as possible.

Wholesale Prices for Bulk Honey

The producer's maximum price f.o.b. producer's local shipping point for honey in containers of more than 15 pounds on U. S. Grade B or better, shall be 12c per pound. If the purchaser furnishes in exchange, or returns container, the price shall be 11½c per pound, and the cost of transporting the container back to the producer shall be paid by the purchaser.

The producer must also furnish any shipping carton necessary. If the purchaser furnishes such shipping carton, he must charge the producer for it.

A producer cannot charge for hauling to his local shipping point.

Price of Bulk Honey at Retail

A beekeeper may charge a maximum retail price of 15c per pound for bulk honey in containers of more than 15 pounds when sold to a household consumer, f.o.b. producer's local shipping point.

Maximum Prices for Package Honey

Beekeepers who sell packaged honey, which means in containers of less than 15 pounds, will no doubt wish to sell at ceiling prices established in the table issued by OPA on March 29, 1943. This table may be obtained from any local Office of Price Administration, and was published in part in our April, 1943 issue. When the maximum prices in this table are used then the beekeeper *need not file any record or report with the OPA.*

In fact, a beekeeper who wishes to establish his maximum prices according to the formula set forth in the price control acts of 1942 was required to file all his existing records with OPA in Washington before July 15. If he failed to file such reports, he could not use the formula and now would be required to use the table of March 29, 1943.

HONEY CUSTARD

3 eggs slightly beaten
¼ cup honey
¼ teaspoon salt
2 cups milk
nutmeg

Combine eggs, honey, and salt. Scald milk and stir slowly into egg mixture. Pour into custard cups and sprinkle with nutmeg. Set cups in pan of hot water in moderate oven and bake until mixture does not adhere to inserted knife—about 30 minutes.

A Harlem butcher despairingly posted a sign: "Leg O' Nuttin'."—*Printer's Ink.*

Is the Sweet Clover Weevil Ruining Wisconsin's Sweet Clover Crop?

SWEET clover seems to be scarce this year. In 1941 there was considerable sweet clover in sections of the state where it commonly grows wild, and beekeepers of course expected that it would repeat this year. Being a biennial, the seeds which fell to the ground in the fall of 1941 should have produced plants for bloom this summer.

However, there is very little sweet clover in bloom in most parts of the state, at least much less than expected. Entomologists state that the sweet clover weevil may be the blame. They have found this pest as far north as Spooner and Rhinelander so that it is common all over the state.

The sweet clover weevil is a dirty grey little weevil which eats the leaves of the plants. Examine almost any sweet clover plant and you will find the older leaves badly chewed. The young seedling plants are also attacked by the insect, and it may be that last spring the weevil killed a great many young plants which resulted in a short crop this year.

Whether or not the sweet clover weevil is entirely to blame is a question. We are inclined to think that possibly there are other factors entering into the picture. It may be that the seed did not germinate in the spring of 1942. Sweet clover seed has a very hard shell and should always be scarified before planting. The wild seed that falls to the ground may remain there a number of years. If there is alternate freezing and thawing during the winter, that will crack the hard seed coats. A winter favorable for crops such as constant covering by snow would be unfavorable for the germination of sweet clover seeds.

It is reported that there is a good stand of small seedling plants this summer. It may be that the severe weather in March was favorable for seed germination and next year we may have a better stand of wild sweet clover. However, watch the damage done by the weevil. Entomologists are working on its control which is very difficult.

SWARM CONTROL BY EXCHANGING WEAK AND STRONG COLONIES

IN the May issue of the American Bee Journal, Mr. G. H. Cale, editor, discusses a method of swarm control he has used in a situation when labor was scarce, and time urgent during the swarming season. Strong colonies were preparing to swarm and he didn't have time to take care of each individual case. He thereupon exchanged places between strong and weak colonies, after destroying queen cells.

The result was that the strong colonies lost their field bees to the weak colonies. The weak colonies on the other hand, received the field bees of the strong colonies, and thereupon became stronger.

The plan might be satisfactory in apiaries where there is no danger of spreading AFB, and as a drastic measure of swarm control. In the opinion of Dr. C. L. Farrar, the field bees from the strong colony would not destroy the queen in the weak colony.

HONEY MARSHMALLOWS

1 tablespoon gelatin1 cup honey
¼ cup cold water ¾ to 1 lb. cocoanut

Soak gelatine well in cold water. Dissolve gelatine over hot water and add to the honey which has been warmed. Beat until very light. and fluffy. (About 10 minutes by machine and 20 minutes by hand.) Turn out on oiled pan and let stand 24 to 48 hours. Toast cocoanut and roll to make fine. Spread cocoanut over the surface of a large pan and turn the marshmallows on it. Cut into squares by dipping knife into cold water. Roll each piece in the cocoanut.

MORE ABOUT NOSEMA

Is This Disease Responsible For Many Weak Colonies?

THE disease Nosema may be responsible for the fact that regardless of what the honey flow may be this year, many will not get a large crop on the average.

Beekeepers report that some colonies were no stronger in June than they were in the spring. They seemed to lose their old bees as fast as the young bees hatched out. Such colonies, of course, will never produce more than enough for winter, if that much.

There are reports that during June there were many bees on the ground unable to fly. Some of them had pollen pellets on their legs, but were unable to get back to the hive. Such bees could be found at various distances from the apiary. Dr. Carl Schaefer reports that he examined a number of these bees from one apiary and all were found to be affected with Nosema. However, Dr. Farrar reports that in another case he did not find the disease present. There may be other factors contributing to the loss of adult bees, all of which makes the problem more difficult.

Many queens were infected with Nosema this spring, resulting in supersedure and loss of the colonies as honey producing units.

What we need is much more research work by our federal and regional bee culture laboratories. It will take more money to solve the problem. Before we can get more money, beekeepers must be impressed with the importance of the problem everywhere in the country so that sentiment will be created along this line.

UNITED STATES STANDARDS FOR GRADES OF EXTRACTED HONEY

(Effective March 15, 1943)

FILL OF CONTAINER

Containers of honey shall be filled as full as practicable and in containers of one gallon or less and the honey shall occupy not less than 95 per cent of the volume capacity of the container.

GRADES OF EXTRACTED HONEY

U. S. Grade A or **U. S. Fancy** extracted honey may be honey of any color; shall be clean; and shall be free from damage caused by turbidity, overheating, fermentation, honeydew, objectionable flavor or odor, or other means.

The honey shall be well-ripened and shall weigh not less than 11 pounds 12 ounces per gallon of 231 cubic inches at 20 degrees C. (or 68 degrees F.).

Honey of the crystallized type of this grade shall be uniformly granulated, smooth and fine in texture, and when liquified at 130 degrees F. shall meet all other requirements of **U. S. Grade A** or **U. S Fancy.**

U. S. Grade B (formerly termed "United States No. 1") extracted honey may be honey of any color; shall be fairly clean; and shall be free from damage caused by turbidity, overheating, fermentation, honeydew, objectionable flavor or odor, or other means.

The honey shall be well-ripened and shall weigh not less than 11 pounds 12 ounces per gallon of 231 cubic inches at 68 degrees F.

Honey of the crystallized type of this grade shall be uniformly granulated, fairly smooth and medium to fine in texture, and when liquified at 130 degrees F. shall meet all other requirements of **U. S. Grade B.**

Off-Grade extracted honey is honey that fails to meet the requirements of **U. S. Grade B.**

EXPLANATION OF TERMS

"Clean" means that the honey shall be at least as free from foreign material, such as wax, propolis, bees, parts of bees, or dirt, as honey that has been strained through standard bolting cloth of 86 meshes per inch at a temperature of not more than 130 degrees F.

"Fairly clean" means that the honey shall be at least as free from foreign material as honey that has been strained through standard bolting cloth of 23 meshes per inch at a temperature of not more than 130 degrees F.

"Damage" means any injury or defect that materially affects the appearance, edibility, or shipping quality of the honey.

"Turbidity" means cloudiness caused by pollen grains, minute air bubbles, finely divided wax particles, or other substances that detract from the clearness of the honey.

"Objectionable flavor or odor" means any flavor or odor from a floral source, taint of smoke, or other source, that materially affects the edibility of the honey. Nectar gathered from plants such as bittersweet often imparts to the honey a very disagreeable flavor which materially injures its quality.

OUR SUMMER MEETINGS

Good Attendance and Program Mark Annual Event

GROUP gatherings, discussion of crop prospects, probable prices of honey, both wholesale and retail, and discussion of individual problems were the features of forenoon sessions at the annual summer meetings at Madison, Appleton and Menomonie, on July 21-22-23. More honey buyers were present than we have ever seen at any meetings.

Dr. C. L. Farrar demonstrated the use of pollen traps, two-queen colonies, and discussed the pollen question at the Madison meeting. Asked the reason for so many weak colonies this spring, he stated there were several causes, most important being Nosema, poor queens, and poor or insufficient stores.

Mrs. Harriett Grace of the American Honey Institute told the beekeepers how honey was becoming recognized by many important agencies all over the country. She told of a trip East where she met many persons in top government and industrial circles who are recognizing honey as an important food. A new booklet "Why Bees Are Busy" is now available and is excellent.

Mr. Harold J. Clay, Food Distribution Administration, Washington, gave a most helpful discussion on honey price ceilings and regulations. Beekeepers should use the table of ceiling prices put out by the OPA and sell at those or below. No reports or difficult formulas are then required.

A price floor has been discussed in Washington, he said, and while no decision has been made, a floor can be established by the government buying honey for school lunches at a floor price, if money is available.

Opposed to Apple "Honey"

Beekeepers were opposed to the use of the words Apple "Honey" as used by Old Gold cigarettes. It was pointed out that while there may be some advertising value to honey at present in the large ads, the bars are being let down and so why can't corn syrup be called corn "honey?"

The vote was almost unanimous in opposition to permitting the word "honey" to be used in such advertising.

Mr. M. J. Deyell of Gleanings in Bee Culture gave a very interesting talk on beekeeping problems. He emphasized the necessity of selecting outyards with care. Floods and windstorms have taken a heavy toll in Ohio this year. Feeding became a real problem when yards could not be reached by truck.

Mr. James Gwin, Chief of the Bee and Honey Division, was strongly opposed to the use of the term "Apple Honey." He also stated wax was so important now that all scrapings and bits of comb should be saved. Propolis can be separated now from the wax by the factories and so scrapings should be sent there for rendering.

Mr. Roy Grout of Dadant and Sons, Hamilton, Illinois, gave a most interesting talk on the production and use of wax. The production in the United States in 1941 was 3,495,000 pounds. Last year the production of wax was down only 3%, although honey production was off 21%, showing that beekeepers really helped the war effort.

He urged the use of one less comb in supers, culling of all poor combs and saving all bits of wax in the apiary. By cutting combs deep in extracting, the Dadants produced 18 pounds of wax per 1,000 pounds of honey extracted, as against an average of 10 to 12 usually produced by beekeepers. The retail price of wax, as well as wholesale, is 41.5 cents per pound cash to beekeepers, unless fully refined.

The Crop

The crop at this time looks fair in Wisconsin and fair to good in western states. There was much discussion among the beekeepers as to what they would charge for 5 pound pails and other containers at retail. Prices will no doubt vary from locality to locality, as has always been the case. Each beekeeper will determine a fair price to his customers.

Comments

The Association greatly appreciates the cooperation of Dr. C. L. Farrar, Mr. Cornelius Meyer, Appleton, and Mr. S. P. Elliott, Menomonie, for allowing the beekeepers to assemble in their apiaries, demonstrating equipment and helping to make the meetings successful by arranging many details. Mrs. Meyer and Mrs. Elliott also helped with arrangements, and deserve our thanks.

This year the meetings conflicted with grain harvesting in some sections, which is a little unusual, and was one reason for the smaller attendance.

I know a man who never did anything wrong because he never did anything.

WANTED TO BUY

Will buy 50 to 100 or more colonies of bees free of disease, standard 10-frame equipment with crop included. C. G. Hendricks, 3522 W. Linden Place, Milwaukee 8, Wisconsin.

WINTER LOSSES—POSSIBLE CAUSES

Winter loss during 1942-43 was somewhere between 45,000-50,000 colonies of bees in Wisconsin. Here are some of the reasons:

(1) Starvation due to:
  (a) failure to provide sufficient stores
  (b) position of stores and cluster of bees (bees above stores)
(2) Queenless colonies.
(3) Too late in preparing colonies for winter:
  (a) splitting brood nest in late fall by inserting solid combs of honey
  (b) manipulating supers and moving frames in supers
  (c) leaving empty extracting supers above brood nest
  (d) taking off crop in November
  (e) wintering too small a colony
(4) Nosema disease—most colonies showing spotting were infected with Nosema Colonies fed about 20 pounds or more of syrup in October or early November seemed to escape.
(5) Failure to take care of moisture in hive and excessive moisture in cellars—ventilation.
(6) Wintering on poor combs.

Check the above list, it may help you to winter your bees.

—JOHN F. LONG.

BEEKEEPER MUST LOAD HONEY ON CARS OR TRUCKS

The following letter was received in May from the Office of War Information of the OPA to answer the question as to whether the producer must load honey sold at wholesale in 60 lb. cans.

"Under the f.o.b. maximum prices established for bulk honey, beekeeper-producers and distributors must load the honey into carriers in tin containers and, where necessary, shipping cases to protect those containers.

The ruling was issued to clear up confusion which had arisen in the trade under Maximum Price Regulation No. 275 (Extracted Honey).

"If the buyer furnishes the tin container but not the shipping case or carton, the price shall be reduced one-half cent per pound. Where the buyer also furnishes the shipping case or carton, the price of the honey must be reduced to the extent of the value of the case or carton."

The maximum wholesale price of bulk honey, U. S. Grade No. 1 or better, is 12 cents a pound f.o.b. seller's shipping point.

Editor's Note: A beekeeper may sell a 60 lb. can at retail for 15c per pound.

HONEY WANTED

Cash paid for cars and less than cars comb and extracted honey. Mail sample and best price. C. W. Aeppler Company, Oconomowoc, Wisconsin.

HONEY CANS

We can give you immediate delivery on 60# cans.

Order your glass supply for the new crop now, as it takes from 3 to 6 months to receive same from the factory. We now have a good supply of 5#, 2½#, 1# and ½# on hand, and can make immediate shipment.

To insure prompt service, order your Association labels now for your new crop of honey.

Write for Complete Price List.

Order Through Your State Beekeepers Association

HONEY ACRES
Menomonee Falls, Wis.

HONEY CONTAINERS

Prompt Shipping Service
Glass Jars

We carry a complete line of "Utility" style jars with white coated covers, lacquered and wax paper lined.

PRICES

				Price	Wt.
Reshipping	case	of	12 - 2#	.42	10 lb.
"	"	"	12 - 1#	.38	6 lb.
"	"	"	24 - ½#	.67	7 lb.
"	"	"	12 - 2½#	.42	11 lb.
"	"	"	6 - 5#	.67	10 lb.

60 lb. Cans

PRICES

Standard square American cans, well seamed and soldered, with 2½" screw cap wax board lined.

Box of 2—60# cans.....$1.00
Carton of 24—60# cans.. 7.44
In Bulk .....31 each

Write for "Purchaser's Certificate" for cans or jars, if you have not already signed one.

We also carry a complete line of other honey packages—Shipping Cases and Comb Honey Cartons.

AUGUST LOTZ COMPANY
BOYD, WISCONSIN

Editorials

COLLECTING SCRAP IS "LIKE PICKING STRAWBERRIES," SAYS PENNSYLVANIA FARMER

" . . . Collecting scrap is like picking strawberries. No matter how diligent the picker on his first trip, a second time over the row will get some berries, and a third the same, so, this summer farm folk are asked again to re-explore their premises, sort out all useless metal.

"As long as the war lasts, there will be need for scrap, not only to keep mills producing the sinews of war, but factories making the machines so badly needed on farms. To produce the food which this nation and its allies must have, to make the machines and guns with which our sons must fight, scrap from farms is needed—and will be supplied."

THE HORTICULTURE EXHIBIT AT THE STATE FAIR

THE Horticultural Building at the State Fair will again be crowded to capacity this year. In addition to the fruit show, flower show, gladiolus and dahlia shows, the building will feature the essential services of farm crops in food and livestock feed production. The vegetable display will also be in the Horticultural Building, and cooperating will be the Wisconsin Agricultural Experiment Association and the Wisconsin Potato Growers Association. Combining the products of the field, garden and orchard will provide a fitting exposition of the contribution being made by Wisconsin farmers in the "Food for Victory" program.

In the fruit show there will be the regular displays as in past years, consisting of trays and

A Collard Plant in the Fall.

plates. The very beautiful display of plants and flowers by florists and amateurs will contribute to make the building beautiful.

Gladiolus growers will take up a large section of the building with a regular gladiolus show, and Wisconsin dahlia growers will have their section for exhibits of these most attractive flowers. So, let the slogan be—"Come to the Fair."

E. L. Chambers, State Entomologist, and his efficient staff of workers will again be in charge of the Horticultural Building. Mr. Chambers has managed the building for many years and has made it one of the outstanding exhibits at the fair grounds.

At Omar Khayyam's restaurant in San Francisco, patrons who dutifully eat everything on their plates get 10 per cent of their checks back in war stamps.—*Newsweek.*

DIAMOND JUBILEE HISTORY TO BE PUBLISHED IN NOVEMBER

WE have found that it will be impossible to complete the Diamond Jubilee History, covering 75 years of Society activity, by September as stated in our last issue.

Inasmuch as this is our 75th annual convention, it will be appropriate to have the history come out as the November issue of Wisconsin Horticulture, which is the month the convention will be held.

A very attractive cover for the history has been designed by Mr. B. C. Jorns of the Agricultural Journalism Department, Wisconsin College of Agriculture.

We will appreciate if some of the older members of our Society will send us items for the report, covering any important proceedings which they remember, or any points of interest about the older men prominent in the Society years ago.

JOHN A. HAYS

MR. John A. Hays of Gays Mills passed away at Milwaukee in January of this year at the age of 84 years.

Mr. Hays was a life member and a former president of the Wisconsin Horticultural Society. With Mr. Frederick Cranefield he was instrumental in starting the orchards at Gays Mills.

Mrs. Hays writes that he enjoyed the magazine up to the time of his death.

The Society extends sympathy to the bereaved family.

SERIOUS THOUGHTS

A man should be grateful every hour of every day for the troubles of his job; they pay at least half his wage or salary. For if there were no troubles it would be easy to get someone to do his work for half, or even a third, of the pay he is getting.

If he wants a bigger job, with a better income, he has but to look for more troubles and learn how to lick them. A bigger job will usually gravitate to him — often actually seek him out — if he is capable of coping with the problems and troubles that go with it.

Especially is this true if he has cultivated the knack of doing everything pleasantly and with apparent ease and assurance. The so-called "big" men nearly all have it.

—From *"Yours for Venture."*

BROWN PAINT BEST FOR GARDEN AND PARK FURNITURE

ROBERTS Mann of the Cook County (Ill.) Forest Preserve District has reported to Parks and Recreation as follows:

It took four years for the National Park Service to convince us that we should use brown paint on tables, toilets and buildings, rather than green. Green soon fades to an unpleasant color hard to describe. Brown, on the other hand, is composed of earthen pigments such as ochre, umber and senna. It lasts much longer and looks much better if the proper combination of ingredients are used to produce a rich, tobacco brown.

Another argument was that brown buildings and picnic tables were much more inconspicuous and therefore, less of a necessary intrusion in the area. I had to get up in an airplane to realize that brown-painted structures blend with the landscape far better than green. Then I noticed how much farther away, from a car, I could spot a green table dragged off into the woods by some isolationist.

POTATO BLIGHT CONTROL IN THE SMALL GARDEN

LATE blight of potatoes which caused serious loss last year, is a fungus disease that becomes established first on the leaves during summer and early fall. Spores fall to the ground and rain washes them onto the potatoes where they cause late blight rot.

Late blight is serious in a season of much rainfall. In fact, when we have continuous rains, it is very difficult to control it. In dry seasons it gives us little concern.

Gardeners should therefore watch the season carefully and protect their potato crop.

Dust Preferred to Spray

Pathologists tell us that the prepared copper dust for late blight control on potatoes, is preferable to liquid bordeaux when used *in a small sprayer.* The reason is that the prepared copper dusts are very finely ground and when dusted over the leaves cover them completely. The spray, on the other hand, used *in a small hand sprayer,* is usually applied under such low pressure that the particles of water are not broken up into a mist fine enough to entirely cover the leaves. Therefore we get better control with the dust. This may not be the case when large spray machines are used developing 200 lbs. and more of pressure.

For the victory gardener, therefore, we recommend the copper dust containing arsenate of lead which may be purchased at most any garden supply store and the small hand duster as the most satisfactory and the easiest to use.

How Often to Dust

To control late blight it is necessary to keep the leaves covered with the copper dust practically all the time during wet weather. It is a matter of protection and not a cure. Dusting once each week is not too often if there are frequent rains.

NEW TYPE OF HONEY EXHIBIT AT STATE FAIR

UNDER the slogan, "The Honey Bee Goes To War" the Bee and Honey Department at the State Fair to be held this year August 21-27, will portray the industry's job in the war effort and the essential part beekeeping plays in feeding the world. There will be no competitive exhibits, but there will be a model honey house in operation. Honey will be extracted, bottled, heated, and sold. Each day a leading beekeeper at the fair will bring in a load of honey from the apiary and extract it in the Honey building.

The booths will be continued and be in operation by the same beekeepers as in the past, and they will sell honey to the public. The building will also feature an exhibit of plants and flowers pollinated by honey bees.

THE MID-WEST GLADIOLUS SHOW

THE Wisconsin Gladiolus Society will be well represented at the Mid-West Gladiolus Show to be held in Garfield Park Conservatory, Chicago, August 14-15.

This will be the third exhibit sponsored by the Mid-West Gladiolus Society composed of societies in Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin, in cooperation with the New England Gladiolus Society.

The show will officially open to the public at 2:30 p. m. on Saturday. Judging will begin at 12.

OUR COVER PICTURE

Our cover picture this month is loaned us through the courtesy of the New England Gladiolus Society, and was used in their annual Year Book. It is a "still life in niche" and was awarded the Carbone trophy as the most meritorious arrangement at their annual gladiolus show.

Gladiolus Tidings

By the WISCONSIN GLADIOLUS SOCIETY

OFFICERS
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1710 Illinois Ave., Sheboygan

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Frank Blood, Stevens Point
Chester Harrison, Waldo
Walter C. Krueger, Oconomowoc
E A Lins, Spring Green
Walter Miller, Sun Prairie
Noel Thompson, Madison

In the Glad Patch

Noel F. Thompson

THIS is the time of year one should enjoy his glads without thought of insects or diseases. The summer, however, is the time these pests develop and spread so it is well to give a little time to them though the glads are in bloom. If a plant turns yellow or dies from no apparent cause it may be yellows or scab. In either case it is just as well to dig it up, bulb and all and destroy it.

You may notice some brown spots on the upper side of some of the leaves. I say upper side because it usually occurs on leaves that are leaning over. The spots are mostly on the upper side though some show through to the under side. This is probably just sunburn and is of no consequence.

Mosaic should be evident now and if you plan to rogue some varieties it's time to do it. It can be done with more certainty when the plant is in bloom. While you are roguing pull up or mark carefully that plant that is growing in with the other variety. If you don't you may be reporting one of these days that all your pink glads reverted to whites or something of the sort.

Don't forget the thrips. I hope you haven't any but keep the old flowers cut and removed from the glad patch and a little spray (tarter emetic—the formula is in the June issue) now and then won't do any harm. If you are raising small plants from bulblets in any quantity an occasional spray of Bordeaux will be beneficial in keeping hard rot in check.

SOME GLADIOLUS SHOW DATES

August 7-8. Iowa Gladiolus Society, 14th annual state show, Waterloo, Iowa.

August 14-15. Midwest Gladiolus Societies, with 10 societies cooperating, Garfield Park, Chicago, Illinois.

August 17-18. Winnipeg Gladiolus Society, host to national show of Canadian Gladiolus Society.

August 18-19. New England Gladiolus Society, Horticultural Hall, Boston, Mass.

August 19-21. Illinois Gladiolus Society state show, with Momence gladiolus festival, Momence, Ill.

August 21-22. Ohio State Gladiolus Society, N. O'Neil Co. auditorium, Akron, O.

September 4-5. Ohio State Gladiolus Society, special seedling show, Garden center, Cleveland, O.

From birth to age 18, a girl needs good parents. From 18 to 35, she needs good looks. From 35 to 55, a woman needs personality. And from 55 on, the old lady needs cash!—Kathleen Norris.

WILL THE AIRPLANE PLAY A PART IN FUTURE FLOWER SHOWS?

By J. H. Odell, N.E.G.S.

NEW possibilities loom for world-wide entries with sky borne freight. Was it chance only that the "Voo-Doo" the first transatlantic flown glider was manufactured in the U.S.A., and the president of the corporation was the man whose policies put the New England Gladiolus Society on its feet financially?

We can see gladiolus flown across the skies from many of the United Nations countries, and we hope they will help promote a new world fellowship in the future.

MILWAUKEE VICTORY HARVEST FESTIVAL TO HAVE GLADIOLUS EXHIBIT

THE Milwaukee Harvest Festival to be held in the Milwaukee Auditorium on August 27-28-29, will have a special division for gladiolus. Included is a class for victory gardeners or novices who have never exhibited gladiolus before; a section for retail florists; single, three spike, and seedling divisions, and several special awards.

Anyone wishing a copy of the premium schedule may write Mr. David M. Puerner, 811 Majestic Bldg., Milwaukee, Wis.

MIDWEST GLADIOLUS SHOW
Garfield Park Conservatory, Chicago
AUGUST 14-15

THIS is the largest of all gladiolus shows. This year's show will be equal to the 1941 show when 23,500 people attended and fans from 17 states congregated. We expect 7,200 exhibits and the attendance at all flower shows is breaking all records. The Midwest expects even more exhibitors than in 1941 and will have crowded color classes with flowers from many states, probably from both eastern and western coasts as well as all midwestern states.

There will be a banquet Saturday night, August 14th, at Hotel Graemere, which fronts on Garfield Park, and an organization breakfast Sunday morning at the same place to discuss work for the coming year. Everybody is welcome. This Midwest show is an open show—open to all of garden loving America. Free admission; free to exhibitors. To win at Midwest is a national honor.

From Wisconsin H. J. Rahmlow of Madison will be supervisor of judges; E. A. Lins of Spring Green is chairman of the Board of Control; Gladys Sprecher of Spring Green has been for two years the Midwest Women's Champion, and Geo. Scheer of Sheboygan, Walter Krueger of Oconomowoc, Harold Janes of Whitewater, and Oren Baxter of Edgerton will have large displays.

Show rooms open all Friday night, August 13th, and judging begins at 12 noon on the dot Saturday the 15th. Everybody is invited.

J. R. Hopkins, Deerfield, Illinois.

MANITOWOC CHAPTER TO HOLD GLADIOLUS SHOW

The Manitowoc Gladiolus Society will conduct another gladiolus show in connection with the Manitowoc County Fair to be held on August 18-22, according to the Rev. August G. Dusold. We hope that the Manitowoc glad fans will have a very successful exhibit.

THE STATE GLADIOLUS SHOW SHEBOYGAN AUGUST 21-22

THE Municipal Auditorium and Armory which will house the fourteenth annual show of the Wisconsin Gladiolus Society, August 21 and 22, is on Sheboygan's new lake shore drive known as Broughton Drive, where the cool breezes from lovely Lake Michigan will cool the building and keep the queen of flowers in good condition. This new building should prove to be one of the best that the Wisconsin Society has ever had in which to show their flowers. The Victory Garden Show will be held in conjunction with the gladiolus show.

Growing conditions have been excellent, with rain and then warmth, to force the glads. Sheboygan County Chapter members will have many glads for the show.

The show committees are functioning and the outlook for the show is bright. The banquet committee reports that the banquet will be held at 6:30 sharp at the Grand Hotel on Center Avenue. The cost will be $1.00 per plate. Because of the necessity of buying no more than needed, the hotel would like a definite count of those who expect to attend the banquet. If you will notify Mrs. G. H. Scheer, 910 New York Avenue, Sheboygan, banquet chairman, as to whether or not you will attend, it will be appreciated.

Encouraging news from within and without the state has been received. There is a possibility of exhibits from Pennsylvania, Illinois, Iowa, Minnesota, and Ohio. Various places from within the state, Madison, Oconomowoc, Chilton, Whitewater, Columbus, Mazomanie, Kenosha, Stevens Point, Wausau, Spring Green, Edgerton, Milton, Milwaukee, Manitowoc, and of course various parts of Sheboygan County will be represented.

Many small growers feel that they are unable to compete with the largest growers, but the truth is that the small grower really can give more care to his blooms than the large grower can and therefore should enter whether or not our large growers are able to be there. Come on fellows, let's see a lot of new exhibitors this year. If you can't come, maybe someone else will bring your blooms along. We assure you that your exhibit will be placed in its proper class by someone who will be designated for just those jobs.

Sheboygan has other attractions to offer you, our many beautiful parks and our cool breezes.

Mrs. G. H. Scheer, Banquet Chairman, Sheboygan.

MADISON CHAPTER GLADIOLUS SHOW
First National Bank
AUGUST 9-10

THE Madison Gladiolus Chapter will hold their second annual gladiolus show in the large, beautiful lobby of the First National Bank on the square in Madison, on August 9-10.

The show is expected to be much larger than last year when it completely filled the lower lobby. The mezzanine floor will be used this year. Mr. Paul E. Hoppe, president of the Madison Chapter, reports that the glads around Madison look the best in years. He expects a very high quality show.

The secretary of the Chapter is Mr. Roger B. Russell.

WISCONSIN GLADIOLUS SHOW SHEBOYGAN

Municipal Auditorium
August 21-22, 1943

In Cooperation With Sheboygan County Chapter

Wisconsin's Largest Flower Show

Home and Garden

Mrs. C. E. Strong

HOME MAKER'S POEMS

These too, are poems, a house well
swept and dusted;
A latticed cherry pie, sugar en-
crusted;
Freshly ironed clothes, and spiral
apple peels;
Embroidery, and careful darns in
heels;
Uncut cloth beside the sewing
shears;
Receipted bills, and letters saved
for years.

Janice Blanchard.

WAR WORK

A letter from a friend tells of the many household tasks that kept her busy, "little neighborly deeds you just must do" and they left so little time for the really worth while things many others were doing in war work. Some of these women worked all day in the factories — she looked after their children because she had to stay at home. She took care of a neighbor's garden and house plants while the neighbor was in the hospital. She has a large victory garden and sends both vegetables and flowers to the hospitals. Her husband has important work to do so she tries to keep everything going smoothly at home so he will not be worried, and of course gives the family nourishing food. But this leaves her with only a few hours one day in the week to help at the Red Cross.

Am quite sure this woman's husband and family, her sick neighbors, the folks in the hospital, and the defense workers whose children are safely guarded, all consider her a very essential war worker indeed. Would there were more such sane workers.

TREES

TREES have always seemed very important to me. I cannot imagine a country entirely treeless —can you? Just imagine the sun beating down with no trees to give us their shade, nor protection from the winds, no fruits, no nuts, no lovely flowering trees.

I wonder if we who have always lived where grew the forests primeval do not rather take trees as an always "will have" — why worry about them? Do we appreciate them as we should? Do we plant trees for ourselves and also for those who come after us, really realizing what the beauty of trees means to our state?

Out in this part of California "trees" have had to be planted. Some folks say this section is "man made." Well, all I can say to that is, they did a very good job, and they are still at it. Does a new subdivision spring up, just as soon as the streets are laid out, trees are planted and cared for. As soon as a house is finished on the outside trees are planted on the lots for shade, for beauty and for fruit. Sometimes one thinks they are planted rather thickly, but if there should be too many, some can be taken out.

There are miles and miles of magnificent trees bordering the roads leading in every direction; parkways with double rows of grand gnarled old Pepper trees with a row of the beautiful blooming Grevillea Robusta between curb and sidewalk. More miles of the Carob trees (St. John's Bread), Magnolias, Live Oaks, Eucalyptus. They shed both bark and leaves and look very artistically ragged, with yards of loose bark hanging down; also the smaller Eucalyptus in yellow, pink and red. Jacaranda, kin to the blue of the ocean when in bloom. Sycamores, Chinese Elms, Camphor trees, Cape Chestnut Acacias, Parkinsonias, Hackberry, Arizona Ash, Tulip trees, Sweet Gum, which is prized because it has the lovely autumn coloring so familiar to us. Umbrella trees, flowering crabs, and cherries, besides many fine evergreens, Cedrus deodara, with its silvery blue-green foliage are especially lovely. Pines in variety, Cypress, Spruce, and of course Palms from those tall varieties with trunks like telephone poles and a feather duster top. You laugh about them at first, then after a while you grudgingly admit they do have a certain dignity you would not like to miss. Phoenix canariensis or ornamental date palm at Christmas time are loaded with immense bunches of fruit "so called" consisting of the seed and a sweetish skin much liked by birds. However, they are very ornamental and the sprays combined with native holly or Pyracantha, are very effective, also with some of the immense Poinsettias two feet across. Most of the trees are evergreen, and with the exception of the Sweet Gum we miss the gorgeous coloring of our autumn forests.

Beauty In Our Own State

I actually think if we could import a few of these energetic Chamber of Commerce men to tell about our exquisite rivers, creeks,

lakes, hills, etc., our most lovely wild crabs, highbush cranberry, thickets of wild plums; who would urge, prod, bully, convince us that we had beauties in our particular state, that the rest of the world wanted to see; if we would just get busy and get some of them in places where they could see miles and miles of them, why first thing we knew we would be leaning backward with pride saying, "Did you ever see anything more beautiful? and we didn't have to import it, it grew here."

Do you know that is something I have learned — very thoroughly learned—appreciate the place you live in. Think about it; do all you can to make it more lovely. Talk about its good points. Decide *you* will be one of those to help eradicate any bad spots, urge others to do the same, and be sure it will happen. Doing things, really doing things, is infectious.

PRUNE TO GROW SPECIMEN DAHLIA BLOOMS

THE Bulletin of the American Dahlia Society reports that successful exhibitors of larger flowering dahlias prune severely, permitting only one to four blooms to develop on each plant. Also, a great deal of water, used at the right time, has more to do with size than any so-called forcing fertilizer.

Final pinching out is done about two months before show date or mid-July. As the branches appear, permit only one, two or four to grow. Buds will show about mid-August. Disbud by removing small side buds and permit the center bud to develop. If the bud cluster appears a little too early do not disbud right away, but wait a week or so until the buds get larger and then remove the center bud and save just one bud. Result will be to retard blossoming and produce longer stems.

A tiny bud will require 30 to 35 days to fully mature into an exhibition flower. A bud showing color takes one week.

In June 15 Horticulture.

The Best Ten New Roses

From American Rose Magazine

WE present here the results of a popular poll taken among rose amateurs as to the finest ten roses introduced into commerce in the past ten years (1933-1942). It is hoped that the results of these surveys may guide the rose lover who wishes to plant a few of the newer roses to the ones which are the most worthwhile and have the best chance of success in his garden.

No attempt has been made to compare these newcomers of the rose kingdom against the old tried and true favorites, or to attempt the impossible of selecting the best ten roses of all time. There are so many fine roses and no rose lover wishes to omit any of his favorites.

Returns were received from 124 rose growers residing in 40 different states, and two Canadian provinces. As anticipated, the ballots varied widely, 182 varieties receiving at least one vote and 50 receiving 5 or more votes. Yet one variety, Crimson Glory, appeared on four-fifths of all ballots cast and led its nearest rival almost two-to-one.

National Ranking

1. Crimson Glory (1935), 99
2. Eclipse (1935), 58
3. Christopher Stone (1935), 56
4. Charlotte Armstrong (1940), 52
5. The Doctor (1936), 47
6. Mme. Joseph Perraud (1934), 41
7. Mme. Henri Guillot (1938), 38
8. Signora Piero Puricelli (1936), 34
9. Mme. Cochet-Cochet (1934), 33
10. Condesa de Sastago (1933), 32

Runners-Up

11. Poinsettia (1938), 30
12. Angels Mateu (1934), 28
13. Snowbird (1936), 23
14. Heart's Desire (1942), 21
15. Good News (1940), 20
    President Macia (1933), 20
    Sterling (1933), 20
18. Texas Centennial (1935), 19
19. Donald Prior (1938), 17
20. California (1937), 16

Mid-West Favorites

1. Crimson Glory, 33
2. Christopher Stone, 19
3. Eclipse, 13
   The Doctor, 13
5. Charlotte Armstrong, 12
   Mme. Joseph Perraud, 12
   Signora Piero Puricelli, 12
8. Poinsettia, 11
9. Condesa de Sastago, 10
10. Angels Mateu, 9

It is of interest to compare the present list against that of two years ago to see how well the choices of that time have stood the test of time. Of the twenty in the list of 1941, four are disqualified because of age and four others, McGredy's Yellow, Sterling, McGredy's Sunset, and McGredy Triumph, have lost favor and miss the present list.

For the first time a Hybrid Polyantha, Donald Prior, makes the list, appearing in nineteenth position. This is indeed a strong recommendation for this splendid variety for other voters would have listed it also, if they had not assumed that their choices must be limited to Hybrid Teas. Other Polyanthas receiving strong voting were World's Fair (Minna Kordes) and Pinocchio. Climbers receiving a number of votes were Mrs. Arthur Curtiss James (Golden Climber), Dr. J. H. Nicolas, Flash and Golden Glow.

Condensed from May-June, 1943, The American Rose Magazine. By W. L. Ayres, Lafayette, Ind.

To be fit for life in society, every child, as well as every dog, must be housebroken. — Dr. Edwin G. Conklin.

Garden Gleanings

VICTORY garden stories appear in large numbers, some of them quite humorous. We can't vouch for their veracity, but some of them bear repetition for their humor.

F. X. Wallner reports in North and South Dakota Horticulture that a victory gardener bought a bushel of seed potatoes to plant in his garden, but when he went out to the plot allotted, he decided not to plant them as the ground was perfectly level, while the instructions were to plant in hills.

We have also heard of someone sending to a seed company for sauerkraut seed.

Watch your tomato plants during August. In case of a dry spell, be sure to water thoroughly to prevent drought. A very short period of drought may result in blossom end rot. A heavy mulching of straw or rubbish two or three inches thick will conserve moisture and can be applied even now.

The best way to avoid *poison ivy* poisoning, is to learn to recognize the plant and always be on the watch for it when out in the open, is the opinion of Horticulture (Boston). They state that little can be done to prevent eruptions on the skin of sensitive persons, since such preventatives as 10% potassium permanganate solution must be applied in 15 minutes to one-half hour after exposure.

Since we now have a very effective poison ivy eradicant in ammonium sulfamate, sold as DuPont Weed Killer, individuals and organizations both should see to it that parks and areas frequented by the public are made free from poison ivy. It is such a dangerous weed that it is surprising we have tolerated so much of it.

Insect pests and diseases of vegetables and flowers have not been difficult to control this season. However, with the cooler evenings of August and September, there will be more dew, and the foliage of roses and other plants subject to fungus diseases will be damp for a longer period. That may increase the amount of disease. Consequently we should dust such plants as roses and perennial phlox at least once each week during the periods of heavy dews to pervent mildew and leaf spot.

On July 6th the OPA announced in a joint statement with the USDA that gardens planted after July 12th would be too late to produce enough food to warrant extra use of tires and gasoline. On July 12th they issued a statement that this was only meant to refer to gardens where ground had not been broken before that date, and emphasized that in many sections small crops of beets, cabbage, kale, and turnips can be grown successfully when planted in July, and even to August 1st.

Prof. J. G. Moore has an important article in this issue which should be studied by those who plan to continue gardening.

—H. J. Rahmlow.

Sorrow is the mere rust of the soul. Activity will cleanse and brighten it.—Samuel Johnson.

THE MOST POPULAR IRIS

THE American Iris Society again conducted an unofficial iris symposium to get the opinion of judges and growers of the best iris varieties.

Listed here are the first 25 varieties of the 100 in the symposium.

We find that one need not be rich to have good iris in the garden. Of this list, 14 can be purchased for $2 or less. Many of these varieties have won the Dykes Medals or were runners-up for the same. There is now no earthly reason why iris lovers cannot grow the best varieties, or why some of the old obsolete varieties should not be disposed of and replaced by the best kinds.

Iris can be planted almost any time, although the sooner after blooming, the better. However, there are many iris dealers from coast to coast offering these good varieties, and it is not yet too late to plant them.

The 25 Best

1. Great Lakes '38
2. Wabash '36
3. Prairie Sunset '39
4. Golden Majesty '38
5. Deep Velvet '39
6. The Red Douglas '37
7. Golden Fleece '40
   Spun Gold '40
9. Sable '38
10. City of Lincoln '37
11. Fair Elaine '38
12. Amigo '34
13. China Maid '36
14. Melitza '40
15. Golden Treasure '36
16. Old Parchment '39
17. Christabel '36
18. Elsa Sass '39
    Junaluska '34
    Shining Waters '33
21. Gloriole '33
22. Caroline Burr '40
    Matterhorn '38
24. Arctic '40
25. Golden Spike '40

Note: Date after name is year of introduction.

Should We Fall Garden?

Prof. J. G. Moore

DURING late summer and autumn in most gardens there is space which is not being utilized. When we are so anxious to have the garden produce as much as possible it is only natural that we should think of late planting to increase the vegetables produced.

There are few crops upon which one can depend to give satisfactory results when they are planted as late as August 1. There are three things that contribute to this situation: dry weather soon after planting; unseasonably cool weather; and an early killing frost.

If one contemplates fall gardening, the first thing to do is to determine as accurately as possible the probable length of the growing period left. Of course, this varies with the section in which the particular gardener is situated, and there is no uniform period from a given date.

The next problem is to select vegetables and, in many cases, varieties of these vegetables which are reasonably sure of maturing within the period available, taking into account time needed to use them, when they are not grown for preservation or storage.

One needs to know then the usual length of time needed for the vegetable to develop. The fact that all of those kinds which we would be likely to fall plant, with the exception of beans, will stand some frost and the root crops and kale quite heavy frosts without injury.

What to Plant

The safest crops, of course, are those requiring a short growing period and which will withstand some frost. In mosts cases the one most hazardous will be beans. The following *length of time in days* necessary for developing the various vegetables may be helpful in planning fall planting.

Beans, Bountiful, 48 to 50 days; Plentiful, 51-52; Unrivalled Wax, 52-53.

Stringless Green Pod, 50-53; Beets, Extra Early Egyptian, 50-55; Early Wonder, 55-60.

Carrots, Early Scarlet Horn, 65-70.

Kale, 55-60.

Kohlrobi, 60-65.

Lettuce (Leaf), Simpson or Early-Curled Simpson, 40-45; Prizehead (Head), May King, 60-65; Cos, 65-70.

Peas, Laxtonian, Laxton's, Progress, 60-65.

Radish, globe shaped varieties, 25-30.

Spinach, Bloomsdale, 40-45; King of Denmark, 45-50.

Turnips, Milan, 40-45; Purple Top Strap Leaf, 45-50; Purple Top White Globe, 55-60.

Early Scarlet Horn carrot and Milan turnip are small rooted varieties and are not as satisfactory for storage as a larger variety.

TO PRUNE OR NOT TO PRUNE TOMATOES

THERE seems to be so much controversy about whether or not tomatoes should be pruned, that it seems advisable to present some of the facts here.

Some growers advocate pruning young tomato plants because they think pruning encourages more rapid development of blossoms and fruit. This is made from the false assumption that fruit and leaves compete with one another for the energy materials of the plant. As a matter of fact, the leaves are the machines that transform carbon dioxide from the air and water with its minerals from the soil into starches and sugar from which all parts of the plant grow. Thus pruning may injure rather than help the plants since we are removing a part of the machinery which produces food.

Staking

In some sections of the country early tomato plants are staked, but with present labor shortages the acreage is greatly reduced. The pruned plants produced fewer tomatoes per plant, but they are planted more closely together so that there are more plants for a given area. The fruit is cleaner if staked, and easier to pick, but more subject to blossom end rot and to cracking.

Some of the other advantages of staking are freedom from injury from snails and wire worms, better quality fruit in size, color, and smoothness, and earliness.

The disadvantages are a reduced yield per plant, high cost of labor and stakes.

Removal of leaves reduces the resources of the plant and has been found to reduce the root system upon proportion to leaf production.

In a year when lack of labor is an item, we would suggest not pruning tomatoes but to mulch them with a mulching of about three inches of any material to conserve moisture and reduce weed growth. Uniformity of moisture will help greatly in reducing blossom end rot. Of course if the tomatoes have become established and were planted too closely together, it might be advisable to prune them to prevent overcrowding.

FLOWERS IN ENGLAND

Because of wartime demands on transportation, English flower growers may not ship by train. But flower-loving Londoners still rereceive a few blossoms, some of them by bicycle express. Cyclists from Cornwall, for example, pedal 120 miles, hand their flower load to another team which cycles the next 120 miles; a third team pumps the remaining 65 miles to London. High prices make the trip profitable.—*Time.*

Weeds for the Dinner Table

Many Plants Furnish Nutritious Greens

OUR pioneer grandmothers had to meet many a food shortage and emergency. One way they managed to feed their families in those early difficult times was to make the most of the food gifts of nature. They learned what the forests and fields had to offer in the way of free foods and made the most of these offerings from the time the first wild greens came up in the spring until the last wild nut fell in the fall.

This might well be a tip for all who can reach the good greens now ready in vacant lots, along roadsides and streams, in fields and woods. Many of the more tender, delicately flavored, young leaves are good with salad dressing of vinegar and oil or bacon fat. And many are delicious cooked as you cook greens from the garden. The green leaves give you vitamin A as well as iron and some of the B vitamins. The parts to eat usually are young leaves and tender tips of stems. Of course, you need to be sure wild greens are edible before you serve them to the family.

Use the greens as soon as possible after gathering because they wilt more quickly than other greens and lose vitamins as they wait and wilt.

When you get the greens home, pick them over, discarding roots and wilted or damaged leaves. Wash them carefully as you do spinach in cold water, lifting them out so the dirt drains off and using several changes of water. Don't leave greens soaking in water because they lose food value that way.

Cook wild greens like garden greens. Strong-flavored greens taste best if you cook them 2 or 3 minutes in a generous amount of boiling water—then drain off the water, and cook again in a small amount of lightly salted boiling water. Cook quickly, just until the leaves wilt and the greens become tender. Never overcook. Never use soda.

Try These Weeds

Here are some of the weeds that may be bothering farmers but can make delicious food for your table:

Lamb's quarters, also called wild spinach—silvery green weed with jagged leaves much at home in rich garden and potato fields. Many people like its flavor better than garden spinach—good raw in salad or cooked as greens.

Red-root pigweed, a wild cousin of the garden flower coxcomb—one of the best-tasting and commonest wild greens. The water it cooks in tastes like beef tea and is reddish brown. Served hot and seasoned with salt, pepper and onion juice it makes a good drink—is good in soup, gravy and sauce.

Purslane, a sprawling weed with thick leaves and fleshy stem—related to the bright garden portulaca—delicate flavor and texture—cook by steaming just a few minutes. Cook the little seed pods along with the stems and leaves.

Pink milkweed is another useful wild green. Cook the first spring shoots like asparagus—for greens cook or can the tender leaves and young green flower buds as greens—use the young green pods like okra in soup.

Plantain is a familiar, heavy-leaved weed that hugs the ground and has tender leaves for greens and salad in early summer.

Chicory, also called blue sailors has a fresh, faintly bitter taste. Cook the rosette of root leaves in spring, or use the tender shoots and leaves up to the time the blue flowers appear.

Wild or summer mustard is still another all-summer green—has a pungent mustard flavor — is good cooked with other greens.

These are only a few of the native American greens you may well get acquainted with in wartime.

From U. S. Department of Agriculture, Homemakers' Chat.

Warning is given against poisonous and harmful plants such as Moon seed vine—the fruit of which might be mistaken for wild grape. Also beware of plants belonging to the wild carrot family.

CULTURE OF BELLADONNA

E. N. STILLINGS and Alex Laurie of the Ohio Experiment Station have found that belladonna seeds germinate slowly and unevenly. By pretreating with sulfuric acid, soaking in water and starting in a high temperature and high moisture, 50 per cent germination can be secured. No difference in yield was obtained from plants out of pots, bands or flats. Plants spaced two feet by two feet in the field yielded practically the same amount of material per plant as those spaced 12 inches.

Fertilization did not increase the alkaloid yield. However, higher percentages of alkaloids were obtained from plants grown in soil with a pH. 5.5—6.5 than from plants grown in soil with a higher pH. In samples from the Ohio nutritional test plots, leaf materials yielded a higher percentage of alkaloids than leaves and stems mixed. Greenhouse production was found to be unprofitable. Stems can be cut to within six inches of the soil level without endangering the continued growth of the plants.

In June 15 Horticulture.

They say the national debt is owed to ourselves, so we won't worry about paying all these heavy taxes to ourselves, either, will we?

Roving With Roses

By Richard S. Wilcox, Chairman, Test Garden Committee, Minnesota Rose Society

IN the garden again this year the hybrid tea roses which came through best were the Brownell sub-zero varieties. There is a little variation in hardiness, Break o' Day and V for Victory being apparently the least hardy, but all the varieties came through with little damage below the dirt line and some of them like Pink Princess were alive to about an inch below where they were covered. Ann Vanderbilt is another especially hardy variety.

Crimson Glory Good

Crimson Glory as usual came through entirely satisfactory and topped the list of regular hybrid teas in this respect, although three other reds were close to Crimson Glory. They are Dickson's Red, Flambeau and Etoile de Holland. Gruss an Teplitz, of course, wintered easily, just as satisfactorily as Crimson Glory.

Skyrocket and Prosperity, the ever-blooming super-polyanthas or semi-climbing twins, came through the winter, only hilled with a little dirt, with plenty of vigor. Nearly Wild, Brownell's ever-blooming shrub rose, is just a little hardier even than Pink Princess. It is much hardier than any of the Poulsens. Generally, however, the polyanthas came through the winter without much damage. This seems to be true of the new polyantha Pinocchio, wintered here for the first time in 1942-43.

Both the ever-blooming climbers, New Dawn and Orange Everglow, wintered with little damage, just a bit to the tips. These two roses promise much to Minnesota because combined with their hardiness is such amazing bloom.

Two things seem to be vitally important in wintering over any roses here. One is good drainage. If one is not certain of this the bed should be raised. In fact, I think it is a good plan to have all rose borders or beds raised. Standing water in the winter time will kill even the hardier varieties. The other important factor is dusting or spraying to keep the foliage on late in the year. When one cuts alfalfa late, it winter kills because there is no foliage to build up the roots before winter. Apparently the falling of the foliage in the case of the rose has the same effect.

Condensed from June, The Minnesota Horticulturist.

NEW BOOKS

Gardening For Good Eating. New York, Macmillan, 1943. 262 p. Price, $2.50. Helen Morgenthau Fox.

Now That We Have To Walk: Exploring The Out-of-Doors. New York, Dutton, 1943. 256 p. $2.50. Raymond Tifft Fuller.

Alpines in Colour and Cultivation. New York, Dutton, 1943. 276 p. $3.75. T. C. Mansfield.

Spice and Scent: Herbs in Fact and Fancy. New York, Coward-McCann, 1943. 63 p. $1.75. Written and illustrated by Lee Maril.

The Green Earth: An Invitation to Botany. Lancaster, Pa., Jaques Cattell Press, 1943. 353 p. $3.50. Harold William Rickett.

New Gardening Encyclopedia: A complete practical and convenient guide to every detail of gardening; including special supplement for 1943 Victory Gardens. New York, Wise, 1943. 1380 p. $3.50. E. L. D. Seymour.

Arranging Flowers. New York, Studio Publications, 1943. 25 plates. $1.00. Margaret Watson.

Herbs: How To Grow Them and How To Use Them. New edition, rev. and enl. Boston, Ralph T. Hale & Co., 1942. Helen Noyes Webster.

Try Growing Herbs: Handbook for experimenters. Compiled for the New York Unit, Herb Society of America. Bedford, N. Y., Tool Shed Press, 1943. 94 p. $1.00. Helen M. Whitman.

MANCHURIAN FORM OF CHINESE ELM VERY HARDY

MR. W. R. Leslie, Superintendent of the Morden Experiment Station, Manitoba, writes in his news letter: "The Manchurian form of Ulmus pumila the so-called Chinese Elm, leafed out to the tip this spring. Commercial stock of Chinese origin were injured to such an extent as to be due for a one-way trip to the brush heap. The Harbin strain is valuable. The Chinese strain is very uncertain and henceforth should not be planted in Manitoba."

SAVED

A man was stranded on a desert island; he was afraid of cannibals, so he moved very cautiously. As he was climbing up a small hill he heard voices:

"Who in the hell trumped my ace?"

The man lifted his eyes to heaven and said, "Thank God, there are Christians on this island."

HONEY BUTTER

Blend ½ cup butter with ½ cup honey. Beat thoroughly. Store in refrigerator. If a thinner butter is desired use ¾ to 1 cup honey to ½ cup butter.

Variations

(1) Use "as is" between slices of plain or raisin nut bread.

(2) Add 1 tablespoon grated lemon or orange rind to 4 tablespoons Honey Butter.

(3) Add chopped peanuts to Honey Butter.

(4) Add raisins, apricots, or other dried fruit, chopped.

(5) Add chopped carrots.

(6) Blend with same measure of peanut butter.

(7) Blend with same measure of cream cheese.

(8) Mix 2 parts Honey Butter, 1 part cottage cheese.

Some folks live on America,
Some folks live in America, AND
Some folks live for America!
(*From Iowa News Letter*)

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

OFFICERS

Mrs. H. S. Bostock, President
15 W. Main St., Madison

Mrs. R. H. Sewell, 1st Vice-President,
957 No. 70th St., Wauwatosa

Mrs. F. E. Willard, 2nd Vice-President,
Oakfield

Mrs. Floyd E. Ballard, Recording Secretary-Treasurer
Badger Park, Route 62, Madison

H. J. Rahmlow, Corresponding Secretary,
424 University Farm Pl., Madison

DISTRICT PRESIDENTS

Mrs. F. J. Fitzgerald, 649 Broad St., Menasha; Fox River Valley District
Mrs. Martha Lowry, Lakewood, Madison Madison District
Mrs. Geo. Adami, 2466 No. 46th St., Milwaukee; Milwaukee District
Mrs. Gilbert E. Snell, 414 Erie Ave., Sheboygan; Sheboygan District
Mrs. Bentley Dadmun, 604 Main St., Whitewater; South Central District

PRESIDENT'S MESSAGE

Dear Garden Club Members:

I am wondering just how many of you have had a bit of time for relaxation. We are reminded that conserving our health is always important, and taking time out for a bit of rest, helps us to do just that —or won't your Victory Garden allow for rest periods?

Most of us were agreed at the beginning of the year that each District would undertake whatever phase of garden club work was particularly pertinent to the interests and needs of the District. This column was purposely omitted in some months in order to allow more space to the numerous projects carried on by Districts and State Chairmen. Excellent newspaper and radio publicity related the work of the Federation to the general public. The National Council publicity chairman complimented Wisconsin in this respect and hoped that other states might publicize their work in the same manner, letting others know of the work garden clubs are doing.

At the time of the National Council annual meeting held in June, the Regional Board of Directors also held a meeting. Mrs. Warren Shoemaker of Woodstock, Illinois, is the new Regional Vice-President of Central Region composed of six states, with 669 clubs totaling about 24,000 members. It was at this meeting that Wisconsin was asked to name a Conservation

Chairman for the Central Region. We were indeed proud and happy to comply with this request. Our State Conservation Chairman consented to accept the appointment, and we are now at liberty to announce — Mrs. Alfred Kieckhefer, Milwaukee, Wisconsin, whose newest title for the next two years will be "Assistant Chairman of Conservation, Central Region, National Council of State Garden Clubs, Inc." She will still be Conservation Chairman of the Wisconsin Garden Club Federation. Congratulations are in order for Mrs. Kieckhefer.

At present it seems that the combined convention of the Garden Club Federation and the Wisconsin Horticultural Society will be held at Madison in the Loraine Hotel. The date will be chosen at the Board meeting of the Wisconsin Horticultural Society which is to be held in August.

Garden club members will recall that at our convention held last October, it was decided that in the future, delegates will do the voting. It is important, therefore, that delegates be appointed to attend the convention and the Board of Managers meeting, as well as the business meetings.

Our own Board of Directors will probably have a meeting the latter part of August, and we will most certainly welcome any suggestions as to business, or program suggestions for the convention, before that meeting.

If you are planning on being in Milwaukee August 27-28 or 29, be sure to attend (and exhibit if possible) the Victory Harvest Show to be held at the Milwaukee Auditorium. It promises to be the outstanding event of the year.

Elsie M. Bostock.

REPORT OF THE FEDERATION MEMBERSHIP

THE Recording Secretary-Treasurer of the Federation reports that a total of 2,124 garden club members joined the Federation this year. Of this number, 34 joined the Federation only, all other joining the Horticultural Society as well.

There are 85 clubs in the Federation at the present time, with three new clubs for the year.

The total membership last year was 2,297 with 87 clubs.

FOX RIVER VALLEY DISTRICT MEETING RIPON, SEPTEMBER 2

THE annual meeting of the Fox River Valley District will be held in the Ripon Theatre on September 2nd, beginning at 10 a. m. There will be a luncheon at the Congregational Church at 12:30.

There will be a Harvest Show featuring defense garden exhibits, table arrangements, and flower arrangements. Also an exhibit of Victory Garden Posters will be on display.

A worth while program is being arranged, the details of which will be given to the press and to the various districts previous to the meeting.

Mrs. Van Buren Watkins, Publicity Secretary.

VICTORY GARDEN BROADCASTS GIVEN

THE Menasha Garden Club arranged a successful series of Victory Garden Broadcasts, with Miss Henrietta Hall, War Service Chairman, in charge. They were given on five successive Sundays at 1 p. m. over Station WOSH at Oshkosh, individual members of the club participating. A most clever script was written in dialogue form by Miss Hall.

The three flower arrangement schools held in Green Bay, Wausau, and Stevens Point, were very successful and well attended.

Mrs. Van Buren Watkins, Publicity Secretary.

PART-YEAR DUES ACCEPTED NOW

MEMBERSHIP dues in the Wisconsin Garden Club Federation and the Horticultural Society from July 1st to the end of the year, will be 30 cents per member instead of 50 cents previous to July 1st. Of this amount, the Horticultural Society receives 20 cents for membership and the magazine for the balance of the year, and the Federation retains 10 cents for the general fund. New garden clubs may now join the Federation and Society on this basis.

VICTORY HARVEST FESTIVAL MILWAUKEE AUDITORIUM AUGUST 27-29

MILWAUKEE'S Victory Harvest Festival is to be held August 27, 28, and 29 at the Milwaukee Auditorium.

Hundreds of Victory gardeners, dahlia and gladiolus Society members, Milwaukee County garden clubs, florists, nurserymen, Boy Scouts, Girl Scouts, 4-H clubs, high school students and other youth groups and civic organizations will take part.

Exhibits will consist of garden produce, fruits, vegetables, preserves, canned goods, flowers, and many educational displays and demonstrations, together with floral designs and creations; also plantings and landscaping projects by the Milwaukee County Park Board and nurserymen.

This will be the largest display of entirely local horticultural exhibits that Milwaukee has ever had and the use of the Milwaukee Auditorium for the occasion indicates the size and magnitude of the undertaking.

The admission price is 40 cents and the show committee in its direction and promotion, is planning on a total attendance of not less than 35,000 for the three days of the Festival.

The proceeds will be used in rehabilitation work for the benefit of the servicemen in our own state of Wisconsin.

Mrs. Chester Thomas, Milwaukee, Chairman.

WANTED: REPORTS ON VICTORY HARVEST SHOWS

WISCONSIN Horticulture will be glad to publish short statements of news about Victory Harvest Shows held by affiliated organizations. We will also be glad to publish announcements about shows to be held after the date of publication.

The September issue will probably be out by September 12th.

In sending information about past shows, mention the following: Variety of products shown, and something about the interest they created; exhibits of educational value shown; and the attendance at the show.

VICTORY GARDEN HARVEST SHOWS

VICTORY Garden Harvest Shows will soon be the activity of the month for August and September.

The National Council of Garden Club Federations has suggested that each harvest show use the funds obtained for some patriotic cause. One of the activities that can be sponsored by such funds is garden centers. After all, the garden center is one way of increasing interest and knowledge of gardening.

There is much to be done to make garden centers helpful and practical. It should be a topic for discussion at garden club meetings and at district and state conventions. Leaders must be trained so that they can answer questions and be helpful to those who seek information and assistance.

Garden centers will grow in popularity as their value becomes known to the public.

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How Women Can Help on the Farm

Grace Rountree

DURING June, a farm labor conference was held in Madison, with representatives of various state organizations (both urban and rural) represented. All representatives were asked to take the following information back to their memberships and to ask for their cooperation, where it is possible:

"You and the other members of your organization realize that we cannot afford to let farm production drop. Food is a military necessity. No food should go to waste this year because of lack of workers. Your organization is given the opportunity to help with a vital national program — THE PRODUCTION OF FOOD."

The group worked out a list of the ways city and village women could be of help in this program. The following suggestions were made:

"(1) Release the time of farm women so they may take the place of hired men who are no longer available. A local organization could work out a wage scale for one or more of the following services. Farm folks want to pay for help. The money may go to the individual or to the club for contributions to a worth while cause. It was agreed farm folks probably wouldn't ask for this type of help unless groups of city and village women advertised their willingness to help and registered with the local volunteer placement leader.

"(a) Take country children into town homes for a few days or a week during rush seasons on the farm. (In some cases might go to farms to care for children.)

"(b) Spend one or more days a week washing, ironing, canning, cleaning or mending for a farm family.

"(c) Help care for gardens and gather and can food, perhaps on a share basis.

"(d) Help cook for threshers, silo fillers and other large groups of seasonal hired help. (Farm women could encourage practice of men going home for supper.)

"(2) Prevent waste by working out some system of "go betweens" whereby farmers with surplus food could sell it or make it available for city folks to pick and can on shares.

"(3) Work in business places to release men to work on farms during peak seasons of work.

"(4) Supervise Girl Scout Aides or other groups of girls helping to harvest special crops.

"(5) Work on farms raising vegetables for market or canning factories. This may include planting, weeding and harvesting vegetables, also washing, bunching, grading or sorting vegetables for market.

"(6) Work on farms specializing in fruits. Pick cherries, weed and pick strawberries, pick raspberries, pick, grade and pack apples, etc.

"(7) Detassel hybrid corn.

"(8) When there is an urgent need and some farmers willing to hire them, women can be valuable on farms specializing in poultry. They can soon learn to feed poultry, gather, candle and crate eggs, keep egg records, kill and prepare poultry for market and look after incubators and brooders.

"(9) Likewise when the need arises, women can feed and milk cows, wash and care for dairy utensils, keep records and deliver retail milk.

"Each local organization might name someone with the organization to recruit workers and arrange transportation. The club would then be ready to cooperate with trade center labor committees to mobilize emergency help when there is a need for women to help."

Miss Rountree is Assistant State Home Demonstration Leader, University of Wisconsin.

Although our organization may not be so active in this volunteer work this summer, we should keep this opportunity for service in mind for next fall and next year. I know that our memberships stand ready to help wherever they are needed. This fact has already been proven in many ways during this past year. Let me know if you have any questions, or contact your county agent for additional information.

Food is a vital war material and the farm labor situation may become more acute. We need to look to the future.

Elsie M. Bostock.

WAR SERVICE NEWS

WE must plan now what to do for the boys in the Wisconsin camp hospitals at Holiday time.

Now is the time for garden club members, while busy making jams, jellies, and preserves, to prepare small glasses containing only an individual serving, which at Christmas time can be tied and decorated with a bit of gay ribbon and evergreen to be sent to the boys at the camp hospitals.

The War Service Committee plans to place these small jars or glasses of jelly on breakfast trays on Christmas morning, with other holiday decorations.

Information and further instructions for handling and collecting these items will be furnished at a later date.

Your help and participation in this good work is gratefully appreciated.

Mrs. Chester Thomas, War Service Chairman.

Letter from the Conservation Chairman

Mrs. Alfred Kieckhefer, Milwaukee

EVERY paper we read, each magazine we peruse, all the broadcasts on the air bring the message that we must plant more and more food crops, and end with dire threats of an ampty larder this winter if we do not heed these warnings.

It is a most serious situation, but I feel sure that all the garden club members planned their gardens on paper after hearing the Rev. Otto at the regional meetings last February. So I can just picture the neat and thrifty looking garden plots you all have and know you are just as proud of them as I am of mine. I carried out some of his suggestions and they have proved most successful. So now we garden club people are all set for this year and will have plenty of produce to share with the many charitable organizations and Red Cross.

What steps are you taking to build up your soil for next year? Commercial fertilizers are not what they used to be and at best they only serve to stimulate growth. We have no time to rotate our crops or plant cover crops, so I trust many of you did what the Rev. Otto mentioned and put in rows of peas between your corn to bring nitrogen into the ground again. It is up to each one of us to take steps and plan ahead to have some good organic humus at hand to help restore the fertility of our gardens. We must encourage the multiplication of soil bacteria and earth worms. They are necessary for the production of fertile humus on which plant life depends.

Compost Pits

The Rev. Otto and I both spoke of compost piles at the regional meetings, but I am afraid we did not stress them enough. No matter where you live, in the country or town, you simply must have one of these invaluable piles. If you are in a farming community, it may be simpler to get the ingredients, but a compost pile is not dependent on manure. I made mine last April and it will be ready for use this fall. To me it is like a savings account. Such a comfortable feeling! Now I am most interested in the reaction of you garden club members to my pet—my compost pile. I told of it at the regional meeting, and as I did not want to take the time to go into all the details, I offered to send on all directions for this "super" affair to anyone who wrote me for them. If you have something good and are satisfied with it, please share it with the rest of us. I wish each club would make this part of a meeting, exchanging notes on this most vital subject, and would send me the results so I could make a general summary from the information.

We cannot have good healthy crops without good healthy soil—so please share your secrets with the rest of us.

"A Sense of Humus"

I have just read a book that I want to recommend to all garden club members. It is "A Sense of Humus" by Bertha Damon, past president of the Federated Garden Club of New Hampshire. Her struggle with her farm there—her hired man Samuel and her final realization that her dirt lacked humus and her efforts to acquire it, make fascinating reading. Her comments are delightful. She says "Compost, like wine, is bettered by a certain amount of aging." Then she discovers that scientific fertilizer can never be superior to animal manure unscientifically arrived at and she tries unsuccessfully to buy it at local stores. She remarks that in her barn only motor cars were kept and that she grants a car may be superior to a horse for transportation and a cow cannot be easily manipulated, but that nevertheless while a car stands in the barn there is one gift it never, never gives. Of what use are exhaust fumes? she asks. At the end she elevates humus. She sees education as a compost of all things ever learned and in a way forgotten. She understands why words have roots and meanings grow up from layers of old meanings. She recognizes humus as a symbol of democracy in which many work for the good of one and one works for the good of many. After reading her book I felt quite justified and even proud of my enthusiasm for my compost pile.

FOR YOUR GARDEN CLUB PROGRAM

Make Stems Fit the Flowers

A very interesting suggestion for a half-hour program at a garden club meeting comes to us from England. A contest is being conducted by The Gardener's Chronicle, leading English publication, which is a variation of the popular jig saw puzzle. The magazine carries pictures of stems and leaves of flowers, but the flower heads are separate. Each is lettered and the problem is to make the flowers fit the stems.

It occurred to us that a contest might be conducted at a garden club meeting in this way. Cut the flower heads from a half-dozen or more varieties of flowers, and place the stems in a vase. Letter the stems a, b, c, etc. Then place the flowers in a separate vase and letter them with different letters. Give each garden club member a piece of paper and a pencil and ask them to designate which flower belongs to which stem in this way a-h, b-k, etc.

Suitable prizes can be given to those who have the correct answers.

War Service News Report on the Truax Project

Genevieve Clarke Dakin
Madison District War Service Chairman

IN the last issue of Wisconsin Horticulture, the editor commented on the work undertaken by the Madison District at Truax and included a partial report on the project. Mr. Rahmlow has asked me to supplement that report.

As you recall, our plans included landscaping only focal points—the Flag Pole area, the Hospital Entrance, the Service Club, the Guest House, the three chapels, and the two entrances. Funds that came in, just under $800, and material donated by nurseries made it possible for the accomplishment to exceed our expectations. The cool, wet, long spring was a contributing factor too.

Two experienced men supervised details of soldiers who dug and planted hundreds of trees and carried out the plans in the original set-up. In addition, they executed the plans for the Second Service Club recently completed.

The chairman, in addition to general supervision, worked with details of soldiers daily for several weeks in other sections. A thousand shrubs, gifts of the Dane County Red Cross, the Madison Municipal Nursery, and the Coe, Converse & Edwards Nursery, were set out in the Hospital area. Each of the four dispensories received some attention.

The W.A.A.C. unit of four buildings was our next objective. Two hundred shrubs entered into the foundation plantings, screens, and enclosed a rectangle where borders of perennials add a homelike touch. The girls enjoyed planting a long border of annuals with seeds and plants we gave them.

A gift of 350 shrubs from the Jung Nursery made it possible to do simple foundation plantings at each of the office buildings along four blocks of Headquarters' street. The Post Exchange was given an adequate planting, later supplemented by lawn groupings of flowering crabs and setigera roses.

About this time, the Officers' Club put in a plea for some dressing up. Luckily, we had just enough in our nursery to meet that need.

Then came word that Mr. McKay was giving us 1,000 shrubs and trees. Two army truck loads brought them from Waterloo. We gave each squadron a generous quota to use for its Day and Orderly rooms. Two negro squadrons who had worked continuously on planting came in for a large share. The Guard House was given its allotment.

A long rectangular plot at the entrance of the radio school facing the First Service Club lent itself well to a plan in which we incorporated 150 shrubss and 36 flowering trees. Crabs, tree hydrangeas, mock oranges, spirea Van Houttei, spireas Billiardi and Froebeli should give a succession of bloom. At other radio school entrances groups of shrubs were utilized.

The two theaters requested and came in for a share in the planting program and eight mess halls received attention.

Large groups of sumac in broad curves near Entrance 1 will give color. At other corners, groups of honeysuckle and prairie roses add interest.

We gave the Guard House several pounds of vegetable seeds and flats of plants for a large Victory garden.

Garden Club women planted 36 flower gardens.

By fall the bachelor officers' quarters will be graded and should have simple plantings. Another dental clinic is nearing completion and will need attention. The fall will also see a resumption of our tree planting. By that time the grading at Entrance 1 should be completed and trees and shrubs may be used to advantage.

BERRIED SHRUBS FOR HOME DECORATIONS

By O. I. Gregg, Landscape Extension Specialist, Michigan State College

MANY shrubs have a dual purpose and some even tri-purpose. Not only are the flowers of these shrubs pretty but in many cases the fruits are even more attractive as well as producing food for birds.

The kinds that hold their fruit are of sufficient number to make them very useful for decorations.

Foremost of the colored fruits in red are the **barberries.** They have bright red fruits that show up especially well. Some kinds are much more fruitful than others. Of the newer types, Berberis koreana or Korean Barberry has large grape-like clusters that are very noticeable.

The **High Bush Cranberry,** Viburnum americanus, is very good and the berries are sometimes used as a substitute for cranberry sauce.

The **Coralberry,** if protected at this time of the year by bending the branches to the ground and covering the fruited twigs with leaves, has more beautiful fruits than any other shrub. They vary from nearly pure white to bright red. These with snowberries, similarly protected so they are kept from freezing and thawing make a wonderful display.

Rose hips from several species of ornamental shrubs like the Red leaved Rose (Rosa rubrifolia), Prairie Rose (Rosa setigera), Rosa multiflora and others are quite attractive and because of their usefulness as bird food and beautiful blooms can be used to great advantage on banks and even in the shrubbery border.

—Condensed from Horticultural News, Michigan.

The Garden Lily Problem

Victor Ries, Ohio

If all the lily bulbs that are planted would live and bloom, what gorgeous gardens we would have! Unfortunately, they do not. Here are some of the reasons for failure:

1. Poor bulbs. The bulbs are shrivelled and dried out. They have been purchased from someone who did not know how to handle them or they have been left lying around the house a week or more before planting.

2. The most common reason for failure is that healthy bulbs are practically unavailable. Good looking bulbs mean nothing, for the best of these may be infected with the mosaic disease.

The mosaic disease indicates itself by a light and dark green mottling of the foliage in the early stages, by distortion of the flowers, and foliage, distortion of the stem, and finally by complete dying of the stem and eventually the bulb. There is no cure for this disease other than the destruction of the bulb. Fortunately, the disease is not carried in the soil. Contrary to popular belief treating the bulbs with sulphur, Semesan or other chemicals is absolutely useless for the control of Mosaic.

3. Basal rot. This disease rots the base of the bulb. When buying lilies accept no bulbs which show decay at the base. It is advisable to soak all new lily bulbs before planting, in formalin (formaldehyde) using 1 part of it to 100 parts of water. Soak for 30 minutes. The lists that follow give resistant and susceptible varieties. Susceptible varieties may still get this disease since it is carried in the soil.

4. Poor drainage may cause bulbs to rot before growth starts or at least greatly retard proper growth. Planting on a bed of sand or placing bulbs on their sides as usually recommended is worthless. Either plant in well-drained place or remove excess soil water by the installation of a line of agricultural drain tile.

5. Heavy clay soils even if well drained will not give as good results as lighter soils containing adequate organic matter.

6. Heavy infestations of botrytis blight often cause defoliation of the plants; although this does not attack the bulb it weakens it through the loss of foliage. Applications of a copper dust or spray at intervals of two weeks sometimes helps.

PLANTING LILY BULBS

Lily bulbs should be planted as soon as received from the nursery either where they are to grow or, as I prefer, in clay flower pots plunged to their tops in sand, soil, peat moss, or sawdust in a cold frame. If in pots they can be kept until after growth starts next spring. This is an excellent way to check up on your bulbs. Plant all lilies at the depths recommended by the catalog.

DIVIDING AND TRANSPLANTING

Contrary to popular belief lilies can be transplanted almost any time, preferably in the spring as growth comes above ground or in the late summer or fall after they finish blooming. All bulbs should be replanted immediately or else buried in soil to keep them from drying out. As long as lilies are growing well and blooming satisfactorily they do not need to be divided or transplanted.

The above material may seem terribly pessimistic, but after consideration of the disease problem of lilies and frequent consultations with the plant pathologists working on lily diseases I feel that it is the true story. Those who have grown only a few tolerant kinds will says it is not true. Those who have a few tigers and madonnas will laugh at it but those who have "buried a good many dollars worth of assorted kinds of lilies" will say, "So, that is why I failed."

—From Farm and Home Garden Club News Letter.

VICTORY HARVEST SHOW AT OAKFIELD

THE Oakfield Garden Club will stage a Victory Harvest Show in the Oakfield Liberty Hall, September 4th, 1943. The show will be open to the public from 2 p. m. to 9 p. m. Everyone is invited.

Mrs. J. E. Steiner.

PROFESSIONAL PRIDE

A charwoman in a New York bank was telling of her prowess in polishing floors. "When I started to work here the floors was in bad shape. But since I've been doing them," she said with quiet pride, "three ladies has fell down."—*Treasury of Modern Humor*, edited by Martha Lupton (Maxwell Droke).

ARE THORNLESS FORMS OF BERRIES AS GOOD AS THOSE WITH THORNS?

One of our members sent in the question, "Is the thornless form of Boysenberry as good as the one with thorns?"

To get an answer to this question we wrote to the California College of Agriculture at Berkeley, and have the following reply from Prof. H. M. Butterfield:

"For many years I have been interested in the thornless forms of berries and carried on breeding experiments for five years, with the hope of developing certain thornless varieties that would be of horticultural value. In discussing the problem with Mr. Walter Knott, of Knott's Berry Place, Buena Park, California, I learned that he was opposed to all thornless forms of berries for the reason that up to that time none had proved as fruitful as the thorny form from which they had developed as mutations.

"In 1929, Mrs. Bauer in Los Angeles County found a thornless cane on her Loganberry and I encouraged her to go ahead and have this variety patented. In the several years which have intervened we have had time to prove that the thornless form is just as fruitful as the original thorny Loganberry. This variety is perhaps the one exception to the general observations which Mr. Walter Knott made over ten years ago.

"Another grower has stated in a letter to me that he does not consider the thornless Boysenberry to be equal to the regular Boysenberry. As a rule the fruit is of about the same size and quality but I would question the yield, judging from such reports as I have had, although I have not grown the variety personally. The fact that we have nurserymen who are growing a thornless Boysenberry should carry little or no weight because these people are anxious to handle something new.

"As a matter of fact, the thornless variety is of no additional value commercially because it is **more expensive to trellis a thornless berry than one which has thorns.** The thorns seem to make the canes hold better on the trellis and furthermore, as reported by Mr. Knott, who introduced the Boysenberry, the absence of thorns does not reduce the cost of picking in commercial planting. It is for these reasons that Mr. Knott objected to the thornless berry. However he does agree that a thornless Logan is just as fruitful as the thorny form. On the other hand, it is yet to be proved that the thornless Boysenberry is equal to the thorny form."

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