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WISCONSIN HORTICULTURE

SEPTEMBER, 1934

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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
The Wisconsin Garden Club Federation

Established 1910

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Wisconsin Horticulture

OUR PROGRAM
1. A more beautiful Wisconsin, secured by cooperation with all existing agencies.
2. Improvement of Wisconsin's fruits and ornamentals. Establishment of plant breeding and testing work. An active group of plant and fruit testers within the society.

OUR PROGRAM
3. Greater publicity for Wisconsin grown fruits and vegetables.
4. A constantly improving magazine for the distribution of timely horticultural information.
5. Organization of local horticultural clubs in all sections of the state.

SB21
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A New Apple Crate

DR. A. B. BUCHHOLZ
Hudson, New York

ONLY those who have been directly in contact with the apple industry in Eastern New York and New England can realize the great change that has recently come to our marketing system in regard to containers. In the past five years there has been a real revolution as to methods. Only a few years ago, the principal container was the barrel, and we are still listed as a barrel apple area. The barrel as a package for apples, except for export, has rapidly lost favor, first to the tub bushel and now to the *open gift crate*. A trip through any of our large Eastern New York cold storages will show thousands of crates and bushels as against dozens of barrels. In 1933, 59% of the McIntosh were sold in crates, 25% in bushel baskets, and 12% in 40 lb. cartons.

Open Crate in Favor

The use of the open crate has rapidly gained in favor. The movement started a few years ago from the practice of growers picking in orange crates and storing as such for repacking. It was found that the apples, especially good apples in these crates, would sell to the buyers as well or better than when repacked. Thus the movement started and soon there developed a trade in open crates, with the crates returnable. Now the idea of getting your crates back from the distant market, as all of you who have tried know, sometimes works better in theory than in practice. And so recently, particularly last year, the cheaper gift crate came into extensive use.

An Attractive Display Sells the Fruit.

Little Bruising

The apples can be packed in these crates, stacked in storage and transported without the usual bruising contingent to a tight closed package. They can be packed at a minimum expense compared to other types. The package is less expensive. It stores well in storage, and the storage rates can be less than for other packages. There is satisfactory ventilation when in storage, and it stacks better. And, above all, we think that it sells fully as well or better than other packs. Our growers like it, and we think the buyers do too.

Size of Crate

The present approved gift crate has the inside dimensions of 17½x14x11 inches, which, with the corner posts taken out, would total about 2645 cubic inches. The end pieces are higher than the sides to permit stacking. The standard crate measure is 2150.42 cubic inches. This approved crate then is more than a bushel. The term "approved crate" is given because it was recommended by a committee of fruit growers, representative of the Fruit Growing Association of New York and New England. Such a committee was recommended at a meet-

ing of this Society last year. The reasons for adopting this size were because careful trials had been made, and it was found that it would hold without bruising the same quantity of apples as is contained in ringfaced, packed bushel basket with the usual crown. In other words, this crate holds no more apples when packed level with the sides than does the packed bushel basket, as we ordinarily pack it.

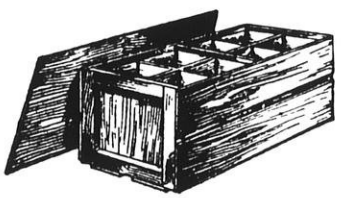
This crate does not hold more than a packed bushel, as it is impractical to fill these crates full, otherwise there would be cutting of apples in stacking and transportation. The crates cannot be heaped. As the package stands, it will compete with the packed bushel basket, or any other common package without defensible argument from the buyer. And while our fruit growers are not any more anxious than anyone else to give a couple of quarts of extra apples, they feel that some allowances can be made for the necessity of filling without bruising.

Packing Open Crate

Just a word as to some incidental features in the manner of packing. Several unique methods have been evolved for facing these crates. Before nailing on the bottom, the empty crate is placed on a form or cover. The apples are faced for the first layer and run in on top of that. The bottom is nailed on and the package is then inverted and the cover removed. The method is similar to the packing of the "easy pack" bushel basket. Some growers use a metal form of the same size as the crate. They face and fill this metal form with apples and invert the crate over it, and after inverting, pull out the metal form. This procedure is similar to facing and filling a tub bushel basket.

Some put a cardboard layer under the face, and there are various other ways of satisfying a particular trade or fancy. There does not appear, however, any good reason to put cardboard covers or cleats on the top so as to make it a closed package.

Our growers believe that the present practice of selling apples in open crates to nearby markets should be encouraged. They, perhaps, are not anxious for all areas to go into it, but if other areas do take it up, we strongly feel that it should be on a basis of an approved or standard crate, and that the experience of our growers for the past few years is a real basis to begin from.—*From the 1934 report of the New York State Horticultural Society. Convention Paper.*



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Write for special prices on carload lots.

SHEBOYGAN FRUIT BOX COMPANY

Sheboygan, Wis.

APPLE CROP FORECAST

WISCONSIN will have a short crop of apples this year, according to the Wisconsin Department of Crop Statistics. The commercial apple crop is estimated, as of August 1st, at 222,000 bushels, compared to a commercial crop of 408,000 bushel, for 1933. The total Wisconsin crop is estimated at 1,036,000 or 43% of a full crop. The crop last year was 67% of normal. The five-year average crop is 1,661,00 bushel, while the five-year average commercial crop is 390,000 bushel.

The Cherry Crop

The 1934 cherry crop was 65% of a full crop as compared to 88% of a full crop for 1933. The crop this year in Wisconsin was about 4,400 tons as compared to 7,040 for 1933. The five-year average crop is 5,840 tons.

Peaches and Pears

The United States peach crop is recorded as 52% of normal while the pear crop is 60% of normal as compared to a 63% normal crop for a ten-year average.

APPLES ORIGINATED IN WISCONSIN SHOWN AT STATE FAIR

ONE of the interesting exhibits at the State Fair in the Horticulture Building this year, was a table of varieties of apples which were originated in Wisconsin. These varieties are as follows: Patten Greening; Plumb Cider; Pewaukee; N. W. Greening; Wolf River; Windsor; McMahon; Gem City.

MILTON APPLE MAKES GOOD SHOWING

THE variety Milton, a cross between McIntosh and Yellow Transparent, which has been recommended for trial in Wisconsin has made a good showing this season. Several trees that bore heavily last year also had a good crop this season and the apples were a very attractive color and appearance. This variety was ready for the market in the region of Madison the second and third week in August. It ripens a little before Wealthy and as an eating apple is of better quality.

However it does not ripen uniformly and commercial growers may criticize it somewhat from this standpoint since it would require two or three pickings. However, for the home market it would be satisfactory since it could be sold over a longer period.

Melba

Melba did not produce as heavily this year as it did last year, though there was a fair crop on several trees observed. In the southern part of the state it was ready for market the last week in July. The quality is good and it ranks high among the early eating apples.

Cover Crop or Clean Cultivation In The Orchard

FRUIT growers are debating as to which is the most profitable practice in the apple orchard, clean cultivation, a cover crop, or a combination of the two. An experiment conducted at the Graham Experiment Station near Grand Rapids, Michigan, by the Michigan Horticultural Department, gave some interesting results. The varieties consisted of Duchess, Grimes, Baldwin, Stayman, Northern Spy and Rhode Island Greening. They were planted 20 feet apart each way in clay loam soil. Corn was planted among the tree rows until the cover crop of rye was seeded about the middle of July.

Soil Treatments

In the spring of 1920 the orchard was divided into five plots, which received different soil treatments, as follows:

Plot 1—Clean cultivation with cover crop.

Plot 2—Clover—straw mulch. All hay removed from the plot. Straw applied as a mulch around the trees.

Plot 3—Alfalfa—straw mulch. All hay removed from the plot. Straw applied as a mulch around the trees.

Plot 4 — Alfalfa — alfalfa mulch. One cutting removed from the plot. The balance used as a mulch around the trees.

Plot 5 — Alfalfa — alfalfa mulch—fertilizer. Same as Plot 4 with an application of nitrate of soda each spring.

Maintenance Cost

The maintenance cost for each plot was kept during the duration of the experiment. No charges were made against the plots for land rental, supervision, pruning, spraying, or harvesting. Man labor was calculated at $.30 per hour, while $.60 per hour was allowed for a man and team. The hay crops removed from the various sod plots was valued at $12.00 per ton.

Plot 1 — was plowed each spring, followed by dragging every week or ten days until the middle of July when a cover crop of oats, rye, or rye and vetch was planted. For the seven year period the average annual cost of maintenance under this tillage, cover crop system was $10.58 per acre.

Plot 2—was seeded to clover in 1920, but due to a poor stand it was reseeded in 1921. This seeding produced hay crops in 1922, 1923 and 1924. Since 1924 the clover was largely crowded out by blue grass which was cut once each season and allowed to remain on the ground. A heavy mulch of straw was placed around each tree at the beginning of the project and maintained by new applications whenever necessary. The value of the hay removed from this plot was deducted from the cost of maintenance for the seven year period, which leaves the average annual cost of $8.86 per acre for this clover — straw mulch system of management. During the two years that no additional straw was applied to the mulch the cost per acre was less than $1.00 per year.

Profit From Alfalfa Plot

Plot 3—was given the same treatment as Plot 2, except that alfalfa was seeded between the tree rows instead of clover. All of the alfalfa was removed from the plot for hay. Due to the fact that fair cutting of alfalfa was still being secured at the termination of the experiment in this plot the net returns were larger which, consequently, resulted in a net annual profit of $5.94 per acre.

Plot 4—was seeded to alfalfa the same as was Plot 3. In this plot, however, only one cutting of alfalfa was removed for hay, the balance being raked up and spread around the trees as a mulch. The use of the alfalfa for a mulch eliminated the purchasing of straw for this purpose which in turn reduced the maintenance cost for this plot. The average annual net profit, over and above the cost of maintenance was $6.68 per acre.

Plot 5—was given the same treatment as was Plot 4, excepting that an annual spring application of nitrate of soda was given each tree in addition to the mulch. In 1920 each tree in this plot received one-fourth pound of this fertilizer. These applications were gradually increased to five pounds per tree in 1926. The value of the hay removed from this plot practically equalled the cost of the fertilizer, consequently this system of maintenance showed neither profit nor loss.

Cost of Cultivation High

Not only was the maintenance cost for each plot carefully kept, but the response of the trees to these various treatments was also recorded for the duration of the project. The general observations made show that the trees under cultivation were the best. The trees growing under the various types of sod mulch systems were variable in their response between treatments and they were smaller in tree spread, height, and trunk circumference than those growing under cultivation. Also the average yield and fruit sizes were smaller than those secured from the trees in the clean culture plot. However, since the differences in favor of the cultivated trees is not so large it did not justify the large expenditure of approximately $120.00 per acre, for the seven year period, to produce trees of this slightly greater growth and production. Therefore, the information gath-

(Continued on page 8)

In The Orchard

CUT DOWN THE NEGLECTED ORCHARD

THE New York Horticultural Society at their 1934 convention adopted the following resolution.

"That our Resolution Committee prepare definite resolutions asking the Perishable Fruit Commission to immediately appeal to the federal government for an appropriation of funds and an allotment of men from the CWA for the purpose of cutting down old neglected orchards in this state, following the precedent of Massachusetts and Connecticut."

Neglected fruit trees form a constant menace to the well kept orchards because they harbor diseases and insects. Neglected apple trees are practically always so infested with worms and scab that the fruit is unfit for food.

DECREASING SUNSCALD IN APPLE TREES

AN ARTICLE appearing in the Minnesota Horticulturist by Dr. R. B. Harvey states that it will be of considerable value in decreasing sunscald in newly planted nursery stock to have at least one conducting root so turned as to supply water to that area which is most exposed to the sunlight, the surface that is at right angles to the sun's rays at one and two o'clock. Dr. Harvey found that roots supply moisture to the side from which they grow and so he recommends the planting so as to supply moisture to the surface facing the sun to prevent scald.

Connected with this placing of roots it would be desirable to so place the limbs that the trunk would be shaded between the hours of one and two o'clock, and also to head the tree toward the sun so that as few surfaces as possible are given an exposure at right angles to the sun's rays during mid-day or early afternoon.

NITROGEN BEST FERTILIZER FOR APPLES

NITROGEN alone is a satisfactory fertilizer for apples, according to another experiment on this subject by Dr. G. S. Potter of the New Hampshire Experiment Station. The yield of McIntosh trees under cultivation was not increased by the use of a complete fertilizer in an experiment covering four seasons. The yield was less than where the same amount of nitrogen had been used alone.

A Baldwin orchard in sod receiving a complete fertilizer with nitrogen in the form of tankage definitely yielded less than those receiving nitrogen only.

TEMPERATURES FOR STORING APPLES

THE correct temperature to store apples is determined by the time at which they are to be marketed. Investigations by the U. S. Department of Agriculture have shown that apples soften approximately twice as fast at 70° as at 50° F., twice as fast at 50° as at 40°, and about twice as fast at 40° as at 32°. It is advisable therefore to consider the safe storage period, that is, the period which is safe from the commercial point of view, as about two weeks to a month shorter than those given in the tabulation given in the following figures.

The following data shows about how much time different varieties as grown in regions to which they are best adapted, require to reach full eating-soft condition when picked at proper maturity and stored immediately at 32° F.

Variety	*Months*
McIntosh	2 to 4
Grimes Golden	2 to 4
Jonathan	3 to 4
Northern Spy	4 to 6
Ben Davis	5 to 6
Delicious	5 to 6
Stayman Winesap	6 to 7
Winesap	7 to 8

(From circular 287 U. S. Department of Agriculture; Commercial Storage of Fruits and Vegetables.)

SOVIET RUSSIA ORCHARDING

THE U. S. S. R. plans by 1937 to have four million hectares (10,000,000 acres) of orchards according to the Five-Year Plan. At 100 trees to the acre, this would be one billion trees. This is only several times what your Uncle Samuel now has.

The acceleration of the bearing of these young trees is one of the real problems faced by the Russian Research Institute for Fruit Growing in the North. The Russian scientist in charge of fruit growing research has requested F. N. Fagan for his advice in ringing fruit trees. Fagan's fame along this line has spread even to the land of the Soviets. — *Pennsylvania State Horticultural Association News in Hoosier Horticulture.*

THE EFFECT OF SPRAY CHEMICAL ON ALBINA RATS

AN EXPERIMENT was conducted at the University of Missouri by T. Talbert and W. Taylor to determine the effect of spray chemicals on rats. They fed albina rats varying amounts of arsenic and lead exceeding the world tolerance by many times, and over long periods of time, to determine the effect. The results showed albina rats could consume many times the world tolerance and bad effects were only noticed after long continued feeding. Spray chemicals do not have as acutely toxic effects on albina rats as is generally supposed, even when used in amounts of 200 times the world tolerance.

Assuming that human beings would be effected to the same extent as rats, it is almost inconceivable that a person could consume enough arsenic or lead as spray residue at one time or over a period of time to have any bad effects.

AMERICA'S MOST HISTORIC APPLE TREE

WHAT is generally conceded to be the most historic apple tree in the United States is to be found at Fort Vancouver, Washington, on the north bank of the Columbia River about 90 miles from its mouth, and across the river from Portland. Aside from being the most historic, this apple tree is the earliest planted west of the Rocky Mountains.

The tree once occupied English ground, when the present fort belonged to the Hudson's Bay Company, whose territory, in 1827, extended west from the Rockies to the Pacific Ocean; and north from Spanish California to Russian Alaska.

Planted 106 years ago, the tree still bears every year. Like the famous Washington Elm, the tree at Vancouver is protected by an iron railing. A placque on this railing gives the history of its planting. Its legend may be found in many historic works of the Northwest.

The story of the tiny apple seeds which traveled from England around Cape Horn, and half way up the Pacific to be planted on future American ground, to thrive for centuries to come, is intriguing. The story is this:

In 1826, at London, England, a farewell dinner was given to Captain Simpson and a number of officers of the Hudson's Bay Company, who were ready to set sail for the Hudson Bay post at Fort Vancouver. Apples were being served as dessert. One of the ladies, seated next to Captain Simpson, cutting an apple, dropped the seeds into Captain Simpson's pocket telling him to plant them when he reached his destination and perhaps they would grow.

When upon the arrival at the Hudson's Bay post the seeds were shown to the factor, Dr. McLoughlin, he immediately insisted that they be planted, detailing his own gardener to look after them. The seeds were planted in little boxes and kept where they could not be touched by anyone. After several years, the tree bore its first crop—one apple. This apple when ripe, was picked by Dr. McLoughlin, who carefully cut it into seventeen slices, one for each person seated at the table. The next year the tree bore twenty apples. Since then the famous tree has been bearing fruit year after year.—(From Better Fruit.)

Splash!

Mary: "Have a good time last night?"

Sarry: "Yeah, but take my advice and never slap a fellow when he's chewing tobacco."

It's Not How MANY YOU GROW — It's How Many EXTRA FANCY YOU HARVEST

Grasselli SPRAY PRODUCTS

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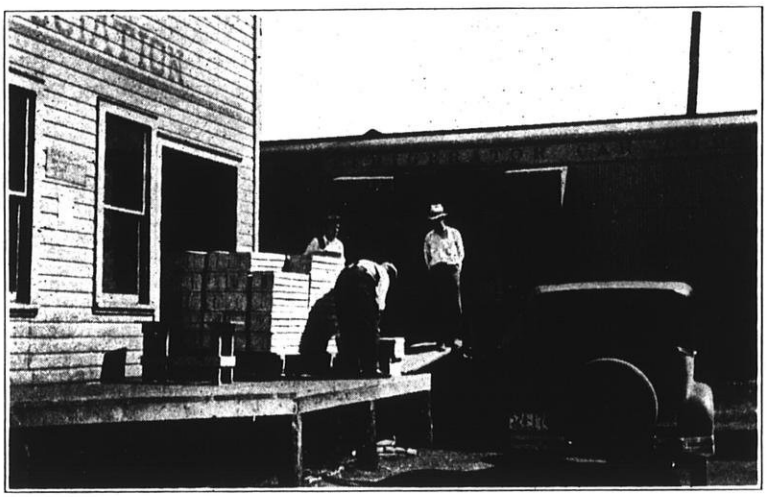
PREPARING THE RASPBERRY PATCH FOR WINTER

W. H. ALDERMAN
Minnesota

THE use of oat or barley cover crops in a raspberry field is probably a good safeguard every year since it will have a tendency during September to cause the canes to ripen up and develop hardiness for winter conditions. In years of drouth, however, the practice is somewhat open to question since we are not getting growth enough on our raspberry canes at the present time to insure a reasonable crop of fruit next year. An oat cover crop might hold back this growth still more and in that way do more harm than it will do good. In abnormal drouth years, such as the one we are going through at present, I think the individual raspberry grower must use his own judgment and decide whether or not his particular field is likely to be in danger of making too late a growth in the fall and therefore winter killing. In that case a summer crop of oats broadcast in the field about the 15th or 20th of August would be a desirable thing. If the individual grower feels that his plantation is not making a good growth and thinks there is a prospect of a dry fall, it would be better for him to continue his cultivation a little later and encourage as much growth as possible during late August and early September. The dry condition of the soil would of course encourage the early ripening of the canes under such conditions.

The staked hill system of raspberry culture is steadily gaining friends in Minnesota. Just now there is a new system which is attracting some attention. That is, a semi-hill, hedgerow type of plantation in which the canes are tied tightly at the top and cut off at about four feet in height. The canes spread out enough at the base so that they support each other.

Bayfield Association Sells The Small Fruit Crop



The Loading Platform at Bayfield. As High as 5 Carloads of Strawberries per Day Were Shipped by the County Association.

HOW TO CHOOSE RED RASPBERRY VARIETIES

ONE of the important factors in determining the yield of red raspberries is the distribution of buds on the canes. It is desirable to select a variety which will produce the greatest number of buds in region of 3 to 5 feet off the ground; because this region on the cane usually produces the greatest yield per bud. According to work done at the Colorado Experiment Station by R. V. Lott, varieties differ in their ability to produce buds in this region on the cane.

Comparing three common varieties, Latham, June and Cuthbert, it was found that June had the most buds in this section of the cane. Latham also produced many buds between 3 and 5 feet off the ground. Cuthbert tended to produce the greatest number of buds about 6 feet off the ground.

When pruning or heading back canes the region between 3 and 5 feet should be left to secure the best fruiting in most common varieties. This is one of the important factors in producing a good yield in red raspberries.

BAYFIELD COUNTY FRUIT GROWERS HAVE SUCCESSFUL YEAR

THE Bayfield County Co-operative Fruit Association contined its successful marketing of the raspberry crop following the strawberry harvest. Raspberries were shipped up until the third week in August The Association handled about 90% of the crop but the total shipments this season were only about 40% of normal. From seven to eight carloads of raspberries were sold. On some days as high as 400 crates per day were shipped by truck.

A meeting of the County Association is being planned early in September.

COVER CROPS

(Continued from page 5)

ered from the trees growing under the terms of this experiment justified the conclusion that where apple trees are grown on a comparatively fertile soil they can be brought up to the bearing age more economically by growing them under the sod system of management. — *Condensed from July, 1934 issue The Maryland Fruit Grower.*

Horticultural News

A. F. YEAGER
North Dakota

One thing C. W. A. projects demonstrated last year was the possibility of doing successful tree and shrub planting in midwinter. While planting plants at that time of year is extremely expensive, it is undoubtedly possible if handled properly. One of the important things is to see that the roots of the plant being moved are not exposed to a temperature lower than 20 degrees above zero. Here is the method that was used with success. Holes of ample size were dug in the frozen earth. Only a few shrubs were taken from a root cellar at a time which were kept covered with burlap and shingle tow or moss until the instant they were planted to keep them away from the cold. The plant was in the hole and unfrozen earth hauled in from outside, filled in and tramped around the plant. The plant was then thoroughly watered, loose dirt put on top and finally the surface covered with a thick layer of snow. The plants are doing fine now.

If one raises grapes from seed, a large proportion of the plants received will be male plant—that is, the blossoms will have nothing in them except pollen, hence will never set fruit. If you have a grape vine which never bears, but which blooms regularly, this is quite likely the reason.

F. Lagomarsino & Sons of Sacramento, California, claim to have a strain of snapdragons which are rust-proof, secured from the California Agricultural Experiment Station. If you have trouble with rust on your snapdragons, this should be welcome news.

V. A. Tiedjens in Plant Physiology, Volume 9, Number 1, states that in acid soils, plants are best able to use nitrogen fertilizer in the form of nitrate; in alkaline soils, plants make the best use of ammonium sulphate.

According to the American Pomological Society 37 per cent of the apples produced in the world are grown in America and one-fifth of our crop is exported.

The National Nurseryman reports that by patient grafting, J. A. Haefle, San Francisco, has developed a tree which bears on its different branches, Blenheim apricots, Hales early peaches, nectarines, sugar plums, Italian prunes, egg plums, purple plums, Santa Rosa plums, German prunes, Hungarian plums, Royal Anne cherries, Green Gage plums, French prunes, Crawford peaches, Early Grafton peaches, Japanese plums, Damson plums, Lambert cherries, Moorepark apricots, and a new "Mystery plum," all of which illustrates the fact that the root of the plant doesn't change the kind of fruit produced by branches born upon it.

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A clipping sent in recently tells of a Mississippi grower who grafted a tomato sprout onto a potato vine. He got 14 tomatoes above the ground and 7 potatoes below the ground, and is saving the tomato seed and the potatoes, expecting to get something new and strange from them. This simply illustrates the fact that few people understand that neither the tomato top nor the potato root was changed by the grafting process. When those tomato seeds are planted next year they will produce tomatoes and the potatoes grown on the bottom will produce potatoes. The relationship between the top of a grafted plant lies only in the fact that each supplies food for the other. —*From July North and South Dakota Horticulture.*

GERMINATION AND STORAGE OF ANNUAL DELPHINIUM SEEDS

IF ANNUAL Delphinium seeds are to be planted in midsummer when the temperature of the soil is very high they should first be germinated on blotting paper at temperatures near 50 degrees F. two weeks previous to planting. The best germinating temperatures for annual Delphinium ranges from 59 degrees F. to 68 degrees F. High temperature of the soil in midsummer may cause some difficulty in germination.

It is best to store annual Delphinium seeds in sealed containers because seeds not stored in sealed containers lose their germinating power in from two to three years. Seeds that are stored in sealed containers may be kept at varying temperatures while unsealed seeds must be kept in a cool place. These are the results obtained by the Boyce Thompson Institute experimenting with annual Delphinium seeds.

Her car stalled at the corner and the traffic lights merrily blinked red, yellow and green. An obliging cop stepped up and asked, "What's wrong lady? Ain't we got the colors you like?"

WISCONSIN NURSERYMEN MEET AT FOND DU LAC

M. C. HELPER
Secretary

THE members of the Wisconsin Nurserymen's Association, their families and friends accepted the hospitality of the Baker Nursery and Seed Company and held their mid-summer meeting at Lakeside Park, Fond du Lac.

The business session was presided over by President Thomas Pinney of the Evergreen Nursery of Sturgeon Bay. Mr. W. G. McKay of Madison, who was the Association's Delegate to the convention of the American Association of Nurserymen held at New York July 16–19, gave a very interesting and detailed report of that meeting.

Mr. McKay also attended the Nurserymen's Code hearing held in New York City the following day before a representative of the Secretary of Agriculture. He voiced the Association's opposition to any Open Price Plan that might be presented. Mr. McKay very forcefully pointed out the many evils and little good that the nurserymen could gain from any Code or Marketing Agreement. He also brought out the fact that drouth conditions which prevailed throughout the central United States and the curtailed plantings on the part of all nurserymen the last two years has resulted in shortages in many varieties of fruit stocks and small shrubs and the ultimate result will be higher prices without any artificial production control on the part of the government.

Wisconsin Nurserymen expressed a strong sentiment in opposition to the Code and prefer to continue on, as in the past, each firm running its own business and solving its own problems.

Every nurseryman who attended this meeting expressed a desire to continue the policy of summer meetings and picnics.

TIMELY TOPICS

Cut out the old raspberry canes from the patch as soon as they are through fruiting and at the same time thin out any surplus young canes. Doing this early in a dry season will throw more growth into the fruiting canes for next year.

The asparagus and rhubarb plantings should be fertilized as soon as the cutting season is over. If this has not been done already, give the beds a liberal top dressing of well rotted manure now. An additional application of nitrate of soda applied at the rate of 100 lbs. per acre in the spring on the older plantations gives good results in most cases. This should be applied just before the bed is disked or harrowed in the spring and then disked into the soil just before the plants start to grow.

Many insects and diseases winter over in garden refuse. As soon as a crop is harvested, pull the plants and burn them. Pull and burn badly diseased plants in the garden at any time they appear. They are potential sources of infection for other plants.

The tomato season may be extended for some time by hanging vines bearing fruit in the cellar just before frost, and picking the fruits as they mature, or the larger green or partially ripened fruit may be picked, wrapped in paper, and stored on shelves in the cellar until they ripen.—*By Prof. W. H. Alderman, Assisted by Louis Sando and A. E. Hutchins in The August Minnesota Horticulturist.*

FINE IRIS FOR SALE

Must move my whole Iris planting and am offering 20 named varieties, all labeled, for $1.00. Geo. C. Morris, 1805 University Avenue, Madison, Wisconsin.

Temperature for Storage of Cut Flowers

CUT flower storage is a problem which faces all florists who handle flowers in such a form. All cut flowers to be stored should be kept with stems well submerged in water, care being taken not to crowd the blooms or allow water to spill on the blossoms. In a recent circular No. 278 of the U. S. Department of Agriculture the following storage conditions are recommended for different varieties of flowers.

Chrysanthemums and Gladiolis may be stored at 35° F. for 2 weeks, and usually remain very salable. Longer storage is possible, though frequently not practicable. As a rule the proper cutting stage for the large-flowering types of chrysanthemums is just after the green color in the center of the flower has disappeared.

Easter lily (Lilium longiflorum), common peony, Chinese peony, Speciosum lily, Regal lily, and goldband lily (L. auratum) can be held at 35° F. for comparatively long periods, although 30 days is usually the maximum storage period. The lilies of this group should be cut for storage when the corolla is about one-half opened, or just before the tips begin to reflex. Lilies forced at relatively high temperatures should be kept at a temperature of about 50° for a preliminary period of about 24 hours before being put at 35°.

Orchids and gardenias (Gardenia florida, G. veitchi and F. fortunei) are not customarily stored for long periods. However, they may be kept in storage in good condition for about a week at a temperature of 45° to 50° F. They keep best when cut just after they have reached a salable condition.

Carnations are preferably held at a temperature of 40° F., although 35° may be used for comparatively long periods. The best cutting stage is immediately after the center of the flower has developed sufficiently to be considered salable.

Cut lilies-of-the-valley are kept satisfactorily at 40° F. and may be held for one week at this temperature; if kept longer the lower bells often become watery in appearance. The proper cutting stage is just after the terminal bell has lost its deep-green color. It should be of a yellow-green appearance, the lower three or four bells at this time being well opened.

Hyacinths, tulips, narcissus, freesias, squills, snowdrops, and crocuses can usually be held satisfactorily for two weeks at 32° to 36° F.

Spikes such as snapdragon should be cut just after the lower five or six flowers have fully opened; umbels, such as blue laceflower should be cut just after they develop to a salable condition; corymbs, such as candytuft, are usually best when cut after three-fourths of the lower flowers are opened.

RUST RESISTANT SNAPDRAGONS

GOOD news is on the way for gardeners who have been having trouble with the snapdragon rust. Resistant forms have been discovered and work is progressing rapidly toward building up resistant strains in all the popular types and colors. As a rule sprays are ineffective as control measures against rusts so that these new resistant forms will be particularly encouraging to those gardeners who dislike to give up growing this old garden favorite. In the meantime, some progress can be made by growing new stock from seed and setting them out in new locations or better still drop them out of the garden for one year then begin again. The rust seems to die out if there are no snapdragons to attack.—*W. R. Ballard, Extension Horticulturist, University of Maryland.*

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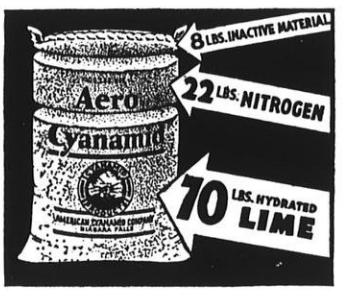

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EDITORIALS

HORTICULTURAL SOCIETY BOARD OF DIRECTORS MEETS AT OSHKOSH

MEMBERS of the Board of Directors of the Wisconsin State Horticultural Society devoted the afternoon of Saturday, August 4th to the affairs of the Society. The meeting was held at the Rasmussen Nursery and Fruit Farm at Oshkosh. Members present were: President James Livingstone, Vice-president M. S. Kellogg, Mrs. W. A. Peirce, Mrs. Charlotte Bullard, Arno Meyer, D. E. Bingham, Samuel Post, Thomas Pinney, N. A. Rasmussen and H. J. Rahmlow. Mr. H. C. Christensen was invited in as a visitor.

Membership Increases

The secretary presented a progress report for the past fiscal year ending July first. Membership was listed as follows:

	Membership	*Clubs Affiliated*
1930	2900	30
1931	3300	42
1932	3550	62
1933	3300	65
1934	3900	72

The secretary also reported having given 13 radio talks on fruit growing and gardening, 40 lectures to garden clubs, assisting with 3 state conventions, attended 7 Board meetings of affiliated state organizations, spoke at 13 apple growers meetings and 5 strawberry growers meetings, 5 beekeepers meetings, 3 florists meetings, and 3 nurserymen's meetings. Helped conduct 6 district flower judging arrangement schools, managed the State Gladiolus Show and spoke at 3 out-of-state conventions.

COMING EVENTS

Milwaukee Art Institute Flower Show, Art Institute, Milwaukee, September 8–9.

Lake Geneva Dahlia Show, Horticultural Hall, Lake Geneva, September 22nd.

Wisconsin Dahlia Society Show, Madison, Loraine Hotel, September 8–9.

Ozaukee County Apple Show, Port Washington, Community Hall, October 5–6.

Annual Convention

The Board voted to consider the city of Racine for the next annual convention of the State Society, depending upon the approval of the State Garden Club Federation.

A nominating committee was appointed to nominate officers whose term expires this year. The committee consists of D. E. Bingham, chairman, Sturgeon Bay, Arno Meyer, Waldo and Mrs. Charlotte Bullard, Menasha.

Nominations may be submitted by any member through this committee. The terms of 3 members of the Board of Directors expire.

In presenting the financial report for the past year the secretary's figures showed that the Society had kept well within its budget during the past year due to slightly increased receipts and drastic cutting of expenditures. Increased cost of printing, however, will mean higher expenses for the coming year. The lowest bid submitted by printers on the State Printing contract effective next January first, will be 100% higher than those in effect now. Consequently, printing of Wisconsin Horticulture will cost just double what it has during the past two years. This will mean an increased expense of about $100 per month. It will be necessary to reduce the size of the magazine somewhat, but it is hoped to maintain its quality because the Society has a small balance left over from previous years. This balance, however, will all be used up this coming year. The board members felt that it will be absolutely necessary to ask for an increase in our next State appropriation if the Society is to continue to function effectively, especially in consideration of the increase in the number of new affiliated organizations to which the Society must be of service.

OUR COVER PICTURE

This month our cover picture shows a spike of the new gladiolus Heritage, originated by E. H. Ristow of Oshkosh. The picture was taken at the World's Fair, and was loaned us by Colonial Gardens, Rushford, Minn.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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Arlene Weidenkopf, Recording Secretary
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Wm. Sass, Fond du Lac
E. W. Puhl, Chippewa Falls

Vol. X SEPTEMBER, 1934 No. 9

Feed the Bees in September

E. C. ALFONSUS

TO CARRY a colony from the end of the honey flow to the beginning of the next requires about 30 lbs. of honey. This means that a single story colony before taken to winter quarters with bottom and cover should weigh 65 to 70 lbs. In order to reach this weight, additional feeding is often necessary. The best suited feed is highly refined cane or beet sugar free of blueing. It was formerly practiced to feed colonies on a rather thick sugar syrup late in the season. The recent results of German investigators have shown that the best syrup concentration is a 50-50 solution in water by weight, enough heated to secure a complete dissolution of sugar crystals. This solution represents approximately the concentration of plant nectar and is easily inverted into fructose and glucose (Invert sugar) leaving only a minimum of sucrose in the thickened solution. Heavier solutions are difficult to invert for the bees, contain a high amount of sucrose and are not considered favorable stores.

When to Feed

The feeding preferably should be done in fairly warm weather, about the middle of September for several important reasons. The bees should be able to move freely in the hive which enables them to evaporate the excess water easily and store away only thick and completely inverted syrup. Cool weather retards acceptance, evaporation and inversion of the syrup. Another reason is the sealing of the stores which affords wax-secretion a function performed only at raised temperatures. In cool weather too much sugar is consumed for heat production necessary in this process or if the temperature is very low stores remain unsealed, attract moisture from the air and produce unhealthy conditions within the wintering colonies. Thirdly, early feeding allows opportunity for a cleansing flight after feeding is completed and the chances for healthy wintering are greatly increased.

The German investigators also maintain that sugar inversion by bees is preferable to acid inversion (Citric, Tartaric, etc.) as it is often performed by the beekeeper.

Combs With Pollen Valuable

In apiaries where the Demaree system is used as a means of swarm control or for queen rearing purposes, it is advisable to examine all extracting combs for heavy pollen deposits, by holding them against the light, pollen appears as black spots, while honey is transparent. Combs containing much pollen should not be extracted but stored away. Pollen deposits are saved from deterioration by a top layer of honey and a wax cap. These pollen combs form a valuable source of stimulating feed for the early spring and help much in building up of colonies to their top strength to make full use of the expected honey flow.

WISCONSIN BEEKEEPERS AND THE AMERICAN HONEY INSTITUTE

Dear Brother Beekeeper:

Have you made your pledge to the Institute for 1934? Our quota for the support of the American Honey Institute for 1934 is $300. At the present time we have secured less than one-third of this quota.

The Institute needs your support, and needs it badly at this time as many who support the Institute in normal times aren't able to do so because of no crop. Crop conditions have improved greatly in Wisconsin and every beekeeper should be willing to support the Institute with a contribution of at least $1. The Secretary of your local association has Institute pledge cards and will be glad to give you one.

Write the Institute for a copy of the program for National Honey Week.

H. F. WILSON, *Chairman, Institute Finance Committee.*

BUY QUEENS AND HELP THE INSTITUTE

Mr. S. J. Head of Bernard and Bejeaux Apiaries, Atchafalaya, Louisiana, has offered to give 20 good queens to the American Honey Institute, and we want to give our Wisconsin beekeepers who are interested in the Institute an opportunity to get these queens.

To the first 20 beekeepers who subscribe $1.00 to the support of the Institute we will have one queen delivered to him as soon as the order can be sent in. In case more than one queen is desired, we will allow one queen for each $1.00 given.

H. F. WILSON, *Chairman, Institute Finance Committee.*

GRANT COUNTY ASSOCIATION MEETING

RALPH IRWIN
Secretary

THE annual picnic of the Grant County Beekeepers was held in Marsden Park, Fennimore, on July 29. An all day program with a basket picnic dinner was enjoyed by all.

H. J. Rahmlow, editor of Wisconsin Horticulture and Wisconsin Beekeeping, and Professor E. C. Alfonsus of the University Department of Beekeeping were with us and talked to us on various phases of beekeeping and marketing. Mr. N. E. France talked on shortcuts and equipment.

Nearly all beekeepers present signed the Fair Price Agreement; 5 lb. pail per 55c, 10 lb. pail per $1.00, at retail until changed by vote of the members.

It was also voted to affiliate with the State Association whereby we secure membership in the State Association and receive Wisconsin Horticulture and Wisconsin Beekeeping. Dues were set at $1.00, 75c of which will be sent to the State Association.

Officers Elected

President, N. E. France, Platteville; Vice-president, Harvey Wenzel, Lancaster; Secretary-Treasurer, Ralph A. Irwin, Lancaster.

The 1935 picnic is to be held at Lancaster on the last Sunday in July.

OUR ANNUAL CONVENTION

The annual convention of the Wisconsin Beekeepers' Association will probably be held the third week in November — November 22nd–23rd. The dates and the place of the meeting will be decided upon by the Board of Directors at a meeting early this month.

The program will be made of interest to all practical beekeepers and the Board is planning the largest and best convention ever held. Invitations to hold the convention have been received from Green Bay, Fond du Lac and Madison.

HONEY EXHIBIT AT STATE FAIR VERY GOOD

Mr. James Gwin, superintendent of the honey exhibit at the State Fair and the beekeepers who participated are to be congratulated upon the fine showing they made this year in the building for bees and honey. The quality of the exhibits was so high that it attracted a great many people, and was of great advertising value.

The following counties were represented with a county booth display: Sauk, Waukesha, Washington, Milwaukee, Grant, Wood, Green and Dane counties.

The following beekeepers had booth exhibits. All made a fine showing. A. S. Kleeber, Reedsburg; G. O. Schultz, Reedsburg; John Kneser, Hales Corners; H. H. Moe, Monroe; Chas. Pritchard, Wisconsin Rapids; V. G. Howard, Milwaukee; Walter Diehneldt, Menomonee Falls.

The judging has not yet been completed as we go to press.

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HONEY EXHIBIT AT GREEN BAY CELEBRATION

AN EDUCATIONAL honey exhibit which interested thousands of people was made at the Green Bay Ter-Centennial celebration by Mr. Thomas Cashman, De Pere, George Jacobson, Kaukauna and George Miller of Brown County.

Mr. Jacobson writes as follows about the meeting and other matters: "We had a nice exhibit and I was busy all day answering questions on bees and honey. We had material from the Honey Institute which attracted many ladies and as Mrs. Jensen was not present I had to take her place and preach the sermon. I think honey got the best publicity it ever received in this section.

Good Crop at Kaukauna

"I have a big crop of honey and so have some of the other beekeepers though there are some who have only one or two supers on their hives. Beekeepers I have met from other parts of the state report only a fair crop. A man from Antigo said there was a poor crop up there and a beekeeper from Wausau said the same.

"I will start to extract about the third week in August. We must give the honey time to ripen on the hives before extracting. I hear complaints from customers that honey they have bought began to sour and ferment. How can it be otherwise if it is taken off too early?"

HONEY WEEK POSTERS AVAILABLE

The W. K. Kellogg Company, Battle Creek, Michigan, has a supply of National Honey Week Posters and recipe leaflets for free distribution to beekeepers who request them.

It may be well for beekeepers to put in their requests early before the supply is exhausted.

—ARLENE WEIDENKOPF.

HONEY CROP REPORT

THE United States Department of Agriculture market and crop report for August states that for Michigan, Wisconsin and Minnesota honey yields vary widely, from 25% to well over 100%. Basswood yielded the best in ten years in some sections. Sweet clover yielded well.

Wisconsin will have a fair crop and in a few cases a bumper crop.

Central Michigan is badly burned up but the rest of the state has done fairly well. Minnesota had a spotted basswood flow and prospects for a late flow from sweet clover and other plants are encouraging.

The crop in Minnesota appears to range 50 to 100 per cent of normal.

The Market

Sales reported, large lots, white extracted, 6–8¢ per lb.; small pails 8–10¢; light amber, small pails 9¢ per lb.; No. 1 White comb, $2.40–$3.75 per case; fancy up to $4.00 per case.

The Chicago market report for August 1 states: extracted new crop, white, 6½–6¾¢, some 7¢.

Summary

The abnormally hot weather has continued which was very hard on bees, melting down combs in many sections. More reports were received of combs melting down so completely that bees were drowned in the honey than ever before in the history of the Federal Honey Market News Service. The crop throughout the eastern half of the country is very spotted. Early flow in Iowa and Nebraska was good, but later flows in the Plains Area has been very light as a result of the drouth. Production in the Mountain States has so far been very spotted. The Federal Farm Credit Administration is arranging to loan money to beekeepers who request it through the F. R. A. for the purpose of buying sugar. Many thousands of colonies have already starved. Commercial beekeepers are holding until the market is known more definitely, though many buyers are endeavoring to contract for the beekeepers crops, even in advance of extracting.

Comb honey will be extremely scarce this year in almost all sections.

While the volume of the 1934 crop will be light, the quality is reported very good.

HOW TO GET RID OF ANTS

Prof. E. C. Alfonsus of the College of Agriculture suggests a method of keeping ants from infesting bee colonies. Placing a band of coal ashes around each colony will keep the ants away, as they will not crawl over the ashes.

Putting salt in the water for bees has helped keep them away from dirty puddles of water and caused a reduction in May-sickness according to an article in a German bee magazine. A comment in the English bee magazine, Bee World, on this subject, recommends this practice, if the salt is used in reasonable quantities. Not over 1½% salt is necessary; a small teaspoonful to a gallon of water is about the right amount to use.

WASHINGTON COUNTY BEEKEEPERS PICNIC

A. H. SEEFELDT

A PICNIC sponsored by the Washington County Beekeeper's Association was held on Sunday, August 19th at the Turner Park in Fillmore. Beekeepers from every part of the county and some from our neighboring counties totaling about one hundred and fifty, were in attendance. Miss Cranston of the American Honey Institute made a big hit with the beekeepers with her talk on the possibilities of increasing the consumption of honey.

Mr. H. J. Rahmlow spoke on the need of stronger county organizations and outlined the work that could be profitably undertaken by such organizations. Mr. James Gwin discussed the Fair Price Agreement and other subjects of interest to beekeepers.

NATIONAL HONEY WEEK

November 11–17, 1934

EACH year the American Institute sponsors National Honey Week to acquaint the public with the merits of honey. November 11–17 has been selected for the week this year.

This is an opportunity for all county associations to do some very effective work. Displays may be arranged in all types of stores; talks may be given to different organized groups in the community; honey demonstrations can be given in schools and at clubs. The Institute will provide suggestions for developing National Honey Week and will be glad to help develop a local program.

Outlines for exhibits and displays may be purchased for 10c each, or 6 for 50c. The following display outlines are available: Grocery stores, bakery shops, candy shops, restaurants and hotels, drug stores, department stores, banks, theatres and schools.

Bee and Honey Talks

Talks which may be given before local organizations are as follows: What the honey bee does for us; A honey story; Many uses for honey; Honey, the nectar of flowers; How honey is produced. The above talks are available from the Institute at 5¢ per copy.

In our next issue we will list other ways in which the Institute will help promote honey week. Write the American Honey Institute, Madison, Wisconsin.

GOOD CROP AT DARLINGTON

John G. Franz, Darlington, writing on August 13: "I think I wrote you last spring about prospects of the honey crop. I expected nothing at that time. Now I have a bumper crop, about 80 pounds per colony, all basswood and every drop extracted from new combs. They are filling right up again."

DANE COUNTY ASSOCIATION REORGANIZES

THERE was a good attendance of Dane County Beekeepers at a reorganization meeting held in Madison in August. Officers elected were as follows: president, L. W. Parman, Madison; vice-president, Wm. Judd, Madison; secretary-treasurer, Sam Post, Madison.

The members present voted to affiliate with the Wisconsin State Beekeepers' Association and to have dues of $1.00 per year per member, 75c of which is to go to the State Association for membership and the magazine.

The members voted unanimously to adopt the minimum price agreement for honey, and set 60c as the price for a 5 lb. pail No. 1 honey at retail. All members agreed to abide by the prices established for a period of 30 days, at the end of which time there will be another meeting.

HONEY MAY CURE HAY FEVER

THERE have been reports of persons being cured of hay fever by eating honey during the period of ragweed blossoming. In each case the honey was from the late flow and probably contained pollen grains of ragweed which may have had something to do with it. Two different persons who were not beekeepers were reported in "Gleanings in Bee Culture" of having been cured by using honey during the hay fever season. This may be a way of giving relief to the many thousands of hay fever sufferers in the future.

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

Tramp: "I know, madam, and you are beautiful enough to go on the stage but evidently you prefer the simple, happy home life."

P. S.—He got the sandwich.

THE HONEY CROP AT PLATTEVILLE

N. E. FRANCE

UP TO the last week in June our hopes for winter stores for bees were gone. We had to feed and daily furnish a pail of water, as the spring fed creek was dry.

Basswood bloom was fair for four days. Alfalfa followed, with few other blooms as showers came.

Bees with good care have more than winter stores. Now some have four supers to spare. Yet near by I saw 8 colonies starving and combs melting for need of shade.

Prospects are fine for 1935 honey from white and alsike clover.

FAIR CROP IN MARATHON COUNTY

JOS. GARRE

ANOTHER honey season is nearing its end. For most beekeepers in the northern half of Marathon County it was satisfactory. Crops were secured from fair to very good.

In sections where sweet clover was plentiful, especially referring to the West-end of the county, all strong colonies stored much honey from that source while other colonies on account of weakness were unable to carry home their share. Over the southern half of the county the crop runs more spotted.

By the way our bees carried nectar all summer I believe I am safe to say that our crop will be at least equal to that of last year which was over 14,000 pounds surplus or an average of around 150 pounds per colony. I also made some increase this year.

The few scattered patches of sweet clover in our vicinity yielded well. Basswood also yielded good at certain times during the day. Alsike clover, as much as we had around here, failed to give much nectar. Fireweed however seems to be yielding only sparingly.

WHERE ARE THE BEEKEEPERS?

MR. E. L. CHAMBERS has been kind enough to loan us his records of the number of beekeepers in a number of counties in the state which were obtained in connection with the County Foul-Brood clean up work. We will publish from time to time a summary of these records.

Beekeepers in Jefferson County

According to the records in the State Entomologist's office there are over 600 beekeepers in Jefferson County. There are 11 who have over 50 colonies, 3 of these having over 75 colonies. The majority of beekeepers of this county have just a few colonies as a sideline. There are 216 small beekeepers who have over 5 colonies, the rest having less than 5. Jefferson County has little American Foul Brood and in 1933 there were 26 colonies reported found in the county; all of these were destroyed by the inspectors.

Beekeeping in Grant County

Grant County is a good beekeeping region although there are only a few large beekeepers, near Cassville. There are about 350 beekeepers in the county, 183 of which have over 5 colonies. Twenty have over 50 colonies and there is one beekeeper near Cassville who has close to 600 colonies. American Foul Brood has been reduced in this county, and only 34 diseased colonies were reported found and destroyed in 1933.

MARATHON COUNTY BEEKEEPERS TO COOPERATE ON PRICES

The Marathon County Beekeepers Association at its annual picnic agreed to abide by minimum prices of 65c for a 5-lb. pail of honey, $1.20 for a 10-lb. pail, $5.40 for 60 lb. cans and 20c per comb for comb honey. The above prices are for Grade No. 1 honey.

HORTICULTURE AT THE STATE FAIR

THE Horticulture Building at the State Fair has been named "Fruits and Flowers" and was as attractive this year as ever. The short apple crop in the state was reflected in a smaller number of exhibits of apples, but the quality of fruits shown was unusually good. Delicious of large size and excellent color were on exhibit. If this variety would color up every year as it has during the hot season we have just had it would be an ideal Wisconsin variety.

There were only four large exhibitors. These exhibited in both the 40 tray and the 10 tray classes. They were as follows: Ralph Irwin, Lancaster; Wisconsin Orchards, Gays Mills; A. K. Bassett, Baraboo; Wing Haven Orchards of Galesville. W. H. Milward of Madison also exhibited.

As we go to press the judging has not been completed so we are unable to give the prize winners in any of these classes.

Florists Exhibits

The florists exhibits were very attractive and the floor plan was laid out in a very artistic design. There were very good displays of artistic arrangements for different purposes, as well as potted plants and palms. The largest exhibits were Holton and Hunkel Company, August Kellner and Hugo Locker & Sons of Milwaukee.

Amateur Exhibits

Twelve excellent dinner tables were shown in the amateur classes. Credit was given this year to originality and distinctiveness which brought out some special occasion tables which were interesting. The display of cut flowers in arrangement and perfection of bloom classes was also very good.

Educational Apple Booth

Milwaukee County, under the direction of County Agent Ray Pallett, exhibited an apple booth showing the leading varieties displayed in appropriate containers and in addition, apple dishes and pastries using apples, with labels and recipes. This exhibit attracted a great deal of attention and was a splendid advertisement for apples. It was shown in the Wisconsin Products Building.

LAKE GENEVA GARDENERS WILL CELEBRATE 30th ANNIVERSARY

THE Lake Geneva Gardeners and Foremen's Association was organized in 1904. The members will celebrate their 30th anniversary at Horticultural Hall, Lake Geneva, on September 27th. All past presidents of the Association will be present and an interesting program has been arranged.

Gardeners from Lake Forest, Illinois have also been invited.

All gardeners in Wisconsin who may wish to attend should get in touch with Mr. Alex Gardiner, president of the Association at Lake Geneva.

Other officers of the association are Wm. Longland, Vice-president; Paul Paulson, Secretary; Frank Brady, Treasurer, and H. West, Axel Johnson, A. J. Smith, Otto Saewert and Raymond Niles, Directors.

Dahlia Show at Lake Geneva

Our members are invited to attend the Lake Geneva Dahlia Show to be held in Horticultural Hall, Lake Geneva on September 22nd.

FLOWER SHOWS AT COUNTY FAIRS IMPROVE

THE Dane County Fair took a forward step this year when it offered premiums for a garden club competition of flowers. Ten dollars was given to each club putting on each of three classes: Class A, an economy luncheon table featuring flowers; Class B, Seven artistic arrangements of annuals or perennials; Class C, Seven arrangements of gladiolus. Four garden clubs took part.

At the Fond du Lac County Fair, 15 4-H clubs of the county competed in a flower arrangement class. Each club exhibited 15 arrangements of flowers. This made a beautiful display.

ATTENTION IRIS GROWERS

THE suggestion has been made that a Wisconsin Iris Society be organized among the growers and fans. The purpose of the organization would be to hold occasional meetings and especially to establish an Iris Display Garden at some central point in Wisconsin. Such a display garden should contain all the more favorite varieties of Iris as listed by the American Iris Society. A State Iris Show might also be held.

An Iris display garden could easily be established if the members would contribute rhizomes of the desired varieties. Such a display garden might be established in the Horticultural gardens at the College of Agriculture, Madison.

All those interested in organizing an Iris Society and establishing a trial garden are asked to write to the Wisconsin Horticultural Society, 1532 University Avenue, Madison, at once.

KEEPING SWEET CORN SWEET

THE sugar content, which so largely determines the quality and flavor in sweet corn, may be preserved for a considerable period if the corn in husks as it comes from the field is cooled down to 32° to 36° as quickly as possible. This is best accomplished by submerging it in tanks of ice water for at least 30 minutes immediately after removal from the field. The corn should be kept cool to keep the flavor longer.

Corn should not be handled in bulk because of its tendency to heat, but should be put in baskets or crates which allow air circulation in order to remove field heat and heat produced by respiration.—*From circular 278 of the U. S. Depatment of Agriculture.*

About the Home and Garden

MRS. C. E. STRONG

MARIGOLDS

Open afresh your round of starry folds,
Ye ardent marigolds:
Dry up the moisture from your golden lids,
For great Apollo bids
That in these days your praises should be sung
On many harps, which he has lately strung;
And when again your dewiness he kisses,
Tell him, I have you in my world of blisses:
So haply when I rove in some for vale,
His mighty voice may come upon the gale.
—KEATS, *I stood upon a Little Hill.*

MARIGOLDS — and more Marigolds. We appreciate this family when the temperature hovers around 105 and the heat waves roll in from the western plains. Everything curls up but the Marigolds. They bloom on serenely, from the great African and Guinea Gold to the tiny Tagetes. The dwarf French were especially attractive with their balls of deep green foliage and reddish brown velvety masses of flowers. I planted them early to cover up the battered foliage of where the Tulips were not — and did they hasten to do all they could to repair the damage. Early planting seems to agree with them.

A New Petunia

Silver blue Petunias were tried out this year and are quite certain of a place in the garden. They were mingled with the white dwarf Petunias, and every visitor remarked on the cool appearance given the garden by their use. They are really blue —not purple. The Chinese blue Delphinium blend in beautifully with them.

Salvia farinacea while not a new annual, seems to have been grown in many gardens this summer. It is a shade of blue that seems especially happy in

combination with other flowers. Is easily raised from seed if you remember not to cover too deeply nor ever let the seed get dry after planting.

Phacelia campanularia is a brilliant deep blue flower, grows about eight inches and is both a lovely plant in the garden and a delicious flower to cut for the small vase we like on the breakfast table.

The Ursinia family has good plants for summers like the present. Dainty cut foliage and daisy like orange or yellow flowers. California says it is one of her best yellow wild flowers. I shall not mind a bit if it decides to seed a spot in the border and come up blithely another year.

Trachelium caeruleum was shown at a recent flower show. It is a biennial, quite hardy in a dry spot, has pretty blue flowers in large corymbs. Worth trying out, as it also makes a pretty pot plant, grown as we do Schizanthus.

Right next to this were the blossoms of the Cassia, a real hardy perennial that should have a place in more gardens. Its yellow blossoms marked with black make it a striking plant. It is tall growing with attractive cut foliage.

Epilobium angustifolium (commonly called fire weed) is a really attractive plant for the perennial border. It has a bad name and they say it spreads all over the garden. But you know some gardeners say that about many plants. (They are the kind who like every plant to stay "just so.")

But Epilobium is very attractive indeed when grown with Clematis Recta. The color combination is very satisfactory. If it spreads cut it off with a spade before it gets out of bounds.

Epilobium chlorifolium, a shrubby plant with glossy leaves and large white flowers tinged with pink, is being highly recommended by an English firm for rock gardens. It only grows about six inches high and is a constant bloomer. Small shrubs that bloom are needed for our rock gardens, so it might be well to try it, as it grows quite readily from seed (so they say?)

Gypsophila fratensis is a most adorable pink variety that creates a feeling of envy every time we see it growing and blooming in Mrs. Louise Jaeger's rock wall. She says it grows readily from seed so that is on our list for the indoor cold frame this winter.

Potentilla fruticosa purdomi, has a dreadful long name—but is a lovely small shrub that I have long admired in Mrs. Jaeger's rock garden. The small yellow flowers are like waxen yellow roses. The same English firm offers seed so that's another thing to try out. This little shrub is very hardy and blooms in June.

Hemerocallis

Have always admired the Hemerocallis family even when the only one that I had speaking acquaintance with was Flava, the old Lemon lily. Gradually as the garden grew, others were added and admired. Several years ago friend Toole urged me to add some of the new hybrids. This year they bloomed and they have made a

Hemerocallis fan out of me. I was out admiring them from early in the morning until they could not be seen in the dark. Have had Hemerocallis in bloom from May until the present time, (August 13) and there will be bloom for a week or two still. They are a real plant for everybody's garden, easily grown, free flowering, hardy, long season and a good cut flower. Sweet scented as well. Do you wonder that I am praising them?

I know that there will be more Hemerocallis added to those now growing so beautifully in the borders. Also every visitor has been interested in the succession of bloom, and many took notes of varieties so they could be added to their collections. As an eastern publication noted "It is smart to be interested in Hemerocallis these days."

Isatis glauca, a biennial that has clouds of fine yellow flowers about the time Iris are in bloom. Easily grown from seed and very attractive combined with the Iris, especially that part of the border given up to the deeper blues.

Several members of the Hillcrest Club tried out seeds of the Vitex macrophylla and were quite successful in growing the plants, blooming the second year from seed in the cold frame. Blue or lavender flowering shrubs are not plentiful at this time of the year and will be appreciated. Mrs. Jaeger's plants freeze back. Perhaps this might be avoided by giving them a somewhat sheltered place. One of my neighbor gardeners has a plant growing in her border that is very thrifty as to foliage and has large heads of bloom similar to the Lilac. It is sheltered from the West winds and sun and the flowers are a decided blue lavender. We tried out several varieties of Vitex, Macrophylla being the only one to bloom, tho the rest are growing thriftily.

Madonna Lilies

Have you planted your Madonna Lilies? It is time, and remember they are base rooting and do not want to be planted deeply. One to two inches of sandy soil is all the depth needed over the top of the bulb.

Have you ordered those new Peonies you admired so much? Get them planted and well watered so that they may get well rooted before winter comes.

Be sure and plant Daffodils and Narcissus as soon as possible. They need a longer season to make root growth than is necessary for Tulips. Give them plenty of bone meal when planting, and soil that is worked up deeply. They will repay you in the beauty of their bloom. Soak the ground well after planting so root growth will start immediately.

You may move those shrubs that you would like to see in another part of your garden during September. Water thoroughly before and after moving and the leaves will hardly wilt. This enables you to get the effect at once, you will know if you are going to like them there.

Early planted shrubs will get all the benefit of the fall rains (of course we are going to get rain, we always have). Of course if you are too busy the last part of September—you will have all of October to plant but an early start does help.

I used quite a lot of Peat as an experiment in resetting some Phlox — and you can pick out those Phlox. The Peat holds the moisture and the root growth was splendid. Flowers were better and more lasting. Will try it again in another part of the garden where it is very dry.

EVERGREENS AND ORNAMENTAL Trees, Shrubs, Perennials, Ferns and Plants for the Rock Garden. Many varieties should be planted in the fall. Write for free price lists. American Forestry Company, Pembine, Wisconsin.

TREE AND SHRUB SEEDS. Hundreds of varieties. Write for free price lists. Order early for fall or spring planting. American Forestry Company, Pembine, Wisconsin.

PERENNIALS OF MERIT NOT GENERALLY GROWN

Campanula Persicifolia Pfitzeri, double deep blue. Digitalis Lutea, yellow foxglove. Physostegia Virginica Vivid, a bright violet mauve larger than the type. Spirea Ulmaria Variegated, white flowers-variegated foliage. Thyme Citriodorus, has strong lemon fragrance. Veronica Pectinata Rosea, gray foliage-pink flowers.

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Gleanings From The Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

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OTTO KAPSCHITZKE, Rec. Sec.
1710 Illinois Ave. Sheboygan
H. J. RAHMLOW, Cor. Sec.
WALTER F. MILLER, Treas.

WISCONSIN'S fifth State Gladiolus Show was the largest, most beautiful and the smoothest running show we have ever held. Much credit is due to the city of Hartford, Mayor Adam Poltl and Fred Jensen of Hartford for their splendid cooperation and help.

Two large halls, the Auditorium and Gymnasium were filled to capacity. Twelve individual growers tables of 20 varieties and an arrangement of gladiolus were shown. There were 20 shadow boxes and 8 dinner tables.

Walter Miller of Sun Prairie was the largest individual exhibitor. He had eight long tables crowded with the best varieties and a number of large beautiful baskets.

Other large growers who exhibited were: Ray Bicknell of Fort Atkinson, W. H. Farnham, Whitewater, Ray Eberhardt, Cedarburg, Chas. Melk, Milwaukee, and Adam Poltl of Hartford, who also exhibited some dahlias. Mr. M. L. Cady of Fox Lake exhibited some beautiful delphinium.

The Winners

Winners in the 20 variety table class were as follows: 1st, W. E. Menge, Fond du Lac, who won the beautiful trophy — a hand-made pewter flower vase offered by the Society. Mr. Menge had an elaborate design consisting of a small locomotive covered with gladiolus tips, in addition to 20 perfect spikes. Second prize was won by B. A. Robinson, Kenosha; 3rd by F. H. Hagedorn, Sheboygan; 4th, O. K. Kapschitzke, Sheboygan; 5th, E. H. Ristow, Oshkosh, and 6th by A. S. Haugen, Stoughton.

Largest Premium Winners

Mr. Walter Krueger of Oconomowoc won the silver medal of

the American Gladiolus Society as the largest premium winner on the basis of number of points. His score was 104, he having won 11 firsts, 14 seconds, and 7 third prizes.

W. Strohbusch of Jefferson was second with 76; A. S. Haugen, Stoughton, third with 70, and Chester Harrison, Waldo, fourth with 68 points. Others in the order of their winnings were: B. A. Robinson, Kenosha, 61; W. E. Menge, Fond du Lac, 59; A. Stautz, West Bend, 56; L. C. Wright, Waupun, 49; F. P. Thomas, Kenosha, 48; Ben Haberman, Jefferson, 47; Rev. J. Schultz, Van Dyne, 44; E. H. Ristow, Oshkosh, 34; W. E. Dresner, Horicon, 33; J. J. Schwickert, Hartford, 33; C. G. Young, Oshkosh, 31; John Stransky, Racine, 20; George Morris, Madison, 17. Other exhibitors are: F. H. Hagedorn, Sheboygan; John Zuege, Oshkosh; G. Booth, Fond du Lac; Glendora Rose, Hartford; Dorothy Poltl, Hartford; R. E. Bobb, Hartford; Petzer Jewelry Store, Hartford; H. J. Rahmlow, Madison; Sheboygan Garden Club; H. Radtke, Hartford; Mrs. Harry Rhodes, Hartford; Westenberger Gift Shop, Hartford; Ruth Poltl, Hartford; Mrs. H. Westenberger, Hartford; Mrs. I. Bonniwell, Hartford; Mrs. W. Landt, Hartford; Mrs. E. Groose, Beaver Dam; Mrs. Fred Poynor, Waunakee; Mrs. Peter Christ, Beaver Dam; Mrs. Herman Lau, Hartford; and Miss Lillian Westenberger.

Champion Spike

The champion spike of the show was a spike of Heritage originated (seedling #230) by Edwin Ristow of Oshkosh, and grown by Colonial Gardens, Rushford, Minnesota. The bronze medal of the American Gladiolus Society will be awarded for this entry.

The Winning Seedling

Heritage also won as the best seedling in the show. Several unusual spikes of this variety were on exhibit. These spikes had from 10 to 12 very large florets open and created a sensation at the show.

Champion Spikes

Championship awards were made in each Section in the spike classes. Championship ribbons were won as follows: Large or exhibition type, W. Strohbusch, Jefferson; Late Introductions, large florets, Rev. J. Schulz, Van Dyne; Medium, E. H. Ristow, Oshkosh; 3 spike class, any size, L. C. Wright, Waupun; Open classes, Decorative types, large, A. S. Haugen, Stoughton; Small, C. G. Young, Oshkosh; Amateur or Novice classes, large, Chester Harrison, Waldo; medium, Chester Harrison, Waldo.

As A Newcomer Saw The Glad Show

C. G. YOUNG
Oshkosh

WE CAME into the Gladiolus show for the first time this year as an exhibitor or spectator. To us it has been a wonderful sight, to be long remembered. We cannot imagine any task of this size being handled in a more capable manner, and can see it now as the premier event; the event which gives us the best facilities for showing our own and seeing our competitors best. We urge all amateurs to take part in future shows.

The Leading Varieties

Picardy is the most popular variety in commerce and will be a dependable variety for many years. Heritage, a new seedling was the Champion Spike and the center of interest. Very large and very beautiful. It will be hard to beat. After taking one of these spikes home, we saw this new variety in almost perfect condition on Monday evening with thirteen florets open. The spike was perfectly straight and had not developed any softness at the tip.

Wuertembergia is a fine tall growing scarlet with beautiful yellow throat blotches. Many blue ribbons were awarded this variety. We were amazed at the sheer loveliness of Solveig, a giant ruffled white with wide open florets. Upon comparing a spike of Maid of Orleans and a spike of Star of Bethlehem, Solveig proved to be a purer white than either.

There was a scarcity of good spikes in near blues and we are inclined to choose Champlain, Blue Danube and Blue Triumphator as the best. Pelegrina is a fine dark velvety blue-purple variety. Other varieties in the salmon pink class winning blue ribbons were: Mildred Louise, Lindesta, Rapture, and Coronation. Schwaben Girl is a very large and beautiful pure pink. In the yellow classes, Gate of Heaven, Primate, and Spray of Gold won the principal awards. Coming down to the deep reds, we found Dr. Hoeg, Moorish King, Sultan, and The Moor. All had their share of ribbons and are so closely grouped, any one is worthy. We saw the finest spikes of Minuet and Betty Nuthall we've ever seen. Hercules and Wasaga were the best in the buff classes. Mr. Baerman of Minnesota brought a spike of Dream O'Beauty which was truly a dream. Can't imagine any flower in this color being better. In fact, there were so many beautiful and fine spikes in all the colors, it would not do justice to say definitely which were best. Seeing all these splendid varieties at their very best was a great thrill and one which cannot be conveyed by words. No matter how vivid the imagination you must be there in person.

ELECTION OF OFFICERS

W. E. MENGE, Fond du Lac, was elected president of the Wisconsin Gladiolus Society for the coming year at the annual business meeting held on August 18th. Other officers were as follows: C. D. Adams, Wauwatosa, Vice-president; Corresponding secretary, H. J. Rahmlow, Madison; Recording secretary, O. A. Kapschitzke, Sheboygan; Treasurer, Walter F. Miller, Sun Prairie; E. H. Ristow, Oshkosh, Honorary President.

Regional Vice-presidents: B. A. Robinson, Kenosha; George Morris, Madison; Wm. Krueger, Oconomowoc; G. A. Barrer, Cudahy.

Directors: C. H. Melk, Milwaukee; Ray Eberhardt, Cedarburg; W. A. Sisson, Rosendale; W. E. Dresner, Horicon; Noel Thompson, Madison; Arthur Strobel, Hartford.

GOOD VARIETIES IN THE GLADIOLUS TRIAL AND DISPLAY GARDEN

GEO. C. MORRIS
Madison

TO ME the outstanding varieties in the various colors classes in the Gladiolus Display and trial garden at Madison this year are as follows:

White: Maid of Orleans, an outstanding white with cream throat.

Cream: Duna, very fine, good substance, good placement.

Florence Crandall, tall, many open, good placement, has rose markings; outstanding.

Marsha Ann Canroe, tall, many open, very attractive.

Salmon Pink: Picardy, very outstanding, excellent substance, good placement, several open at one time.

Venango, very good, placement good, several very large flowers open at one time. Edges flecked with darker color. Very fine variety.

Rapture, tall stately glad, many open, good placement, very good.

Margaret Fulton, tall fine variety, withstands heat excep-

Firsts won by Fitchett Dahlia Gardens, Janesville, Wis. A Century of Progress, 1933 Gold Medal

Supreme Award—Most Meritorious Dahlia Display
First—Trade Exhibit 200 square feet
First—Bowl of 50 Pompons
First—Basket of 50 Miniatures
First—Vase of 6 Peony Flowered
First—Photo of Commercial Garden
First—Basket, Wisconsin Commercial Sweepstakes in the Commercial Class
Tied for Sweepstakes in Open Class
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tionally well. A very excellent variety.

Debonair, a very pretty and fine glad. Many blooms open on tall stately spike.

Lindesta, very good. Tall spikes, good placement, worthy of a place in any good collection.

Miss Greeley, fine early variety, will probably replace Mr. W. H. Phipps in most gardens. Very good.

Irene, fine Scotch variety with white blotch, very outstanding. Many blooms open.

Silversheen, tall fine variety with white blotch. The petals seem to be covered with a silver dust which glistens in the sunlight.

All of these varieties are very fine and outstanding, worthy of a place in the best gladiolus gardens.

Predominator, excellent, fine tall, good placement. Many blooms open.

Light pink: Pennsylvania, large spectacular plant with several very large flowers open at once. Extra good.

Rita Beck, old but good, large blooms, 4–6 open at once. Good placement.

Alumni Queen, good color, inclined to crook in hot weather.

Winged Beauty, rather pretty and unusual. Will be a good variety.

Mr. Wm. Cuthbertson, fine ruffled variety. Flowers not large but very pretty. Several open at once.

Rose Pink: Pride of Wanakah, good rose pink. Good placement and several open.

Northern Light, a fine variety, quite outstanding in color and placement. Several open.

David Andrie, very nice color, many open.

Lavender: Minuet, always dependable. Fine color and spike, good placement. Probably the best lavender to date.

Royal Lavender, a real good variety, did not show up as well in the garden as Minuet.

Berty Snow, this can be very fine.

Yellow: Mary Shary, the most outstanding yellow in the garden. Tall and stately, good placement and several open.

Golden Cup, a good dark yellow, many fine blooms open on good spikes.

Spray of Gold, Tall, good yellow, flowers small but many open, builds a good spike.

Miss Bloomington, good early yellow.

Orange: Cadillac, of the orange varieties I liked this one best. The spikes are tall, placement good and many blooms open.

Dearborn, this is an outstanding variety. Spikes not as tall as Cadillac but more massive.

Oraflame, a good orange, not tall but many blooms out at once; very spectacular.

Scarlet: H. W. Taft, Perhaps the most outstanding scarlet in the garden is this variety. It stands heat well, builds a good spike with several large blooms open at once, a very excellent variety.

Wurtembergia, a large spectacular spike; blooms not well placed but one spike makes a whole bouquet. One of the "must haves."

Dr. F. E. Bennett, This variety is still one of the best in its color class, and is a prize winner at the big shows.

(To be Continued)

PICARDY IS FAVORITE GLADIOLUS VARIETY

THE 1933 Symposium or vote of the favorite varieties of gladiolus by members of the American Gladiolus Society gave the following varieties as the favorites:

1. Picardy
2. Minuet
3. Marmora
4. Betty Nuthall
5. Mr. W. H. Phipps
6. Commander Koehl
7. Mother Machree
8. Pfitzer's Triumph
9. Dr. F. E. Bennett
10. Mrs. Leon Douglas
11. Albatros
12. Golden Dream
13. Mammoth White
14. Aflame
15. Emile Aubrun

A NANKING CHERRY HEDGE

THE Nanking Cherry, Prunus tomentosa, is suggested as a desirable shrub for a hedge and wind-break in the July issue of Horticulture. The contributor of the article, Mr. Wm. C. Sturgis of Massachusetts writes:

"I set out a row of three-foot, low-branching Nanking cherries, placing them two feet six inches apart (too close, as it turned out, by a foot or more). That Summer they made good growth, flowered well, and set some fruit.

"In the Autumn, I trimmed them back somewhat, and they came through the Winter successfully. Although the Japanese weeping, and other cherries, lost practically all their buds, not so with the Nankings. On May 4, the latter were in the fullest possible bloom, the pinkish white flowers completely covering every branch from the ground up to the very tip—a most beautiful sight. The fruit is almost equally abundant, and although small and acid, it is useful for pies and jelly, besides, incidentally, producing an excellent sweet wine if treated properly. The hedge is now five to six feet high and nearly as broad, but in this case I shall trim it back to a permanent height of about four feet. Below, it is a solid mass of leafy branches to the ground.

"I can certainly guarantee its hardiness here. The hedge has a northwest exposure, and this meant, last Winter, that it successfully withstood a low temperature of –24 degrees."

MILDEW ON ROSES

The tendency in recent years has been to discard the rambler roses for more modern types which are resistant to mildew. This fungus which gives a whitish appearance to buds and foliage may be controlled by dusting the plants with powdered sulfur or spraying with bordeaux mixture. If treatment is delayed until the mildew has fully developed, control measures will be of little value.

GOOD PROSTRATE JUNIPERS

The following prostrate Junipers are very good for ground covers, rock gardens, and wherever a low growing type of Juniper is desired. They all have a bluish cast and are very ornamental.

Juniper Sabina prostrate — Waukegan, probably the bluist and best of all.

Juniper horizontalis douglasi —Waukegan.

Juniper sabina tamariscifolia.

Juniper japonica procumbens —a very low growing type.

THE X-RAY TREATMENT OF DELPHINIUM

THE breeding of new flowers has been advanced by the use of the X-Ray to cause the plants to produce new and different flowers. C. P. Haskins of the General Electric Company found that many new nutations (new types) can be developed by using the X-Ray on the plants at different stages of growth.

Mr. Haskins believes that there is a new and interesting field for the plant breeders along this line. The use of X-Ray on the buds of the plant has shown the best results, although it has even been used on seeds to cause new changes in the flowers. Delphinium ajacis has proven to be a very suitable plant to be used by the plant breeder for X-Ray treatment. All sorts of changes in form and color may result from the use of the X-Ray beam on these plants at different stages.

MOVING ORIENTAL POPPIES

The best time to move blooming Oriental poppies is when the foliage is lying down on the ground in a dormant condition, in the fall. During this period the varieties may be propagated by making root cuttings an inch or so in length and bedding in moist sand. The Olympia variety is a different type of poppy and spreads by underground stems. These suckers or underground stems may be separated from the parent plant and transplanted.

WHEN TO MOVE DELPHINIUMS

IT HAS been suggested by growers of delphiniums that the best time to move the plants is when they are in full bloom. This practice seems to be a poor one because at the time the plants are in bloom they are in their prime; the roots and leaves are at the height of the activity to manufacture food for the growing plant, and food to be stored away for the next crop. Even the most careful digging will leave many roots in the soil. To compensate this loss it will be necessary to cut the plant back to reduce the foliage, and this is harsh treatment at the blooming stage of any plant.

Spring transplanting when the shoots are just beginning to push through the ground seems to be better. At this stage the plants are full of suppressed vitality and can withstand the shock of transplanting. The next best time should be after the first blooming period, and if possible, before the appearance of the shoots of the second crop. —*Bulletin of American Delphinium Society.*

LILIUM TENUIFOLIUM

We have three clumps of L. tenuifolium in our yard. Two clumps are in richer soil and have more water than the third clump, yet the third clump in drier and more acid soil far exceeds the other two stands in bloom and height. This latter group has always equalled or exceeded the height given in the catalogues. This summer, their fourth season, one measures four feet three inches in height, having thirty-two blooms and setting twenty seed pods, while another measures four feet in height, having forty-six blooms and setting forty seed pods.

N. E. SCHMIDT,
Sarona.

"Be kind to insects," says a writer. We never lose an opportunity of patting a mosquito on the back.

THE 50 MOST POPULAR IRIS

ACCORDING to the 71 accredited judges of the American Iris Society the following 50 varieties were chosen as the most popular in cultivation in 1933. They believe them to be the best, the most popular or the ones they would select if they were to start a new garden and were limited to this number.

Whites, Including Plicatas and Amoenas

Los Angeles (Mohr–Mit. '27).
San Francisco (Mohr–Mit. '27).
Mildred Presby (Farr '23).
Purissima (Mohr–Mit. '27).
Wambliska (Sass–J. '30).
True Charm (Sturt. '20).
Dorothy Dietz (Wmsn. '29).
Shasta (Mohr–Mit. '27).

Blue Lavender to Blue Purple

Soub. de Mme. Gaudichau (Mil. '24).
Souv. de Loetitia Michaud (Mil. '23).
Sir Michael (Yield).
Princes Beatrice (Barr 1885).
Ballerine (Vilm. '20).
Baldwin (Sass–H. P. '27).
Sensation (Cay. '25).
Santa Barbara (Mohr–Mit. '25).
Blue Velvet (Loomis '29).
Germaine Perthuis (Mil. '24).
Mary Barnett (Cumb. '26).
Queen Caterina (Sturt. '18).

Pink Lavender to Red Purple

Frieda Mohr (Mohr–Mit. '26).
Dauntless (Con. '29).
Cardinal (Bliss '19).
Morning Splendor (Shull '23).
Indian Chief (Ayres '27).
Pink Satin (Sass–J. '30).
Susan Bliss (Bliss '20).
Rheingauperle (G. & K. '24).
Red Dominion (Ayres '31).
William Mohr (Mohr–Mit. '25).
Cinnabar (Wmsn. '28).

Blends

Dolly Madison (Wmsn. '27).
Midgard (Sass–H. P. '30).
Rameses (Sass–H. P. '29).
Mrs. Valerie West (Bliss '25).
Depute Nomblot (Cay. '29).
Clara Noyes (Sass–H. P. '31).
King Tut (Sass–H. P. '26).
Asia (Yeld '16).
Cameliard (Sturt. '27).
Grace Sturtevant (Bliss '26).
Ambassadeur (Vilm. '20).
Mary Geddes (Stahl.–Wash. '30).
Anne Marie Cayeux (Cay. '28).
Zaharoon (Dykes, Mrs. '27).

Yellow Including Bicolors

Pluie d'Or (Cay. '28).
Coronation (Moore '27).
Desert Gold (Kirk. '29).
W. R. Dykes (Dykes '26).
Chromylla (Loomis '31).
Helios (Cay. '29).
Gold Imperial (Sturt. '24).
King Juba (Sass–H. P. '30).

—*From the Bulletin of the American Iris Society.*

STATE GARDEN CLUB FEDERATION NEWS

Federation Aims: To stimulate and help garden clubs throughout the state; to develop interest in and broaden the knowledge of gardening; to aid in the protection of trees, plants and birds, and promote civic beautifications.

WHAT IS A GOOD GARDEN CLUB

TEN requirements for a good garden club are suggested by Prof. Victor H. Reis, of the Ohio State University. The list is as follows:

Eliminate from active membership all who do not have gardens. They may be associate members with large dues.

Eliminate from active membership all who do not participate in flower shows, meetings, and other club activities.

Hold at least one flower show a year.

Visit the garden of every member at least once a year.

Change presidents at least every two years.

Have a definite program for the year.

Co-operate with other garden clubs by joint meetings, exchange of speakers, exchange of flower show judges, etc.

Make use of the Agricultural Extension Service through your local county extension agent.

Hold your meetings throughout the year—Winter and Summer as well as Spring and Fall.

Belong to a state organization of garden clubs.

—*From July 15, Horticulture.*

RADIO GARDEN TALK

Station WHA, Madison

"Timely Tips for the Garden" is the title for a series of radio talks which have been given over Station WHA, Madison, by the editor.

Two talks will be given during September, the first on Tuesday, September 11th, the second on Tuesday, September 17th, each at 10 a.m. over the Homemaker's Hour. The talks are

broadcast over both the Stevens Point and the Madison stations.

We will appreciate hearing from our members if they enjoy these talks and especially to know how many of our members listen in. The question is, will it be desirable to continue these garden talks regularly throughout the seasons of the year during which gardening is of most interest.

FIGHT AGAINST RAGWEED OPENED AT RACINE

A fight against the Ragweed was opened in Racine County the first of August. Many organizations took part in the campaign to rid the county of this pest. Radio talks and addresses were given throughout the county.

It is the aim of the Racine County Anti-Hay Fever Association to keep the county in such condition that no one will have to leave the city for this reason. The idea has been taken up in other cities including Green Bay, Milwaukee, Superior and Madison.

GARDEN CLUB PROGRAMS

Planning Home Gardens

THE smaller garden clubs will find this helpful and use the topic for several meetings.

Have volunteers from those who wish to improve the plan and general layout of their gardens, bring sketches of their lots or yards showing locations of buildings and ground under cultivation. If possible, have it sketched to scale. Place sketch where all members can see it; ask members to study it and make suggestions for improvements. Members should let their suggestions follow certain principles such as harmony, proportion, unity, variety, fitness. As each home and grounds differs from the others there will be a variety of problems to consider.

If the hostess is a volunteer, it would be wise to tour her garden and plan improvements.

If this is to be a club project for several months, the following subjects can be studied at different meetings. 1. Foundation planting; 2. Border planting; 3. Selection of proper shrubs; 4. Where to use flowers and vines; 5. Using available native plants and shrubs.

References: Circular 190, Planning and planting home grounds by Prof. Aust.

My Garden Helper by A. C. Hottes has suggestions for fences and fence plantings, plans for small formal and for informal gardens and suggestions for pools and rockeries.—*Mrs. Peter Cooper, West Allis.*

A Study in Bugs

Professor: "Name the five most common bugs."

Student: "June, tumble, lady, bed, and hum."

Flower Shows Becoming Popular

SPLENDID progress has been made in Wisconsin in the improvement of our flower shows. Many of the larger shows are attracting visitors from miles around.

In a recent article in a National magazine a prominent garden writer mentions that flower shows, especially those in some of the Eastern states are attracting such crowds that the doors must be closed and people stand in line for blocks. We understand that the Massachusetts Horticultural Society conducts flower shows in Horticultural Hall, Boston, owned by the Society, throughout the year. Gross receipts from these shows run to $100,000 per year.

The Wisconsin Horticultural Society has available a circular on how to manage a garden club flower show. Premium lists for both the spring and fall flower shows are available and have been used by many garden clubs. This material was approved by the Wisconsin Garden Club Federation.

Premium List Important

In organizing a show careful consideration must be given to the premium list. It must be adequate to meet the needs of the exhibitors. We suggest the following three divisions for all shows.

Artistic Arrangements. This section should feature artistic arrangements of various types in bowls and vases and should be for those who like to make flower pictures, using different varieties of flowers. If the classes specify the kind of arrangement wanted it will help the exhibitors and the judges.

Annuals and Perennials. There should be classes for different varieties of annuals and perennials commonly grown in the community. Each variety should be in a class by itself. It is impossible to judge an exhibit of zinnias against an exhibit of Snapdragons. To improve our shows we strongly urge that all annuals and perennials be exhibited as "artistic bouquets". In judging them credit should be given to the arrangement as well as to the perfection of the blooms. This is far better than a class stating "A display of zinnias". The word display is not specific and may mean quantity rather than quality.

Perfection of bloom. Every show should feature perfection of bloom classes for such varieties as are suitable. In a June show Iris and Peonies would be featured, while in August it would be Gladiolus and Dahlias. These flowers come in a wide range of colors and varieties. Classes should specify different colors under which the varieties are entered. Either one or three spikes may be called for in each class. They should be judged by a specialist who knows the varieties.

Special Features

Dinner tables and shadow boxes should be featured at every large show because they attract a great deal of attention. Little gardens are valuable but often difficult to obtain.

Commercial Exhibits

Commercial growers of different varieties of flowers such as gladiolus and peonies, as well as nurserymen should be invited to make attractive displays which will help the show. They do not enter anything for competition, but have an individual exhibit on which they are allowed to display their name.

REPORT ON GARDEN CENTERS

A GARDEN center in the briefest possible definition is a place where one may go for advice in the planning, planting or care of a garden. Here may be found books for gardening, horticultural magazines, pamphlets from many nurseries and seedsmen.

This garden center may be started by placing a table in your Public Library, or if that is not available, in some public building where anyone may be free to use it. A project such as this is a very real contribution to civic work. Mrs. C. H. Vail, National Council chairman of Garden Centers gave a very interesting talk on this subject, with the showing of slides of the outstanding centers throughout the East. She also recommended every state president appoint a committee of one to three in her state to promote this work.

—CHARLOTTE BULLARD.

A PLANT TESTER'S REPORT

MRS. LOUISE JAEGER

BECAUSE *Hydrangea petiolaris* is on the plant testers list this year, I will write you my experience with it. I purchased a pot plant five years ago. It grew and is always one of the first plants to leaf out in the spring. The foliage is glossy and disease resistant and the vine is absolutely hardy without any protection. This year in June it bloomed for the first time with large flat fragrant clusters of white bloom.

Hypericum kalmianum is a shrub which I do not find in other gardens. It should be more often grown because its feathery yellow bloom is very pretty. It grows to a height of four feet, blooming in July and is especially nice with an underplanting of shrubby Hydrangea.

Vitex macrophylla freezes to the ground every year. But it sprouts and blooms on the new wood in August. It resembles the Butterfly bush but its foliage is fragrant and the plant is more permanent.

Last year I planted a bulb of Lilium monadelphum szovitzianum and it never came up at all. This year it surprised me by growing two flowering stalks with beautiful waxy citron yellow flowers without any markings. It is fragrant and blooms in June.

Explain That

Ants are supposed to be the hardest working creatures in the world. Yet they seem to have time to attend all picnics.

Why Plants May Winterkill

WHAT causes plants to winterkill? Why do we have such a difference of opinion as to the hardiness of plants and how to protect them in order to avoid winter injury?

In the Journal of the New York Botanical Garden for June, 1934, Henry Teuscher discusses this subject in an article entitled "Hardiness in Plants."

The following factors are listed as having an influence on winter injury:

Late cultivation of the ground, which induces late growth and may result in the production of tender, unripened wood.

Late fertilizing or over-fertilizing, especially with nitrogen fertilizers, which also may cause late, tender growth.

Superabundance of moisture, especially in rich soil with poor drainage, which causes a lush, watery growth, suffering easily from freezing. This condition seems to favor, in particular, injury to the flower buds.

Permitting the plants to suffer from drought in the summer, which may cause a check in growth and may induce the plant to start growing again in late fall.

Mulching with moisture-holding or air-excluding litter, which may easily lead to rotting of the crowns of perennials.

Permitting a smothering overgrowth of aggressive neighbors and removing this overgrowth during the autumn cleaning.

Wrong pruning, especially sharp summer pruning of vigorous growing plants, which results in late growth and unripened wood (climbing roses).

Production of a heavy crop of fruits, especially with grapes and certain fruit trees. The plant apparently extends its energies to the maturation of the fruits at the expense of wood and bud maturity, with the consequence that many of the unripened twigs and buds suffer frost injury during winter. A light crop or crop failure frequently results in the following year.

Exposure. Many shrubs which during the summer are benefitted by a southern exposure, suffer during the winter more or less severely on their southern side if not shaded. Others (also young trees) suffer severe injury in southern exposure while they may pass through the winter with no, or with only slight, injury in western or even northern exposure, provided they are protected against north winds.

Late fall planting. Perennials, especially fleshy-rooted kinds, should not be planted late. Well-established shrubs or trees withstand sudden cold spells much better than those which have been planted within the last year or two, since their far-spreading root system is better in balance with their yearly growth.

Neglecting to lift, divide, and replant certain perennials at reasonable periods causes aging and weakening of the plant. Old plants which are past the prime of their life and are on the down grade are more easily injured in the winter than are younger plants. In certain woody plants, especially, the very young plant also is tender to a certain age. In some instances there appears to be even a difference in the resistance of the flower buds between young shrubs and older specimens.

Planting of trees which had dried out in shipment, especially in the fall. Such trees may frequently be saved by a covering of trunk and branches with paraffin wax.

The Stork Remembered

Emily had just fed some crackers to the stork at the zoo.

"What kind of a bird is that?" Emily asked her mother.

"That is a stork," replied the mother.

"Oh, dear, is that the stork? He acts as if he recognizes me."

OSHKOSH HORTICULTURAL SOCIETY MEETS

THE August meeting of the Oshkosh Horticultural Society was held indoors due to threatening weather. A cafeteria supper opened the meeting as is the custom. Mrs. Edwin Ristow was in charge of the supper.

The Society will sponsor a flower show to be held some time this month and D. G. Strobel was appointed chairman of arrangements. One of the objectives of the show will be to give children an opportunity to exhibit flowers which they have grown from seed given by the Society last spring.

Mr. Edwin Ristow spoke briefly on the gladiolus, mentioning the trial and display garden at Madison which has been very successful this year.

A talk was given by Mr. D. K. Allen on "Five Years from Now, What?"

PROGRAM SUGGESTIONS

MRS. S. R. ELLIS
Ripon

A PROGRAM stressing the care of lawns should be included early in the year. A suitable subject for a topic might be "The Beautiful Garden Carpet," developed with the idea in mind that the lawn is the foundation for arranging flower borders, shrubs and trees. Thus a well balanced background is created for the home. Do not forget to stress the importance of preparing a good seed bed which will have sufficient drainage. Discussion of the correct mixture of grass seed for diversified needs should be helpful. If this subject is dealt with when the season is advanced, stress the idea of subsequent care and maintenance of a first class lawn.

Below are listed two articles that should prove helpful in developing this program.

1. "How to Have a First Class Lawn," Better Homes and Gardens—September, 1930.

2. "Freshening Up the Lawn," The American Home, March.

Care of Delphiniums After Blooming

WHAT is the best treatment of delphinium plants after they have finished flowering? Not even the experts agree as to the answer. Charles F. Barber of Oregon recommends in a Bulletin of the American Delphinium Society that two cuttings of the stalks be made after flowering. He first cuts down the spikes to a point where there is good green foliage. He feels that since the leaves are the breathing organs they are needed to help the roots. The second cutting is done when the new growth from the base is six inches or more high. Then the old stalks may be cut out to the base. He makes the cut sharp and on a slant. An exception to this rule is that if the plant turns yellow before the new growth starts, then the top can be cut down at once.

Mr. Barber does not favor allowing all the stems to remain on a plant, either during the first or second growth. A plant may have too many spikes. He says:

Do not be afaid to cut out the surplus stalks a little distance from the ground. If the plant is quite young and a bit frail it may be essential to leave only one stalk. In other cases perhaps half the number should go, while with a strong and well established plant it may be advisable to leave ten or more stalks to flower. This thinning should be done quite early so that all the strength may be expended on the chosen few.

Apparently it is characteristic of delphiniums to have more fragrance in the Fall than in the Summer. Mr. Barber suggests that one test the Fall blooms carefully and that one mark the exceptional plants. They will be the ones to be given special attention to carry them over into the next season.—*From July 15 Horticulture.*

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NEW TYPES OF POTS FOR PLANTS

MANY attempts have been made to find a practical container to substitute for the common clay pot in growing plants. D. S. Hubbell of Iowa State College tested thirteen different kinds of containers in hopes of finding a suitable type. Only four of these containers gave what he considered normal results in plant growth. These four, consisting of unglazed clay pots, glazed clay pots, mulch paper pots and screen pots all gave equally good results. Mulch paper pots seemed to be the more practical of new type pots.

"Mother," said Charlie, "I'd like to ask you a question."

"Well, what is it, dear?"

"When a lightning bug lightens, why doesn't it thunder?"

COLLINSIA VERNA

In July, 1932 I sowed the seeds of Blue-eyed Mary, in a spot where I do not spade. It is a self-sowing, winter annual. In spite of the drought of last season, I have three well established beds of this charming wild flower. It grows from a foot to 18 inches high and blooms about the middle of May. It prefers low land.

—N. E. SCHMIDT, Sarona.

CAMPANULA AMERICANA

Early in March I sowed the seeds of Tall American Bellflower indoors in a flat. The seed germinated well. Early in May I transplanted the seedlings into the garden. They have all grown and formed heavy leaf rosettes. Since this is an annual, I look for August bloom. C. americana is a wild Bellflower, height 18 inches to four feet, flowers light blue, clustered in the axils of the upper leaves.

—N. E. SCHMIDT, Sarona.

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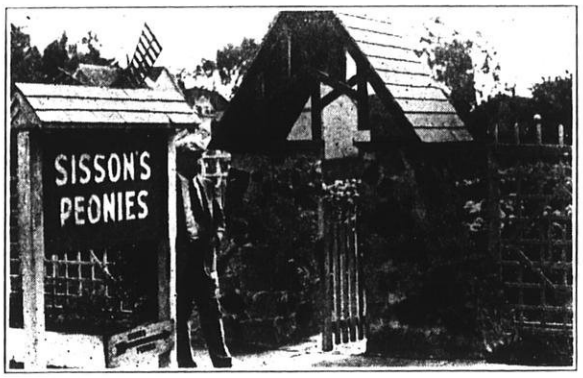

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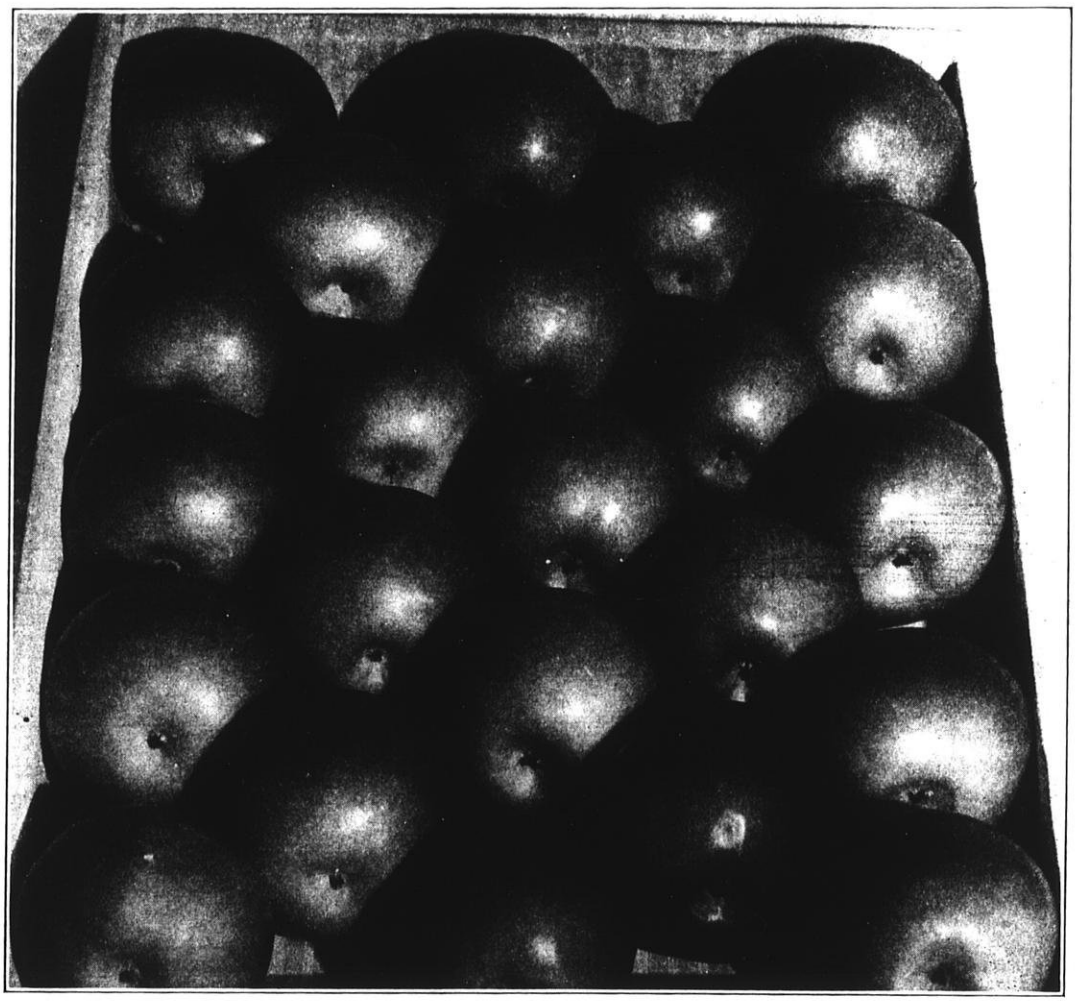

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Fig. 1 Fig. 2 Fig 3

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The Official Organ of the Wisconsin State Horticultural Society
The Wisconsin Garden Club Federation

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Please Do Not Send Stamps

Wisconsin Horticulture

OUR PROGRAM
1. A more beautiful Wisconsin, secured by cooperation with all existing agencies.
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OUR PROGRAM
3. Greater publicity for Wisconsin grown fruits and vegetables.
4. A constantly improving magazine for the distribution of timely horticultural information.
5. Organization of local horticultural clubs in all sections of the state.

Experiences of a Fruit Grower

FRED SACIA
Galesville

OUR little valley is red with the unusual high color of Delicious, King David and McIntosh.

Some peculiar condition has brought all top-worked trees from six to ten year old into bearing for the first time.

Greenings are our only real failure. There was a beautiful set for a spray just before a terrible hot day caused them to scald.

This is a real Delicious year. That variety thrives on heat and dryness.

A few comments on the experiences of the season. There is a call for rare judgment in spraying time. We orchard men have been reminded during the last few seasons that real damage can be done by spray burn. Most every orchard has at least a few weakened trees which will have stunted foliage another season. These particular trees need a far lighter application of spray than the general run of the orchard, or the foliage will continue stunted.

Our old Greening orchard became very dense. The rows run east and west and the slope is to the north. We removed all of the limbs on the north half of each tree. This operation was inexpensive and the results have been pleasing.

Examining a Heavily Loaded Apple Tree.

Fertilizer Experience

We used cyanamid fertilizer with good results. It was applied in a dry time and there were only light showers for a considerable time after the application. We have now learned that we may have had damage had there been lots of moisture. Until facts concerning its use have been established, we will make light applications, one in the fall, another in the spring.

Grows Everbearing Strawberries

Wishing to extend our business in some line where a hard spring frost would not take our whole crop, my sons and I planted eleven acres to everbearing strawberries.

The results so far are not entirely encouraging, but the boys have been good sports. The youngest says dad should have figured on an easier way of losing money. Another and more favorable year and a better control over conditions may bring desired results.

We saw a tract at John William's, Montello, Wisconsin, that filled our expectations. If we are unable with time, to do as well as Mr. Williams, the verifying of the old adage that has to do with the shoemaker stick-

ing to his last, will well be worth the cost.

The fact that we used irrigation to a certain extent, may make a description of the project interesting.

The tract, 34 by 64 rods, is practically level and lies no more than five feet above the level of a large creek. The removal of twenty barrels per minute was not noticeable. With moderate expense the tract could be furrow irrigated. So far we have used a ten barrel tank on a truck covering eleven acres in about nine hours or a load every five minutes. This supply applied every second day and on narrow rows seemed to be as effective as complete wetting down which we tried in the near vicinity of the pump.

Slow Ghost

Two colored boys were having an argument about ghosts. One of them claimed to have seen a ghost as he passed the cemetery the night before.

"What was dishere ghos' doin' when yo' las' seen him?" asked the doubting one.

"Jes fallin' behin', mistah; fallin' behin' rapid."

When you see a dog leading a man, you know that that man is blind; but when you see a man leading a dog, you know that that man is leading a dog's life.

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The Future of the Vegetable Gardening Industry

THE growth of the vegetable growing industry has been phenomenal in recent years. It has risen in a few years from a relatively unimportant branch of agriculture until in 1933 the value of the vegetable crop reached 785 million dollars and was exceeded only by dairy products. This growth was due largely to discovery by doctors and medical men that vegetables were a source of vitamins and of great value in the diet.

During the recent depression the campaign put on by most municipalities to encourage home gardens and devote land for this purpose has had a marked effect on the commercial grower. It is estimated that this campaign has reduced the labor bill of the market gardener well over $50,000,000 besides causing a reduction in purchases of spray materials, machinery and packages. As long as this community gardening activity continues on a large scale the profits of the commercial grower will depend on his ability to grow better vegetables or grow the crops the amateur cannot grow. Had it not been for the drought of 1932 the competition from the gardens would have been far more serious.

The depression with its low prices has brought the grower to areas closer to town. The growers who are far from the market cannot compete with the closer growers because of the transportation costs and low prices.

Vegetable growers have received scant recognition in the present farm recovery program although there are over 667,000 growers in the country. The Vegetable Growers Association of America is however attempting to do all it can under the A. A. A. No reduction in acreage has been approved by this program but the amount which can be marketed by any one producer will probably be limited in the new program.

Obviously it is necessary to perfect a far better organization of vegetable growers if laws favorable to the growers are to be obtained. The membership of the Vegetable Growers Association of America Inc. has increased from 1,300 to over 25,000 in four months, but a much larger growth is still necessary if commercial growers expect to be able to get a fair return for their labors. At the present time the Association is encouraging local groups and associations to adopt marketing agreements. Models for such agreements are being submitted for the guidance of such local districts as may desire them. After a number of such agreements are effective it is hoped their activities can be better coordinated by a national agreement, that will again put the market grower in position where he may profit by his labors.—*Article by H. D. Brown in Market Growers Journal.*

BALDWIN SUFFERS MOST FROM COLD

THE winter of 1933 will undoubtedly go down in history as one of the most disastrous to the fruit industry in many sections of the country. The injuries done by low temperatures are showing up in a conspicuous way in Ohio. In the regions most seriously affected, according to J. H. Gourley of the Ohio Experiment Station, the Baldwin apple has suffered most. The King apple was the next most susceptible, and on very unfavorable sites the Jonathan was also killed or badly hurt.

Along side of the injured Baldwin are such varieties as Northern Spy, Delicious, McIntosh, and even Grimes Golden *with little or no injury.*

Cover Strawberries Before Freezing Weather

THE value of covering the strawberry bed before the first heavy frost in the fall was again demonstrated last spring in the Experimental plots conducted under the supervision of Dr. R. H. Roberts. Plots covered before the ground froze up came through the winter without "black root," while those lightly covered or uncovered until later in the season showed heavy damage to both crowns and roots. Plots covered early which showed no injury in midwinter were uncovered in February and in spite of severe cold weather afterwards, came through the winter in good condition.

In the circular "Strawberry 'Black Root' Injury" by Dr. R. H. Roberts, he makes this important statement. "If mulching prevents root injury, two practical questions need answers. Why do some mulched patches have much injury and why do some unmulched fields show little to no injury? The occurrence of injury in mulched plants is commonly due to either not applying the mulch until after the injury has taken place or to the mulch being too light or of a coarse material which admits air readily and is not an effective protection. The lack of injury in unmulched or late mulched plantings is due to natural protection as an early fall of snow, a heavy foliage growth or other exposure and soil type influences.

Mulching Material

"Well Aged Straw Rates High for Mulch—The recommended mulching practice follows:

1. *Time*—As temperatures which caused injury in November, 1932 can be expected about November first, we suggest mulching in late October if the weather is cool. If the weather is warm in late October, put on the mulch as soon as cool weather arrives.

2. Kind—Use materials which are readily available. Coarse materials as the wide-leafed marsh grasses make poor covers. The most effective mulches appear to be old well aged straws, or finer materials which mat down well.

3. *Amount*—In 1933 it appeared to require about three tons of mulch per acre to prevent root injury.

"It is not so convenient to apply a mulch on soft ground as to follow the old rule of waiting until after the ground is frozen. It does seem necessary, however, to mulch before real freezing weather if root injury is to be avoided. Also, early mulching (about November 1) permits a much greater root growth on young plants as the soil remains unfrozen for nearly a month longer under a mulch than when exposed to the air.

"Important to Protect Late Small Plants—It appears probable that the preventing of injury to the very late small plants may have considerable value. While these do not have blossoms and do not bear fruit, they may be found to contribute very much to the second year crop."

Light stands are especially subject to winter injury. The foliage of a heavily matted row as is usual with Dunlap provides a rather effective mulch for its plants, especially in the center of the row.

CONVENTION PROGRAM

Be sure to read the fruit growers program for our annual convention at Racine, November 8–9, on page 37.

It is without question one of the most instructive programs ever presented.

The higher I get in the evening, the lower I feel in the morning.—*College Life.*

APPLES IN SOUTHEASTERN WISCONSIN

LESTER TANS
Waukesha

THE apple crop in the southeastern section of the state is small compared to last year. Washington County reports practically no crop, while in Ozaukee County the crop is fair, though some growers report very few apples. This also holds true in Racine County. The frost of last spring was the principal cause for the loss. Milwaukee and Waukesha Counties have some orchards with a fair crop, but most growers report a crop of 40 per cent of normal.

It is reported that the apple crop in the state is 43 per cent of normal. It has been 25 years since we have had such a short crop.

Prices on all the good apples are much higher than a year ago. Quotations on apples from Michigan on the Milwaukee market are not high due to the fact that the best grades are not shipped there.

The Southeastern Fruit Growers Association purchased more material for its members this year than ever before, taking all items into consideration. The quantity of insecticides ordered was about the same as in other seasons.

Prices were high on all commodities, but the market broke on lead arsenate and calcium arsenate several times during the season. The result is that all members who have purchased these materials will receive a credit refund or a patronage dividend, depending upon the action of the Board of Directors.

The distribution of all materials was handled through distributors of each county so as to give our members better service. We hope this method has been satisfactory, and if so, it will be continued next season.

While the year 1934 has had its ups and downs and has not been as ideal as we would like to have it, we look forward to a normal season next year.

In The Orchard

MCINTOSH MOST PROFITABLE APPLE VARIETY IN NEW YORK

THE profit to be made from planting apple trees in 1934 will depend very largely upon the price of apples in 1950 and later years, says Paul Williamson, in Cornell University's Farm Economics, No. 84.

He points out that farmers in the Hudson Valley received a better price for McIntosh than for any other variety in 1930, 1931, and 1932. Good prices and high yields made it the most profitable variety.

"This fact has been generally recognized by farmers, as indicated by the large proportion of the young trees in the state that are McIntosh. Answers to mail questionnaires indicate that one-third of the apple trees less than 9 years old in commercial orchards of New York State are McIntosh." —From *September-October, American Hortigraphs.*

WINTER INJURY OF APPLE TREES MAY BE ASSOCIATED WITH "WET FEET"

APPLE trees have what is known as "wet feet" when soil drainage is inadequate, and this condition is frequently responsible for much mortality and low vigor in apple orchards, say Professors C. W. Ellenwood and J. T. Mc Clure, in *The Bimonthly Bulletin* of the Ohio Experiment Station.

The outward symptoms of "wet feet" are not unlike those of girdling by any process, whether by winter injury, rodent injury, or some other cause. However, a rather general observation in the Station orchards seems to show that a tree injured by poor drainage may survive longer than one injured by the usual winter freezing.

"Furthermore, the two orchards at Wooster seem to show that winter injury may be associated with 'wet feet,' especially in the case of some varieties." —From *September-October, American Hortigraphs.*

THE MILTON APPLE IN IOWA

Prof H. L. Lantz, Horticulture Department, Iowa State College, writes relative to the Milton apple. "When well finished it is a wonderfully fine apple for size, color and quality and should be a valuable sort, particularly for our local markets. The tendency to ripen unevenly and to drop freely has been our experience with it here at Ames, although the trees have not yet borne heavily."

COVER CROPS OR CULTIVATION IN THE ORCHARD

THE old belief that cover crops in orchards seriously compete with the trees for moisture has been considerably exaggerated, according to recent experimental results obtained by New York Experiment Station at Geneva and published in Bulletin No. 632.

They find that much nitrogen can be lost if the cover crop is plowed under and not followed by another crop. To take advantage of this fact a non-legume should be sown after a legume crop. Soil which is laid bare or cultivated following a cover crop of alfalfa loses nitrogen much faster than if the alfalfa is followed by a non-legume.

If a legume crop is seeded early it may use up the nitrates in the soil at a time when the trees in the orchard need nitrogen most. The New York Experiment Station recommends the application of sodium nitrate when sowing a legume cover crop in order to supply this excess nitrogen which is needed by the apple trees in the spring.

COLOR ON APPLES

EXPERIMENTS have recently been conducted by the Maryland Experiment Station to find out what factors influence the color of apples. The work was conducted by L. A. Fletcher and published in bulletin No. 353 of that station. This investigation has brought out some facts which may be of interest to the grower who is trying to produce red apples.

The experiments showed that fall or early spring applications of nitrogenous fertilizers which stimulate growth have tended to reduce color in fruit Midsummer or late summer applications have generally had no measurable effect on color. In one test with Stayman Winesap trees in low vigor, color appeared to be reduced following a midsummer application. Systematic fruit thinning to provide an adequate leaf system in proportion to the fruit, markedly improved color development and materially reduced the deleterious effects on color of spring nitrogen applications. Maximum color was obtained on trees carrying a moderate load of fruit well distributed over the trees, with sufficient moisture supply to provide a steady growth of fruit throughout the season.

Chemicals Have No Effect

The addition of chemicals such as citric acid, magnesium sulphate, ferric carbonate and ferric sulphate had no effect on the development of red color. The use of such fertilizers as potassium sulphate, potassium chloride, superphosphate, lime, or sulfur, have no influence on the color of apples. Sugar added to the soil gave increased color to the fruit as did irrigation during dry seasons.

Other practices such as injecting materials such as sugar solution and boric acid and the use of cellaphane bags to enclose the fruit have proved of little value in coloring apples.

Oats Bait for the Control of Field Mice Available

STRYCHNINE treated oats bait for the control of field mice, can be obtained at cost price. The bait is prepared at a Mixing Plant, operated under the supervision of the Bureau of Biological Survey, U. S. Dept. of Agriculture, at McCammon, Idaho. A quantity of bait has been shipped to Lafayette, Indiana, and is available to fruit growers and others.

The oats are steamed, crushed and treated with strychnine and other ingredients in the proportions recommended by the Biological Survey for the control of these rodents.

The price of the bait is as follows:

In 25 lb. bags F.O.B. Lafayette, Ind.—$2.65 per bag.

In 10 lb. bags F.O.B. Lafayette, Ind.—$1.25 per bag.

The prepared bait is not available for purchase by individuals or organizations for sale at a profit.

For baiting orchards infested with field mice, one pound of bait per acre for the average infestation is sufficient for one treatment. Two to three pounds per acre is necessary if mice are numerous and bait is distributed on the ground in their runways.

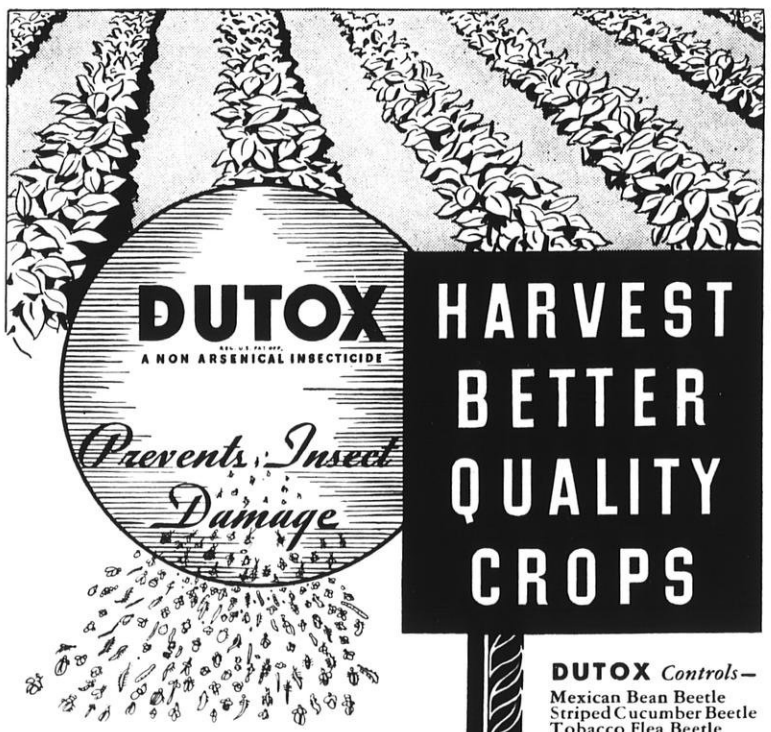
Orders for the prepared oats bait should be sent to G. C. Oderkirk, Leader, Rodent Control, Dept. of Entomology, Agr. Expt. Sta. Annex, Lafayette, Indiana. In ordering the bait, it is necessary to send a money order, check, or draft drawn in favor of "Rodent Control Fund" covering the amount of the purchase. *Bait will be shipped by express unless freight is specified.* Poisoned bait cannot be shipped by Parcel Post, as frequently requested. So far as possible, orders should be placed well in advance of the time the bait is to be used.

The prepared bait will keep indefinitely if stored in a dry cool place.

Important: This bait is prepared for the control of field mice. It is not an effective bait for house mice or rats.

Attend the annual convention, Hotel Racine, Racine, November 8–9.

Advertisement from Reading (Mass.) Chronicle: "Wanted —Small apartment by couple with no children until May 1."



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Bud Worm
Rose Chafer
Pear Slug
Cherry Slug
Mole Cricket
Ear Wig
Walnut Husk Fly
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Strawberries at Warrens

H. H. HARRIS

OUR strawberry vines are now trying their best to make rows since we got rain. Where the first setting lived and thrived the plants began forming runners in July. Dorsett, Fairfax, Clermont, Culver and Beaver have good rows. Dorsett and Clermont have an abundance of plants, well rooted now.

From my 125 foot row of Dorsett I have taken runners, after the first plant was quite well rooted, and filled in missing places in a Redheart row, and can now count over 100 of these as rooted plants in the places they were set. I began this setting the evening of August 7th right after a light shower, and the Dorsett row has an overabundance of plants yet. Victor Orchard has an acre of Beavers that have made good rows but the general report is narrow broken rows, not over 40 or 50 percent of the usual planting a success here at Warrens.

My opinion is that the poor roots on the plants set were as much to blame as the weather as portions of our poor field have made good growth.

The Catskill has made a nice row of pretty plants, but was later getting started than Dorsett, Clermont and Culver. I am pulling and cutting off late runners from the three last mentioned varieties.

Will Mulch Early

We will endeavor to mulch our fields early. (Last of October unless weather is too warm). Will use marsh hay if possible to secure it. We worked over both settings of 1932 and 1933 that fruited this year. We mowed the fields and a few days later raked and drew off all the litter and vines, then plowed off one side of each row, dragged lengthwise then crosswise and as soon as the plants began to grow we hoed all the plants, cultivating between the rows with a one horse five tooth cultivator the first time, and later with 12 tooth. Have hoed all of the 1933 set the second time and most of Beavers set in the 1932.

Both of the old fields look as fresh and good as most of the new settings I have seen (but not as nice as my little Early Set "Variety Patch.")

Let's emphasize early setting.

BAYFIELD HAS SHORT FRUIT CROP

J. M. BLACK

THE new plantings of strawberries have not filled out the rows and the grubs have worked over time in some fields.

From present indications I predict a short crop again next year with favorable weather conditions.

The raspberry crop was short but on the whole suffered less than strawberries and the bushes came through in much better condition which would indicate that with favorable weather conditions next year we may have a good crop of raspberries.

Ontario Raspberry Good

The Ontario made a very favorable impression especially as a shipper and for size and quality.

The prices for strawberries were better than last year and had we had a normal crop the net returns would have been considerably better.

The raspberry crop was approximately 40 to 50 per cent of normal with about the same cash return per crate as last year.

Apple Crop Short

The apple crop is about a third of a crop with prices considerably better than last year. The dry weather through the season was very favorable for good clean apples.

THE FRUIT CROP

FRUIT prices are much higher this year due to a combination of factors. First of all, the drought combined with frost shortened the crop. Secondly, yields of other crops were below normal. The shortage of many crops throughout the United States brings the price of almost any commodity to a higher level. That is the case of pears this year. The pear crop this year is above the five-year average crop and above the crop of last year, and still pear prices are higher than during the past few years.

The report of the Bureau of Crop Statistics is as follows:

APPLES

Wisconsin:
1934—1,036,000 bushels
1933—1,938,000 bushels
5-year average—1,661,000 bushels

United States:
1934—111,703,000 bushels
1933—142,981,000 bushels
5-year average—156,303,000 bushels

PEARS

United States:
1934—23,134,000 bushels
1933—21,192,000 bushels
5-year average—22,334,000 bushels

PEACHES

1934—45,687,000 bushels
1933—44,692,000 bushels
5-year average—56,282,000 bushels

A number of large commercial growers in sections where the drought was not serious report good to average crops. This is true in the Gays Mills section and to some extent in Door County though in Sturgeon Bay the apples are reported small due to drier weather late in the season.

Farm orchards in many sections of the state, especially in the southeastern section report very small crops which brings the average of the state to a very low point.

Yes, But—

Smith: "There are two sides to every question."

Brown: "Yes, and there are two sides to a sheet of fly paper, but it makes a big difference to the fly which side he chooses."

Horticultural News

A. F. YEAGER
North Dakota

According to the National Nurseryman, 125,000 acres of forest trees were planted last year in the United States.

Farmers Bulletin 1696 calls attention to improvements in fruits which have been made by propagating from branches which have sported. For example, Delicious, Jonathan and, more interest to ourselves, Duchess, have all produced sports having darker red color than the original. Other instances of greater earliness, larger size and greater productivity are noted. Likewise it is possible trees may be inferior through poor selection. It is to be noted, however, that these bud sports are not common and that most differences in productiveness and quality of fruit on trees are due to soil conditions or other variations in environment.

The Flower Grower suggests that to store dahlia bulbs, cut the stalks within 2 or 3 inches of the roots, leaving some dirt on them. Place up-side-down on a 3 inch layer of coarse ashes. Cover lightly with loose earth and two feet of leaves. The temperature should be kept from 40 to 45 degrees.

According to the Michigan Quarterly Bulletin, the edges of large upland areas are preferable for orchard purposes because air drainage there is better. While the soil on such a place is less fertile than at the foot of a slope, this defect is more than counter-balanced by the relative freedom from local frosts.

The Texas plant breeder who is said to have developed a seedless tomato reports that he has many inquiries for seed of this new variety.

Inasmuch as the Ohio Experiment Station found that blossom-end rot of tomatoes was increased by spraying with Bordeaux mixture and decreased by spraying with summer oil sprays, they suggest that it is possible an oil spray in dry season might materially decrease this trouble.

Gardening Illustrated recommends packing apples which are likely to shrivel in storage by using dry sand as a filler between them.

In a study of the root stems of gooseberries, W. S. Rogers of Kent, England, found that roots extend down to a depth of over 8 feet, while the lateral spread of roots is very little beyond the spread reached by the branches.

Brierley of Minnesota finds that if old canes are removed from red raspberries immediately after fruiting the new canes grow faster, taller and mature a week later. He thinks the effect comes from conserving water.

Pest Control Problems . . .

ORCHARD BRAND SPRAY and DUST Materials

are less troublesome to growers who follow the counsel of their local Station, and General Chemical Company's advice on the use of

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A Maryland fruit grower says, "The average apple tree is never thinned enough. A good plan is to take off all blemished fruit and thin the rest of the fruit to from four to eight inches apart. Never leave more than one fruit per cluster. Thinning should be done as soon as one is sure the apples are the size of marbles.—From *August North and South Dakota Horticulture.*

THE YELLOWS DISEASE OF CABBAGE

CABBAGE "yellows" is becoming an increasingly serious problem in the north central part of Wisconsin. The symptoms of the disease consist of a yellowing and dropping of leaves, accompanied by a darkening of veins in the leaf and stem, and usually result in death or stunting of the plant. Yellows is caused by a soil-inhabiting fungus which enters the roots and moves upward through the water conducting tissues. Once established in the soil, the disease organism may live for years without cabbage being present.

This disease has been known for many years in southern Wisconsin, but numerous reports have been received this year concerning its appearance in north central Wisconsin. Since this disease is favored by high temperatures, it is believed that the prevailing high temperatures of the last few years have contributed to the severe outbreak this summer. A recent examination of cabbage fields near New London, Shiocton, Green Bay, Appleton and Oshkosh revealed the presence of the yellows disease in sufficient amount to be causing considerable losses. However, the yellows disease may be controlled by using yellows-resistant varieties, seed of which is listed by many of the seed companies.—L. M. Blank, *Assistant Pathologist Vegetable Crops and Diseases, Madison.*

1934 CRANBERRY PROSPECTS

WISCONSIN, the third largest cranberry producing state, will have about a 23% greater cranberry crop for market this year than last year, is the estimate of the Crop Reporting Service.

While the Wisconsin crop is greater than last year, the indications are that the output for the United States is considerably lower than in 1933.

It is expected that 58,000 barrels of cranberries will be produced from the 2,000 acres of bogs in the state this year. The estimated yield is 29 barrels per acre compared with 23.5 barrels per acre last year. The quality is reported to be very good.

The national crop is estimated at 28 percent below that of last year. The two largest producing states, Massachusetts and New Jersey, report greatly reduced crops while Washington and Oregon, ranking fourth and fifth respectively, indicate much larger crops than a year ago. The total production is estimated to be 507,300 barrels compared with 704,700 barrels last year.

RESPONSE TO FERTILIZER MAY DEPEND ON EFFECT IT HAS ON LEAF AREA

RESPONSE to applications of fertilizer to apple trees may be a result of the increasing or decreasing of the total leaf area per tree, according to Overholser and Overley, Washington Experiment Station.

They point out that in tests in their state there appeared to be a fairly definite relationship between the average leaf area per tree and the average terminal growth, average yield, and average size of individual apples.

Those trees receiving nitrogen had a relatively large leaf area, greater terminal growth, and normal size of individual apples, despite increased yields. Trees receiving phosphoric acid and potash without nitrogen were comparable to the check trees, except that the apples were smaller, despite decreased yield. When phosphoric acid or potash was applied alone, terminal growth, yield and size of individual apples were less than check.—From *July-August American Hortigraphs and Agronomic Review.*

SPRING OR FALL FERTILIZER APPLICATION FOR APPLES

APPLICATIONS of nitrate fertilizer during the spring months of March, April, and May have produced large increases in yields and in terminal stem growth in a Virginia experiment. Over a three year period, the highest average yield was found in the May application of ammonium sulphate although April applications gave almost as much. Late summer applications in August showed very good results, and the trees given fertilizer in August produced an average of 204 pounds of fruit per tree compared with 238 pounds per tree for May which was the high month.

A comparison of fall applications of sodium nitrate with spring applications was made at the Virginia Experiment Station over a three year period. The results show that fall applications of nitrogen are better in that state. A four pound application of sodium nitrate in the spring was no better than a 2 pound fall application. The yield comparison was 254 pounds of apples per tree with a two pound fall application and 225 pounds per tree with a four pound spring application.

Fall applications of nitrogen fertilizer have proved superior to spring applications in both Maryland and Virginia experiments. These states have comparatively mild winters with only a small amount of frost in the ground and the trees may be able to take up considerable amounts of nitrogen during late fall and winter months that prove of immediate benefit to the tree in the spring.—From *Virginia Fruit.*

FRUIT EXHIBIT

Wisconsin State Horticultural Society Convention

Hotel Racine, Racine
November 8–9

SEEDLING APPLE SHOW

Plate of 5 apples

Committee in charge: C. L. Kuehner, Madison, Hugo Klumb, Rochester, Lester Tans, Waukesha.

Judges: J. G. Moore, R. H. Roberts, Madison; R. L. Marken, Kenosha.

Special ribbons will be awarded for the best seedlings.

PREMIUMS: 1st prize, $3; 2nd prize, $2; 3rd prize, $1; five additional prizes at $1.

Seedlings should be sent to the State Horticultural Society, 1532 University Avenue, Madison, not later than November 5th, 1934. Seedlings may also be brought to the convention before 9:30 a. m., November 8, by the exhibitor.

SHOW OF NEW APPLE VARIETIES

Plate of 3 apples

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

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

1. Milton
2. Orleans
3. Newfane
4. Macoun
5. Cortland
6. Haralson
7. Secor

CHAMPIONSHIP SEEDLING APPLE CLASS

Plate of 5 apples

Premiums will be given to the winners exhibited of the seedling apples which have won prizes in our seedling apple show during past years. Special ribbons will also be awarded. 1st prize, $3; 2nd prize, $2; 3rd prize, $1; 3 additional prizes of $1.

SEEDLING NUT SHOW

Plate of 7 nuts

Judges: Prof. J. A. Neilson, Michigan, Peter Swartz, Waukesha.

Hickory Nuts

1st prize, $2; 2nd prize, $1; 3rd prize, 50¢; 4th prize, 50¢; 5th prize, 50¢.

Walnuts

1st prize, $2; 2nd prize, $1; 3rd prize, 50¢; 4th prize, 50¢; 5th prize, 50¢.

Butternuts

1st prize, $2; 2nd prize, $1; 3rd prize, 50¢; 4th prize, 50¢; 5th prize, 50¢.

Any Other Variety Nuts

1st prize, $2; 2nd prize, $1; 3rd prize, 50¢; 4th prize, 50¢; 5th prize, 50¢.

NATIONAL SEEDLING APPLE SHOW

A SEEDLING or new variety apple show will be held by the American Pomological Society which will meet in conjunction with the convention of the Michigan State Horticultural Society, December 4–6.

The Wilder Medal award will be given to new varieties which are supported by suitable data in regard to tree characters, hardiness and productivity.

Winning samples at our annual convention at Racine will be taken to this show by the Secretary, and entered for the Wilder Medal award in the name of the grower.

'AERO' CYANAMID
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FERTILIZER

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You'll be pleased with the improved vigor and the increased yields.

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EDITORIALS

OUR CONVENTION PROGRAM

BE SURE to read the programs for our annual convention—the fruit growers program on page 37, the garden club program on page 45. You will find them the most interesting of any we have ever had.

Prof. V. R. Gardner, Chief of the Horticulture Department and Director of the Michigan Experiment Station has consented to talk at our convention and to bring with him three of his associates, Profs. Marshall, Neilson and Ricks, each a specialist along some line of fruit growing. They will bring with them illustrated material. It will be a wonderful opportunity to hear what is being done in our neighboring state where conditions are somewhat similar to our own.

The demonstration of making filtered cider by the new simple process is well worth the trip alone. Prof. Marshall will describe the process in detail.

On the second day there will be important talks by Profs. Fluke and Roberts on insect control and orchard practices. Then in the afternoon of the second day there will be a joint meeting to hear Prof. Aust give a practical illustrated talk on landscaping.

The Garden Club Program

Everyone is interested in home grounds beautification and flower growing. Several speakers from Illinois will appear on our program which all gardeners will wish to hear.

You will remember the beautiful flower arrangements shown by the garden clubs at our convention last year. This year similar arrangements and also shadow boxes will be exhibited by garden clubs.

Members of the Board of Directors of the Wisconsin Horticultural Society who met at the annual summer business meeting. From left to right: N. A. Rasmussen, D. E. Bingham, Mrs. W. A. Pierce, Arno Meyer, Mrs. C. Bullard, James Livingstone, Thomas Pinney, M. S. Kellogg, H. J. Rahmlow, Sam Post.

COMING EVENTS

The 66th annual convention Wisconsin State Horticultural Society, Hotel Racine, Racine, November 8–9.

The 7th annual convention Wisconsin State Garden Club Federation, Hotel Racine, Racine, November 8–9.

56th Annual Convention Wisconsin Beekeepers' Association, Beaumont Hotel, Green Bay, October 30–31.

Minnesota State Horticultural Society annual convention, November 13–15.

Illinois State Horticultural Society meeting and fruit show, Urbana, Illinois, December 12–13–14.

American Pomological Society, meets in conjunction with the annual convention of the Michigan State Horticultural Society, Grand Rapids, Michigan, December 4–6.

Iowa State Horticultural Society meeting, Ames, Iowa, November 15–16–17.

The Fruit Show

Our officers thought it best to dispense with the general fruit show this year and use the premium money to pay expenses of speakers from outside of Wisconsin. Otherwise we would not have been able to have these outside speakers.

However, the seedling apple and seedling nut show is being continued. The premium list will be found on page 35. Be sure to ask your neighbors to exhibit any seedlings they may have. It may be entirely possible that somewhere in Wisconsin there is a late, red apple of better quality than McIntosh, hardy in Wisconsin. Can we find it?

Don't miss this convention.

Read the fruit growers program for the annual convention to be held at Hotel Racine, Racine, November 8–9, page 37.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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Vol. X | OCTOBER, 1934 | No. 10

PROGRAM

56th Annual Convention

Wisconsin Beekeepers' Association

Green Bay, October 30–31, 1934

Hotel Beaumont

Board of Managers meeting 7:30 p. m. Monday, October 29, Hotel Beaumont.

TUESDAY, OCTOBER 30

9:00 a. m. Registration. Social meeting. Paying dues.

10 a. m. What shall we do about the tax on bees? E. L. Chambers, Madison.

Discussion led by A. H. Seefeldt, President.

10:45 a. m. Foulbrood Control, C. D. Adams, Madison.

Discussion.

11:30 a. m. Work of the American Honey Institute for Wisconsin Beekeepers.

1:00 p. m. Demonstration—Selling honey. American Honey Institute. Place to be announced.

2:30 p. m. How we are producing chunk honey in Michigan. Prof. R. H. Kelty, Beekeeping Dept., Michigan State College.

3:30 p. m. Lower Austrian versus Italian bees. New methods of requeening. Prof. E. C. Alfonsus, Beekeeping Dept., Madison.

ANNUAL BANQUET

6:00 p. m.—Price 75¢—Hotel Beaumont

Entertainment in charge of Brown County Beekeepers.

Toastmaster, Mr. James Kavanaugh, County Agent.

Presentation of the honorary recognition certificate to a Wisconsin man for outstanding services to beekeeping.

Beekeeping in Michigan. Prof. R. H. Kelty, Michigan.

Moving Picture—The Life History of Bees. From the U. S. Bureau of Entomology.

WEDNESDAY, OCTOBER 31

9:30 a. m. 1934 Beekeeping conditions in other states as I have seen them. K. Hawkins, G. B. Lewis Company.

10:15 a. m. Cellar and outdoor wintering requirements. Prof. H. F. Wilson, Madison.

Discussion.

11:00 a. m. How the Michigan State Beekeepers Association is organized. Practical hints for the beekeeper. Prof. R. H. Kelty, Michigan.

11:30 a. m. Shortcuts in beekeeping methods. Geo. Jacobson, Kaukauna.

1:30 p. m. Business session. Address by President Seefeldt. Election of officers.

Plans for the Wisconsin Beekeepers' Association. Honey prices. H. J. Rahmlow, Madison.

Discussion. Beekeeping shortcuts by practical beekeepers.

THE CONVENTION

PROF. R. H. Kelty of Michigan will be with us for our annual convention at the Beaumont Hotel, Green Bay, October 30–31. This insures a good program and a good time.

The other numbers on the program will be along the lines of honey production, honey marketing, the tax on bees, and foulbrood control, all very important items for the beekeepers.

Honey Exhibits

We hope that as many beekeepers as possible will bring samples of their honey to the convention to be exhibited in the lobby of the hotel. Tables will be provided for the display. Place your name and address and the kind of honey on each sample. Exhibits of new ideas in beekeeping tools or equipment will also be appreciated and will be of interest to the members.

NEW BOOKLET FOR BEEKEEPERS

WISCONSIN Honey Habits is the title of a 20 page booklet published by the Wisconsin State Beekeeper's Association which will be sold at cost to beekeepers.

It contains recipes collected from various sources with the aid of Mrs. Malitta F. Jensen of the American Honey Institute. Some of the topics of the bulletin are: Care of honey; Using Honey; Recipes are given for beverages, salads, salad dressing, desserts and honey specialties. It is a valuable bulletin for the beekeeper to give to his customers. Prices are: 1 copy, 5c; 10 copies 25c; 50 copies 80c; 100 copies at $1.50; 500 at $6.00 and 1,000 at $10.00, postpaid.

Disease Resistant Bees

E. L. CHAMBERS

RESISTANCE of bees to bee disease, like resistance of plants to plant disease, depends upon controlled fertilization. If and when the queen bees can be bred with drones from resistant colonies then progress can be made towards developing a so-called "resistance to disease" of various types. While it is conceivable that strains of bees may be raised that show marked resistance to American Foul Brood, it is not probable that any beekeeper of today will ever see the time when a fool-proof strain of this kind can be obtained that will work out commercially under field conditions. Just as strains of well-known San Jose scale insects are believed to have developed in areas where spraying of lime sulphur has been carried on for a period of many years which do not seem to be controlled with the usual lime sulphur spray today, so it is possible to select colonies of bees, apparently escaping injury from American Foul Brood.

Under adverse conditions the situation may reverse itself even though mating could be controlled and limited to drones of resistant strains. Such possibilities are still so remote that their prediction may result in seriously crippling the industry, besides racketeering possibilities in selling so-called disease-resistant queens to the unsuspecting public taken from the ordinary yard run stock and not at all resistant.

There is that psychological effect on the beekeepers that would make them wonder why they should destroy infested equipment and honey if resistant bees can be obtained. This would defeat the only recognized satisfactory control for American Foul Brood of today, namely, killing the bees and burning them, together with infested honey and valueless equipment and scorching the hive bodies and melting up the foundation of the equipment having some value.

Even though resistant bees might be developed some day that would eliminate the danger of infection to and from neighboring bees, equipment and honey would have to be dealt with the same as now, since its exposure to non-resistant bees would still be a menace.

Resistant bees, like many of our resistant strains of plants, may have other undesirable characteristics which would tend to make them less profitable. When we read an article on this subject we believe that a word of warning should be issued to the effect that we should not count our chickens before they are hatched, but certainly we should urge research along this line by our State and Federal beekeeping stations and await their verdict before jumping at conclusions.

AT WHAT PRICE SHALL WE SELL OUR HONEY?

H. F. WILSON

NOT very long ago, I attended a meeting of beekeepers where there was much discussion as to whether or not it was possible to increase the price of a ten pound pail of honey from $1.00 to $1.10.

I wonder what all those who are selling so cheaply will think of the following letter?

Can you imagine a man with enough nerve to be asking $1.60 for a 10 pound pail of honey last year? All the marketing organizations in the world are not going to help the beekeepers one bit unless they get the idea of asking a fair price for their honey, rather than insisting on selling it cheaper than anybody else so they can get rid of it. Although the honey crop in your neighborhood may be good, throughout the State the crop is not large, and I would not be at all surprised to see wholesale prices reach 10c a pound before the year is over. *Now is the time for Wisconsin beekeepers to pull up both wholesale and retail prices.*

Quote from Mr. _____'s letter of August 27, 1934—

"The next question is in regard to honey prices. Last year I sold my honey in liquid form, that is the honey was heated to 160 degrees before placing in containers; at the following prices: 1-3lb EZ Carry Jar at 60c; 1-5 lb pail at 85c; 1-10 lb. pail at $1.60. This year I intend to sell 1-3 lb EZ Carry Jar at 65c; 1-5 lb. pail at 90c, 1-10 lb. pail at $1.70."

THE HONEY MARKET

THE honey market in Chicago on September 15th, according to the U. S. Department of Agriculture was as follows: Chicago—extracted honey; local market holding firm due to fact that nearly all carlot arrivals are going to bottlers; jobbers depending mainly on small consignments. Sales by receivers to large users—Iowa, Ohio, Minnesota and Wisconsin, Mixed Clovers, White 7–7¼¢, occasional sale 7½¢; Light amber 6¾–7¼¢, few 7½¢. Montana and Idaho, White Sweet Clover and Alfalfa 7–7½¢, Dark Amber 6¢.

Comb honey, fancy wrapped, mostly $3.50. No. 1 mostly $3.25.

From Wisconsin producers reports are: Honey is moving well. Ton lots selling 6–8¢ per lb. 60s 7–8¢ per lb. Small pails, 8–11¢.

WHILE THE SUPPLY LASTS—60 lb. cans, two in a wooden case used once; just as good as new at 50¢ per case. Here is a chance to save some money. C. W. Aeppler Company, Oconomowoc, Wisconsin.

HONEY WANTED: Comb and extracted; all grades. Send samples and best price delivered Oconomowoc. C. W. Aeppler Company, Oconomowoc, Wisconsin.

Cellar Versus Outdoor Wintering

H. F. WILSON

ALTHOUGH the principles of wintering bees successfully are now fairly well known, many new beekeepers are entering the field, and at meetings held this summer, it was noticed that many beekeepers seemed uncertain as to which was the better method to use. The latest investigations on this subject indicate rather clearly that it does not make any difference whether bees are wintered in a bee cellar or packed out of doors, so long as they have satisfactory conditions within the hive.

Cellar Requirements

Successful wintering of bees depends primarily upon condition. This condition is that a colony has good stores, free of indigestible substances that have to remain over a long period of time in the hind intestine of the bee. It is, of course, important that each colony contains a large number of young bees reared in the fall, but these bees are of little value for the spring period unless the stores are sufficiently satisfactory so that the bees are not injured during the winter by dysentery. Many beekeepers have wintered bees successfully with only occasional losses in all sorts of rooms in the basement of their dwellings, and the beekeepers with fine, especially built, bee cellars have suffered serious losses in certain years, but differences in temperature seem to have little effect if the stores are good. Some beekeepers believe the bee cellar must be perfectly dark to prevent the bees leaving the hives in an attempt to fly out, but even streaks of light are not serious, and bees seldom leave the hive in the winter to fly out, unless they are suffering from dysentery.

Outdoor Packing

With regard to outdoor packing, many different types of hives and packing have been used and varied results reported, but actual experience shows that colonies without packing will winter as well as those packed, and even better than colonies with too much packing. The very best kind of packing to provide for bees is a good windbreak. Too much packing, if left on in the spring after the bees begin to fly, is detrimental and does not allow colonies to build up as well in the spring as those colonies that have no packing at all. Heavy insulation seems to act in the same capacity as a refrigerator and prevents the stimulation to the bees brought about by warm days in the spring. The bee colony does not need more than four inches of packing in Wisconsin, and it is better to remove even that after the bees begin to fly in the spring.

Stores

Just how the beekeeper is going to determine whether or not his bees have good stores for winter is a question which has not yet been solved, because it probably would take chemical analysis to determine the condition of the stores unless the beekeeper fed each colony 10 or 15 pounds of sugar syrup late in the fall. In times past, individual beekeepers have made it a practice to feed each colony certain amounts of sugar syrup in the fall, and where this was carefully done practically no dysentery appeared. However, even sugar syrup may not solve the problem of dysentery, for it has been found that dysentery is almost always due to the sugaring of honey in the combs, and if the sugar syrup candies, dysentery also may occur following its use. Some beekeepers even go as far as boiling the sugar syrup which is fed to the bees, and this always should be done to prevent any danger of crystallization.

Never Fails

The way to distinguish between weeds and plants in the garden: Cut them all down. Those that come up again are weeds.

THE 1934 WISCONSIN HONEY CROP

H. F. WILSON

IN SPITE of the drought, a good part of Wisconsin's honey crop was fairly satisfactory, and over in the eastern section along the Lake Michigan shore the crop was normal. The interesting part of our honey story, however, is that, due to drought conditions, the honey flora has changed to a very large extent, and the alsike clover crop, which normally produced the greater portion of our honey, has been killed out to a large extent, and very little clover honey has been secured during the past two years. Many wild flowers which do not secrete nectar have become abundant, under drought conditions, and considerable honey of more or less undesirable flavor has been mixed with the better honey. Sweet clover, which usually does not produce much nectar, except in the southwest part of the State, has furnished nectar and a surplus crop as far north as Lincoln and Langlade Counties. But the greatest wonder this year has been the large crop of honey secured from alfalfa. Our beekeepers must not expect this condition to continue, because just as soon as the normal rain fall occurs, it seems logical to expect alfalfa to again cease to produce considerable quantities of nectar, and little or no surplus will be secured from this plant. Some crops of basswood have been reported, but most of this will be sold locally.

Prices

We are sorry indeed to receive reports that some beekeepers are selling honey at as little as 50¢ per ten pound paid. This seems almost unbelievable, when we know there are other beekeepers who are receiving $1.25 per ten pound pail. And even one beekeeper reports he still sells at $1.50 per ten pound pail.

When the wholesale price of honey is 7¢ per pound, it is difficult to understand why any beekeeper would be foolish enough to pail his honey and

(Continued on next page, col. 3)

Shall Beekeepers Be Taxed

E. L. CHAMBERS

IN AN effort towards balancing the budget, the 1933 Legislature decided to require fees insofar as seem feasible for all services rendered by the state, charging the fees to those who seem to derive the most benefit from the service. In the course of following this procedure, some of the larger beekeepers of the state were asked to attend a hearing held in connection with an investigation of the activities and services of the State Department of Agriculture and Markets during the spring of 1934, and upon indicating their willingness to carry their share of the load, the matter of a suitable license fee was studied.

Want Foul Brood Protection

The beekeepers expressed the desire that the protection of their industry against the spread of American Foul Brood and other serious bee diseases be not only continued but that the service be increased to speed up state-wide control. The beekeepers felt that their industry, upon which they depended for their living was entitled to the same protection being extended to other industries. In considering the question on the basis of who profits from bees, it was brought out that in the State of Michigan, it was the fruit growers who requested the Michigan Legislature for a $50,000 bee disease control appropriation in order to safeguard and guarantee sufficient bees to carry on the necessary pollination in their orchards. Most of these orchardists do not have bees of their own, but rent them where beekeepers were not already conveniently located. This fact brought out the point that there were others apparently profiting directly from the bee inspection service besides the men who depended upon the honey crop for their living. Further evidence indicated that the producers of alfalfa and clover seed also were interested in bees.

The question that naturally arose then was should the clover seed producers and fruit growers also pay a license. This did not seem feasible. The beekeepers maintained that most of the funds were used to enforce the apiary inspection law carrying out the requirements for permits before allowing bees to be moved, and that if the inspector found disease in his yard, the law provided that the bees might be destroyed as well as the honey in the supers without payment of indemnity. This while being the only recognized practical method of control, frequently amounted to a total loss of the season's work.

Beekeepers outside of the area clean-up counties where the county had not met the state funds on a dollar per dollar basis and where an active county beekeepers' association had not requested and supported such a program, found it impossible to get adequate protection. When the beekeeper protested to the State Inspector, he would be advised that the funds available were limited and they consequently had to be restricted to counties where additional funds were made available. The reason for this is evident, namely, if one yard were cleaned up in a county where county funds were not available, the owner would naturally insist on the neighbor's being cleaned up and following such a program the clean-up of necessity would have to be carried out to the county line.

More Money Needed

This procedure, of course, would be impossible with the allotment reduced as it is at present to $6,100 from its original $10,500. $3,000 of this amount is required to take care of the issuing of some 500 permits covering from 3 to 4 colonies of bees annually being moved from one point to another. After taking out the salary and traveling expenses of the Chief Inspector, it is apparent that very little money would be available to an individual county when the balance would be divided by 71, the number of counties in the state. The present tax on bees would not correct this situation in any way, since it is an occupational tax and the funds so derived are turned into the general fund and there is no clause in the law that even ensures the continuation of the present inspection allotment.

The beekeepers feel that if they are paying a tax they should receive a service and if the service is to be pro rated on the basis of the funds received from the occupational tax, it means that the area clean-up work will have to be discontinued unless additional county funds are secured.

(To be continued in our next issue)

THE HONEY CROP

(Continued from page 35)

sell it at 5¢ per pound, netting himself less than 4¢ per pound. The crop throughout the United States is below normal, and the crop in Wisconsin is considerably less than may be expected in a normal year. The prices of all other food products have been raised considerably, and beekeepers throughout the states should in turn insist on getting a better price for their honey. It now seems as though the greater portion of the wholesale honey crop would be out of the hands of the beekeepers by January or February, and those who are able to hold their crop certainly may expect better prices after the first of January.

The Judge (sternly): "Well, what's your alibi for speeding sixty miles an hour through the residential section?"

The Victim: "I had just heard, your honor, that the ladies of my wife's church were giving a rummage sale, and I was hurrying home to save my other pair of pants."

The Judge: "Case dismissed."

A WISCONSIN IRIS SOCIETY

A NUMBER of letters were received at the office of the Wisconsin Horticultural Society from iris growers stating that they were interested in a Wisconsin Iris Society, and hoping that such an organization would be formed.

We will file the names of all who send in a card or letter stating they would like to join, and sometime this winter a meeting will be called. All those whose names are on file will be notified of the meeting which will probably be held in or near Milwaukee as the largest number of iris growers seem to be in that section of the state.

In addition to the organization meeting an iris speaker will be provided for an interesting program.

INTERESTED IN IRIS SOCIETY

I am interested in iris, am growing many varieties. Would be interested in an Iris Society, one in which I could learn to accurately classify varieties and their growth. Also would be willing to contribute rhizomes. Think Madison would be a good location for display garden.

—MRS. JOHN ROCK,
Thiensville.

FROM MILWAUKEE

I am keenly interested in the finer Iris. In my own garden I grow over a hundred varieties which furnish blooms from the beginning of April until the middle of September. A number of rare ones were grown from seed and I shall be glad to share some of them for a display garden. I certainly hope that the Wisconsin Iris Society becomes a reality and that we have a fine Iris show each year.

—MRS. ARTHUR JAEGER.

Don't fail to attend the annual convention of the State Garden Club Federation, Hotel Racine, Racine, November 8–9.

FRUIT GROWERS PROGRAM

66th Annual Convention Wisconsin State Horticultural Society

Racine Hotel, Racine, November 8–9

All Meetings on Mezzanine Floor

THURSDAY, NOVEMBER 8

10:00 a. m. Making and selling filtered cider. Air cooled apple storage houses. Prof. Roy E. Marshall, Horticulture Dept., Michigan State College.

11:00 a. m. How to get the most out of the spray gun. (Tests of spraying methods.) Prof. Glenn L. Ricks, Horticulture Department, Michigan State College.

12:00 M. Joint luncheon in Hotel dining room with Racine Kiwanis Club. Price 60¢. Speaker, Mr. Vilas Whaley, past State Commander American Legion. Talk on National Defence Act and National Service Act.

Inspection of fruit exhibits and flower exhibits by garden clubs.

AFTERNOON PROGRAM

1:30 p. m. Value of bud sports in apples and cherries. Suggestions for marketing apples. Prof. V. R. Gardner, Chief, Department of Horticulture, Michigan State College.

2:30 p. m. What we are doing with hardy nuts. Rabbit control in the orchard. Prof. J. A. Neilson, Horticulture Dept., Michigan State College.

3:30 p. m. Progress in apple scab and fire blight control in Wisconsin. Prof. G. W. Keitt, Madison.

THE BANQUET

6:30 p. m.—Hotel Racine—Price 85¢

Music and entertainment by Racine Garden Club.

Honorary recognition services. Three outstanding horticulturists.

Talks by out-of-state speakers. Prof. V. R. Gardner of Michigan, Mrs. Euclid Snow, Hinsdale, Illinois.

A Bit of Humor by Mr. Mike Peterson, Williams Bay. Mr. Peterson is one of the mid-west's greatest humorists.

FRIDAY, NOVEMBER 9

10:00 a. m. New ideas on codling moth and orchard insect control. Arsenic substitutes. Prof. C. L. Fluke, Entomology Department, Madison.

11:00 a. m. Orchard notes for 1934. Thinning observations. Use of nitrogen. Summer pruning. Prof. R. H. Roberts, Horticulture Department, Madison.

12:00 M. Luncheon. Plans to be announced.

AFTERNOON PROGRAM

1:30 p. m. Annual meeting and election of officers Wisconsin State Horticultural Society.

2:30 p. m. Illustrated lecture. Simplicity—the keynote of home grounds beautification. Location of shrubbery, trees and flower border. Prof. Franz Aust, Horticulture Department, Madison.

A. J. SMITH

One of Wisconsin's foremost gardeners, Mr. A. J. Smith, died during September. Mr. Smith was gardener on the Maytag Estate at Lake Geneva for many years. He was a charter member of the Lake Geneva Gardeners Association and its president for a long period. He has also been an officer of the Wisconsin State Horticultural Society.

E. C. HAASCH

The many garden friends of Mr. E. C. Haasch of Wauwatosa will regret to hear of his death on Thursday, September 20th. Mr. Haasch was a most enthusiastic gardener, widely known throughout the state and loved by all who knew him for his helpfulness and interest in gardening.

About the Home and Garden

MRS. C. E. STRONG

THE CHRYSANTHEMUM

In the second month the peach tree blooms
But not until the ninth the chrysanthemums;
So each must wait until his own time comes.
—*Translation from the Japanese.*

THE Kiku-no-sekku, or festival of the chrysanthemum, is held during the ninth month, which, according to the old calendar, is about the last of October, and as the birthday of the Emperor fell upon the third of November that day has become a gala day in all parts of the empire and the occasion of wonderful floral displays. At Dango Zaka, one of the suburbs of Tokio, is held one of the most unique exhibitions. Under canopies of matting and sometimes on revolving stages, are arranged life-size figures made entirely of chrysanthemums, with the exception of the face and hands, which are formed of some sort of composition. The figures are grouped as tableaux representing historical or legendary scenes. They are curiously made of split bamboo, in which the roots and stems of the plants are packed in damp earth and bound around with straw, while the flowers are drawn through the frame and woven into the desired pattern. By careful sprinkling every evening the flowers are kept fresh for the month during which the festival continues.

Care of Hardy Kinds

Many gardens are brightened by the late blooms of the hardier varieties of chrysanthemums. Have found it an excellent plan to grow them during the summer out in the cutting garden, then in the first weeks of September—move them to sheltered spots near the house,

SHIRLEY POPPIES, BACHELOR BUTTONS AND LARKSPUR MAKE HANDSOME BOQUETS OF ANNUALS.

or in front of shrubbery where they are free from cold winds. They can even be given a little covering if a hard frost threatens the flowers. A few old discarded blinds and some burlap sacks were protection enough until December of last year, even the real late varieties blossoming under this cover. They can be potted just before a freeze and brought into the house where they will bloom for a long time. Before placing these potted plants in the coolest part of the basement until spring—spray them thoroughly with Black Leaf 40—or the aphis are likely to kill the plants.

Early Bulbs

Are the bulbs you admired last spring tucked away in the garden beds all growing nicely for early blooming? If not there is still time to plant them. Just remember to prepare the ground deeply so there will be plenty of root room, also add plenty of bonemeal for fertilizer. I say bonemeal because unless care is taken not to have the bulbs in contact with other fertilizer, they are liable to rot.

All of October may be used to transplant shrubs or trees. And think of the relief next spring, when there is seed sowing and preparation of the ground for all those new flowers you have intended to plant—to know that your shrubs are all ready to grow, every rain is helping the new roots to start out and give it a better chance when the hot dry weather comes. You know it usually does come—and you know that the late planted shrub shows the effects in yellowing foliage and scanty growth. So plant now.

Sow Perennial Seeds

A cold frame with a foot of drainage and a foot of good soil may be planted to seeds of perennials just before freezing time. Cover with burlap so the seeds will not be washed by heavy rains, most perennials benefit by the freezing they receive and come up freely in the spring—much earlier than they otherwise would. If lily seeds are planted, give a couple of inches of peat as additional covering.

Just a reminder—if you have been trying out some new shrub, tree or plant, give it a good ground cover as soon as the ground has frozen a little, many plants and shrubs will become hardier after they are thoroughly established with a good root system. Peat, cornstalks. (be careful that no corn is left to attract mice) or leaves that are partly rotted make good coverings. This covering may be left on during the summer especially the rotted leaves and peat.

AMATUER FLOWER EXHIBITS AT THE STATE FAIR

IN SPITE of storms and drouth, the 1934 Amateur Flower Show at the State Fair was a success. Nearly every class was filled and there was considerable competition in many of the classes.

The fifteen dining tables were taken of course—and using their own dishes and linen, with flowers from their gardens—the exhibitors are showing some very artistic and striking arrangements. This is proving very interesting and helpful to many visitors at the Fair. The flower decorations are getting entirely away from the sameness that we complained of for several years. The Judges were delighted—and the majority of those who passed by and commented on the tables—agreed with the placing of the ribbons.

The perennial and annual groups were very good, both classes showing new varieties never shown before. Outstanding in the perennials, Aster hybridus lutea, clear bright yellow in spreading panicles, exquisite to use as a filler or alone. Gypsophila acutifolia, a pretty pale pink small flower, was also admired.

New Zinnias

Scabiosa flowered Zinnias and the tiny many colored Mexican or Midget Zinnias were admired greatly and every note book holds their names for next years garden. Chrysantha Calendula, also met with approval as they were brought closer to the visitors in order to convince them that they really were Calendulas—not chrysanthemums as they supposed.

Asters were good—better than they have been in years. The judge after looking over the exhibits, suggested that more blue ribbons be furnished as they were needed—it was too hard to decide with only one.

Little Gardens

There were six Little Gardens this year—two more than usual, all quite different—all interesting. The Cactus and succulent Garden proved that we need a Cactus display in the Amateur department—were there a lot of cactus fans in evidence—and did they speak the cactus language—at least they gave them names that I would never dare attempt to repeat. Neither will I call them by the common names after the glances of scorn bestowed upon me by one "fan." I'll just say "that one."

We are glad to see new exhibitors come in— "We need them to keep us on our toes," said one laughingly, as she admired the winning exhibit by a "New member."

Best of all are the many who come and tell us how much this exhibit at the Fair is helping them, how they have learned to know the different varieties, how to use them in the garden and home. They are enthusiastic about the Little Gardens as a help in showing how even a very small space may be made attractive—how it can be changed so that a variety of plants may be tried out, they are wondering about a Garden Club—are quite sure it would be interesting to belong to a group whose interest was in growing plants from seeds, really getting acquainted with them you know.

LATE BLOOMING IRIS

I bought the late blooming Iris Autumn King soon after it came on the market and it never bloomed for me in the autumn. Therefore I have not tried any other fall blooming varieties of German iris. However, a Chinese iris blooms for a month every year in August and September. This is iris Dichotoma. It likes a dry well drained place. The foliage is about a foot in height but the flowers come on three feet tall with well branched stems. The color is lavender and they open only in the afternoon.

MRS. A. JAEGER,
Milwaukee.

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Gleanings From The Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

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THIS SEASON WITH THE GLADIOLUS

W. C. KRUEGER
Oconomowoc

THIS season was ideal for checking the performance of gladiolus under conditions of extreme drought and intense heat, great variation in humidity, and a wide range of temperature.

Outstanding under these conditions was the performance of Margaret Fulton, Mary Elizabeth, and Lindesta. Each had more than 20 buds to the spike. All the spikes of these varieties grew straight without staking, and successive days of 95° in the shade could not make the florets of these stalwarts droop. The first two opened a minimum of six florets in the field with some spikes showing ten open in good condition at one time. Lindesta was fine too, but did not open more than five florets. The salmon pink of Margaret Fulton is distinctive, while the metriculous placement and ruffling of that white and yellow glad, Mary Elizabeth, is always to be marvelled at. Only one spike of that variety flecked with pink, and that spike suffered a severe change in temperature.

Dr. Buchan (Mair) surprised me by its fine growth. Its color a soft scarlet with a white blotch edged with a trace of violet. This variety is really different and, therefore, refreshing.

A Good White

Maid of Orleans did well in my plot as it did in gardens and commercial plantings that I visited. It seems to be the best performer of the Pfitzer whites and creams.

Amador is a pleasing medium of red of average sized florets correctly placed. It performs consistently.

The Gladiolus Display Garden at the College of Agriculture was Visited by Many Gladiolus Fans this Summer.

Salbach's Orchid, Mildred Louise, and Wuertembergia also did well. They are all outstanding in color. The latter however, places its floret rows somewhat too far apart.

Pirate, Picardy and Bagdad are "must haves" in the glad patch, but this season they did throw some short spikes, but a spike 31" from lower floret to tip with 9 to 12 open with the last two named, will easily compensate for a few short spikes, and for the fact that the petals will wilt under conditions as prevailed this past summer.

What a name for a glad! "Dream O'Beauty." This marvelous rose-red opens ten or more on a spike, but it will burn in the hot sun.

Wausaga is a beauty, but I agree with Mr. Gove in that I doubt whether a beginner would appreciate the exquisite color.

Marmora seemed to experience a poor season in these parts, showing many short spikes. Koehl and Machree kept spike length, but their placement was not up to their standard.

Fata Morgana and Schwaben Girl are so beautiful that they are easily forgiven their respective faults, frail plant, and short plant. They open many and the placement and spike length is always good.

Heathfield, Moondara, and Esme Desilly form nice spikes, but to me their color is not outstanding.

Pelegrina, King Arthur, Star of Bethlehem and Bill Sowden will be given another chance.

A Real Pink

One of the high lights of my garden was Pearl of California which this year as last, always had 25 buds to the spike, with ten or more open, correctly placed. This pure pink beauty is not a giant in flower or plant, but it does appeal.

Of the many varieties that I saw in other gardens or in commercial plantings, the following impressed me most in performance and beauty: Valencia (Christ) dull orange—6 inches across in a non-irrigated field; Emma; Edith Robson; Max Reger, a vital and snappy Ave Maria by the same originator; Senate Coronada; Director; Latus; Mrs. Ray P. Chase; and Flying Squadron (Elli).

My own additions for next season will be made from this group, and I hope to add some of the following if reports remain favorable from more than one source. I am through buying advertising—I appreciate beau-

ty, distinctiveness and performance: Blue Peacock, Union Jack, Sultan, Southern Cross and John S. Bach.

Heritage was the outstanding new glad that I was privileged to see.

As I stated before, this season was ideal for checking performance and as a whole the newer glads fared better than the older except for a few stalwarts as Minuet, Giant Nymph and Betty Nuthall. Perhaps another season will give us beautiful spikes from many varieties that did not deliver for us the past season.

HOW TO STORE AND GRADE GLADIOLUS BULBS

AFTER digging, gladiolus corms are placed in shallow flats or boxes in a dry, well-ventilated, frost-proof cellar or shed for about two weeks to cure. At the end of that time, they should be cleaned for storage by removing the old dried-up mother corm at the base and removing the cut stem. Unless thrips are present, the husks are not removed at this time inasmuch as they serve to protect the corms in storage.

When large plantings are to be stored, shallow trays about four inches deep are ordinarily used. These are placed on top of each other with blocks between the trays to provide aeration.

It is impossible to overstress the importance of a clean well ventilated storage cellar in which the temperature can be carefully regulated to 35° -40° F. Although the storage cellar should be moderately humid, it should not be uncomfortably damp. A humidity of 70-80 per cent is satisfactory. The cellar should be kept clean at all times and diseased corms should be destroyed at once.

Grading

Gladiolus corms are graded during the winter months into six sizes—

No. 1	1½" and larger
No. 2	1¼–1½" in diameter
No. 3	1–1¼" in diameter
No. 4	¾–1" in diameter
No. 5	½–¾" in diameter
No. 6	Under ½"

Sizes 1, 2, and 3 are usually considered as corms of blooming size, although frequently the smaller sizes will also bloom. Occasionally even cormels or No. 6's will bloom the first year. Sizes 4, 5 and 6 are used ordinarily only for planting stock and reproduction.

The grading, on large establishments, is done usually by machine but where only a few bulbs are to be sorted, grading boards or screens can be used. Separate boards or trays with holes of the sizes indicated above are used for each grade. In grading, the board with the 1½ inch holes is used first and all that will not pass through the holes are number ones. The balance of the corms are then passed over the No. 2 board and the next sized corms are taken out. This process is continued until all the corms are graded.
—From *Michigan Agricultural Station bulletin "Gladiolus Culture, Insects, and Diseases."*

HOW TO GROW TIGER LILIES

DURING the late summer, most everywhere I go in the country and in many city gardens, I see the old fashioned Tiger Lily.

In an old neglected farm yard —where no planting has been done for years—I found the old Tiger Lily blooming among the weeds along the fence line. At another farm I found Tiger Lilies more than six feet tall with sixteen buds and blossoms to the stalk. Other lilies may be more beautiful, but where can you find one that is as hardy and self-assertive under such a variety of conditions? The merits of the Tiger Lily have never been fully appreciated.

I have found there is quite a difference in Tiger Lilies. Fortunea Giganteum is easily the finest of the Tigers. It grows the tallest and has the largest flowers. It has a bright salmon-red color with purple spots that are less conspicuous. Tigrinum Splendens is the standard and most advertised variety. Tigrinuin Flore-Pleno is interesting because it is the only lily we have in a real double form. The buds are a little shorter and the color a little lighter than Tigrinum Splendens.

If you plant the bulbs in the fall and make another planting in the spring, you will have a succession of bloom extending over a month. Plant the bulbs 6 to 8 inches deep and mulch with leaves or straw for winter protection. To increase the stock of Tiger Lilies, plant the black bulblets that form in the axils of the leaves. Plant these in drills like peas, in August. Give heavy winter mulch and they will come up the next spring. I have found the Tiger Lilies to their best when a ground cover is planted near them. Anchusa Myosotidiflora, or Campanula Carpatica, are excellent plants for that purpose.

—LILLESAND E. LEANDER,
Cambridge.

How Do You Pronounce These Plant Names?

1. Liatris	11. Achillea
2. Pentstemon	12. Aconitum
3. Statice	13. Ageratum
4. Clematis	14. Amelanchier
5. Gerbera	15. Anagallis
6. Gladiolus	16. Anchusa
7. Godetia	17. Anthemis
8. Helenium	18. Antirrhinum
9. Acacia	19. Colchicum
10. Physostegia	20. Asclepias

For correct pronunciation see page 43.

NORTHBROOK PEONIES AND IRISES

The World's Best Varieties Grown under ideal conditions, our plants have established a reputation for quality and vigor nationally recognized—Send for your copy of the MASTER LIST—AMERICA'S BLUE BOOK OF FINE PEONIES AND IRISES. Full information scientifically arranged. Very reasonable prices.

NORTHBROOK GARDENS, Inc.
Northbrook, Illinois

Paul L. Battey, Pres.
W. F. Christman, V. P. and Mgr.

Art Shades Found in Breeder Tulips

MODERN late flowering tulips, concerning the origin of which there is much mystery, are chiefly selected strains of the general class of late tulips known as Breeders, so called because the striped tulips, the medium of the gambling craze during Holland's tulipomania, develop from these self-colored tulips by breaking out in stripes from time to time, for no well understood reason, although there are numerous theories.

The Darwins are honored by being given a separate class from the Breeders, but the latter are now sharing the popularity of the Darwins because of their soft and unusual colorings, notably the buffs, browns and bronzes, often intermingled with purples and dark reds. These subtle art shades are coming to be more and more appreciated and offer some of the finest tulips there are. The Breeders require the same treatment as the Darwins.

They have yellows in their color range, there being no true yellows in the Darwin class. Some of these handsome tulips should be included in every order. One of the finest is the bronze and purple giant, Louis XIV, one of the finest of all tulips and now at a price which puts it within reach. A few years ago it was one of the very expensive beauties.

The brown tones of the Breeders combine beautifully with the pink and rose tones of the Darwins. They have the same great height of stem and size of bloom.

Another late blooming race of tulips comes all in stripes and offers a most interesting variety in planting that always attracts interest. They are best planted in groups by themselves, as the stripes of varying colors do not harmonize with other tulips. The striped tulips are divided into three classes, bizarres, byblooms and Rembrandt

tulips. The first are yellow and brown, red, or purple striped. The second class is subdivided into rose and violet byblooms, one being in tones of red and white, and the other in lavender, purple and white. The Rembrandts are striped Darwin tulips having the same soft colorings striped with white.

A bed of these striped tulips is a novelty in the garden and some of them should be included in any bulb order. They are fine to plant in small groups over a border, giving it an unusual character. The variegations are sometimes in regular patterns and sometimes over all. The character of the striping is sometimes in the way of flames up the midrib of the petal, and in others a pattern about the edges of the petals, feathered.

Fatherly Advice

Son: "Father, I've a notion to settle down and start raising chickens."

Father: "Better try owls. Their hours will suit you better."

DOUBLE TULIPS FOR WINTER BLOOM

THE Darwins are my favorites for garden culture, but for indoor bloom I am partial to the Double Tulips. They are far easier to get into bloom and they make the finest showing in pots. We often envy the florists as we see the pots of beautiful Murillos in the shop windows at midwinter, but there is no great magic about it. It is easy and it will bring you greater pleasure to grow them yourself. Murillo is an old variety, but I generally rely on it for my earliest bloom. Their large double blossoms open up nearly white but turn to a beautiful rose as the flower expands. Triumphator is a sport of Murrillo and a much brighter pink. In my own home last winter, I had blossoms of Couronne d Or four inches across. It is a rich golden yellow. Tournesol is a showy red with a yellow edge. My largest bloom was Imperator Rubrorum. It was a little slow in coming into bloom, but when it opened up it looked like a rich red peony.

How to Plant

It is most important to give the bulbs plenty time to make a good root growth. I generally plant five bulbs in a six inch pot, placing them with the flat sides turned away from the center so they will spread their foliage better. I use garden soil mixed with sand and bonemeal and completely cover the bulbs half an inch. After soaking them with water, place them on the floor in the coolest and darkest place in the cellar. Water once every ten days and do not bring them up to the light until the pots are filled with a mass of roots, which generally takes from 8 to 12 weeks. The whole success in bulb culture consists in establishing a good root growth. Then you can bring them up to the living room as you want them and have a succession of lovely flowers in bloom from January til spring.

—LILLESAND E. LEANDER,
Cambridge.

This Season With Dahlias

E. M. LARSEN
Madison

THE past season has been anything but favorable for the dahlia. The dry spell was bad enough but in addition the red spider was especially active. However, where plenty of water was available, the plants kept clean and given proper fertilizers they produced fairly good blooms.

Good Varieties

The season was a good one to try out some of the newer introductions that have come to us in the past few years. The following six have been proven and are well worthwhile: Amelia Earhart, color—Apricot buff; Murphy Masterpiece, a huge red; Lady Myra Ponsomby, a good yellow; Polo Alto, buff color; Cameo, a coral rose and La Fiesta a bi-color butter yellow and penciled red. There are of course many others but these have given an especially good account of themselves in the show room as well as in the garden.

As for newer varieties we find (1934) Lord of Autum, a yellow; Momouth Radiance, pink and primrose; Washington Giant a lavender; Fireman, a good red; Air Mail and Grande —the latter may prove to be a rather coarse flower. Sonny Boy is also very good.

These of course are the larger flowering varieties and we must not overlook the fact that the smaller varieties seem to be coming into their own. With the cactus varieties, the following miniatures, that is, flowers about three inches in diameter, are becoming very popular: Jean, Baby Royal, Fairy, Orchid Lady and a very neat bi-color called Little Nemo. The following Cactus are also very interesting: Mrs. Bruce Collins, Jugendpracht, Frau O Bracht, Miss Belgium, and Mariana. We must also call your attention to the many new pompoms that are becoming very popular.

Grow Under Cloth

The past dahlia shows have demonstrated that growing dahlias under cloth is the ideal way to raise them. Dahlias raised in the field cannot score on the show tables with those under cover. The cloth houses are becoming very popular. There are fourteen of them in southern and eastern Wisconsin. In some cases these houses are used as outdoor living rooms and plantings include asters and in some cases gladiolus.

LIKES NANKING CHERRY

A little more about the Nanking Cherry, Prunus Tomentosa. I have had some of these bushes for several years, and they have never winterkilled, altho last winter mercury hit forty below. However, if a place is infested with cotton tail rabbits, which, unfortunately are protected, do not plant these cherries. The rabbits like their bark as well as they do that of the apple tree.

RALPH LARRABEE,
Webster, Wis.

LETTERS FROM OUR GARDEN CLUB MEMBERS

I heard your garden talk over W. H. A. this morning and think the talks a fine idea.

The Waupaca Club is still enthusiastic. We are hoping to have a garden club table at the library with our twelve new books—three good garden magazines and various catalogs, besides bouquets and interesting plants in season.

We made an interesting pilgrimage to Baraboo seeing the Toole Nursery, Devil's Lake, Durward's Glen, and the Agency House at Portage in August. In October we go on a pilgrimage to Rib Mountain to observe the autumn foliage and enjoy a beefsteak and bacon bat!

—MRS. EDW. BROWNE,
Waupaca.

THREE SPRING HARBINGERS

THERE are three little bulbs I like to plant in October for early spring blossoms. They are small and insignificant in themselves, but planted in quantity they make a charming picture.

Mix snowdrops, winter aconites and Scillas and plant them beneath a pussywillow for an early thrill. Or plant up near a south-facing wall, or any sunny nook in the garden.

The golden blossoms of Eranthis Hyernilis (Winter Aconite) look charming resting on a cushion of green leaves, and the Galanthus (snowdrops), with their peculiar frosty whiteness, alongside the bright blue of Scilla Siberica, gives the whole planting a charming effect.

—LILLESAND E. LEANDER,
Cambridge.

PLANT NAMES

(Continued from page 41)

Correct Pronunciation

1. Ly-ay'-tris
2. Pent-stee'-mon
3. Stat'-i-see
4. Klem'-ah-tis
5. Ger'-be-ra
6. Glad-i-oh'-lus
7. Go-dee'-shi-a
8. He-lee'-ni-um
9. Ah-kay'-shah
10. Fy-soh-stee'-ji-ah
11. Ak-i-lee'-ah
12. Ak-oh-ny'-tum
13. Ah-jer'-ah-tum or Ag-er-ay'-tum
14. Am-e-lan'-ki-er
15. An-ah-gal'-is
16. An-keu'-sah
17. An'-the-mis
18. An-tir-ry'-num
19. Kol'-ki-kum or Kol'-shi-kum
20. As-klee'-pi-as

Reference—*The Home Gardener's Pronouncing Dictionary By Better Homes & Gardens.*

SOUTHERN WISCONSIN DISTRICT MEETING

Mrs. Robert Alder, chairman of the Southern Wisconsin district of the State Garden Club Federation called a meeting at Fort Atkinson on September 26. Clubs in the district are Elkhorn, Whitewater, Fort Atkinson, Jefferson and Cambridge. The officers elected will be listed in our next issue.

STATE GARDEN CLUB FEDERATION NEWS

Federation Aims: To stimulate and help garden clubs throughout the state; to develop interest in and broaden the knowledge of gardening; to aid in the protection of trees, plants and birds, and promote civic beautifications.

GARDEN CLUBS IN FOX RIVER VALLEY ELECT NEW OFFICERS

A VERY interesting meeting with 70 garden club members in attendance was held at Lawsonia Resort, Green Lake, by the garden clubs in the Fox River Valley on August 29th. After visiting estates and gardens during the forenoon, a luncheon at Lawsonia Hotel at noon, a very interesting program was held in the afternoon.

H. J. Rahmlow, secretary of the Horticultural Society talked on "How we can improve our flower shows." Miss Edna Robertson, chairman of the Fox River Valley district, discussed the projects which their district may carry on. The State President, Mrs. Charlotte Bullard, and Vice-president, Mrs. Chas. Jahr, also took part in this discussion.

Officers for the coming year were elected as follows: Mrs. J. M. Johnson, Ripon, President; Miss Edna Robertson, Menasha, Vice-president; Mrs. R. O. Hargrave, Ripon, Secretary-Treasurer.

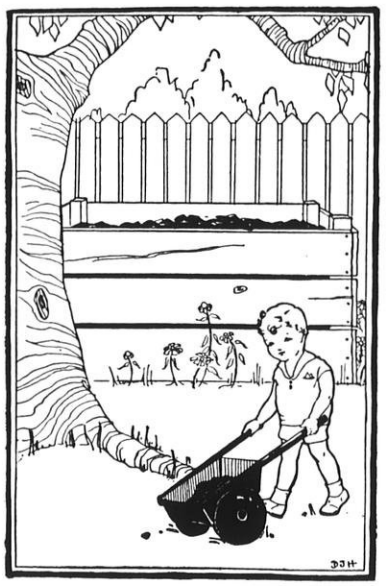
Mrs. J. M. Johnson of Ripon made the local arrangements for the meeting.

MILWAUKEE COUNTY DISTRICT ELECTS OFFICERS

AN INTERESTING meeting of the garden clubs of Milwaukee County was held in Grant Park, Milwaukee, September 19.

The forenoon was devoted to a tour of the nursery and grounds. Hundreds of varieties of flowers, trees and shrubs were inspected.

After a luncheon in the Pavilion a program and business meeting was held. Mrs. M.



VanderHoogt, district chairman, presided. H. J. Rahmlow discussed "How Can We Improve our Flower Shows."

Mrs. E. Corrigan discussed ragweed eradication and billboard legislation. This was followed by the business meeting. The following officers were elected for the coming year: Chairman, Mrs. Irving Lorentz, Milwaukee, of the Milwaukee County Horticultural Society; Vice-chairman, Mrs. J. Simon, West Allis, of the Hillcrest Garden Club; Secretary-treasurer, Mrs. Wm. Hopkinson, Milwaukee.

The chairman called on every member present for their favorite combination of flowers which brought out some interesting suggestions.

Delayed

Visitor: "Does the giraffe get a sore throat when he gets wet feet?"

Attendant: "Yes, sir, but not until the following week."

NEW GARDEN CLUBS JOIN GARDEN CLUB FEDERATION AND HORTICULTURAL SOCIETY

THE officers of the Wisconsin Garden Club Federation and the Wisconsin State Horticultural Society wish to welcome the Whitewater and Green Bay Garden Clubs to membership in our Society.

Both clubs are new but have been very active during the summer months. The officers of the clubs are as follows:

Whitewater Garden Club

President: Miss Avis I. Cleland, 111 So. Prairie St.
Vice-pres.: Mrs. J. R. Johnson, 204 So. Prairie St.
Sec.-treas. Miss Alice Ward, 202 Cottage St.

Green Bay Garden Club

President: Mrs. H. A. Foelier, 1036 So. Webster.
Secretary: Mrs. P. R. Minahan, 1245 So. Jackson.
Treasurer: Mrs. R. M. Burdon, 140 N. Oakland.

OUR CONVENTION PROGRAM

Several prominent members and officers of the Garden Club of Illinois will appear on the program at our annual convention at Racine. Two days of pleasure and profit are promised all who attend.

FLOWER SHOWS

Very successful flower shows were held during August by the garden clubs of Green Bay, Menasha, Oakfield, Beaver Dam, Waukesha County Federation, Art Institute, Milwaukee, Racine, Fort Atkinson, Kenosha, Lodi, Superior, Plymouth, Stevens Point, Kaukauna and Ashland. We are sorry not to be able to describe them all.

PROGRAM

Wisconsin Garden Club Federation
7th Annual Convention

Hotel Racine, Racine

November 8–9

In conjunction with the 66th annual convention of the Wisconsin State Horticultural Society.

Meetings and flower show on the hotel mezzanine floor.

BOARD OF MANAGERS

The Board of Managers of the Federation will meet 9:30 a. m. to 12 M. in the Chamber of Commerce Room on the Mezzanine floor.

The Board of Managers consists of one delegate from each affiliated club with a membership of less than 50. Two delegates per club having more than 50 members. The Board acts on all matters of business and nominates officers for the coming year.

MAIN PROGRAM

9:30 a. m. Three minute talks by delegates of garden clubs, (not delegate on Board of Managers), on Worthwhile Accomplishments of our club during the past year.

Reports of standing committee chairmen, 6 minutes. Due to the large number of clubs now in the Federation each report must be limited to the time stated.

12:00 M. Informal luncheon by the Racine Woman's Club in their building, 2 blocks from Hotel. Social hour. Inspection of flower show.

AFTERNOON PROGRAM

1:30 p. m. The newer varieties of annuals and perennials, J. H. Burdett, Chicago. Mr. Burdett is a well known radio speaker on garden topics.

2:30 p. m. How we conduct garden centers in Illinois, Mrs. Joseph Harrington, Riverside, Illinois.

3:00 p. m. How I grow iris. The newer varieties, Mrs. Euclid Snow, Hinsdale, Illinois, president Garden Club of Illinois.

3:45 p. m. Plans of the University Horticulture Department of interest to garden clubs, Prof. J. G. Moore, Madison, Chief of Horticulture Department.

ANNUAL BANQUET

6:30 p. m.—Hotel Racine—Price 85¢

Music and entertainment by Racine Garden Club.

Honorary recognition services. Three outstanding horticulturists.

Talks by out-of-state speakers. Prof. V. R. Gardner of Michigan, Mrs. Euclid Snow, Hinsdale, Illinois.

A Bit of Humor by Mike Peterson, Williams Bay. Mr. Peterson is one of the mid-west's greatest Humorists.

FRIDAY, NOVEMBER 9

9:30 a. m. (sharp) Illustrated lecture on flower arrangement with the slides of the National Council of Garden Club Federations. Lecture by Mrs. Mabel Johnson Fuller, Riverside, Illinois. The National Council flower arrangement slides are unusually good. We urge all members to see them, and follow the work of the garden clubs throughout the United States.

10:45 a. m. New ideas on fertilizers for the lawn and garden, Prof. C. J. Chapman, Soils Dept., Madison.

11:30 a. m. Annual business meeting State Garden Club Federation. Election of officers.

12:00 M. Joint luncheon. Program to be announced.

AFTERNOON PROGRAM

1:30 p. m. Annual business meeting Wisconsin Horticultural Society. Election of officers. All members of the Garden Club Federation are members of the Society and entitled to vote.

2:30 p. m. Illustrated lecture. Simplicity—the keynote of home grounds beautification. Location of shrubbery, trees and flower border. Prof. Franz Aust, Horticulture Dept., Madison.

STATE CONVENTION FLOWER SHOW

EXHIBITS are to be entered in the name of a garden club with the names of the committee member also appearing on entry tags.

Exhibits must be in place ready for judging by 11 a. m. on Thursday, November 8.

Shadow Boxes

Notice: 18 boxes size 30x24x 18 available. We will reserve one box each for the first 18 clubs making entries. Specify class. Entries close November 1.

Class 1. A harvest scene using fruit with or without other accessories such as leaves etc.

Class 2. An autumn picture using any type of horticultural material. (Not fruit)

Class 3. A picture typifying the cold winter months, using any type of material.

Class 4. Arrangement of hardy chrysanthemums.

Artistic Arrangements

Class 5. An artistic arrangement, any type of material, appropriate for Thanksgiving.

Class 6. An artistic arrangement, any type of material, appropriate for the Christmas season.

Class 7. Artistic arrangements of garden or hardy chrysanthemums.

Class 8. An artistic arrangement of branches with berries, without leaves such as bittersweet etc.

Class 9. An artistic arrangement of strawflowers.

Premiums

Ribbons and pottery flower vases to value of $2 for 1st, 2nd and 3rd prizes in each class, 1st prize winners to have first choice, etc.

RADIO TALK FOR GARDENERS

Another of the series of radio talks "Fall Tips for the Gardener" will be given by the editor over Station WHA, Madison and Stevens Point, between 10 and 10:30 a. m. on Tuesday, October 16th, during the Homemaker's Hour.

The Flower Show—A Civic Project

SO MANY very successful flower shows were held during August and early September throughout Wisconsin that we are unable to find space to describe them.

The flower show is becoming an important civic project. Garden clubs are finding it a means of extending the interest in flowers and gardens throughout their community. People who do not belong to the clubs will attend the shows and become interested in the many beautiful varieties shown and leave determined to have a garden next year.

We should take the stand that the flower show is a civic project of educational value to all the people. The shows should receive the cooperation of city officials and should be considered the same as any other educational endeavor.

We want to call the attention of the garden clubs to the stand taken by Mayor Poltl of Hartford. He stated that the State Gladiolus Show was an educational show of value to the people of the city and therefore turned over the entire facilities of the Municipal Building or City Hall to the Gladiolus Society free of charge. In addition he furnished a number of relief workers to help decorate the hall and set up the show.

If we can get such cooperation the shows will become better, more educational and more popular.

There is considerable expense involved in staging a large and educational show. This expense cannot be borne entirely by the garden clubs so that the public may be admitted free. In addition to help from our city authorities a small admission charge is entirely justifiable. With the receipts from this source the show can be made larger and better.

We find too that the larger shows with a small admission charge are much better attended than small shows.

Progress in Flower Arrangement

Much progress has been made during the past two or three years in the quality of the arrangements shown. Many comments have been received from garden club members in regard to the outstanding quality of the arrangements made by those clubs who have had experience and have studied flower arrangement. There is, however, opportunity for further improvement and programs on flower arrangement should be held throughout the state before the next flower show season.

FALL BULB LIST

DARWIN TULIPS

	Per 12	Per 100
Allard Pierrson crimson, maroon	60c	$3.00
Baron De Tonnaye bright rose margined blush	60c	3.00
Centenaire rich violet rose	60c	3.00
Clara butte	60c	3.00
Europe glowing salmon scarlet	60c	3.00
Ellen Willmott lemon yellow	60c	3.00
Inglescombe Yellow pure yellow	60c	3.00
Mme. Krelage bright lilac rose	60c	3.00
King Harold deep purple red	60c	3.00
Pride of Harlem bright rose enormous flowers	60c	3.00
Picotee pinkish white	60c	3.00
Wm. Copeland bright violet	60c	3.00
Mixed Darwin Tulips	50c	2.75

NARCISSUS

Alba Plena Odorata double pure white	$1.00
Barri Conspicuus perianth yellow edgedorange scarlet	1.00
Emperor Large trumpet, perianth primrose deep yellow trumpet	1.00
Laurens Kosterw White orange cup	1.00
Orange Phoenix double orange and sulphur yellow	1.00
Princeps large trumpet clear yellow	1.00
Sir Watkins short cup clear yellow	1.00

MISCELLANEOUS FALL BULBS

Scilla Campanulata Rosea	.50	2.50
Crocus Mixed	.50	2.50
Muscaria Blue Grape Hyacinths	.50	2.00

SUPERIOR VIEW FARM

JOHN F. HAUSER, Prop.

BAYFIELD, WISCONSIN

A White Pine Tree Bears Seed Early

ONE of the many interesting things about evergreens is the difference in the age and size of the different species when they begin to bear seeds. Black Spruce, Jack Pine and even Norway Spruce commonly bear cones when quite small, but one seldom sees a cone on a White Pine where it can be reached without the aid of at least a modest step ladder. In this respect the White Pine shown in the accompanying photograph is different and it would be interesting to know if any one has seen a younger or smaller White Pine bearing cones.

This tree was one among several hundred three year old seedlings planted on a sandy hillside in 1928. One afternoon last May a friend called at our nurseries and in looking around at the various plantings we walked through these pines. We noticed the cones at some distance and pointing them out to the visitor we remarked that someone must have tied them on for a joke. On closer examination however we found them to be genuine and observed that they had grown the previous season and had already dropped their seeds. The cones are four inches long which is about the average length for White Pine in seasons like last summer. As the picture shows, they are situated at a point 33 inches from the ground and since they are the fruit of the season of 1933 the tree was exactly three feet tall and 8 years old when the cones began to form, and so far as our observation is concerned we will say that this is rather ambitious for a White Pine.

E. M. DAHLBERG,
Ladysmith, Wis.

Young White Pine Bears Seed.

Good Start

"I wish I could be a great doctor. I'd like to be a bone specialist."

"You've got a good head for it."

NEW BOOK OF PRACTICAL CHEMISTRY

"PRACTICAL Everyday Chemistry" is the title of a new book just published by the Chemical Publishing Company, New York City. (Price $2.00)

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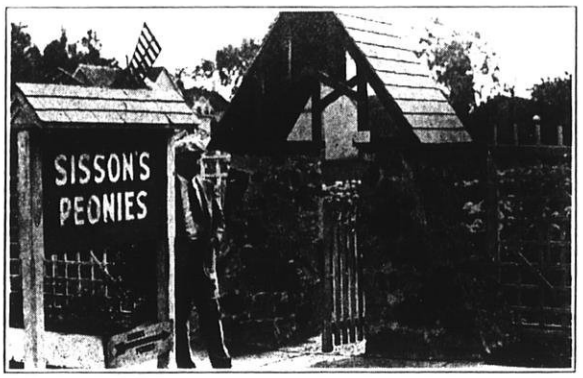

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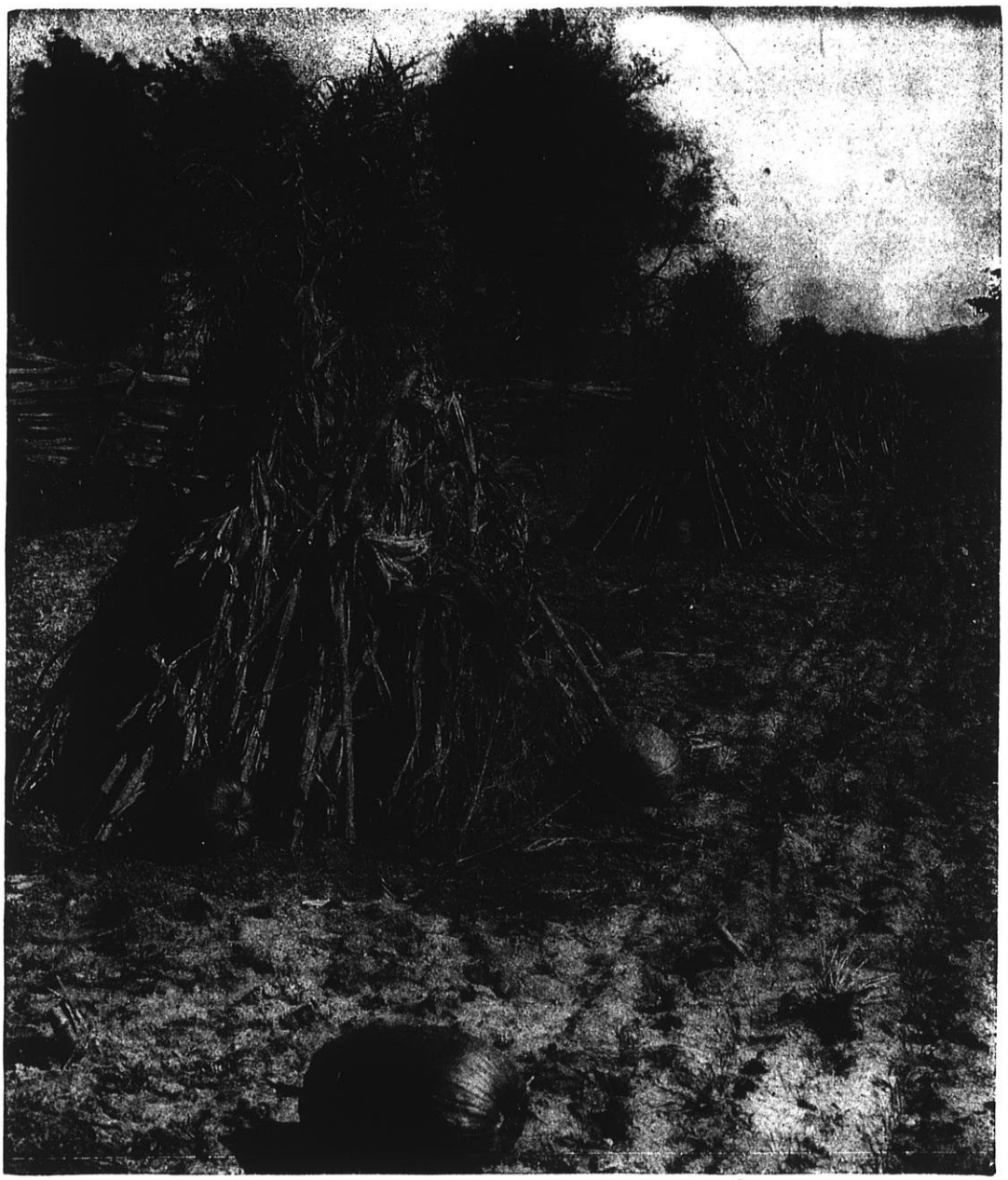

NOVEMBER, 1934

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Battle Lake, Minnesota

Fig. 1 Fig. 2 Fig 3

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society
The Wisconsin Garden Club Federation

Established 1910

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Please Do Not Send Stamps

Wisconsin Horticulture

OUR PROGRAM
1. A more beautiful Wisconsin, secured by cooperation with all existing agencies.
2. Improvement of Wisconsin's fruits and ornamentals. Establishment of plant breeding and testing work. An active group of plant and fruit testers within the society.

OUR PROGRAM
3. Greater publicity for Wisconsin grown fruits and vegetables.
4. A constantly improving magazine for the distribution of timely horticultural information.
5. Organization of local horticultural clubs in all sections of the state.

New Ideas on Spray Residue Removal

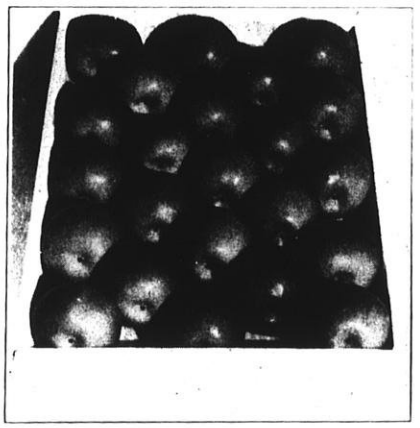
C. L. Fluke, Eleanor P. Dunn and P. O. Ritcher

THE control of the apple maggot and second brood codling moth in Wisconsin usually requires the applications of lead arsenate in late July and early August which will generally result in excessive residues on the fruit at picking time. During years of plentiful rain these residues will be washed off sufficiently to come below the state tolerance unless the arsenical has been applied at the middle or later in August. Either the growers will have to remove the residues or take chances on late infestations of insects.

Our attempt this year was to find a simple, inexpensive method that the growers could follow and still apply lead arsenate late in the season. The experiments, even though carried for only one season strongly indicate that the residue problem can be met quite simply and cheaply.

How to Avoid Excessive Residues on Apples

The tests this year dealt with an alkaline material and the "BW" brand of sodium silicate furnished by the Philadelphia Quartz Company proved to be the best brand tried. Several methods were tried and the first of those listed below proved the most effective although the second method is recommended in states, such as Wisconsin, where usually no more than 4 cover sprays are applied.



Cold Dip Method

First: The cold-dip method. In this method the sodium silicate was added to water, without heating, at the rate of 1¼ pounds of silicate to 50 gallons of water. The fruit was dipped in this solution and immediately dipped in clear water. The apples were then allowed to dry. More than fifty per cent of the lead and approximately fifty per cent of the arsenic were removed in this manner. Under the regular 4 cover spray schedule this method will remove more than enough of the residue.

A New Idea

Second: Use the sodium silicate in the last spray, incorporating it with the lead arsenate, at the rate of 1¼ pounds to 50 gallons of spray. It acts as a good spreader and enables the residue to weather more rapidly than where it is not used. This method is particularly recommended in "border line" states, that is, where the residues are only a little above the tolerance. It is also of value in sections where several heavy applications of arsenicals are made as it aids in removal when the fruit is "tank" washed in the regular way. This method is apparently a new idea and opens up a field of research that may yet permit us to use lead arsenate freely without dangers of too much residue.

Spray Before Picking

Third: Spray the fruit just before picking with sodium silicate, 1¼ pounds to 50 gallons of water, and follow as soon as possible with a clear water spray. If the silicate is applied just before a heavy rain the clear water spray will not be necessary. This method involves more time and expense than the second method but is more efficient.

Where oil sprays have been used a neutral soap (2 to 50) should be incorporated with the silicate spray. The soap will aid the removal of the residues where oil has been used in the late summer sprays.

Many tests of residues have been made of Wisconsin apples

* Preliminary report of the results of an industrial fellowship sponsored by the Philadelphia Quartz Company.

showing, within extreme limits, .012 to .023 grains of lead and .001 to .03 grains of arsenic respectively per pound of fruit. The maximum amounts found are both above the government tolerance on lead and arsenic.

While these trials are only preliminary they indicate strongly that sodium silicate has possibilities in the removal of residues other than by the standard methods so far recommended.

PRIZES FOR NATIVE NUTS IN NATIONAL CONTEST

THE Northern Nut Growers' Association is offering prizes for the best black walnuts and hickory nuts, including northern pecans, in a contest for the coming winter. First prize is $10.00, second prize is $5.00, third prize is $3.00, fourth prize is $2.00, and fifth prize is $1.00.

Growers are asked to send two pounds of nuts from each tree entered in the contest, which are to be properly marked for identification. Send to C. A. Reed, Bureau of Plant Industry, U. S. Dept. of Agriculture, Washington, D. C. Information concerning the trees will also be appreciated.

Prize winning nuts are named for the person who sends them in.

All entries should be sent in before February 1, 1935.

Berry Boxes and Crates

Either made up or in the K. D. American Quart Berry Baskets, Climax Grape and Peach Baskets, Till or Repacking Baskets, Plant Boxes and Veneer Tree Protectors. Circular and Price List mailed upon request. Special liberal discounts on early orders.

Write for special prices on carload lots.

SHEBOYGAN FRUIT BOX COMPANY

Sheboygan, Wis.

New Apple Varieties

G. H. Howe

ALL of our trees at the New York Experiment Station of the Delicious types, and this includes Newfane, are about 12 years old. So far they seem to be holding up well, are productive, and with the exception of Orleans, the size holds up unusually well. I do not want to condemn Orleans too much because we have received some very favorable reports of the variety from other sections and at our fruit meetings here at Geneva some excellent specimens have been sent in. About the only criticism I have had of the sort is that sometimes it gets too dark and dull unless harvested at just the right time does not keep as well as it should.

We continue to receive favorable reports concerning Cortland and Macoun. Probably the growers of Cortland are about equally divided in their criticism and praise of the variety. Some growers in the Hudson Valley are inclined to top-work their Cortlands to other varieties while their neighbors are contemplating increasing their plantings of the variety. Cortland as a rule does not have quite the fine finish of McIntosh but it is a very attractive apple and is becoming known on the market. New York buyers are commencing to ask for Cortland which is a good sign.

Macoun

Many growers who have fruited Macoun are highly pleased with it. It is more like McIntosh in appearance and flavor than any of the McIntosh seedlings. It holds up well in storage, better than Cortland. The criticism has been offered that the color is a little dark and dull sometimes. Judging from our own fruit of the variety I doubt if this is going to be a serious objection in Western New York at least. The size is all right. I am repeatedly told by growers that they are satisfied with the apple in this respect.

Macoun hangs to the tree better than McIntosh but not as well as we would like. One thing in its favor is that *its short stem does away entirely with any stem punctures.* Macoun comes in bearing relatively early but it does take the trees a little longer to get established in bearing than those of many sorts. I note that your growers say that Macoun is not a heavy producer as a young tree. When the trees do become established in bearing I think they will be annually fruitful. Certainly our 12-year old trees are now producing good crops yearly.

Kendall Looks Promising

Kendall is still under observation but we are greatly pleased with it as are growers who have seen the fruit here at the Station. Quite a number of men in this vicinity and in the Hudson Valley have planted and are planting extensively of Kendall. In appearance the fruit is unsurpassed. I can not report yet with certainty on its bearing habits. I hope that it is going to be as good an annual cropper as McIntosh but until our new trees come in bearing here or elsewhere I can not definitely determine this fact. Our original tree has been cut back to excess for budding and grafting wood and this has upset the normal fruit bud formation. Kendall comes in season about with Macoun but it keeps longer. It is not as highly flavored as Macoun and is more sprightly in its early season but as the season advances it becomes milder and holds its taste well to the end of the season.

Tardy Service

Bellhop (after guest has rung for ten minutes): "Did you ring, sir?"

Guest: "No, I was only tolling. I thought you were dead."

Getting the Farm Orchard Ready for the 1935 Crop

C. L. Kuehner

PRUNING is one of the jobs which can and should be done between now and the time spring seeding starts next April. It is a necessary chore in any and every bearing orchard if best results are to be obtained from the trees. Trees which are properly pruned produce a larger percentage of well-sized fruit. Not only that, but the rightly pruned tree also bears better and more uniformly colored fruit. It is possible to obtain better spraying results on trees which are cleared of much of the unnecessary wood.

This unnecessary wood consists of those parts of branches which are no longer able to bear large fruit, because they are too much shaded by the stronger growing branches around and above them. These worthless branches usually have bark of dull lifeless appearance; are often spindly for their length and may be overloaded with weak spur growth.

Picking time is an excellent time for the farmer to learn to spot this worn out wood on his bearing trees. He learns to locate it readily by observing what kind of fruit the different branches are bearing. The majority of the smallest apples will be found on these branches which show little life. There are always more of these in the lower half of the tree than in the upper half. On very large old trees the poor wood may extend into the top branches. On these trees there is usually much poor branch wood near the outer ends of all of the large branches. These should be carefully cleaned out so most of the small half dead branches are cut away. Generally, the branches which should be removed are not more than ½ to ¾ inch in diameter, although occasionally a larger cut may be advisable. The removal of this weak wood is the most important part of the pruning job of old bearing trees which received little or no pruning of this kind during its many years of cropping. It's the job which pays big dividends in the farm of larger and better fruit to the grower who will do the job and do it right. It is not an impossible or difficult task. Any man who is willing to forget for a time everything he ever knew about pruning fruit trees, can learn the kind of pruning I described and learn it fast. One unacquainted with it should get in touch with his county agent and ask him for a notice of the time and place of his next pruning demonstration meeting. Several counties have already made arrangements for such demonstrations in the month of November.

Poor Varieties

It is also an excellent plan to clean the orchard of all brush, dead wood, old stumps, and fallen fruit. A good brush fire is the place for all this trash. Another job which the orchardist can do to good advantage at any time now is to cut down his worthless varieties of apple and plum trees. There is no gain in keeping them in the orchard any longer. It costs as much to take care of them as it does to care for a good variety, but there is nothing in return for the labor and expense. It's best to make fire wood of such trees.

Rabbits and Mice

Orchards also need to be protected from mice and rabbits. It is better to spend a little labor on protecting them now than to attempt to save them next spring by bridge grafting. Mice will girdle trees of six to eight inch diameters if there is any grass or rubbish around the tree. The grass and weeds, hay, straw, or manure should be removed from the trunk of the tree so that mice will not find shelter close to the tree trunk. This is generally sufficient precaution for prevention of mouse injury on old trees. On young trees it is best to protect the trunk with a ¼ inch mesh wire, rubberized paper, or building paper. This protector should be high enough to protect the entire trunk and should be sunk into the ground two inches so mice can not work in from underneath. These protectors should be put in place very soon as damage sometimes occurs early in fall. There are also certain tree washes which can be sprayed or brushed on the tree trunk and lower branches to repel rabbits. Any orchardist who may be interested in using one of the tree washes may get more detailed information by writing to this station.

In open winters there is usually much damage to the shallow surface roots of fruit trees which have no other protection than the bare ground. A layer of strawy manure, or cover crop, or other mulch will offer much protection if spread under the branches so that none of it comes closer to the trunk of the tree than a foot or so. This mulch should be applied as early in the fall as possible.

NEW CANTALOUPE

J. T. Wood of Twin Bluffs, Wisconsin, is credited with an unnamed cantaloupe developed from an accidental cross between Golden Ovals and Craigs Honey. He sent several to the Market Growers Journal which magazine compliments the quality of the new cross very highly. This new variety was the only variety that pulled through the drought with real quality and made money for the grower. The netting on this melon is rather distinctive.

In The Orchard

HARDY ENGLISH WALNUT SHOWS PROMISE

PROF. J. A. NEILSON, nut specialist of Michigan State College, mentions in a letter that the new hardy English walnut named Crath is doing very well. He writes:

"You will doubtless be interested to learn that the other Carpathian strains of English walnuts have shown considerable hardiness. I have in mind one tree in particular growing on Mr. Kellogg's estate which as a top graft endured the past winter without the slightest evidence of injury. This year the growth on that tree is simply amazing and if the nuts are as good as the growth and as its apparent hardiness, it surely will be a valuable addition to our varieties of nut trees. We have yet to prove its fruiting character, but from information given by Reverend Mr. Crath who sent it to me from Poland, I believe it will be satisfactory.

"We had very good luck indeed with our top grafted nut trees, particularly those that were started in the season of 1932 and 1933, but with the grafts set this year, we lost very heavily because of the intense heat and drought."

PLANT STRONG GRAPE VINES

In planting grape vines be sure the vines are strong and vigorous and do not plant weak looking vines. That it pays to plant these strong vines was shown in work done by A. L. Schrader of the University of Maryland. He found that vines which are vigorous when young will yield annually 25% more fruit than weak vines. They continue to produce increased yields with age while the vines which were weak at planting tend to produce less fruit each year.

APPLE PRICES BY VARIETIES

IF IT costs 50¢ per bushel (a little more or less) which varieties will make a profit in the orchard? In the 1934 report of the New York Horticultural Society the prices received for different varieties of apples is listed, received in the large growing area by the growers. The following are the prices:

	Grower's net price per bushel	
	1922–26 cents	1932 cents
Delicious	156	80
McIntosh	130	69
Cortland	—	59
Northern Spy	93	56
Jonathan	105	51
Wealthy	74	44
Baldwin	77	37
Wolf River	80	35
Stark	90	29
Hubbardston	72	27
Duchess	56	24
Ben Davis	59	12
Average (all varieties)	77	40

In 1932, about two-thirds of the varieties brought less than one-half of their 1922–26 average price.

Duchess brought the lowest price in 1922–26, 56 cents per bushel. In 1932, there were only 3 varieties, Delicious, McIntosh, and Cortland that returned more than 56 cents per bushel.

The above prices are the average for all grades and sizes sold except ciders.

DOES CION AFFECT HARDNESS OF ROOTSTOCK?

THE following question was asked at the last convention of the New York Horticultural Society—"Does the variety of cion affect the hardiness of rootstock?"

Dr. Tukey answered: "It has been shown definitely in the case of roses and citrus fruits that the hardiness of the cion materially affects the hardiness of the stock. In the winter of 1890–91 in France, hardy stocks that were top-worked with tender varieties of tea rose were considerably injured by winter, while such stocks top-worked to hardy varieties were uninjured. Likewise, tender lemon tops when grafted on hardy stocks have resulted in injury to the hardy stocks, while when grafted to hardy cions such stock were uninjured."—*From Report New York Horticultural Society.*

FRUIT TREES SHOULD BE ENCOURAGED TO DEVELOP EXTENSIVE ROOT SYSTEMS

"DO NOT ring fertilize your fruit trees," is the title of an article by Professor M. A. Blake, New Jersey Experiment Station, in the State Horticultural Society News, Vol. 15, No. 3.

It is a well-established fact, he says, that the roots of plants tend to extend outward in the direction of nutrients. An apple tree in the open needs an extensive root system not only to furnish anchorage, water, and nutrients, but as a large storehouse for reserve foods during the dormant season.

"Jones in Maine found that the roots of Baldwin apple trees set 27 feet apart were interlaced, although the tops were not. Gourley of Ohio found that, where soil conditions were favorable, the roots of trees set 40 feet apart were meeting at 10 years of age, and had penetrated to a depth of nearly 6 feet."—*From Agronomic Review.*

PROTECT HAWKS AND OWLS

G. C. ODERKIRK

A number of schools are planning "pest" contests this year. We have learned that, in a few instances, hawks, owls and even doves have been included in contests as "pests" along with rats, mice, and other rodents. These birds should not, under any circumstances, be included in these contests. Publications are available that give the economic status of these birds.

Experience With Hardy Pears

C. V. Porter
Menomonie, Wis.

ABOUT ten years ago, the writer began the assembling of a collection of alleged hardy seedling pears. During the past few years numerous varieties of these pears have fruited. This year over thirty-five kinds were bearing. These varieties range from the small wild pears of Siberia, the size of a marble and of no quality, to some of the largest, finest quality pears grown anywhere.

Hardiest Varieties

In the first degree of hardiness there is only one pear; the species Pyrus Ussuriensis from the northern range of eastern Asia. The second degree of hardiness contains several good pears. Patten, the best of these, is of good size and quality on a tree of much hardiness and considerable blight resistance. Tait #4 is a Russian seedling, very hardy, of fair size and quality. A seedling from Ottawa, a cross of Clapp with a hardy Russian is a good size pear—fair in quality. Another Ottawa seedling which ripened by the first of August this year is a round fruit, medium size, and fairly good quality. A third Ottawa seedling—a green pear of medium size is a very good canner. Tait #1, a medium green pear, probably blight susceptible, is very hardy and is a good canner. Tait #2 is farily hardy on most types of soil and while it lacks size, is blight resistant and good to eat out of hand.

In the third degree of hardiness we find Minnesota #1, a large smooth pear, productive and of good quality. This pear lacks blight resistance, but on proper soils, top worked on a hardy stock, it will probably succeed over large sections of the upper Mississippi Valley.

Good Quality Varieties

Mendel, a probable winter Nelis seedling is a very late pear which does not attain its best until well along in the fall. Beierschmitt, a Bartlett seedling, is large and of the finest quality. The tree lacks hardiness and is blight susceptible. Nevertheless, there are few pears in the world of equal quality and, top worked on a hardy stock, it is worth trying in the milder sections of Wisconsin. There were many other pears fruiting this year and some of them appear to have possible value which future testing will show.

The writer sold quite a few bushels of Tait #2, and Minnesota #1 this year. The Minnesota pears compared favorably with any of the shipped-in kind and were easily salable. These were perhaps the first locally grown pears ever offered on the market in northwestern Wisconsin.

WATCH MOUSE INFESTATION IN ORCHARDS

G. C. ODERKIRK

COMMERCIAL fruit growers observe their orchards quite carefully and usually forestall severe mouse injury by applying methods of control at the proper time. However, many small home orchards that receive but little attention are severely damaged by field mice each year, a large part of which is preventable. This is the time of the year to carefully examine an orchard to determine the extent of the field mice infestation. If mice are numerous, poisoned bait can be used to reduce the infestation.

A point that is worthy of mention at this time concerns discing, harrowing, or plowing in an orchard that has sod or a heavy cover crop. With the mouse infestation at a fairly high point in an orchard, any form of cultivation that would tend to disturb the food supply and shelter for mice should be postponed until the infestation has been reduced.

Prepared Oats Bait Available For The Control of Field Mice

The price of the strychnine treated oats bait is as follows:

In 25 lb. bags F. O. B. Lafayette, Ind., $2.65 per bag.

In 10 lb. bags F. O. B. Lafayette, Ind., $1.25 per bag.

The prepared bait is not available for purchase by individuals or organizations for sale at a profit.

For baiting orchards infested with field mice, one pound of bait per acre for the average infestation is sufficient for one treatment. Two to three pounds per acre is necessary if mice are numerous and bait is distributed on the ground in their runways.

Orders for the prepared oats bait should be sent to G. C. Oderkirk, Leader, Rodent Control, Dept. of Entomology, Agr. Expt. Sta. Annex, Lafayette, Indiana. In ordering the bait, it is necessary to send a money order, check, or draft drawn in favor of "Rodent Control Fund" covering the amount of the purchase. *Bait will be shipped by express unless freight is specified.*

Important: This bait is prepared for the control of field mice. It is not an effective bait for house mice or rats.

SOME RECENT BULLETINS OF INTEREST ON HORTICULTURE

Marketing Vegetables Produced on Northern Indiana Muck soils. F. C. Gaylord and H. M. Cleaver. (Ind. Sta. Bul. 392, 1934.) Lafayette.

Tomato Quality Studies: Field and Harvest Factors Affecting Grade. F. C. Gaylord and J. H. MacGillivray. (Ind. Sta. Bul. 394, 1934.) Lafayette.

Vineyard Soil Management. F. W. Faurot. (Mo. Fruit Sta. Bul. 27, 1934.) Mountain Grove.

Removal of Lead and Arsenic Spray Residues from New York Apples. W. T. Pentzer. (N. Y. Cornell Sta. Bul. 604, 1934.) Ithaca.

Horticultural News

A. F. Yeager
North Dakota

While Caragana arborescens is the common variety of this genus generally known as Siberian Pea Tree, there are, nevertheless, other species of Caragana which are hardy in the state and should be used. One of these is Cargana frutescens. While it is smaller in size, it produces much more showy blossoms. Caragana pygmaea is one of the few hardy small shrubs which can be used here safely.

It is possible to transplant asparagus in the fall but it is better to wait until spring. Also, while it is possible to start a new bed by dividing old plants, experiment stations have shown that strong one-year plants from seed are superior.

I wonder how much truth there is in some of the theories people have about the effect of water on plants. One of the oft-repeated statements is that water should not be applied to plants, at least the top of the plants, during the heat of the day. Nevertheless, I have yet to see any plant injured by sprinkling the tops in this manner and I saw one good sized field of glads which was sprinkled every day with an overhead irrigation system in the afternoon this year with the idea of preventing damage from high temperatures. Certainly those glads gave every appearance of responding to the treatment. If any of our members have positive reports to give with respect to either damage or lack of damage from applying water in the heat of day, I would be glad to have them. Certainly there is one pest which would be greatly reduced by such a treatment and that is the red spider. Dozens of samples of shrubs and tree leaves have been received which were dying this summer apparently from the effects of this little pest.

It is evident from tomato variety and breeding plots here at the College that different plants and varieties differ greatly in their ability to set fruit in hot weather. Some set heavily and some not at all, although the amount of bloom is much the same in both cases.

All growing processes are, of course, hastened by high temperatures. Flowers such as roses which ordinarily remain on the plants several days still keeping good color, this summer often lasted only one day before signs of deterioration appeared.

While the hop plant is a native of this region the commercial growing of the crop is confined to other parts of the country. Great hop vineyards are much in evidence in Oregon, where trellises are built to carry the hop vines ten feet or more above the ground. Nevertheless, the hop plant is an interesting herbaceous perennial vine and worth planting here for that purpose.

This year for the first time we tried out a new onion variety called Early Grano which was developed by the New Mexico Experiment Station. This onion proved to be the earliest of all our onion varieties and was of very good quality. You who grow onions from seed might do well to test it out another season.

Blackie egg plant is another new variety showing up well this season.

Small fruits such as raspberries and gooseberries may be divided and transplanted in the fall. The tops should be cut back to only about six inches in length and unless there is enough rainfall before winter sets in it will be well to mulch the plants a bit with old hay or rubbish.

We do not believe it is a good policy to set out trees in the fall unless they are small ones.

We are asked whether cutting off the ends of squash and muskmelon vines is a good method of hastening maturity. We offer as a substitute that late set fruits be picked off. In that way, the plant will get the benefit of all its leaves and the food produced by them will be utilized in maturing the early crop.

Now and then the Agricultural College gets some advertising it doesn't wish. For example, our work being done with apricots was written up in the Country Gentleman in such a way that we have received many letters asking for propagating wood. The fact is that it will be some years before we are prepared to introduce any varieties, though the 1400 young trees we had seemed to offer a good prospect for eventual success.

The feeding roots of trees are largely in the upper four feet of ground. Hence, a good watering of the surface should benefit the plant. Nevertheless, one must bear in mind that the roots of the tree in many cases extend as far out to the side as the top extends upward. A tree thirty feet high, in order to have all its roots watered would have to have an area watered which would be 60 feet in diameter. Therefore, one must not expect too much from a few gallons of water placed around the base of the trunk.

Sweet peas have done so poorly this year that quite a number of letters ask the reason. Sweet peas are cool weather loving plants and the absence of that kind of weather is militated against good blossoms. Quite likely some of those which produced nothing before the middle of August will give a good account of themselves from then until frost.

According to the Minnesota Horticulture, the Haralson apples on almost all farms made more money for the growers than any other variety in the state.—*From North and South Dakota Horticulture.*

STRAWBERRY PROSPECTS IMPROVE

THE unusually fine weather during September and October was favorable for the strawberry crop.

In many cases growers had poor stands this spring. Due to the heat and drought many plants died and the runners were set slowly. Those growers who are fortunate enough to obtain a fair stand of plants now have excellent looking fields.

After all, the weather during October has a great deal to do with the next year's strawberry crop. It is at this time that the blossom buds are formed. With favorable weather the crowns of the plants become large and strong and set more fruit buds than if the weather is unfavorable. The result is that next spring each plant will produce heavily. It is probably better to have a fair set of plants in the spring and then have good growing conditions during the fall than it is to have a very heavy set of plants in the spring due to favorable weather, and then have unfavorable weather in September and October, in which case a poor set of fruit buds is formed and a short crop results the next year in spite of what seems to be an unusually good stand.

Covering Important

If the strawberry plants have not been covered at this time (the first week in November) no time should be lost to give them a good heavy covering of straw or marsh hay. The thinner stand of plants is more susceptible to cold temperatures than would be the case if the plants were thick and the leaves furnished some protection. It has been demonstrated quite conclusively that root injury and crown injury result from unprotected plants from the first heavy freeze in the fall. Root growth continues under the mulch in favorable weather. So to insure a good crop next year, cover before the first heavy frost.

STRAWBERRIES AT WARRENS

MR. H. H. HARRIS of Warrens writes that the strawberry crop had improved greatly this fall due to the favorable growing weather. He states relative to new varieties, "I have the greatest hopes of Dorsett being better than many of our old varieties. It is a nice grower with large healthy foliage, making an abundance of plants early."

Mr. Harris has a row of Wayzata everbearing strawberries which he considers to be the best quality everbearing variety he has yet seen. It produces large, beautiful berries in greater number than either Mastodon or Progressive, but does not set plants well under his conditions.

Growers at Warrens will cover their crop early this year, about November 1st. They are convinced that early covering before the first heavy frost will overcome the root injury which has been so prevalent in the past.

Mr. Harris has a number of new varieties on trial this year which look promising, including Catskill planted for the first time last spring. With favorable conditions next year he should obtain a good record of the comparative results of these new varieties with Beaver and Premier.

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Do You Know—

THAT lime is seldom if ever necessary on lawns? The grass grows just as well without it, the dandelions not so well.

That lime has but little, if any, value in controlling insects and diseases in the garden?

That tobacco dust or tobacco stems spaded into the soil or kept on top as a mulch has relatively little value in keeping insects away? Neither do they have much, if any, fertilizing value.

That lawn clippings should be left on the lawn to maintain the organic matter in the soil? If removed, a yearly mulch of peatmoss is necessary.

That you get more actual plant food for your money when you buy chemical, high-test plant foods?

That it is not harmful to water your garden while the sun is shining?

That it is not necessary to use bonemeal for peonies, daffodils, and roses? A complete commercial plant food is better.

That it is not necessary to wait 7 years for a wisteria to bloom if you plant a grafted vine? Even good seedlings bloom their third year.

That moss in a lawn does not indicate an acid (sour) soil, but merely shade and starvation?

That moles do not eat bulbs? They are carnivorous. The mice which use their runs eat the bulbs.

That "topping" back trees is harmful to the tree and destroys its beauty?

That California Privet, altho cheap, cannot be depended upon for hardiness? Regal Privet, Ibota Privet and Amur Privet are absolutely hardy and make just as good a hedge.

That Creeping Bentgrass is not satisfactory unless you are willing to mow it at least once a week, water it heavily, fertilize it regularly, and topdress it once a year?

No grass is really satisfactory in heavy shade? Use periwinkle, Ajuga, English Ivy or Euonymus radicans in its various forms.

That the flies on your spirea are there because of the aphids?

That tree limbs should be cut off flush with the trunk or branch to allow the wound to heal over?

That castor-beans are worthless in controlling moles?

That phlox, hollyhocks, iris, and gladiolus do not "revert" to other colors?

That oak leaves do not necessarily give you an acid soil?

That clover chaff makes an excellent mulch for your garden?—*From the Ohio "Garden Club News Letter," edited by Professor Victor H. Ries.*

THE COST OF THE DEPRESSION VS. THE COST OF WAR

A LOT of folks have been set to worrying about paying the cost of relief to the unemployed during the depression. Very few of these people worried about the cost of the war, at least while it was in progress.

Nicholas Murray Butler makes this statement about the cost of the World War.

"The World War, all told, cost—apart from 30 million lives—400 billion dollars. With that money we could have built a $2,500 house, furnished it with $1,000 worth of furniture, placed it on five acres of land worth $100 an acre and given this home to each and every family in the United States, Canada, Australia, England, Wales, Ireland, Scotland, France, Belgium, Germany and Russia. We could have given to each city of 20,000 inhabitants and over in each country named, a five million dollar library and a ten million dollar university. Out of what was left we could have set aside a sum at five per cent that would provide a $1,000 yearly salary for an army of 125,000 teachers and a like salary for another army of 125,000 nurses."

ROSES NEED WINTER PROTECTION

ALL but the hardy varieties of roses will need winter protection in Wisconsin, as any rose grower will testify from experience.

There is only one way to protect roses so that they will not be injured and that is to cover them so heavily and thoroughly that low temperatures will not effect them. If this is done with a mulch of soil or snow makes little difference, excepting that we cannot be sure that snow will cover them at all times when temperatures are low.

Tender Hybrid Teas

One of the best rose growers I know hauls in many wheelbarrows of dirt onto the rose beds covering the roses completely with the soil. In addition, a heavy covering of marsh hay is added and this is held in place by some heavy material such as boards. Others state they have success with burying the roses several inches in the soil and then covering with hay.

Climbers

I have carried several varieties of climbers over winter here in Madison by laying them on the ground in as compact a space as possible and covering them quite heavily with marsh hay or the tops of annuals. Wherever the canes were exposed by the wind having blown the cover off, that portion was brown and dead in the spring, and of course, the remainder of the cane also died as soon as the weather turned warm.

An easy way to protect the semi-hardy sorts is to place around them a box filled with hay or straw, or bend them over, peg them down and cover with a mulching material.

Protection is also very important. If the rose bed is located on the south or east side of a house, wall or hedge it will suffer less than if exposed to the cold, drying northwest wind.

USEFUL GOURDS

DO YOU remember the old gourd dipper of grandmother's day? Gourds seem to have been out of style for many years, but now they are coming back. Out on the Pacific Coast last fall many of the road-side markets displayed a variety of gourds, and they proved big sellers. There is an awakening interest in their ornamental values.

Do you remember the original Thermo bottle—the bottle gourd? And the calabash gourd, from which grandfather made his pipe? Then there was the salt receptacle and soap dish, both made from gourds. The old nest egg gourd was much in use, before we began using the glass egg, and we mustn't forget the dishcloth gourd. I have never seen it used, but they say it makes a splendid bath sponge for it affords friction to the skin that is better than a bath brush. The old spoon gourd was bright orange in color—ball-shaped with slender neck—that was easily carved into a pretty spoon. The Herculus Club gourd sometimes grew four feet long.

Many of the smaller gourds make pretty toys for children. Some of the gourds are beautiful in color, and many can be painted and decorated and become pretty ornaments for the home.

A pretty flower pot and hanging basket can be made from the gourd. And bird-houses—what a delightful home they make for the wrens. Gourds are easy to grow. Do not plant too early. Wait until May when the ground is warm.

A pretty trailing vine, with beautiful flowers followed by ornamental fruits, makes gourds desirable for any garden.

LILLESAND E. LEANDER,
Cambridge, Wis.

Grounds For Suspicion

Doc: "When did you first suspect that your husband was not all right mentally?"

Mrs. Jones: "When he shook the hall tree and began feeling on the floor for apples."

MILK FED PUMPKINS

DURING the fair season, one often reads in newspapers that some of the largest squashes and pumpkins on display have been milk-fed. The growers of these enormous specimens would have people believe that the milk is entered into the tissues of the plant by cutting holes in the stalks and feeding them milk through funnels or by some other equally fantastic scheme.

Apparently the milk-feeding idea has interested scientists, too, for I have found that a few experiments along this line are being conducted at the Field Station in Waltham, Mass. Some of the leaf stalks of a squash have been cut off and milk poured into the hollow stems. Naturally within 24 hours it soured, and as yet the plants have shown no direct benefit. A number of other trials are being made in several ways. However, the experts believe that the experiments will prove that it is impossible to fatten squashes and pumpkins on milk. It would be well if other popular fallacies concerning plants were exploded.—*From Horticulture.*

A Tiny Thing
—but it means so much

CHRISTMAS SEALS on packages and letters indicate your active interest in saving human lives and overcoming tuberculosis. Use them generously. Their cost is trifling, their good far-reaching. Funds raised by Christmas Seals are spent for defense against tuberculosis throughout the entire year.

The National, State *and* Local Tuberculosis Associations *of the* United States

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EDITORIALS

OUR CONVENTION

INTEREST in our convention is unusually keen again this year. We have received a number of compliments on the quality of the program from our members. As this issue will probably be mailed just before the convention, we are unable to give any reports until next month.

New Varieties of Apples

We appreciate the cooperation of the New York Experiment Station at Geneva, New York, for sending several samples of their new varieties of apples and pears for exhibit at our convention. We also appreciate the cooperation of the Horticulture Department of the Wisconsin College of Agriculture for samples of new varieties which are on trial in the College orchard.

Garden Clubs Respond

Indications are that the garden clubs in Wisconsin will again respond in large number and unusual interest in both the convention program and in the exhibit of flower arrangements and shadow boxes in connection with the convention. A great many clubs are sending delegates to the convention.

THOSE WHO HAVE BEEN HONORED

AS THE years go by it is interesting to look back to see what progress we have made. In connection with the presentation of the honorary recognition testimonial each year, it is especially interesting to review the names of those who have received these testimonials in the past. The following are those who have received the testimonial since the inauguration of the plan.

1929

George J. Kellogg, Janesville.
H. H. Harris, Warrens.
John F. Hauser, Bayfield.

1930

L. G. Kellogg, Ripon.
William Knight, Bayfield.
E. W. Sullivan, Alma Center.

1931

Frederic Cranefield, Madison.
Wm. Longland, Lake Geneva.
C. B. Whitnall, Milwaukee.

1932

Mrs. Frances K. Hutchinson, Lake Geneva.
Mrs. C. E. Strong, West Allis.

1933

Huron H. Smith, Milwaukee.

COMING EVENTS

Joint convention Wisconsin State Horticultural Society and the Wisconsin Garden Club Federation, Racine Hotel, Racine, November 8–9.

Wisconsin Upper-Michigan Florists' Association Meeting, Plankinton Hotel, Milwaukee, November 8–9.

Minnesota State Horticultural Society Convention, St. Paul, November 13–15.

Iowa State Horticultural Society Meeting, Ames, Iowa, November 15–16–17.

Michigan State Horticultural Society, in conjunction with American Pomological Society, Grand Rapids, December 4–6.

Illinois State Horticultural Society Meeting and Fruit Show, Urbana, Illinois, December 12–13–14.

WORK OF THREE HORTICULTURISTS RECOGNIZED

EACH year the work of horticulturists who have contributed to the improvement of horticulture in Wisconsin is recognized by the Wisconsin Horticultural Society. A beautifully embossed honorary recognition testimonial is presented to those who have been chosen by the Board of Directors to receive this honor. This year three eminent horticulturists were chosen. Mr. H. C. Christensen of Oshkosh, Mr. Axel Johnson of Lake Geneva, and the late W. J. Moyle of Union Grove. That all three of these men are worthy of this honor bestowed upon them, is shown by their life history and the work that they have done.

H. C. Christensen

Mr. H. C. Christensen was born in Oshkosh and has been growing horticultural crops at his present home for 51 years.

His father was a born horticulturist, and had his training in Denmark. It was natural that the son should follow in his footsteps and get training from his father. He acted as gardener on a private estate in California for three years.

Mr. Christensen was elected a member of the Executive Com-

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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Vol. X NOVEMBER, 1934 No. 11

The Honorary Recognition Certificate

AT A MEETING of the officers of the Wisconsin State Beekeepers' Association held in September, 1934, it was unanimously voted to present to an outstanding beekeeper, a certificate of recognition for services to Wisconsin Beekeeping this year, and as far as possible in succeeding years.

This is a splendid idea. There are, no doubt, in Wisconsin many beekeepers who have been of considerable influence or good to Wisconsin beekeepers, and have helped their neighbors become better beekeepers, who have promoted and encouraged the use of honey; who have introduced new methods or improved new devices for the production of honey; who by their encouragement and helpfulness have made beekeeping in Wisconsin of greater pleasure and profit.

Presentation of the certificate of honorary recognition gives to such beekeepers the credit they deserve. Such honors are usually greatly appreciated and are only a small payment for valuable services rendered.

In presenting the certificate, the same plan should be adopted as has been customary with other organizations. The Wisconsin College of Agriculture and the Wisconsin Horticultural Society each year present certificates to men or women who have been outstanding in their field. Usually an age limit is set which however, is not essential. A person need not necessarily be a large beekeeper or keep bees at all at the present time, as long as he has contributed to the welfare of other beekeepers. The fact that a man has been at regular attendance at the State Beekeepers' Convention does not necessarily entitle him to a certificate of recognition. In other words, a certificate is given for service to the welfare and prosperity of others.

C. D. Adams Honored

Services of C. D. Adams Recognized

THE honorary recognition certificate of the Wisconsin Beekeepers' Association was presented for the first time this year to Mr. C. D. Adams, at present Chief Apiary Inspector for Wisconsin.

Mr. Adams was unanimously

chosen by the officers of the State Beekeepers' Association to receive this honor in 1934, and well he deserves it. Always helpful, kindly and tactful, he has been a splendid inspector.

Mr. Adams was born and raised on a farm in eastern Kansas. His father was a farmer beekeeper, keeping from ten to fifty colonies of bees. Some of these were in bee gums and some in movable frame, factory-made hives. The yard was replenished occasionally by bees captured from bee trees. He took part in hunting bee trees and was in his glory when the tree was cut. One of his chores on the 300 acre farm was watching for swarms and one of these swarms became his first colony of bees at the age of eight.

In due time he enrolled at the Kansas State Agricultural College and was graduated in 1895, having majored in horticulture and entomology. There was no course in beekeeping, but two of his teachers were interested in bees and this tended to keep up his interest. One of them suggested that commercial beekeeping in the alfalfa section of the state might some day become a profitable business but none of us were interested. However, his prophesy came true years later.

After graduation Mr. Adams spent several years teaching and in time came to Wisconsin to teach horticulture and entomology in the Milwaukee County School of Agriculture. During the first year at the school, there was a request from several students for a course in beekeeping. A fellow teacher told the superintendent that C. D. Adams was the man for the job and for the next five years he taught beekeeping.

During the World War he was county agricultural agent in Milwaukee county and was instrumental in organizing a beekeepers association. At the end of the War, Dr. Fracker asked him to assist in a variety of jobs but principally in bee inspection work. Two years later H. L. McMurry quit the Department and Mr. Adams became Chief Apiary Inspector. Later honey inspection work was added to his duties.

We congratulate Mr. Adams for the honor bestowed upon him and wish him many more years of successful work with the beekeepers of Wisconsin.

For a number of years Mr. Adams kept bees at his home in Wauwatosa. He produced fine crops of honey, and kept up his practical knowledge of bees. In this way he was able to advise other beekeepers.

FROM KAUKAUNA

GEORGE JACOBSON
Kaukauna

I AM just now feeding my bees for winter. (October 10). I give them the best honey I have, the white honey gathered early in the season.

I winter my bees in winter packing cases on their summer stands. I like this method the best of all because any time the weather is good the bees can take a cleansing flight.

I never have any dysentery because I give my bees the best honey for winter feed.

In feeding I give the bees full frames of honey. The time for giving it depends upon the season, from the first of October to about October 25th.

Requeening

I requeen whenever the old queen fails to keep up a strong colony and never keep a queen more than two years.

I now have 105 colonies, but may not have that many when I get through feeding for winter.

The crop in our section was fair this year. I get 90¢ for a 5-pound pail, and 25¢ for a 1-pound jar, and 15¢ for an 8-ounce jar. There are still some price cutters around here selling 5-pound pails at 30¢ and up. There is no need of selling honey at these low prices. It is only the near-sighted and weak-minded beekeepers that do it.

NATIONAL HONEY WEEK

November 11–17, 1934

ACQUAINT the public with the merits of honey with a special campaign during the week of November 11–17. If you have not already done so, send at once to the American Honey Institute, Madison, Wisconsin, for display material and suggestions as to what you can do during this week to help in this great program.

A few beekeepers can contact only a few people. There are thousands of beekeepers in the country. If each one does something, hundreds of thousands of new honey customers will be created.

Probably the best type of contact for beekeepers will be through exhibits and displays in stores and other business places. Outlines for exhibits and displays may be purchased from the Honey Institute. Articles are available for bee and honey stories for newspapers. They also have a four-page set of suggestions for giving honey demonstrations. Radio talks are available. Remember that the national success of Honey Week depends upon how much you do locally.

COMB HONEY WANTED: State grades and lowest price delivered. Raymond H. Ericson, Norwalk, Wisconsin.

WHILE THE SUPPLY LASTS—60 lb. cans, two in a wooden case used once; just as good as new at 50¢ per case. Here is a chance to save some money. C. W. Aeppler Company, Oconomowoc, Wisconsin.

HONEY WANTED: Comb and extracted; all grades. Send samples and best price delivered Oconomowoc. C. W. Aeppler Company, Oconomowoc, Wisconsin.

Successful Outdoor Wintering

H. Hodgson
Waukesha

I WINTER my bees outdoors. The location is protected from any direction by snow fence and shrubbery. I use pads made from tules, my own design, to pack the bees, using one pad for each side and one for the top. I pack on the summer stands and pack singly, and after the pads are placed in position I cover the whole with "Sissal Kraft" paper. There is about 3" of insulation between the paper and the hive on all sides except the front. By this method a hive can be packed for winter in about three minutes, and unpacked as quickly.

After spring inspection, I repack and do not take the packing off until about June 1, which greatly aids in brood expansion during May.

I winter about half the bees in two stories, and the other half in brood chamber and shallow super. The full depth super or the shallow is full of early honey when put on in September. I do not believe in top ventilation, and am not troubled with moisture.

I only have about 60 colonies. This method of wintering has proved very satisfactory for me. I have had no dysentery, and practically no winter loss. Last winter I lost one colony. This colony was wintered in one hive body and starved to death in March, with three frames of honey on the side opposite the cluster, but in a cold spell they could not move. Although this was a small colony that I had experimented with during the summer it would have wintered had it been supplied with a super.

I do not feed, if by feeding we mean syrup. I believe any extra work is hard on the bees in the fall, and by giving 35 to 60 pounds of honey in mid-September, feeding is unnecessary.

Requeening

I have had most satisfactory results by requeening some time in August, the exact time depending on the nectar flow, but I do not like to requeen later than September 1, or there abouts. I use the Ideal cage in requeening and lose few queens. I requeen the entire yard each fall and with me it pays.

In this immediate section we had a good flow, starting about June 5, which is early for this section. The scale hive, only of moderate strength, gained 3½ pounds that date, and put in 123 pounds for the month of June. The flow stopped with the terrific heat of the middle of July, and we got no surplus after July 20. I averaged a little over 200 pounds to the colony.

Prices

The price varies here a great deal. Five pound pails bring from 44¢ to 75¢. I have received 75¢ a 5 pound pail last year and this year, and expect to raise the price this winter, but one can buy honey at 44¢ at some of the chain and fruit stores. The average price is about 55¢.

HE FED UNKNOWN HONEY

OUR old friend, N. E. France of Platteville, who is still active in the apiary inspection work for the Department of Agriculture and Markets, sends in the following note relative to his inspection work this year.

"For several years a beekeeper near Glen Haven, Wisconsin, has had a nice apiary of about fifty colonies from which he was getting good returns. Last fall he discovered some colonies were short of winter feed and he bought honey from St. Paul, Minnesota, which he fed them. In the spring two colonies were dead with plenty of honey. This honey in combs was placed in various hives that needed feeding. During this season the bees remained weak and some colonies were united. On August 24, 1934 this party telephoned for me to inspect his bees. I found an abundance of American foulbrood in every colony. Being anxious to continue beekeeping, this beekeeper is killing all bees and burning all the brood combs. As he has no wax press, I promised to loan my press and save the wax for future use in comb foundation. Every hive and fixture is to be boiled and the entire outfit made safe to use. Next spring this party is to buy bees and start anew, and, I believe, he will be a better beekeeper."

A large percentage of our inspectors send in quite similar reports of infection in smaller yards quite frequently. With this experience in mind it is readily understood why we cannot keep a neighborhood free of American foulbrood after it has once been cleaned up. This, however, is only one of a half dozen reasons.

C. D. ADAMS,
Chief Apiary Inspector.

WINTERING IN TAR PAPER COVERS

A. E. WOLKOW
Hartford

I WINTER my bees in tar paper covers, two hives to a package. With this method I haven't lost a normal colony in ten years. Of course good windbreaks are perhaps the most deciding factor and my yards are perhaps in as ideal a location as to shelter from prevailing winds as can be found.

Dysentery is practically unknown in my yard. I never feed sugar, but always leave enough natural stores.

I leave the requeening to the bees, except for a few bees I purchase so as to check any difference in honey gathering, which I have not been able to detect. I have about 250 colonies at the present time.

Crop Short

My crop is about 80 pounds per colony average for this season, although other bees in my locality stored from nothing to 30 pounds.

I am still selling for 10¢ per pound in five and ten pound pails from the house. I do not peddle.

Beekeeping in Marathon County

Joseph Garre

FOR the past three winters, we wintered our bees entirely in the cellar. Before, we wintered 75 colonies in the house cellar and 44 colonies out-of-doors in quadruple cases with equal success. Losses never more than 1 to 2% in both places. In 1934 we constructed a modern bee cellar big enough to house about 150 colonies. This cellar I described in a write up in the last April number of "Wisconsin Beekeeping." For two winters we wintered 100%. During the winter of 1932 to 33 we lost about 25% of our bees from dysentery but this was not due to the cellar.

Prefers Cellar

The writer prefers cellar wintering in this region. It saves much time and labor. Proper packing in the fall and unpacking in the spring is an endless, disgusting job. In November we have plenty time to take the bees in during daytime and in the spring, the neighbors are always kind enough to help carry them out on wooden carriers. (2 col. on carrier) Starting early as soon as dark, in two hours the job is completed. Also as known, it always requires more honey per colony by wintering outside.

Two winters ago our bees suffered much from dysentery the only time since 1925. It was either caused by honey dew or soft maple honey, about the only honey they had to winter on. It certainly was smeary sticky stuff. The extractor could not extract the combs clean.

So far for feeding we used nice full combs. We also leave a shallow super as a food chamber on about 25 colonies and feed up all the honey from the melted cappings. We never have to feed the 8 frame colonies. In good years a few full combs are taken away from each colony. Their regular home consists of 2 bodies the year around and causing us much less trouble than the 10 frame or 11 frame Modified Dadant hives. Only in the cellar, they take up more room than the others. Three high is all we can stack them up.

Any time during the season when a queen shows signs of failing we requeen but most of the requeening is done in the spring and fall. I always winter over a few queens in nuclei.

I have about 130 colonies.

The honey crop was from fair to good in this territory. Due to the failure in this vicinity of a late fall flow more feeding will have to be done than had earlier been anticipated.

The price agreed upon by our Association was $1.20 for the 10# pail and 65¢ for the 5# pail. However, very little has been sold at these prices. Some members reduced to $1.10 and 60¢ respectively. For sometime the Piggly Wiggly and the Farmer Store at Wausau sold and advertised in big letters the 5# pails for 45¢. How can the local beekeepers sell? Someone tell me.

HOW I WINTER MY BEES

N. E. FRANCE
Platteville

I WINTER my bees in cellars. I formerly wintered 650 colonies on summer stands. Now all of them are wintered in cellars. The temperature is kept at 42° with almost no change all winter. I have had practically no dysentery for a number of years because I use only good honey for feed. I do not feed sugar, but always keep enough honey in the hive for over winter.

I requeen soon after the honey flow and introduce the queens in the cages in which they come from the queen breeder.

I now have only two out apiaries. The crop was practically zero until the basswood came which was followed by a mixture of late blooms.

In our section we are getting 55¢ for a 5-pound pail, and from 85¢ to $1.00 for a 10-pound pail in stores.

SHALL BEEKEEPERS BE TAXED

E. L. CHAMBERS

(Continued from October issue)

It has always been a recognized fact that area clean-up work of any kind can be done much more effectively and more economically where a large sum is available over a short period of time as in the case of T. B. eradication program of cattle in Wisconsin where such funds could be secured on the basis of being a protection to human life as well as beneficial to the dairy industry.

Inspection Every Two Years

In order to make a proper showing we find it necessary to inspect all of the yards in the county at least every two years. Under the present financial crisis, we are compelled to content ourselves with inspecting only the known infected yards and the neighboring ones that funds will permit, which means that incipient outbreaks may be getting a foothold in areas that heretofore may have been considered clean. Wisconsin's beekeeping industry, one of its million dollar enterprises, certainly should be encouraged and safeguarded from the standpoint of honey production alone, to say nothing of at least its equal value, if not many times such to the fruit and clover seed growers of the state. In conclusion we wish to express our belief that some sort of tax is imperative on the part of our beekeepers if the disease control work is to be continued toward completion in these times of economic stress.

Mitch: "What salaries do college professors receive now?"

Adams: "Their salaries are not fixed; they get whatever is left after the athletic coaches are paid."

CONVENTION NEWS IN NEXT ISSUE

This issue of Wisconsin Beekeeping is being printed at the time of the Convention. The December issue will have all the details about the convention.

mittee of the Wisconsin Horticultural Society in 1915 and served for ten years between 1915 and 1932. He was Vice-president in 1921 and president in 1922–1923. He has also served as president of the Oshkosh Horticultural Society, one of the oldest societies in the state, for a number of years.

Mr. Christensen has been known to our members for his interest in the Regal lily of which he has grown a great many. He states that while he does not have a favorite horticultural crop, he has had a mania for growing as many varieties of flowers and vegetables as he possibly could, in a search for the best. He is a great experimentor and tries out a great many new things each year. He has had some success as a hybridizer and has originated several fine peonies.

He has been much in demand as a speaker on horticultural subjects and has always given freely of his horticultural knowledge to all who came to him for help and advice.

Axel Johnson

Mr. Axel Johnson was born in Sweden. At fifteen years of age he started his apprentice years, and worked in this capacity for six years on different private estates. He then entered the College of Alnarp, graduating in Horticulture in 1889. After graduation he went to England for further studies, and worked for Thos. S. Ware, and George Beckwith and Son Nurseries in London.

He left England for the United States in 1891, arriving in Lake Geneva the same year and accepted the position as assistant gardener on the R. T. Crane Estate. He held this position for two and one-half years, and then went into private business. Two years later, or 1895, Mr. R. T. Crane made him a very good offer to come back and take charge of the Estate. He accepted and is still there after nearly forty years.

Mr. Johnson is a hybridizer of note. He has hybridized and grown many Gloxinias which he gave to his friends. He originated the Snapdragon, "Geneva Pink" in 1922, which received five certificates of merit from different Horticultural Societies. He has two seedling snaps still on trial, which are very promising. He also originated "Salmon Queen," perennial phlox.

He was elected a member of the Executive Committee of the Wisconsin State Horticultural Society in 1906. In the Lake Geneva and Foremen's Association he held office as president for six years, and treasurer seven years. He has officiated as judge of horticultural exhibits at the Wisconsin State Fair many times; also at many flower shows in this city and others.

Mr. Johnson writes: "My work has always been a pleasure; my dabbling in hybridizing has been an enjoyment which money could not pay for."

W. J. Moyle

W. J. Moyle was born in 1870 on the old Moyle homestead that had been handed down to him through two generations. His mother's people were largely engaged in horticultural pursuits as far back as the days of the Revolutionary War.

After graduating from the Short Course at the University of Wisconsin in 1897 he taught horticulture at Madison the following two years. At this time he was also editor of Wisconsin Horticulture, and was Corresponding Secretary of the Society in 1897–98.

Mr. Moyle was then connected with the J. G. Lovett Nursery of Little Silver, N. J. for two years, before he came home and started his own nursery, The Wisconsin Nurseries.

For a time he was editor of the horticultural page in the Wisconsin Agriculturist. He was superintendent of Horticulture for the Racine County Fair since it was organized twelve years ago.

He was judge of fruits and flowers at various county fairs in Wisconsin. He has held that position in Walworth County for the past twenty-five years.

He made many trips through the state on the trial orchard inspection tours of the Horticultural Society. Mr. Moyle was greatly interested in hardy trees, shrubs and flowers adapted to this climate. He made a very extensive study of and enjoyed Lilacs, Peonies and hardy Roses.

His hobby was pears suitable for Wisconsin. He was no doubt one of the best pear authorities in the state, as well as on native nuts.

His prices were always low with the object in view, so that no matter how humble the home the owner could have the pleasure of enjoying the bounties of nature and thus help make this world a more beautiful place in which to live.

Mr. Moyle was greatly loved by the amateur horticulturist for his willingness to give information about varieties and cultural requirements. So interested was he in extending the growing of plants and flowers that he gave away vast quantities to those who could not afford to pay for them.

Throughout the state one may find gardeners growing plants given them by Mr. Moyle, a beautiful and lasting monument to his memory.

Mr. Moyle died at his home on April 2nd, 1934.

MILWAUKEE FLORISTS' CLUB FLOWER SHOW

THE annual flower show of the Milwaukee Florists' Club was held in the Milwaukee Gas and Light Building, East Wisconsin Avenue, on October 31 to November 4. Herbert Froemming is chairman of the flower show committee.

The Milwaukee Florists' Club has held wonderful shows in this location for several years past. While we go to press before the show is on, we feel safe in saying that it will be up to its usual quality and will greatly increase the interest of the public in flowers, and for that reason alone it is well worthwhile.

About the Home and Garden

MRS. C. E. STRONG

A GARDEN VISIT

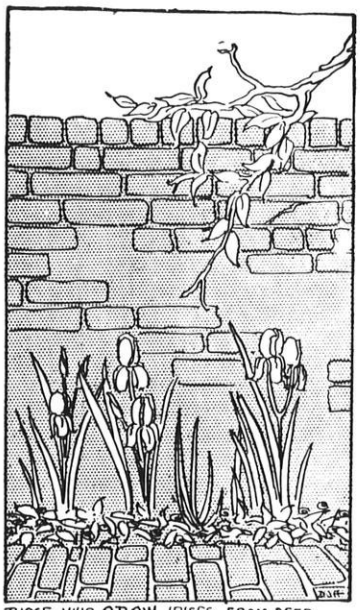
SOME lovely Delphiniums and a dainty pink perennial Linaria growing in the garden of Mrs. G. Peterson of Waukesha, stirred in us a desire to see if there were more nice things growing and blooming in the Fairview Gardens at Fox Lake —for this garden was the original home of the plants we admired.

On a glorious October morning we started out—the drive was most delightful for the trees were in full dress parade, and when we reached Fox Lake and the gardens, we were quite sure the Dahlias were. Every plant a huge bouquet, the blossoms on many of unbelievable size; the pompoms were exquisite, in every shade but blue, and they make the most charming table decorations, alone or in combination with other flowers.

New Perennials

We could have spent hours looking at the hybrid French Delphiniums—one of the party who wished to take several plants home, said, "The longer I look, the more undecided I am, each one is so perfect—how can I choose?" There was every shade of blue, with some beauties in white and creamy yellow, the individual blossoms very large in all the shades.

The Linaria, Canon J. Went, a perennial variety with spikes of tiny snapdragon like rosy pink flowers, seemed to be one of those "must haves" for the border. Physostegia Vivid certainly lived up to the name. My Joy is a striking Rudbeckia blooming profusely. The flowers are large and deeply colored. Statice Caspia looks as tho it would be an addition to the garden—tho not in bloom the foliage is very attractive.



THOSE WHO GROW IRISES FROM SEED, SHOULD PLANT THEM AN INCH DEEP THIS FALL.

Good Annuals

Among the many attractive annuals seen—Abronia umbellata with fragrant rosy lavender verbena-like heads and trailing foliage, seems to be the answer for that hot dry place with poor soil, Chabauds Improved giant annual Carnations will be enjoyed by every lover of those spicy blossoms, we just had to pick a few to carry home with us, the flowers are almost as large as the greenhouse variety and with good stems. Theodosia, a ruffled pink Petunia with a yellow throat, and no trace of that floppiness so often seen in the ruffled sorts seemed to deserve its name—"A good gift."

Heliotrope was flooding the air with fragrance—but there were no roses near. To me they belong together—in Mother's garden the rose beds were surrounded with Heliotrope.

We left the Gardens reluctantly, but we carried some of the beauty with us—both in our hands and our memories. And we are trying to pass some of it along to you, in the hope that some of the newer flowers may be added to your garden next year.

Zinnias seem to be a popular flower, nearly every yard from West Allis to Portage and home by a different route, grew Zinnias, mostly in the mixed colors, once in a while our eyes were gladdened by groups of one color against a background of green.

We had hoped to see some early flowering Chrysanthemums that could be added to the list, but none were discovered. I wish if any of the readers have real early varieties—those blooming in September and early October—they would write and tell us about them. (Aladdin is a very good one—Editor.)

Aren't surprise boxes nice? Especially when you are introduced to some entirely new (to you) friends for the garden. Bellis rotundifolium cæruleoscens is no where near as large as its name, but is a dear little pinky blue daisy that seems to like a sunny place. It is evidently a free bloomer and just fits nicely in the rock garden.

Adenophora Bulleyana, said to have pale blue Campanula like flowers on stout leafy stems, Silene Hookeri with elegantly fringed, coral-pink flowers, Phlox diffusa, Potentilla cinere Alpine strawberries (I enjoy weeding in the vicinity of the strawberry patch growing in the rock garden), also a number of other plants that I have not had time to find out very much about.

There are nicely tucked away in a special spot where they are supposed to flourish—and we hope they do as they are supposed to do.

Trouble with Violets

The small boy's definition was—"A weed is a flower growing where it ought not grow." I admired some large white violets very much—and contrary to the advice of the giver, planted them in the rock garden. They were lovely at first when not really settled down—but when they started to spread—and did they spread—tho they were still lovely, they choked out every small plant in that part of the rock garden; so out they had to go over to a place where they can be admired, but do no harm.

There were some big bare spots that I looked at ruefully, when along came that box. And wouldn't you smile in spite of aching knees from crawling over rocks,—if in that box were twenty-two varieties of dwarf Iris—when they get settled down nicely, isn't that going to be a lovely drift of color? Mr. Toole wrote, "I had no idea I had so many kinds until I started picking them up for you." Neither did the rest of us—so am passing on the information to those who are interested in dwarf Iris.

Flower Shows

We enjoy Flower Shows—we want others to enjoy them with us— we even hope they will enjoy them enough to pay to see them. It costs something to put up a real good Show.

We have been wondering if the non-competitive show would not help in putting up a better show than where there was competition for ribbons or prizes. If every Garden Club member in the District would bring the best they have in the garden—either individual blooms or artistic arrangements—there would be more originality shown in these arrangements, if there were no competition, because they would not be thinking of what the judge liked.

We should also accept contributions from people who do not as yet belong to garden clubs, those people who have some fine plants or special flowers they would like to share with others.

Varieties should be named and labeled plainly in the individual bloom class, because the average flower show visitor wants to know names.

There should be gardens with artistic combinations of plants; there should be window boxes, both indoor and outdoor; there should be sunrooms with plants.

There should be chairs so visitors could rest awhile and admire the exhibit, perhaps—no I am quite sure they should have a little music, even a cup of tea or coffee and a bit of toast or cookie—naturally that means the show must be held in a building where there is room for all these things. There should be someone competent person who will tell why certain exhibits are outstanding, someone who does not know to whom the exhibits belong. And we should hold these shows year after year until they get to be a habit—going to them gets to be a habit—to miss one is just not being done.

And after we have held these shows long enough—we might try the competitive show again, for by that time we ought to be able to gather together after looking over all the exhibits and say—this specimen, or that arrangement is the finest here, and beam with pleasure when later the skilled judges in their decisions agree with us.

A suggestion is that each garden club in the district be leaders in putting on the show for a year, all clubs to do as much as possible to help—but one club be responsible for new features, entertainment, etc.

For the Milwaukee District the Horticultural Building at the State Fair grounds would be an ideal place to hold a show every spring—and every fall every one would work to make the amateur exhibit at the State Fair something worth going to see. Every other district should also choose a place suitable for a growing show to be given in the spring.

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Gleanings From The Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

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WHAT THE GLADIOLUS SOCIETY IS DOING

PRESIDENT W. E. Menge and his brother from Fond du Lac came down to Madison the third week in October and dug the bulbs in the Gladiolus Trial Garden on the College grounds. All the bulbs and bulblets were dug carefully to be returned to the growers who loaned them to the Society for the garden.

The bulbs had made a wonderful growth and produced a great many bulblets. We have never seen larger bulbs than these.

Plan Trial Garden Next Year

Due to the success of the Gladiolus Trial Garden this year both the members of the Board of Directors of the Society and the members of the Horticulture Department of the College, including Dean C. L. Christensen and Prof. J. G. Moore, are willing that the garden be continued next year. If the State Gladiolus Show is held in Madison next August the garden should be timed to bloom at about the same time as the show so that visitors can see both.

Board Meets November 3

The Board of Directors of the Gladiolus Society met on November 3 to plan for the next State Gladiolus Show. Since this issue went to press before the meeting was held we are unable to give the details of the plans made. The Board had under consideration holding the next State Show in the University Field House, probably the building with the largest room anywhere in the state. Invitations have also been received from Oshkosh and Lake Geneva for the next show.

We will be glad to have any of our Gladiolus Society members write their experiences with gladiolus this summer for this page.

GOOD VARIETIES IN THE TRIAL GARDEN

GEO. MORRIS

Red: There are many shades of red in the trial garden and I am listing several that were rather outstanding. These are not placed in any order of preference as I like all of them.

Red Rock, tall sturdy variety. Good placement, several open. Burns in sunlight but is very fine.

J. Harry Silz, of crimson shadings very attractive and good. Builds good spike, opens several nice blooms.

Sultan, this is also a crimson shade. Large massive plants and flowers, very attractive.

Red Glory, fine ruffled red, opens several nice flowers at once, glowing color.

Red Phipps, very nice red, good placement, tall spikes. Worthwhile.

Rajah, old but still good, dark red, placement rather poor but spikes show off very well.

Lucifer, light red with dark blotch, worthwhile, if you like the color combination.

Light Blue: Blue Danube, tall, good placement, several open. Well worthwhile.

Dark Blue: Rosa Raisa, extra fine, rather early. A "must have"; builds good spike with several medium blooms open.

Blue Royale, fine tall dark blue, placement not as good as Rosa Raisa but well worthwhile.

Purple: Charles Dickens, one of Piftzer's best purples.

Paul Pfitzer, early purple, very good, builds good spike.

Ethelyn Blackmore, very fine color, not really a purple but very outstanding. Flowers small with several open.

Smoky: Chippewa, This was the most outstanding smoky variety in the garden. Fine substance, good placement, several open.

Bengal Beauty, fine smoky; small flowers, but very fine.

John Hill and John Ramsey are both very nice smokies, not tall but build very good spikes with many open.

Marmora and Emile Aubrun still deserve places in every good glad garden.

Small Flowered Varieties

Miss Joy, very fine tall pink, good commercial.

Apricot Glow, still very worthwhile.

Mrs. Calvin Coolidge, fine light pink primulinus, very good.

Brightside, a new yellow and red; very pretty.

Sweetheart, dainty ruffled pink, primulinus.

Golden Poppy, a fine old gold primulinus; good placement and many open; should be in every good collection.

GOOD LATE BLOOMERS

THE following varieties came into bloom after the descriptions of varieties in their respective color classes had been written.

Mrs. T. E. Langford, exquisite apple blossom pink. Very beautiful and well worth growing in quantity.

Netherland Prince. In color a bright salmon. A very tall, strong grower, 6–8 large blooms open at a time. Very showy, very worthwhile.

Robert The First. Rose-lavender with purple markings. Heavily ruffled. Very large wide open flowers with 6–8 open at one time. Spike tall and straight. Very worthwhile.

Adagio. Apricot-orange in color. Tall growing, several open at one time. A good grower and well worth a place in any good collection of gladiolus.

How to Store Dahlia Roots

DAHLIA roots should be in very good condition for storage this fall because of the moisture and good growing weather during the past two months. As a rule if the late summer and fall weather is dry and unfavorable for growth, or if frost comes early, the roots do not develop properly and consequently do not winter over well.

The next problem is to store the dahlia roots properly so that they will come out in the spring in good condition. There are two things we must bear in mind. First, if storage conditions are damp the roots will get mouldy and probably rot. If the air is too dry and warm, the roots will shrivel.

It is not difficult to find out if the air is either too damp or too dry by watching the roots during the winter. However, in furnace heated basements, it will probably be necessary to pack them well in either peat moss, sand, sawdust or ashes in order to prevent excessive drying out. Those who are fortunate to have a root cellar in which the temperature remains low and especially one with a dirt floor which can be kept moist, it may not be necessary to do anything with the roots excepting to cure them a little before storing.

One of the country's leading dahlia growers states: "I have had good results keeping the roots in bins in a storage house which is kept at about 40° temperature and covering the roots with dry soil. I do not place the roots upside down as recommended by most writers, for I believe this damages many roots. I try to get rid of all excess moisture before storing my stock. No matter where they are stored they should be looked at from time to time throughout the winter to see how they are getting along. If conditions are too dry, some moisture may be added; if they are getting mouldy showing that there is too much moisture, they should be moved to a drier place."

The best storage temperature for dahlia roots is as near 40 as possible, though often it may be 45 or 50. Another grower states that he places several inches of clean, fresh sand against the wall in the basement and piles the dahlia roots on this foundation. They are held in place by planks set on edge. Then as the roots are put in place they are packed with dry sand or peat moss with a five or six inch layer over the hole when the pile is finished.

Packing in Boxes

Many growers advocate using medium sized boxes convenient for handling and lining the boxes with paper, with sand or ashes for a bottom layer. The paper is also folded over the roots. If the tubers appear to be drying out, the paper is moistened, but if they show mould more ventilation is given.

Another method is to cover the roots with paraffin to keep them from drying out. The tubers are thoroughly cleaned and dipped in melted paraffin. The latter of course, is kept at as low a temperature as possible. The paraffin may also be applied with a brush.

HEAVENLY BLUE MORNING GLORIES

IT HAS been a spectacular sight at some of the local flower shows to see displays of exquisite Heavenly Blue morning glories. Although the blooms in the garden usually close soon after noon, they seem to remain fresh under artificial light. In fact, it is said that if the stems are cut with many buds, that there will be a succession of blooms for several days.

During cloudy weather, the Heavenly Blue morning glories will remain open until early evening. Unusually cool weather seems to have more or less the same effect upon them. It has been rumored that if mature buds that are ready to open are cut the night before and placed in an automatic refrigerator that they may be opened at any time of day and may even be had fresh and in full color at night. I can not vouch for this statement, not having tried the experiment myself.—*From Horticulture.*

HOW DO YOU PRONOUNCE THESE PLANT NAMES?

1. Acroclinium.
2. Adonis.
3. Ailanthus (Tree-of-Heaven)
4. Ajuga.
5. alata (Winged).
6. Alchemilla.
7. Almond.
8. Aloe (Greenhouse or tropical plant).
9. Alsine.
10. Alstroemeria (Peruvian-lily).
11. Alternanthera.
12. Alyssum.
13. amabilis.
14. Amorphophallus (Devils-tongue—related to Jack-in-the-pulpit).
15. Anacharis.
16. Anaphalis (Perennial white strawflower).
17. Androsace (Rock-jasmine).
18. Anemone.
19. aquatica.
20. Aquilegia.

For correct pronunciation see page 67.

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Winter Bouquets for Every Home

Mrs. Marie S. Wells
Madison

WHAT nature lover does not like to gather plant material in the autumn? An increasingly popular use of such material is for winter bouquets. These aids to the atmosphere of winter cheer need not be expensive or difficult to acquire.

In our grandmother's day, dried hydrangeas were brought in to hide a disused fireplace or to lighten a dark hall. Today we definitely plan winter bouquets as a part of our house decoration. But, you say, "Some members of my family object to these because they get dusty." This objection can be met by letting the wind blow off the dust or by holding the arrangement under the faucet for a gentle shower; or fresh materials that have been kept covered may be substituted for the dusty ones.

A Winter Bouquet

I like to make up two or three such bouquets and alternate their use. It is true that one cannot use as many winter bouquets in the home as fresh flower arrangements. This is added reason why our selection of material should be thoughtful.

Perhaps you feel that certain berries and seed pods, such as Bitter-sweet, Chinese Lanterns, Strawflowers, of Honesty, have been used so much that they are now too common. If the material which you have seems common, you can make your arrangement of it uncommon through your choice of stems or branches and the harmony and simplicity of your composition.

A winter bouquet has two values; the charm of beauty expressed in color, form, texture and appropriateness; and the idea or impulse conveyed to the one who sees it. Dried seed pods express service done. Bare twigs have many of the qualities of beauty and in addition hint of life in repose. Berries such as Bitter-sweet, Holly and Dogwood speak of matured usefulness. All of these bring inspiration.

Vases

The first step in planning a winter bouquet is to decide where we wish to place it. The background is very important as is also the direction of the light for shadows of the bouquet are often as interesting as the arrangement itself. Then we shall select the container which will both look well in that position and enhance the distinction of the arrangement itself. Many of the rules for selecting containers for fresh flowers apply here. But it is even more important that we avoid fancy, highly colored or figured vases, because dried plant material is subdued in color. Pottery in dull blues, greens and black, or old-fashioned jars of soft browns, greys or cream are best. Pewter, silver, copper and brass may be used if these look well in your room. Frosty green Mexican and Spanish glass combine or contrast delightfully. Black is unusually good because it brings out the color of the plant material.

Selecting Materials

Now we are ready to select our materials.

In your yard, along country highways, or in meadows and marshes, are many beautiful grasses, seed pods, berries, vines, leaves, cones and branches that may be used singly or combined artistically to give the dull corner just the charm and airiness needed and carry the joys of the garden over the long winter season. The natural harvest is the most used, but we also may cultivate varieties especially for winter use or buy those the florist has.

Red Dogwood, with its grey white berries and red stems, is beautiful and arranges well with other materials. Common Woodbine has lovely, dusky, dull blue berries. These should be harvested early. Jack-in-the-Pulpit has a tall, red-berried seed stalk which is gorgeous in a bouquet of evergreens. White Kerria or Jet Bead, the Blackberry Lily, Carrionberry, Indian Currant, Regal Privet, Christmas Berry, Barberry, Snowberry—white or red, Black Alder or Swamp Holly, Rose Apples, and Mountain Ash berries, are all native and desirable berry materials to choose from. The rose-red Pepper berry which comes from California makes an unusual bouquet.

Among the dried flowers, Yar-

row, Globe Thistle, Sea Holly, Wild Moonshine, Golden Rod and Wild Asters, and the various varieties of Celosia known as Cockscomb, Chinese Wool Flower and Celosia Spicata are less commonly used than are Strawflowers and Statice. Globe Amaranth, Rose Everlasting and Winged Everlasting are all delicate in color and make good fillers or blenders. The Artemesia Silver King and Silver Beauty and the native Artemesia called "Old Woman" are among the best of the blenders. The lovely brown seeds of Yellow Dock, poppy seeds and the lavender radish-seed pods deserve to be used oftener. The feather-like curls of Clematis seed pods and the soft tan of the hop pods are especially fine materials. These are not as generally used as Milk-weed pods and Cat-tails.

Grasses

Then we must not forget the grasses which lend grace and that most desirable quality—airiness. Many ornamental grasses are listed in the seed catalogs. They also supply needed variety of form in the garden—note Cloud Grass, Job's Tears, Pampas Grass and Plume Grass. The marshes furnish several varieties, including Bullrushes and Fox Tails.

Did you ever try to make a mid-winter bouquet out of an artistic bare branch by brushing water-glass over the branch and then throwing upon the moist branch as much partially pulverized rock salt and common salt as will adhere? When placed in a stable container of pewter or black pottery, there is a charm of simplicity and appropriateness unbelievable.

Hints For Success

Perhaps a few timely working hints may not be amiss:

Cutting of annual Everlastings should be done just before the flowers are completely open. Cut a few in the bud stage for interest and variety.

All plant material should be dried in a cool, airy place in an inverted position, excepting Chinese Lantern stems, which should hang from the top. A practical method is to stretch a string in the garage or on the porch, tying or hanging the stems along this string.

Brilliancy of flowers may be preserved for a longer time by placing the cut sprays in a 50-50 solution of glycerine and water for some time before drying.

Some berries may be preserved by painting them with Gum Arabic or varnish. This treatment is especially adapted to Rose Apples and Barberry.

Mountain Ash berries may be kept for Christmas decoration by packing them in a tight tin box and placing where it is cool but not freezing.

Cutting some of the husks of Chinese Lanterns and turning the points backward gives an unusual effect.

Avoid over-crowding. This is a common error in winter arrangement, perhaps because it seems difficult to keep the dried stems erect. Try filling your vase nearly full of coarse sand to hold a few stems perfectly.

Use tall vases for most tall-growing stems and low containers for low-growing plants is a safe rule to follow.

Good Combinations

These are some combinations that I have admired:

1. Red rose apples and silver Honesty in a dull turquoise blue bowl.
2. Artemesia Silver King with red Barberry.
3. Chinese Lantern pods and the olive-green leaves of Job's Tears in an olive-green pottery container.
4. Red Alder berries, grey Bay berries and Honesty in transparent glass.
5. Honesty alone in a silver vase.
6. Bittersweet and Artemesia Silver Beauty.
7. Winged Everlasting in a cream-colored vase.
8. Hydrangeas and stalks of Bullrush.
9. An old-fashioned jar filled with Cockscomb in soft shades

(Continued on page 71)

PLANT NAMES

Correct pronunciation. For list see page 65.

1. Ak-roh-klin'-i-um.
2. Ah-doh'-nis.
3. Ay-lan'-thus.
4. A-jeu'-gah or aj'-oo-gah.
5. ay-lay'-tah.
6. Al-ke-mil'-ah.
7. Ah'mund, or Al'-mund.
8. Al'-oh, or Al'-oh-ee.
9. Al'-sy-nee.
10. Al-stre-mee'-ri-ah.
11. Al-ter-nan'-ther-ah or Al-ter-nan-thee'rah.
12. Ah-lis'-um.
13. am-a'-bil-is.
14. Ah-mor-foh-fal'-us.
15. An-ak'-ah-ris.
16. Ah-naf'-al-is.
17. An-dros'-ay-see.
18. Ah-nem'-oh-ne.
19. ah-kwat'-i-kah.
20. Ak-wi-lee'-ji-ah.

Reference—The Home Gardener's Pronouncing Dictionary by Better Homes and Gardens.

Pronouncing Key

a, e, i, o, u without other vowels are short, as in *ask, end, ill, odd, us; ah* is *a* as in *mama; ay* is long *a* as in *make; ee* is long *e* as in *mete; y* is long *i* as in *hike; oh* is long *o* as in *hoe; eu* is long *u* as in *use.*

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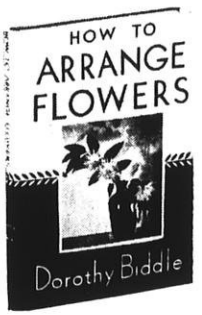

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STATE GARDEN CLUB FEDERATION NEWS

Federation Aims: To stimulate and help garden clubs throughout the state; to develop interest in and broaden the knowledge of gardening; to aid in the protection of trees, plants and birds, and promote civic beautifications.

FEDERATION NEWS

INDICATIONS are that the 1934 convention of the State Garden Club Federation will be one of the best in our history.

A large number of clubs have sent in the names of their delegates, assuring a good representation. Contributions for the speakers fund are coming in rapidly. Indications are that enough money will be received to pay most of the expenses.

A good flower show is promised by the entries which have been received.

The next issue will contain a detailed report of the convention activities.

Federation Has Successful Year

The State Garden Club Federation has had one of the most successful season's this year. There has been a considerable increase in membership and there are now 50 clubs in the Federation. Next year should see a further increase in clubs.

The organization of garden club districts has gone forward with satisfactory results. Three districts now have elected officers and have had successful fall meetings. They are planning a more complete program for next year.

Working through the districts, the state officers will be able to be of greater service to the garden clubs than ever before. No doubt flower shows, flower judging schools, and other important activities will be taken up next spring in the districts.

Our president, Mrs. Charlotte Bullard, attended the Regional Meeting of the National Garden Club Federation Council held in Kentucky in October.

NON-COMPETITIVE FLOWER SHOW

THERE is some difference in opinion among garden club members in regard to the advantages of a non-competitive flower show. Many gardeners argue that the spirit of competition is keen in most people and that we do our best under the stimulus of desiring to win a prize. Then there is the argument that many exhibitors will not come out if they have to compete with more experienced gardeners.

The answer probably is a combination show; one in which there are classes to be judged, and in which those may enter who desire to compete, and another section of the premium list with classes which are *not to be judged* for those who do not wish to compete, and in which the beginner may exhibit and learn.

We must not forget, however, that the greatest educational feature of a flower show is the comments of the judges following the judging. Competent judges can give valuable suggestions to exhibitors which helps us continue to improve.

PROGRAM SUGGESTION—WISCONSIN APPLES

A helpful program for many housewife gardeners would be an apple program, it being time to store apples. Get as many varieties as are available. Place them on a table and number each sample. Allow members to jot down the names of as many of the varieties as they are familiar with. The winner might be presented with the apples. Part of the program could be turned over to an apple grower. Have a member show ways and tell of storing apples.

A special circular entitled "Ways to Use Wisconsin Apples" can be obtained from the Extension Service of the College of Agriculture, Madison. Have members make an apple chart to put in their cook books classifying the apples as to those being superior for eating, and those being good for cooking.—*Mrs. Peter Cooper, West Allis.*

South Central District Meeting

AN INTERESTING meeting of the South Central District of the Federated Garden Clubs of Wisconsin was held at Fort Atkinson, September 26th.

The meeting was called to order at 11:15 a. m. by Mrs. Robert Alder, and for the next half hour those present enjoyed a general discussion on "Some experiences of the past summer in my own garden."

As the noon whistles blew, all joined in a picnic lunch, which was indeed a hearty one, due to the kind forethought of the Fort Atkinson ladies, who furnished hot coffee, and extra "eats" in the way of salad and pies.

The first speaker for the afternoon session was Mr. Norman Eckley, Agricultural teacher in Fort Atkinson High School who gave a very interesting talk on soils and commercial fertilizers.

Next, Mr. H. J. Rahmlow, illustrating with specimens from his own garden. discussed the desirable and undesirable qualities of some of the new plants grown by the Plant Testing Club this past summer, and some of the new "All American Annuals." He then continued with a very interesting discussion of "How We May Improve Our Flower Shows," naming the following as the four essential divisions for a good flower show premium list.

1. Artistic arrangements.
2. Perfection of bloom classes for special flowers, as iris or gladiolus.
3. Bouquets of one variety of annuals or perennials.
4. Exhibits by commercial growers.

This discussion proved to be one in which many of those present were very much interested, and brought forth many ideas and suggestions which will be of value in putting on future flower shows.

Mrs. Alder addressed the meeting, telling of the various duties of a district chairman, and of the many joys that she, as such, had experienced during the last two years. She then introduced Mrs. Chas. Jahr of Elkhorn, the Second Vice-president of the State Federation, who told us a little of her visit to Detroit this past summer, where she attended the National Convention of Federated Garden Clubs.

The following officers were elected for the coming year:

Mr. E. L. White, Fort Atkinson, District Chairman.

Mrs. Robert Alder, Elkhorn, First Vice-chairman.

Mrs. W. Strobusch, Jefferson, Second Vice-chairman.

Miss Abbie Kyle, Fort Atkinson, Secretary and Treasurer.

After some discussion as to what this district, comprising the counties of Rock, Walworth and Jefferson should be called, the name of South Central District was accepted.

It was decided that all clubs participate in a District show to be held at Fort Atkinson in the spring of 1935.

The motion was carried, that the presidents of all local clubs, together with the officers of the district, constitute the executive committee of the district.

MRS. HARRY F. HOWE.
Acting Secretary.

A BEAUTIFUL FRUITING SHRUB

THE most beautiful shrub in fruit which it has been my good fortune to see anywhere this year is the Cotoneaster soongorica. During September and October I took branches of leaves and fruit to several garden club meetings where they were admired by everyone who saw them.

The fruit is quite large, the color—coral-pink, and so abundant that the stems appear as ropes of beads.

The fruit ripens in September and remains on the shrub throughout October and until heavy frost. During this time it is conspicuous from afar for its exquisite loveliness.

I have had a plant of Cotoneaster soongorica in my garden for the past four years and it appears as hardy as any other hardy shrub since there has never been any winter injury. This variety was introduced by the late E. H. Wilson from China, and he says of it—"Combining the qualities of abundant blossom and wealth of brilliant fruits, I count Cotoneaster soongorica one of the most valuable shrubs it has been my privilege to add to northern gardens."

Wilson includes with soongorica, the species hupehensis. A plant of this variety growing beside soongorica has not been nearly as vigorous and so far has not fruited or bloomed.

The variety soongorica is very vigorous in growth habits and in three or four years time should reach a height of eight or ten feet.

Recommended a few years ago by our plant testing committee for trial in Wisconsin, I believe we can say that it should be recommended for increased planting by all garden lovers, since a number of Plant Testers have found it very fine.

CHICAGO FLOWER SHOW TO BE HELD NEXT APRIL

The 1935 flower show of the Garden Club of Illinois will be held at the Navy Pier, April 6–14.

This is the 9th annual show to be staged by the Garden Club of Illinois. Mrs. O. W. Dynes of Hinsdale will again act as general chairman and has opened permanent headquarters at the Palmer House, Chicago.

NEW CIRCULAR ON ASTER CULTURE

Aster Culture is the title of Circular No. 200, published by Purdue University Experiment Station, La Fayette, Indiana. It describes the culture of the China aster very thoroughly and in considerable detail, not only under field conditions, but in the greenhouse.

What Do We Know About Winter Covering

MANY varieties of plants and flowers survive the winter in forests, though they are winterkilled if planted in our garden. Nature protects these plants carefully, yet we are not always guided by the lesson which she teaches.

In the forest a heavy covering of leaves fall over the plants and flowers early in the season before there is any cold weather or frost.

Additional protection is usually given by snow, all of which is kept in place by the plants, there being little drifting or thawing.

Trees in the forest protect plants from the cold, drying winds. The larger the area the greater the protection. In the spring the snow melts slowly. The leaves are not removed but decompose and furnish humus to the soil so that it does not dry out rapidly. The soil is not cultivated—we know that loosened soil freezes more deeply than packed soil.

There seems to be much difference of opinion as to how to carry the more tender varieties of plants through the winter in our garden. In some locations certain varieties may be carried through the winter without covering. In other gardens they are winterkilled every year. We do find, however, that the semi-hardy varieties such as Foxglove and Canterbury Bells are winterkilled so frequently that our most enthusiastic gardeners are no longer growing them.

There seems to be a difference of opinion as to smothering. In a national garden magazine last month, a writer stated that in his estimation more plants are smothered than winterkilled. On the other hand we have reports from gardeners who claim that they have covered their Foxgloves with ten inches of leaves and have had them come through the winter in good condition.

Covering Strawberries

Dr. R. H. Roberts of the Wisconsin Horticulture Department has proven that the crowns and roots of strawberry plants are injured by the first heavy freeze in the early fall if they are unprotected by either mulch or snow. During the past two years the heavy early frosts have come during the first two weeks of November at Madison. We refer gardeners to the article on strawberry covering in the October issue of Wisconsin Horticulture.

Is there a relation between the winterkilling of the tender perennials and the injury to strawberry roots and crowns? Are Foxgloves and Canterbury Bells injured by the first freeze if they aren't protected?

Early Uncovering

Many gardeners state that the leaves of their perennials appeared in good condition when they uncovered in the spring, but that they died shortly thereafter. This is blamed to early uncovering. Has anyone ever dug up the roots of these plants when they were uncovered to see if they had been injured during the winter, and consequently could not furnish nourishment to the leaves when warm weather came? If the roots in this case were injured, when did the injury occur, during the winter or in early fall, similar to the injury on the strawberry roots?

Conditions at Bayfield

We know that there is more winter injury in southern Wisconsin than at Bayfield in the extreme northern part of the state where Mr. John Hauser grows several hundred varieties of perennials, most of them without any mulching whatever. However, in normal years the heavy snow covers the ground early in the fall. Lake Superior tempers the northwest winds and frosts do not occur until late in the season. Oftentimes the ground is not frozen before it is covered by snow and may not freeze during the entire winter. Winter injury does occur if the snow is blown off of the plants or in case there is not a normal snowfall.

Is a covering of several feet of snow less likely to smother than four inches of mulching material? If Nature covers plants early with leaves or snow, why should we wait until the ground is frozen before covering in our gardens (excepting for possible damage from mice)?

We feel that these questions must be answered scientifically before we can get at the real solution of the wintering problem. In other words it is our humble opinion that there is a great deal of guessing being done about this matter of winter protection and winter injury.

Those who lose valuable plants each winter hope that the problem will soon be solved.

OSHKOSH SOCIETY VISITS CRANBERRY MARSH

A GROUP of about 60 members of the Oshkosh Horticultural Society took a trip to the cranberry marshes near Eureka as a part of their October meeting.

Mr. and Mrs. Fred Elandt took their visitors through the Power Plant where they were shown how the marshes are flooded. This marsh covers 15 acres. As the berries are in condition to be picked about September 15, the crop was nearly ready to be harvested.

The packing house was then visited. It was explained how cranberries are cleaned, sorted and packed. Weeds and grass between the vines are cut three times a season by special machines. It takes seven years before a vine will produce a crop. During those years the vines must be weeded by hand. However, when they start yielding

they sometimes yield as long as 50 or 60 years. It was explained that the water is let off the marshes about April 1, and then time is allowed to let the frost come out of the ground.

In planting, young plants are taken from cuttings. There are both early and late varieties of cranberries.

After the interesting tour, Mr. D. G. Stroebel gave a report on the recent flower show sponsored by the Society which he declared was a decided success this year.

MISS FLORENCE WINCHESTER,
Secretary.

Grandma: "Oh, Jennie darling, I am surprised! Aren't you going to give your brother part of your apple?"

Jenny: "No, grandma, Eve did that and she has been criticized ever since."

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Mrs. F. Joel Swift, president of the National Council of State Garden Club Federations writes of it.

"The splendid books on this subject that have appeared from time to time have paved the way for a shorter volume at a lower price, that tells the story of flower arrangement in plain, direct language.

"We are particularly glad to have this book come from the pen of a woman who is active in garden club work, who thoroughly understands the needs of the amateur gardener. I commend it to you."

The following are some of the interesting chapters: Flowers in our home; Color; Handling Cut Flowers; Decorating with Perennials; The Annuals Troop into the House; Winter Decorations; The Japanese "Way of Flowers"; Modernistic Arrangements; Bubble Bouquets; Standards for Judging; Adivce for flower show exhibitors.

The Wisconsin Horticultural Society will be glad to order the book for any of our members. Send $1.10 to the Society, 1532 University Avenue, Madison.

WINTER BOUQUETS

(Continued from page 67)

of rose, yellow, dull red and dull green.

10. Branches of long-needled pine with Chinese Lanterns.

11. Chinese Lanterns in Indian basketry.

12. Evergreen branches with cones.

13. Silver Bay berries in frosty green Mexican glass.

14. Rose apples and Juniper branches.

15. The winter bouquet I most admired last year was one made of the soft tan seed pods of the hop vine in a softly mottled vase of tans and browns.

My own bouquet last winter contained Red Dogwood berries, Silver King Artemesia and a native blue berry along red stems —I have not been able to learn the name of the latter. The vase was a soft grey blue which harmonized with the blues near my piano.

Accessories such as candlesticks, upright placques and trays in black and gold, early American ware in deep blue, or other ornaments that are well chosen, often add charm.

It is great fun to make new and unusual effects, but on the whole the mixture of native and cultivated plant materials is not so pleasing as the use of each class by itself—the atmosphere or inspiration thus created is more consistent. However, there is wide latitude for originality.

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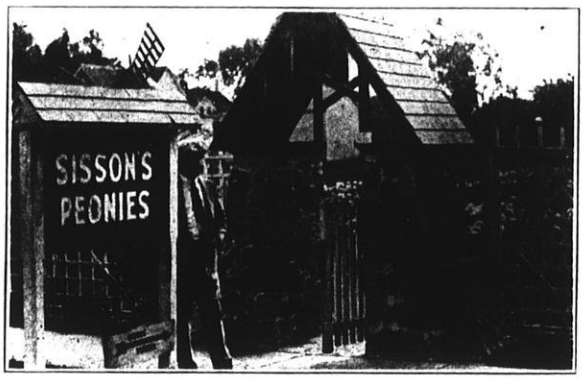

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Fig. 1 Fig. 2 Fig. 3

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The Wisconsin Garden Club Federation

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OUR PROGRAM
3. Greater publicity for Wisconsin grown fruits and vegetables.
4. A constantly improving magazine for the distribution of timely horticultural information.
5. Organization of local horticultural clubs in all sections of the state.

The Convention Flower Show

Mrs. B. W. Wells
Madison

"I ENJOYED most at the convention, the exhibits and talks with individual members on garden subjects," was the response from the first three members who were asked "What part of the program did you like best?"

Several said they wished there had been more discussion on the merits of the prize winning exhibits. It is for this reason that I am attempting to give a few of the reactions of some of the judges.

The large lobby of the Hotel Racine was about as full of exhibits as it could well be for comfort.

Shadow Boxes

Class 1. A harvest scene using fruit with or without other accessories such as leaves, etc.

There were only two exhibits in this class. First prize was awarded to the one containing a half pumpkin filled with fruit, having autumn leaves back of it. Two pomegranates and an oval brass tray were used as accessories. The color balance, rhythm and appropriateness were the outstanding features.

The exhibit awarded second place, had a blue bowl filled with fruit, a large tray of red and silver at the background and a brass candle-stick with a yellow candle. The color balance of this group was good, but the bowl of fruit lacked variety and the picture lacked unity. The colored mat of plaid scrim distracted from the colors of the fruit.

GRAPE HYACINTHS AND SNOWDROPS MAKE EFFECTIVE POTS FOR INDOOR GROWING

Autumn Picture

Class 2. An autumn picture using any type of horticultural material.

First prize went to an arrangement of snowberries in a copper lustre vase that was correctly elevated. There was a small lustre vase to match placed on a soft ivory velvet mat. This picture had distinction, harmony and simplicity.

Second prize was a colorful autumn leaf arrangement, red leaves and berries in a brass container, with a light creamy background that was exquisite except that the arrangement lacked height. An extra branch, higher would have been better.

Third prize was the brown and white jug with the brown sumac. The draping was the same creamy white shade as in the jug and an appropriate coarse cloth. This arrangement was excellent but the branches were too crowded in the narrow neck of the jug—a choked feeling.

Class 3. A picture typifying the cold winter months, using any type of material.

The picture that placed first contained an elevated, round shiny black bowl with graceful sprays of long needled pine. One of these branches lay on a mottled tan mat. A frosty looking white panel formed a partial background. The exhibit was distinctive for its artistic arrangement, simplicity balance and rhythm.

Second place was awarded to a Japanese arrangement of brown twigs that had been dipped in water glass to resemble a covering of sleet. The cylindrical vase of brown and green pottery stood on a much draped panel of silver cloth that was arranged diagonally across the base of the shadow box. The background was white with artificial snow. The twigs and their shadows were perfect in line and design. The container looked heavy and poorly placed

and the silver panel which formed a line of opposition.

The third placing caused the judges more concern than any of the others. The shapely dark handled vase filled with spruce branches having perfect cones was artistically arranged. The pedestal used, raised the composition so that the center of interest was too high. The tan background accented the tan cones and the slightly draped mat of dull green velvet was the best arranged mat in the show. A spray of the spruce branch was placed on the mat.

The shadow box which had a mirror to represent a frozen lake with frost like sprays of evergreen and privit were placed upright in snow covered cotton to resemble trees about a lake, the background was green. This picture was well worked out but had so much detail that it lacked distinction.

The shadow box which contained two stuffed owls on a bare frosted branch had charm but lacked consistency because of the artificiality of the owls and the reality of the frost covered branch.

Hardy Mums

Class 4. Arrangement of hardy chrysanthemums.

First prize went to the box containing soft pink chrysanthemums in a vase having the same shades of pink and green and of harmonious texture. The background was a light sunshiny yellow and the mat a grayed pink velvet. Color harmony and a balance were excellent. The flowers were somewhat scant but well arranged.

Second prize went to the box containing a copper vase of yellow and bronze chrysanthemums with a small silver tray in the background and yellow gourds in the foreground. The arrangement was good. The tray was too small for balance and seemed inadequate. The ensemble gave one a feeling of crowding and lack of unity.

The third placing was not a distinctive flower arrangement although it was scientifically correct. The yellow chrysanthemums were of fine quality. The large oblong reddish copper tray and container were so new and bright that they rivalled the flowers rather than enhancing them.

Artistic Arrangement Classes

Class 5. An arrangement of any type of material appropriate for Thanksgiving.

First prize was a flat oval shaped basket with a graceful handle containing shellaced gourds in soft color contrasts of yellow, orange and green. The handle of the basket was twined with bittersweet. There was something original and distinctive about this use of materials and its low arrangement placed it above those where the container was too high for its contents.

Second place went to an oblong wooden platter filled with gourds and sprays of barberry around the base. Harmony of color and texture were outstanding.

A large brown serving basket filled with fruit and vegetables with sprays of pine around the edge. The basket was too large for its contents. There was no decided point of interest though the picture had its merits.

The large hubbard squash hollowed out and trimmed to simulate the ship Mayflower was unique. It was filled with bananas, grapes and pears. These were too far down in the hold

(Continued on page 94)

Berry Boxes and Crates

Either made up or in the K. D. American Quart Berry Baskets, Climax Grape and Peach Baskets, Till or Repacking Baskets, Plant Boxes and Veneer Tree Protectors. Circular and Price List mailed upon request. Special liberal discounts on early orders.

Write for special prices on carload lots.

SHEBOYGAN FRUIT BOX COMPANY

Sheboygan, Wis.

HARDY ENGLISH WALNUTS FOUND

A LARGE shipment of hardy English walnuts from the Carpathian region of Poland has been made to Toronto, Canada for the Royal Winter Fair. There are 43 varieties in this shipment.

The Rev. P. C. Crath of Toronto is now in Poland gathering nuts for introduction into Canada and the United States. It is from him that the Crath English Walnut which was described in this magazine some time ago and which has been found hardy in Madison, was obtained. Rev. Crath writes a very interesting letter from Poland to Prof. J. A. Neilson of Michigan State College.

He states: "I have an idea to create the largest and the best walnut which ever grew on the globe. For this purpose I selected several walnut trees bearing giant-nuts and I wish to pollenize them next spring with a pollen of a tree which yields the hardest and the sweetest kernel. Such a tree is in the city of Stanislav. And here in Kosseev is a tree bearing Giants which before they are dried weigh 10 nuts to one kilogram (almost 2¼ lbs.). I hope that the combination will give us a desirable type."

The Wisconsin Horticultural Society will attempt to aid in this work of testing hardy English walnuts in Wisconsin. We have asked to purchase 10 pounds of the nuts being sent to Toronto. Watch for further information.

RASPBERRY PLANTS

LATHAM plants from new beds that have not been fruited. Grown on new soil, twice inspected. Not a diseased plant found. NEWBURG RASPBERRY (New For Trial) Plants grown as above. One of the most productive handsome and largest raspberries today. H. B. Blackman, Richland Center, Wisconsin.

Cause of Trunk Injury to Apple Trees

LATE fall and early winter injury seems to take place because of late maturity in the cells of the bark and wood, while later injury seems to follow growth activity in the cells of the bark which has been induced by the heat absorption of the trunk.

It may be illuminating in this connection to note briefly some of the differences found by Mix in New York between the temperature of the southwest and northeast sides of a large apple tree. In one instance on January 30 with an air temperature of 20° F. the temperature under the bark on the northeast side of the tree was 18°, and on the southwest 40°; February 20, air temperature 43°, northeast side of the tree 32°, southwest side 71°. The temperature readings, as would be expected, were more uniform on some days than these figures would indicate. In line with these readings is the record of the temperature drop in the bark of a small tree four inches in diameter. At 2 P. M. the thermometer in the bark on the northeast side stood about 26° F. and at 6 P. M.—30 minutes after sundown—the reading was slightly below zero. Other instances from these experiments might be given but these, chosen especially to illustrate extremes, will indicate something of the temperature ranges to be dealt with under orchard conditions.

Contrasts in Trunk Color

Another feature of these studies is interesting in view of recommendations sometimes made in overcoming this type of injury. When contrasts in trunk color were set up in order to study further the relation between color and heat absorption, some significant things were brought out which check well with practical experience. When tar was put on a large trunk to make it still darker in color than the natural bark, the temperature of the bark on the southwest side rose to 92° F. on February 20, while the northeast side registered only 35° F.

In contrast to the above, another tree with the trunk white washed a temperature of only 43° F. on the southwest side and 31° F. on the northeast side. The air temperature at the time was 43° F., which would indicate that the trunk of these trees had been cooled down by previous cold weather and had not as yet warmed up. It will be readily seen that even in February a temperature of 92° F. would be favorable for growth. The point of special interest in these records is that as soon as the sun goes down the temperature of the trunks induced by the absorbed heat from the sun's rays drop down quickly to near the temperature of the air, which in many cases may be well below the killing point of the cells stimulated to active growth by the higher temperature periods.

Some Methods Employed to Retard Injury

This difference between the amount of heat absorbed by a white surface and a black one is not new. Benjamin Franklin demonstrated the difference long ago by placing a white cloth and a black one side by side on the snow. The black one "melted in" the snow, while the white one did not. It is evident from the foregoing discussion that mounding in the fall to a distance of six or eight inches above the ground line is advisable. Wrapping with light colored paper or other materials should be practiced on young trees, or any tree where the trunk is exposed to the sun. Whitewashing has long been in practice but, unfortunately, this generally has to be renewed during the winter. White paint may be used but will be more expensive. Trunk maturity will, of course, be an important item in the late fall or early winter injury. As will be readily recognized, cultural variables such as sod, cover crops, or late cultivations, or the latter with nitrate applications will induce noticeable differences in the time growth ceases. None of them, however, alters the fact that the wood and bark at the base of the trunk in the apple mature late, or once mature, can be induced to grow again by high temperatures whether from the air or from heat absorption during the winter months—*From Illinois Horticulture, October, 1934.*

EXPERIMENT STATION REPORT AVAILABLE

"OUR Changing Agriculture Served By Science" is the title of the report of the director of the Wisconsin Experiment Station just off the press. It is a very interesting report telling of the results of research work along different lines of agriculture including garden, orchard and cash crops, plant diseases and insect pests.

The articles on studies in nutrition are also very interesting.

It may be obtained free by writing the Agricultural Experiment Station, Madison, Wisconsin.

IMPROVING QUALITY OF KIEFFER PEARS

Kieffer pears will develop good quality in texture if ripened for a period of two weeks after picking at a temperature of between 60 to 65 degrees F, according to work done by the U. S. Department of Agriculture. At this temperature the pears soften and the quality is good for canning and preserves. The trouble with the plan is that there is spoiling in the Kieffer pears during the process.

It wouldn't hurt any if the colleges would work their way through some of the students.

In The Orchard

THE APPLE OUTLOOK FOR 1935

WITH average weather conditions, and average care of orchards, production of apples during the next 5 years probably will be equal to and may exceed the somewhat lower-than-average production of the last 5 years. However, because of recent excessive damage from drought and cold weather, and continued heavy deterioration and removal of farm and generally unprofitable commercial orchards, accompanied by very little planting of trees during the last 5 years, moderate replacements and plantings will be necessary to maintain the present volume of production 10 to 15 years from now.

Indications are that exporters of apples from the United States may expect increased competition in foreign markets, since foreign countries are working toward increased production and improved quality of apples.

Keen competition from fruits that compete with apples, especially citrus fruits, is expected to continue.

Dead and Damaged Trees

A preliminary report on winter damage to fruit trees issued by the New York State Department shows 1,458,000 apple trees killed, and 2,335,000 additional trees injured in New York during the winter of 1933–34. About 22 per cent of the dead trees, and 17 per cent of the injured trees were reported to have passed their period of economic usefulness before December, 1933. Winter killing and injury were relatively greater in farm orchards than in commercial orchards. Trees of bearing age were most severely affected.

Reduction in the total bearing surface was greatest for Baldwins, although Greenings suffered severely. The McIntosh, naturally hardy, with very few old trees came through the winter remarkably well, as did trees of the Wealthy and Duchess varieties.

Although no measure is available of apple-tree plantings during the last 5 years, it is apparent that they have not been sufficient to maintain the number of trees reported in 1930, and probably not sufficient to maintain the number now in orchards. Low prices for apples and lack of funds during the depression years have undoubtedly resulted in unusually light plantings, but during the present year a few indications of renewed interest in apple growing have been apparent. Instances of increased demand for good orchard land have been reported. Demand for nursery stock has increased somewhat over that of the last 2 years, when sales were very low.—*From the Report of the U. S. Bureau of Agricultural Economics.*

THE CHERRY OUTLOOK FOR 1935

THE numbers of cherry trees now in orchards, and their condition and age, are sufficient to maintain the upward trend in production, that has been in evidence during the last few years, for at least another 5 years. Although tree losses were heavy in some of the Northeastern States during the past winter and may check the trend to some extent, there is still sufficient acreage upon which the production is increasing at a rapid rate to produce burdensome surpluses in years of normal growing conditions.

Production of sour cherries is now so large that in years of average or better-than-average conditions production exceeds the quantity that can be marketed profitably.

In 1930 there were about 6,034,000 cherry trees in the seven important states; 36 per cent were not of bearing age, and 64 per cent were bearing. In New York the cold weather of the winter of 1933–34 killed about 7 per cent of the bearing sour-cherry trees and over 3 per cent of the nonbearing trees. Almost 18 per cent of the bearing trees and 13 per cent of the nonbearing trees were injured. Neglect of trees during the last 3 years, combined with drought and winter damage in Wisconsin, probably resulted in sufficient injury to check the advancing potential production somewhat despite the probable increase in acreage due to new trees coming into bearing.

Michigan, now the largest cherry-producing state in the country, had about 1,910,000 trees in commercial orchards on January 1, 1931. Plantings since 1930 have been negligible. Under present low-price conditions no extensive plantings are contemplated and some neglect has been reported. Total potential cherry production in Michigan increased about 26 per cent, during the period 1929–34, as a result of previous heavy plantings. This upward trend is expected to continue chiefly as a result of increased bearing capacity because of the increase in the average age of bearing trees. The greater portion of the cherry orchards in New York are relatively young, and are mostly well cared for. In Washington new plantings of sour cherries scarcely equal the removals.—*From The U. S. Bureau of Agricultural Economics.*

RABBIT REPELLENTS

In case of a heavy snowfall this winter, rabbit injury becomes a serious problem. A number of rabbit repellents have been tried out and found satisfactory. In the small orchard, especially on small trees, wrapping the trunks with strong paper will be found satisfactory as a protection against rabbits, but not for mice. More information will be given in our next issue.

THE STRAWBERRY OUTLOOK FOR 1935

PRELIMINARY estimates indicate that the 1935 commercial strawberry acreage for picking will be about 167,100 acres, or 15 per cent below the acreage of 1934, which was only slightly below those of 1934 in all marketing groups of states, except the western group, where an increase of about 10 per cent is expected. Of the acreage for picking in 1935, it is estimated that about 57 per cent will be new beds, 30 per cent second-year beds, and the remaining 13 per cent chiefly third-year beds. Roughly this is the same proportion as the age distribution of the acreage picked in 1934. The average condition of all beds about October 1, 1934 was reported to be 71 per cent of normal, compared with 73 per cent a year earlier.

In the Eastern late States (Indiana, Iowa, Michigan, New York, Ohio, Pennsylvania, and Wisconsin) the estimated acreage for picking in 1935 is about 4 per cent smaller than the large acreage of 1934. It is estimated that 49 per cent will be first-year beds, 41 per cent second-year beds, and 10 per cent older beds. The October condition of all beds was 73 per cent of normal. Condition of all beds in October, 1933 was 70 per cent of normal. The average price paid to growers in 1934 was approximately 28 per cent above the 1933 average but was 32 per cent under the 5-year average, 1928–32.—*From The U. S. Bureau of Agricultural Economics.*

BOOKS FOR FRUIT GROWERS

A PARTIAL list of the many books on Horticulture are available from the Free Traveling Library, State Capitol Office Building, Madison.

These books may be borrowed for a period of three weeks, only the return postage need be paid. The library has many other horticultural books. If you do not find what you want listed here, ask for a book on the topic you want.

Fruits and Fruit Growing—General

Orchard and small fruit culture. Auchter, E. C. and Knapp, H. B.

American fruits; their propagation, cultivation, harvesting and distribution. Fraser, Samuel.

Orcharding. Gardner, V. R., and others.

Orchard management. Gourley, J. H.

Productive small fruit culture. Sears, F. C.

Bush fruit production. Van Meter, R. A.

Dwarf fruit trees; their propagation pruning, and general management, adapted to the United States and Canada. Waugh, F. A.

Specific Fruits

The apple-tree. Bailey, L. H.

Strawberry-growing. Fletcher, S. W.

The strawberry; containing practical directions for the propagation, culture, harvesting and marketing of strawberries for profit. Fraser, Samuel.

Muskmelon production. Lloyd, J. W.

Melon culture. Troop, James.

The pear and its culture; designed for both the amateur and the commercial growers. Turkey, H. B.

Big-Hearted

"I understand you've got your divorce, Mandy. Did you get any alimony from your husband?"

"No, Mrs. Jones, but he done give me a first-class reference."

Pest Control Problems . . .

are less troublesome to growers who follow the counsel of their local Station, and General Chemical Company's advice on the use of

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Horticultural News

A. F. Yeager
North Dakota

Mr. E. C. Hilborn of the Northwest Nursery reports that they have found it much safer to store and ship trees where the roots are dipped in a thick soupy mixture of mud and water. This coating prevents drying out.

According to Mr. Leslie of the Morden Experiment Station, the cause for our birch trees dying these last few years is not primarily the dry weather, but is due to birch borers. Their presence is indicated by lumps under the bark.

Some of the most promising looking plant materials observed at Morden were Madam Anthony Waterer rose, Rosa nitida, striking because of its small bright colored leaves. A small shrub in the rock garden which took the eye was Evonymus nana. Enchantress and Illumination clarkia were very striking. Leon Gambetta lilac is rated at Morden as a winner. As usual the red berried Cotoneaster integerrima attracted much attention. In fact, as usual I returned from Morden almost overwhelmed with the great abundance of varieties of plants they have under test at that station. Any North Dakotan who gets to the north end of the Red River Valley in the summer time should certainly travel just across the border to Morden.

The Minnesota Fruit Breeding Farm had 5,800 apple seedlings in bearing from which to make selection in 1933.

The Wisconsin Experiment Station indicates that winter hardiness of a plant is somewhat dependent upon a high supply of carbohydrates in the tissues, namely, sugar and starch. This may be the reason why apple trees are more subject to winter killing after producing a heavy crop since under those conditions carbohydrates should be scarce because they had been used up in maturing fruit. Inasmuch as the production of carbohydrates in apple leaves are reduced under conditions of moisture shortage, we should expect more winter killing of trees following a dry season.

In an experiment with skinned potatoes, Peacock, Wright and Whiteman report that shrinkage losses are reduced by storing the potatoes at 60 degrees Fahrenheit, until about the end of the rest period, then gradually reducing it sufficiently to prevent sprouting. Storage at 40 degrees and below prevented normal wound periderm formation, and the skinned area formed a dark brown or black scab. Forty degrees and below storage for the whole season decreased the quality of table stock and reduced the yield from the seed potatoes.

The U. S. D. A. in a series of experiments has found that when onions are stored at 32, 40, and 50 degrees Fahrenheit, the amount of sprouting increased with the higher temperature, but was not affected by changes in moisture.

A bulletin from the New York Experiment Station, Ithaca, reports that a study of the roots on an old apple tree shows that about 60 per cent of the apple roots are found in the surface 16 inches of soil. This again emphasized the importance of having the surface covered during the winter time with some mulch, either artificial or else natural in the form of snow.—*From October North and South Dakota Horticulture.*

Soporific Porter

Hotel Proprietor: "Do you want the porter to call you?"

Guest: "No thanks. I awaken every morning at seven,"

Proprietor: "Then would you mind calling the porter?"

REPOTTING HOUSE PLANTS FOR UNHEALTHY ROOTS

WHEN a plant has to be repotted because the soil has become water-logged and the roots, as a consequence, unhealthy, the best method is to take the plant from the pot, shaking as much soil as possible from the roots and washing off the remainder either by swishing the roots up and down in a pail of water or by allowing water from the faucet to run over them. When the roots are clean, look them over carefully and cut off with a sharp knife any that are decayed. Set the plant in a pot just large enough to accommodate the roots without overcrowding them. The soil used for repotting these sickly plants should not be rich. Use garden soil and sand, half and half. Spread the roots as much as possible, place the soil between them, and make firm with the fingers. When healthy roots are formed, give supplemental feedings or repot in a large pot using the rich soil mixture previously advised.

No definite rule can be laid down as to when plants should be repotted. If they are making vigorous growth the work may be done at almost any time, but, as a general rule, repotting is done to the best advantage just before the plants begin their new growth, usually in January or February.—*From Leaflet of the Brooklyn Botanic Garden.*

COPPER VASES FAVORABLE FOR CUT FLOWERS

If cut flowers are placed in copper vases, according to the Scientific American, they remain fresh from one to three days longer. The recommendation is made by the New York College of Agriculture. Poinsettias lasted 16 days in the copper container compared to 8 days in tin. The reason is, some copper dissolves in the water, hindering the growth of the bacteria which cause flowers to wilt. Roses, snapdragons, stocks, delphiniums and carnations will all keep longer according to the item.

Seedling Apple and Nut Show

SOME very nice samples of seedling apples were exhibited at our show again this year. In size, the show was not as large as it has been in the past, when as high as 135 samples of seedlings were shown, still there were 40 seedlings shown.

The Prize Winners

The following won prizes in the new seedling class.

1st, Dr. S. R. Boyce, Madison
2nd, Edwin Boschert, Burlington
3rd, Geo. Mahn, Caledonia
4th, Dawson Bros., Franksville
5th, Mrs. Glen Fowell, Richland Center
6th, Geo. Mahn, Caledonia

Grand Champion Seedlings

This year we requested all prize winners in the seedling classes during the past four years to again show their seedlings. Seven samples were shown. The prizes were awarded as follows:

1st, Edward Boschert, Burlington
2nd, Ole Clementson, Menomonie
3rd, Adolph Schroeder, Warrens

New Apple Varieties

Haralson

1st, Virgil Fieldhouse, Dodgeville
2nd, Ralph Irwin, Lancaster

Milton

1st, A. K. Bassett, Baraboo

The judges were Prof. J. G. Moore and Prof. R. H. Roberts, Madison, and Mr. R. L Marken, Kenosha.

WONDERFUL SEEDLING NUTS EXHIBITED AT CONVENTION

THE seedling nut exhibit held in connection with the annual convention of the Horticultural Society at Racine, November 8–9, brought out the largest number and the best samples of hickory nuts, black walnuts and butternuts ever seen in Wisconsin.

There were 88 samples of hickory nuts, 31 samples of black walnuts, and 25 of butternuts exhibited in the seedling class. Prof. J. A. Neilson, nut specialist of Michigan State College and Mr. Peter Swartz of Waukesha were the judges.

Prof. Neilson made the statement that a number of the winning samples of nuts at this show were superior to many of the named varieties which have been introduced by nut nurserymen in past years. The prize winners were as follows:

Hickory

1st, Mrs. Louis Mischler, R. 4, Kaukauna
2nd, Mrs. Frieda Wadel, Mindoro
3rd, Clarence Gade, Pickett
4th, Nick Klem, 1443 Grand Ave., Racine
5th, Frank Warme, Mauston

Walnuts

1st, Fred Kettler, Platteville
2nd, Swartz Bros., Waukesha, R. 4
3rd, Swartz Bros., Waukesha, R. 4
4th, Joe Berghamer, % Theo. Dehlman, Rio
5th, Bertha Shimfa, Boscobel, R. 4

Butternuts

1st, L. K. Irvine, Menomonie
2nd, L. K. Irvine, Menomonie
3rd, L. K. Irvine, Menomonie ($5)
4th, Edwin F. Peters, Clintonville, R. 1
5th, Harold Leisch, Wittenberg, R. 2

Sweet Chestnut

1st, L. K. Irvine, Menomonie

Good Demand for High Quality Nuts and Nut Meats

Prof. J. A. Neilson stated in regard to the sale of hardy nuts that there was a good demand for the better types or seedlings of good quality, those with thin shells and plenty of meat such as the prize winning samples had. However, there are so many nuts of poor quality scattered throughout the country that the demand is not good for inferior kinds.

Miss Amelia Riehl of Godfrey, Illinois, large nut grower operating a nut nursery, states: "We crack our nuts with a hand cracker sold by the J. W. Hershey Company, Downingtown, Pennsylvania, and sell the kernels to a local grocer. The R. E. Funsten Company, 1521 Morgan St., St. Louis, Missouri, buys walnuts in the shell. Cuneo Brothers, 97 South Water Market, Chicago, might also be interested.

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Books For Gardeners

Available From Free Traveling Library

WE ARE listing this month a few books on garden subjects available from the Free Traveling Library, State Capitol Office Building, Madison. The books are loaned for a period of three weeks, only the return postage need be paid.

Miss Jennie T. Schrage, Chief of the Library, has sent us a list of 43 typewritten pages of horticultural books available from the library. We are sorry we can't publish the entire list but will from month to month publish parts of the list, in the hope that our members may find names of books they will wish to read or have reviewed at their garden club meetings.

We are publishing only the names of a few of the latest books which we think will be of most interest. If other books are wanted write the library for information.

Flower Gardening—Inspirational

The gardener's year. Capek, Karel.
The gardener's friend, and other pests. Chappell, G. S. and Hunt, Ridgely.
Cure it with a garden. Robbins, L. H.
The gardener's bed-book; short and long pieces to be read in bed by those who love husbandry and the green growing things of earth. Wright, R. L.
A small house and a large garden, being a journal of the same with notes. Wright, R. L.

Practical

Gardeners' handbook; successor to The Gardener. Bailey, L. H.
The garden lover. Bailey, L. H.
Flower growing. Barron, Leonard.
The little garden for litte money. Brewster, K. L.
Garden guide; the amateur gardeners' handbook. De La Mare, A. T. ed.
1001 garden questions answered. Hottes, A. C.
The beginner's garden. King, Mrs. L. (Y.)
The flower garden day by day. King, Mrs. L. (Y.)
Variety in the little garden. King, Mrs. L. (Y.)
Informal gardens; the naturalistic style. Ortloff, H. S.
City and suburban gardening. Sherlock, C. C.
The gardener's how book. Sherlock, C. C.
Home flower-growing. Volz, E. C.

Perennials and Annuals

The book of perennials. Hottes, A. C.
A little book of annuals. Hottes, A. C.
Hardy perennials. Wilson, E. H. and Wilson, R. T.

Bulb Gardening

Bulb gardening. Hampden, Mary.
Hardy bulbs for amateurs. Jacob, Joseph.
Bulb gardening. Macself, A. J.
Spring flowering bulbs; hardy and desirable materials for use in the home garden. Thayer, C. L.
Bulbs that bloom in the spring. Weston, T. A.

Specific Flowers

Better sweet peas. Ball, G. J.
The gladiolus and its culture; how to propagate, grow and handle gladioli outdoors and under glass. Beal, A. C.
Water-lilies and how to grow them; with chapters on the proper making of ponds and the use of accessory plants. Conard, H. S. and Hus, Henri.
Lilies and their culture in North America. Craig, W. N.
Peonies in the little garden. Harding, Mrs. A. (H.)
The chrysanthemum; its culture for professional growers and amateurs. Herrington, Arthur.
Daffodils. Jacob, Joseph.
Iris in the little garden. McKinney, Mrs. E. P.
The gladiolus book. McLean, F. T. and others.
Delphiniums; their history and cultivation. Phillips, G. A.
Chrysanthemums and how to grow them; as garden plants for outdoor bloom and for cut flowers under glass. Powell, I. L.
Dahlias. Rockwell, F. F.
A little book of modern dahlia culture. Waite, W. H.
The chrysanthemum and its culture. White, E. A.
The iris; a treatise on the history, development and culture of the iris for the amateur gardener. Wister, J. C.
Lilac culture. Wister, J. C.

(To be continued)

"That's what I call tough luck."

"What's that?"

"I've got a check for forty dollars, and the only man in town that can identify me is the one I owe fifty."

WILD TAME FLOWERS

RUTH HODGSON
Waukesha

IT IS surprising how one can beautify a home, especially a country home, by scattering flower seeds in odd corners.

We own an old mill property. It is bounded on one side by a large mill pond. On the dam we scattered many different flower seeds, but Poppies were all that did well here. Some of the seeds came up and their red, white, pink, and purple heads made the dam much more attractive, and now they self-seed annually.

Below the dam we threw handsfull of Zinnia, Aster, and Larkspur seed. Many did not germinate. Some did.

We made beds against some stone piers that had supported a rock crusher, and planted Hollyhocks in them. We made other beds in odd places and planted more Hollyhocks.

We planted iris here and there wherever the soil was suitable. One clump of pale yellow was particularly beautiful.

It seems strange that plants grown from the seeds of cultivated flowers do not look out of place when growing wild, as some might suppose. These flowers seem to partly return to their natural state. They get a little smaller, and, from year to year, almost become wild flowers.

To come unexpectedly upon a little clump of gone wild Larkspur or Delphinium in the long grass gives one the pleasure one would get from meeting an old friend in a new setting.

NATIONAL ROCK GARDEN SHOW

The newly organized American Rock Garden Society announces the first National Rock Garden Show to be held in Cincinnati, Ohio, May 16–17–18, 1935.

The premium schedule will be available about January 1, and may be obtained from the Schedule Committee, Mr. J. J. Grullemans, Mentor, Ohio, Chairman.

Simplicity In Home Grounds Beautification

F. A. Aust

THERE is an ever increasing interest in home grounds beautification. This is not only true of the urban and sub-urban home but also the farm home. The farmer is particularly interested in the practical aspects of it. He has seen it clearly demonstrated that beauty in the home grounds pays. It increases the loan value of the farm. It affects the moral risk. It is a big factor in the personal equation when one wishes to secure a loan. All these factors are part of the reasons why home grounds beautification is becoming of such great interest to every county in the State.

The problem becomes simple if the determining factors in the location of the trees, shrubs, and flowers, and the direction and the lines of the drives and the walks are thoroughly understood. The sole purpose of a design is to bring order to feelings and thoughts. In arriving at the home entrance or arriving at the barnyard, one should feel that there is no question about where it is located. The very form of the driveway should draw you to the central theme of the home.

Foundation Planting

Foundation planting becomes simple when one realizes that shrubs are not planted at the foundation simply to give succession of bloom and color throughout the season. The purpose of foundation planting is to soften the harsh angles and make the home seem a part of the grounds and consequently seem more home-like, more permanent as if it really belonged.

The greatest obstacle to home grounds beautification is not money. It is often thought that it is too complicated, to difficult a problem. Simplicity is the keynote of all beauty. It is much safer to err on the side of not having enough trees, shrubs, flowers on the home grounds than to have too many; but some trees, shrubs, and flowers are always essential. An approach to the farm home which leads the eye to the home itself instead of the barn is essential. A driveway which provides a turnaround for the guest auto is still needed on many farm home grounds.

The first objective is to achieve order, and while achieving order, always hoping for beauty. Order, beauty, and homeliness are the objectives which the Department of Horticulture is striving for in its landscape extension program in the various counties of the State.

(Synopsis of talk given at our annual convention)

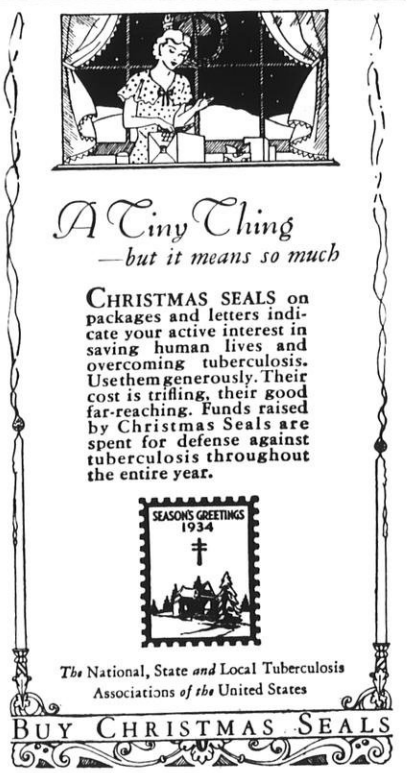
GROWING BULBS IN MOSS OR FIBRE

MANY persons who try growing bulbs in fibre or moss have trouble with them. In not a few cases, complete failure has been reported. The explanation usually is found in failure to use water properly. Either the bulbs are allowed to dry out or else they are drowned out. If too much water is given so that the fibre or moss is kept wet, the chances are that the bulbs will commence to rot. If, on the other hand, the material is allowed to dry out so that the bulbs themselves become thoroughly dry, root growth will stop and the tops will probably die. It is necessary to keep the proper balance. The moss or fibre must always be moist but not wringing wet.

When starting a bowl of bulbs to be grown in fibre or moss, it it a good plan to give this material a thorough wetting by placing it in a pail or pan and leaving it until it is completely saturated. Then, however, as much of this water as possible should be squeezed out.

When the fibre is placed in the bowls, which may be as ornamental as desired, it should be firmed with the fingers. Amateurs are inclined to leave it in a loose condition, which is a mistake. The best fibre is mixed with broken oyster shells. If moss is used, some broken shells or a little sand may be mixed with it. In any event, a half inch of broken pots or of pebbles mixed with charcoal should be used in the bottom of the bowl under the fibre or moss to hold whatever surplus moisture there may be.

Hyacinth bulbs should be planted so that the crowns come almost flush with the surface. Narcissi and other daffodils should have a little of the bulb projecting, while Duc Van Thol tulips should be just under the surface. Paper-white narcissi grow very quickly, and it is only necessary to keep the bowls in a somewhat shaded, cool place for a few days. The other bulbs should be set away in a cellar or ventilated closet or a darkened room for several weeks until a mass of roots runs all through the fibre or moss. Unless this is done there is very little likelihood of getting good blooms.—*From Oct. 1 Horticulture.*



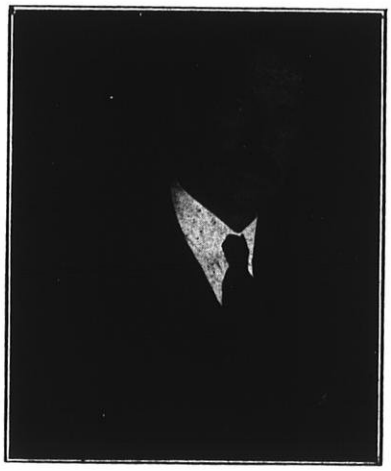
NEW OFFICERS ELECTED AT CONVENTION

MR. M. S. Kellogg of Janesville was elected president of the Wisconsin Horticultural Society at our 66th annual convention at Racine, while Mr. Karl Reynolds, Sturgeon Bay was elected vice-president.

Mr. Kellogg has been vice-president of the Society for the past two years. He is a well known nurseryman whose father was in the nursery business in Janesville before him.

Mr. Karl Reynolds is with the Reynolds Preserving Company of Sturgeon Bay, owners of the second largest orchard of cherries and apples in that section.

On the Board of Directors were elected Mr. Sidney Telfer, fruit grower of Door County, Mr. R. L. Marken of Kenosha, fruit and vegetable grower, and Mr. William Leonard of Fort Atkinson, president of the Jefferson County Fruit Growers Association, and former president and present vice-president of the Fort Atkinson Garden Club.



James Livingstone, President and Vice-president of the Society for the past four years. He has our sincere appreciation and esteem of our members.

66TH ANNUAL CONVENTION LARGEST EVER HELD

OUR 66th annual convention held in the Hotel Racine, Racine, November 8–9 was the largest in the history of the Society. A careful estimate based on the registrations and attendance at sessions leads us to think that well over 400 people attended the joint meetings of the Society and State Garden Club Federation.

The crowd was so large that on the first afternoon the garden club program was moved from the Hotel to the Auditorium of the Woman's Club where the auditorium was filled and a number of seats were taken in the balcony.

For the first time we were so unfortunate as to have to turn away people from our banquet. The seating capacity in the dining room of the hotel was 250. We sold this number of tickets and it was then necessary to disappoint about 25 who would like to have come.

All the programs were exceptionally good. Profs. Gardner, Neilson, Marshall and Ricks from the Michigan State College brought very interesting messages to our fruit growers, as did those from our own College namely, Dr. G. W. Keitt, Pathology Department; Prof. C. L. Fluke of the Entomology Department; Prof. J. G. Moore, Prof. R. H. Roberts and Prof. Franz Aust of the Horticulture Department.

We also appreciate the cooperation and help of Prof. C. L. Kuehner of the Horticulture Department, Mr. Hugo Klumb, Rochester, and Chas. Patterson of Burlington for their help in putting up the seedling apple and nut show, and the judges of the seedling nut classes, Prof. J. A. Neilson, Michigan, and Mr. Peter Swartz, Waukesha, and the apple seedling judges, Prof. J. G. Moore, Prof. R. H. Roberts and Mr. R. L. Marken, Kenosha.

The banquet program was very successful. The honorary recognition certificates were presented to the late W. J. Moyle, Union Grove, whose wife received it, Mr. Axel Johnson of Lake Geneva, and Mr. Herman Christensen of Oshkosh. The presentation was made by President James Livingstone.

Splendid talks were given at the banquet by Mrs. Euclid Snow, president of the Garden Club of Illinois, Prof. V. R. Gardner of Michigan, and Mr. Mike Peterson of Williams Bay.

We hope to be able to publish in coming months some of the papers presented at the convention.

FIRST DONATION TO ENDOWMENT FUND

Mr. D. E. Bingham of Sturgeon Bay has the honor of being the first person to donate and open our endowment fund. Mr. Bingham writes: "You may start the endowment fund with my expense account to the annual convention." The amount is $10.00. The Society thanks Mr. Bingham.

Life membership dues which are $10.00 will in the future be placed in the endowment or permanent fund, only the income to be used by the Society.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

OFFICERS

A. E. Wolkow, Hartford, President
Thomas Cashman, De Pere, Vice-president
H. J. Rahmlow, Madison, Cor. Sec.
Arlene Weidenkopf, Recording Secretary
P. O. Box 2020, University Sta., Madison
V. G. Howard, Milwaukee, Treasurer

BOARD MEMBERS

Frank E. Greeler, Neillsville
A. L. Kleeber, Reedsburg

Vol. X | DECEMBER, 1934 | No. 12

What Happened at the Convention

ANNUAL CONVENTION LARGEST IN YEARS

THE 56th annual convention of the Wisconsin State Beekeepers' Association at Green Bay October 30–31 was the largest in ten years, according to those who have attended the sessions regularly. Miss Arlene Weidenkopf our recording secretary estimates that the registrations were over 130.

Even the business meeting the last afternoon brought out over 50 members.

Important Matters Discussed at Business Meeting

The Board of Managers recommended for adoption a number of important matters, all of which were adopted at the annual business meeting.

The first recommendation was that there be some revision in the Badger Brand honey labels. The matter was referred to the Executive Committee. They were asked to investigate the advisability of making favorable changes in the labels.

Continue Affiliation with Horticultural Society

The convention voted unanimously to continue the affiliation of the State Beekeepers' Association with the State Horticultural Society on the same terms as during the past year.

Affiliation with the American Honey Producers League was also voted and the required dues of $12.50 ordered sent.

The Executive Committee was instructed to consider the matter of sending a delegate to the convention of the League.

HONORARY RECOGNITION CERTIFICATE PRESENTED TO C. D. ADAMS

ONE of the highlights of the annual banquet in connection with the Convention was the presentation of the honorary recognition certificate of the Association, to Mr. C. D. Adams, State Apiary inspector. President Seefeldt told of Mr. Adams' work and the presentation was made by Prof. H. F. Wilson who also told of his contacts with Mr. Adams. The members present at the banquet showed their appreciation and respect for Mr. Adams by rising and applauding the presentation.

The certificate which was beautifully embossed in colors read as follows:

The Wisconsin State Beekeepers' Association, recognizing the eminent services of Carl D. Adams for many years of devotion to the improvement of the beekeeping industry and the welfare of Wisconsin honey producers, presents this Testimonial, upon the recommendation of the Executive Committee of the State Beekeepers' Association, and with the approval of the Board of Managers.

In Witness Whereof, it is sealed and signed by the President, Vice-president and Corresponding Secretary of the Association.

Pledge Support to The Honey Institute

The convention voted continued support to the American Honey Institute and appropriated $60 to be sent to the Institute in 1935.

The time and place for holding the next annual convention was left with the Executive Committee. An urgent invitation was received from Wisconsin Rapids and the expression of those present was that this city be given consideration.

Some consideration will also be given by the Executive Committee to the question of the number of beekeepers in the county in which the convention is held, the strength of the organization and its affiliation with the State Association.

Constitution Revised

The Board of Managers recommended the revision of the Constitution of the State Beekeepers' Association and their recommendation was sustained by unanimous vote at the convention. The important changes are: first, a change in the membership of the Executive Committee. The section relating to officers is as follows:

Article III, Section 1. The officers of this association shall be: President, First Vice-president, Recording Secretary, Corresponding Secretary, and Treasurer. *These officers together with two others* to be elected by the Board of Managers from among their number at each meeting of the Board will constitute the Executive Committee.

Affiliated Membership at Reduced Rate

Another important change is the reduction in membership fees for members affiliated through county associations. The article relating to membership reads as follows: The membership of this Association shall consist of two classes. 1. Affiliated members. Affiliated through county or district beekeepers as-

sociations. 2. Individual members. Any person may become an individual member of the Association by paying the sum of $1.00.

Any county or district beekeepers association of the State of Wisconsin may become affiliated with the State Association upon so voting at their annual or any regular meeting, providing state dues of 75¢ be collected from not less than five members. Such dues shall be collected by the Secretary of the affiliated association and sent to the recording secretary of the State Association annually.

Officers Names to Be Published

Article X relates to the notification of elected officers of affiliation and reads as follows:

Section 1. All county and district associations shall annually notify the recording secretary of the State Association of the results of the vote on the question of affiliation with the State Association. The local secretary shall also send a list of the names of all officers of the local association, following the annual meeting and election, for publication in the official magazine of the State Association.

Section 2. State Association dues of 75¢ shall be available only to beekeepers who are members of an affiliated Association having complied with the requirements in Article X, Section 1.

THE CONVENTION PROGRAM

WE ARE unable at this time to publish much detail about the very fine program held in connection with the convention. However, papers from the speakers will be published as they are timely during the coming months.

The program attracted a great many beekeepers who stayed during the entire convention and showed great interest.

The talk on the tax on bees by E. L. Chambers aroused considerable comment. While no official vote was taken, from the discussion it developed that many beekeepers are in favor of continuing the present tax if it will result in adequate funds appropriated by the state for the control and eradication of foulbrood and other state helps for beekeepers. The discussion on foulbrood control by C. D. Adams, the demonstration on selling honey by the American Honey Institute, and Prof. E. C. Alfonsus' talk on Lower Austrian versus Italian Bees and Requeening were all received with enthusiasm by the beekeepers. We hope to publish all of these papers.

The highlights of the convention possibly were the talks by Prof. R. H. Kelty of the Beekeeping Department, Michigan State College, and one of Michigan's leading beekeepers, Mr. James Hilbert of Traverse City, who described in detail, illustrated with samples, how he produced chunk honey. While the method is somewhat complicated, nevertheless many beekeepers were greatly interested. It was felt that here is a new product for which there may be a demand and which may increase the sale of honey in the future.

Prof. H. F. Wilson told the beekeepers a number of important facts on cellar and outdoor wintering requirements, while Kennith Hawkins of the G. B. Lewis Company described beekeeping conditions in other states as he saw them on some of his trips. He stated that with the present short crop of honey it is ridiculous for beekeepers who did get a crop to sell it as cheaply as many are doing.

Short talks of interest to beekeepers were given by A. H. Seefeldt, Geo. Jacobson and H. J. Rahmlow.

FREE ADVERTISING TO MEMBERS

During the coming three months we will accept short ads not to exceed 25 words from beekeeper members of the Wisconsin State Beekeepers' Association advertising honey or supplies which they have for sale.

THE PRICE OF HONEY

A 5 Pound Pail of Honey Should Sell For Not Less Than 60¢

AS A RESULT of discussion by the beekeepers at the annual convention based on facts presented by several speakers as to the honey crop and business conditions, the Wisconsin Beekeepers' Association went on record as favoring a minimum price of not less than 60¢ for a 5-lb. pail of No. 1 honey.

It was voted that all delegates and members should present this matter to their county association urging that the price be put into effect everywhere. A number of beekeepers said they were getting 75¢ for a 5-lb. pail, which was the price recommended by Prof. R. H. Kelty, which he stated many beekeepers were getting in Michigan. One beekeeper stated he is getting 90¢ for a 5-lb. pail of good honey.

By the term *minimum price* is meant that beekeepers should try to get a higher price if possible. In fact, it may be entirely possible to get 75¢ for a 5-lb. pail before the season is over.

We urge all beekeepers to make every effort to acquaint all beekeepers in their community with this action, urging them not to sell for less than 60¢ for a 5-lb. pail of No. 1 honey.

COMB HONEY WANTED: State grades and lowest price delivered. Raymond H. Ericson, Norwalk, Wisconsin.

HONEY FOR SALE

BEEKEEPERS, if you are sold out and can use more honey to supply your trade, write for attractive prices in sixties. The Garre Apiary, Aniwa, Wis.

HONEY WANTED: Comb and extracted; all grades. Send samples and best price delivered Oconomowoc. C. W. Aeppler Company, Oconomowoc, Wisconsin.

We Hear From Michigan

PROF. R. H. Kelty of the Michigan State Beekeepers' Association told those present at the convention a number of important and interesting facts about beekeeping.

Michigan is divided into five districts, each with officers and a hostess. Women are glad to help if given an opportunity, said Prof. Kelty. An effort is made to interest county agriculture agents in our work.

"Beekeepers should interest themselves in politics, for politics means representation so that it will be possible to convince members of the Legislature that what beekeepers want is sound. You can't expect a few men to put up a plea that will convince the Legislature that they should appropriate $25,000 a year for inspection work," said Prof. Kelty.

"I think there is a period of renewed interest right now in beekeeping activities and beekeeping interest. I think an increase in the retail price of honey and better foulbrood control will keep this interest alive.

"The two objectives we are working for are: first, to eliminate foulbrood completely from the state, and I think the only way to get rid of it is to burn. The second is a fair price for honey.

"In our pleas for funds for foulbrood control we raise the point that to our knowledge not a single beekeeper is on the welfare list. If they give beekeepers support they will keep them off the welfare list.

The Price of Honey

"Prices are set by surpluses and often by beekeepers who don't know what the price of honey should be and don't seem to care, nor will they take the time to find out what the price should be. The reason honey is such a dead item in commerce is because there is no margin of profit on it. I wish there wasn't a 5-lb. pail in existence during the next three years. The 5-lb. pail makes the low price on honey — it is a football bought for a song and used for an advertising leader to be sold at low profits.

"During the past two seasons we have built up more of a feeling of fellowship than I have ever seen before. The biggest beekeepers are committed to the policy of trying to stiffen the retail price of honey. If the retail price could be jumped 20% the honey buyer would be inclined to offer more for honey at wholesale in large lots. If you folks will go home and think this thing out, talk to your beekeeping neighbors, try and sell them the idea that honey is worth 75¢ per pail, not 29¢, your organization will be doing something."

HONEY POPULAR WITH FOOD EXPERTS

MRS. Malitta Jensen, Secretary-Treasurer of the American Honey Institute, Madison, in her talk on "Work of the American Honey Institute for Wisconsin Beekeepers" said that requests from Wisconsin homemakers for information on uses of honey far outnumbered those of many other states. She described the plans under way for National Honey Week, told of the National Cooking Contest sponsored by the American Honey Institute at Valdosta, Ga., December 17–20.

Mrs. Jensen was armed with strong evidence that honey is increasing in popularity with food experts, and consequently the use of honey publicity and recipes is increasing as food copy in newspapers, magazines and bulletins. Special attention was called to four bulletins recently issued by the Experiment station at the College of Agriculture, Madison, each of which included a mention of honey and recipes for its use.

Home Cookery Demonstration

The Honey Cookery demonstration arranged through the kindness and courtesy of the Wisconsin Public Service Corporation of Green Bay began at 1:15, with Mrs. Jensen demonstrating the uses of honey, and how to handle it. About 60 persons attended, 28 of whom were beekeepers. Prizes were awarded to the ladies in attendance. We are indebted to the Brown County Beekeepers for honey donated for the demonstration, and for prizes, to the A. I. Root Company of Medina, Ohio, for two sets of 14″ beeswax candles, and to Mr. Walter Dehnelt of Menomonee Falls, Wisconsin, for his generous contribution of honey candy. The honey drizzlers given as prizes were awarded by the State Association. We are indebted to Miss Kathryn Heffernen, Home Service Instructor, for assisting Mrs. Jensen with the demonstration.

NATIONAL MEETING

Valdosta, Georgia

December 17–18–19, 1934

PLANS are being made for one of the largest national beekeepers' meetings held in recent years. This meeting will be held at Valdosta, Georgia, December 17, 18 and 19, and will be sponsored by the Southern Beekeepers Conference, the American Honey Producers League and the American Honey Institute.

Valdosta has wonderful camping facilities, and is on direct routes from the northeast and northwest, as well as from the central United States. For those who wish to spend a week or two in the south during the winter, this meeting should be welcome, because anyone making the trip can go from Valdosta either to New Orleans or into Florida.

Plan now to make this your vacation trip for the year.

Fifty-Fifty

Professor (to mother of Freshman): "Your son has a great thirst for knowledge. Where does he get it?"

Mother: "He gets the knowledge from me and the thirst from his father."

MOISTURE NECESSARY IN BEE CELLAR

F. B. PADDOCK

THE influence of moisture on the wintering of colonies was a very comprehensive demonstration by one cooperator in which three different cellars were used. One was kept exceptionally dry, one was normally moist and one was exceptionally moist by the introduction of water into the cellar.

The results of honey production in 1933 from the colonies of these three different groups indicate that the bees wintered in an exceptionally dry cellar in Woodbury county produced hardly enough honey to make a surplus. The colonies wintered in the average moist cellar did better than those in the dry cellar and the colonies wintered in the wet cellar produced the most honey. In fact, the results were so pronounced that the cooperator hesitated to repeat the work as it meant a sacrifice in the honey crop to winter bees in the exceptionally dry cellar.

It seems evident that as a result of the last two dry winters that bees in cellars have wintered poorly and that under those conditions some artificial device is necessary to get more moisture into the cellar. Those conditions might be naturally corrected in a wet year but it is necessary for the beekeeper to know something about the moisture content of his cellar, the requirements for the same and the necessary corrections that are to be made. This is in line with some observations which have been made indicating that it is possible to have the conditions too dry for the best wintering results with colonies of bees.—*From the 1934 Iowa Report of the State Apiarist.*

THE BOARD OF MANAGERS

THE following delegates representing their county associations took part in the meeting of the Board of Managers at the convention: E. S. Hildemann, representing Shawano County; Wm. Judd, Dane; V. G. Howard, Milwaukee; A. E. Wolkow, Washington; Wm. Saas, Fond du Lac; Thos. Cashman, Brown; Miss Millie Young, Waukesha.

Others present at this meeting were: President A. H. Seefeldt, H. J. Rahmlow, C. D. Adams, C. W. Aeppler, Prof. H. F. Wilson, Miss Arlene Weidenkopf, and one or two others.

ADDITIONAL PROGRAM NOTES

WE WERE very fortunate to have present at our convention program Mr. Frank R. Buchanan of Glendale, California, who operates some 2200 colonies of bees. Mr. Buchanan was formerly of Wisconsin, having been located at Hartford. He described his experiences in leaving Wisconsin and becoming engaged in extensive beekeeping in California. Those present were much interested in learning of his operations in securing a honey crop from the different flora in California. He moves his bees to various locations where they may have the advantage of gathering nectar from orange, beans and other sources.

WINTERING BEES AT MENOMONEE FALLS

WALTER DIEHNELT

WE WINTER all of our bees out-of-doors, packing into light winter cases with about four inches of straw.

We feel that this is the best way of wintering due to the cold and backward springs. We leave this packing on until the weather turns warm. We have had no winter losses whatsoever in the last three years.

There have never been any cases of dysentery due to the fact that bees can get out and have a flight any warm day during the winter.

We feed our bees about the last week of October on a sugar syrup of 2 pounds of sugar and one pound of water.

Most of our colonies are requeened just before the honey flow is over by killing the old queens and allowing the bees to requeen themselves. However, we try to introduce 40 or 50 queens from the South each year to improve the strain of our bees.

We operate 5 yards with from 300 to 350 colonies.

The Crop

The crop in this section was fairly good this year, some yards averaging 200 pounds per colony, and others 100 pounds.

We sell very little honey at retail, as all of our honey is bottled for the wholesale grocers.

Editor's note: The Diehnelt Apiary is located 1½ miles south east of Menomonee Falls on Highway 166. The name is "Honey Acres." Mr. Diehnelt is well known for his fine honey candy.

NEW OFFICERS OF STATE ASSOCIATION

THE annual business meeting resulted in the election of several new officers. Mr. A. E. Wolkow, well known beekeeper of Hartford, Wisconsin, was elected president in place of A. H. Seefeldt, Kewaskum, who has been president for several years, but who felt that he could not continue the office due to pressure of other work. Mr. Seefeldt's work with the Association was greatly appreciated by the members and he was given a vote of thanks at the convention.

Mr. Thomas Cashman, De Pere, president of the Brown County Beekeepers Association, was elected vice-president of the State Association. To Mr. Cashman and his associates in Brown County, especially Mr. Geo. Jacobson of Kaukauna, goes much of the credit for such a successful convention.

Mr. V. G. Howard was reelected treasurer, Miss Arlene Weidenkopf, recording secretary and H. J. Rahmlow, corresponding secretary. Two members of the Board of Managers, A. L. Kleeber of Reedsburg and Frank Greeler of Neillsville were elected to be members of the Executive Committee.

An Endowment Fund Established By the Society

THE constitution of the State Horticultural Society was amended at our annual convention to provide for the formation of an endowment fund in which all life membership dues and any gifts shall be placed, the principal never to be used, but to be invested for the Society. It is hoped that in this way eventually an endowment fund may be accumulated which will take care of important projects along horticultural lines.

A number of horticultural societies in the United States have a large endowment fund, the income of which is used for valuable horticultural work. The amendment to the constitution reads as follows:

A Finance Committee

Article VI, Section 3. At each annual meeting of the Board of Directors the President shall appoint with the approval of the Board, a finance committee to consist of five members, one of whom shall be the treasurer of this committee. The President and Secretary of the Society shall be members of the committee. The Treasurer shall be selected by the committee.

The finance committee shall have supervision over the endowment and binding fund, and shall adopt such rules and forms for management of the same as shall seem necessary.

Prior to the annual meeting of the Society the committee shall meet with the committee Treasurer and examine the condition of the fund and report upon the same to the annual meeting of the Society.

The committee shall advise with and assist its treasurer in making loans and investing the funds in his hands, and shall have authority to direct and enforce the collection of past due loans or other dues to the Society.

No loans shall be made by the treasurer except with the consent and approval of a majority of the committee.

The Endowment Fund

Section 4. There shall be created a special fund to be known as the endowment and binding fund, the principal of which shall never be used for any purpose but shall be invested and loaned by the treasurer of the finance committee under the direction of the finance committee.

The income from said funds may be used or appropriated for such purposes as the Board of Directors shall from time to time designate.

There shall be added to the principal of the fund, such gifts, bequests or moneys as may from time to time be assigned to it, including all dues received for life memberships.

The Treasurer shall be bonded for such amount as the Board of Directors of the Society shall deem necessary.

The Board of Directors and Executive Committee was ordered to have necessary changes made in the Articles of Incorporation of the Society so that this committee can be set up to function properly.

FLORISTS WILL BRIGHTEN HOSPITAL WARDS

A CHRISTMAS tree in every children's hospital ward in North America is the goal of 5,600 American and Canadian members of the Florists' Telegraph Delivery Association. Member florists will provide the Christmas trees together with standards and then in cooperation with other local organizations will deck them out with lights and gay trimmings. This is the second year in which the florists have carried on the Christmas tree project. Last year they gave a touch of holiday joy to thousands of sick children throughout the country.

HOUSE PLANTS NEED LOW TEMPERATURES

IT SEEMS that the farther north one goes in Norway the more extensive is the cultivation of house plants and the more profound the love for plants in the home. The implication to be derived from this statement is that the more rigorous the climate the greater becomes our need for indoor plants to cheer us with their beauty and to remind us that the "good old summer time" will come again.

The extent to which such a garden will be successful depends largely upon the facilities available. If you have sunny windows and do not maintain the temperature of your house at too high a point—68 degrees Fahrenheit is ample—the possibilities for a successful garden are practically unlimited. If you have some means of humidifying the air in the house your health will benefit and the chances of success with any plants you may have will correspondingly increase. If on the other hand, your rooms receive but little sun and a temperature is maintained that ranges from 75 to 85 degrees with a corresponding drop in humidity, you must restrict yourself to the plants that are tough and resistant to such adverse conditions. In this group few of the so-called flowering plants are found, and the gardener must rely largely on such material as Snake Plants, Aspidistra, Dracaena, Palms, and Cacti.

House Plants for Low Temperatures

The Japanese Camellia and the Indian Azalea are plants that thrive under cool conditions. They can stand the temperature when it drops to 40 degrees or even to 35 degrees. If you have a sun porch that is unheated, grow plants such as those and bring them into the house only when you think the temperature on the porch is likely to go below the freezing point. English Ivy, too, will thrive under such conditions and, of course, will survive freezing.—*From Leaflet of the Brooklyn Botanic Garden.*

About the Home and Garden

MRS. C. E. STRONG

THE WINTER MEETING

USUALLY for me at least—the dates for the Garden Club Convention are outlined in red. But not this year—for suddenly they became a most funeral black when I discovered that it would not be possible for me to attend the meeting at Racine.

Judging from what has been told me, the meeting was a success, good crowd, good reports, good exhibits, good speakers, good party,—(You know what the children say makes a good party. Well—men and women are only children grown taller) and they said the banquet was some banquet.

The Racine Club and all those who helped in making this meeting such a success, are to be congratulated. I hope that there will be a whole lot about the Convention in Wisconsin Horticulture, for I am just realizing what other folks miss when they do not go to the meetings.

HAVE YOU REMEMBERED?

TO BRING some woods loam, sand and peat into the basement, so there will be potting soil, also some for the seed planting you may want to do very early in the spring?

To get the cold frame all ready for spring? It is much easier to get this ready now than in the wet rainy time we can expect in March and April.

That some of those perennial seeds you are thinking of planting in the spring will enjoy being tucked away this month in a well drained cold frame, under a layer of sand and peat. They need the action of frost in order to germinate freely, fill the frame with leaves and tack over the top either muslin or burlap in order to prevent the rains

from washing the soil. Lily, phlox, gentian, primroses, columbines, most of the rock plants or Alpines will germinate much more freely if planted in the fall.

That all fall planted perennials and shrubs need mulching, in order to prevent so much of that heaving up process that is so deadly in the early spring. Columbines especially will appreciate the mulch—even the well established plants.

That a bucket or two of unsifted coal ashes placed around your rose bushes may save them from the ravages of mice.

That your Chrysanthemums will appreciate several inches of ground mixed with well rotted manure as a covering. You then cover with litter, leaves or cornstalks as usual—but the new growth that always starts in the fall needs this covering of ground.

Be sure that any Evergreens planted this fall go into the winter well watered. If in a sunny exposure—such as the South side of the house, a thick mulch is beneficial.

That your window boxes will be attractive if you fill them with trailing Junipers or other low growing evergreens. If the soil in the box is kept moist—the evergreens will live and may be transplanted to the garden in the spring.

That you can pot up those lily bulbs that came so late and sink them in the spring cold frame, then they can be planted out in the place you have reserved for them as early as is possible. Use fairly large pots if you have them, placing three in a pot. This makes nicer grouping than single bulbs. Cover the ground with leaves and a few pieces of boards. Use leaf mold sand and peat in potting.

EVERGREENS SHED NEEDLES

EVERGREENS that are turning brown are not dying, says E. L. Chambers, State Entomologist. Every two years evergreen trees go through a period of natural shedding, the start of which is characterized by needles turning brown. By observing the trees carefully it will be seen that new needles are starting. When fall rains occur the trees will again assume their natural color.

Mr. Chambers also warns against exploitation by those who might represent themselves as experts and furnish quack remedies in the form of sprays, thereby cashing in on one of nature's activities.

The newly organized Lake Geneva Town and Country Garden Club is planning a Christmas decoration contest. Premiums will be given for outdoor Christmas decorations on the home grounds. This should make Lake Geneva a most beautiful city during the Christmas season.

The Art of Arranging Bouquets In 1876

IN THE annual report of the Wisconsin State Horticultural Society for the year 1876 we find that Mrs. H. M. Lewis of Madison presented a paper entitled "Hints For Arranging Flowers." A section of this paper was devoted to "The Art of Arranging Bouquets and Baskets."

It is interesting to note how closely Mrs. Lewis' suggestions follow some of the principles being layed down at the present time.

Art of Arranging Bouquets

By Mrs. H. M. Lewis

"Assort your flowers according to size and color, and arrange them mentally. Before beginning, put the whole mind upon the work, and harmonize the colors perfectly, using green to separate the flowers. Do not crowd them; let each flower show its individual beauty, and a fine effect can be produced with but comparatively few flowers. We often see bouquets where fine flowers are used extravagantly, that are not pleasing, because of the crowded appearance. 'The art of arranging bouquets is very simple, if any one possesses a good eye for color, and has some idea of tasteful combination.' Care should be taken to harmonize and blend the colors together, using white, neutral tints and green; nature says plenty of green. Each flower is beautiful in itself, but when you group sun-flowers and roses, pansies and marigolds together, the charm of each blossom is lost. We often see at our agricultural fairs, bouquets of this kind utterly devoid of beauty, that are literally packed with beautiful flowers. We long to see in their places something simple, like a handful of Nasturtiums, Pinks, or a single flower with its buds and leaves. In arranging flowers, avoid stiffness; let the bright fern or fresh fine grass, break forth now and then, and the delicate vine wander about in its pristine beauty."

The most amazing thing of all is that since these principles were being taught as early as 1876, the information does not seem to have reached quite a proportion of our population, inasmuch as we still find bouquets at agricultural fairs similar to those Mrs. Lewis mentions. What then can we do to improve this condition? Obviously we must present these principles to our people with demonstrations, and most especially urge our agricultural fairs to give credit in their premium list to arrangement instead of simply stating "A display of flowers."

BEAUTIFUL SWEET PEAS

MRS. ROY McDONALD
Blue Bird Garden Club, Menomonie

ON THE Roosevelt Highway edging Glacier Park we were forced to stop for the night on a recent western trip. It was only an ordinary tourist camp but with an elevation of seven or eight thousand feet where the nights are quite cold. Upon awakening in the morning a most glorious sight awaited us, a twenty foot planting of sweet peas that really were sweet peas. I never saw anything prettier. They were over six feet high and the flowers were sized accordingly.

I had heard of mountain sweet peas but never realized they were so much better than ours here.

Again on driving about a little mountain town we were enthusiastic over the sweet peas grown there. We couldn't help stopping at one particularly beautiful row. It was the length of the lot and so very luxuriant. The lady invited us to pick a bouquet and my husband who is a six footer had to reach up to get blossoms. The stems were stout and ten or twelve inches long. The folks in this little town claim their success is due to irrigation and cool nights and I'm willing to believe them.

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Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

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H. J. RAHMLOW, Cor. Sec.
WALTER F. MILLER, Treas.
OTTO KAPSCHITZKE, Rec. Sec.
1710 Illinois Ave., Sheboygan

Gigantic Gladiolus Show Planned For 1935

THE 1935 Wisconsin Gladiolus Show will be held in the University Fieldhouse at Madison sometime next August. This action was taken by the Board of Directors of the Wisconsin Gladiolus Society when they met in Madison on Saturday, November 3rd.

The Wisconsin College of Agriculture will cooperate in the undertaking. Dean Chris L. Christensen of the College of Agriculture has appointed a committee consisting of Prof. J. G. Moore of the Horticulture Department, chairman, Prof. H. F. Wilson of the Entomology Department, Prof. R. E. Vaughan, Pathology Dept., and R. H. Rasmussen of the Journalism Department to cooperate in planning the affair.

The University Fieldhouse is probably the largest building to be found in the state for such a purpose. The building is about 210 feet both in length and width, and 90 feet to the ceiling. It is well located because there is a large parking area adjoining the building. In fact, it is a wonderful building for this purpose.

Due to the large accommodations available the Board decided to invite growers in adjoining states to show at the next Gladiolus Show, making it thereby a Wisconsin and mid-West show.

Board members who attended the meeting on November 3rd were: President W. E. Menge, Fond du Lac; Vice-president C. D. Adams, Wauwatosa; Treasurer Walter F. Miller, Sun Prairie; Recording Secretary Otto A. Kapschitzke, Sheboygan; Corresponding Secretary H. J. Rahmlow; Regional Vice-presidents, Geo. Morris, Madison, W. C. Krueger, Oconomowoc, Ben A. Robinson, Kenosha, G. A. Barrer, Cudahy; Directors, C. H. Melk, Milwaukee, W. A. Sisson, Rosendale, W. E. Dresner, Horicon, and Noel Thompson, Madison.

A committee consisting of W. C. Krueger, Oconomowoc, George Morris, Madison, and H. J. Rahmlow, Madison, was appointed to make such revisions in the premium list as may seem necessary.

The show will possibly be held the second or third weekend in August.

Gladiolus Trial and Display Garden to Be Improved

Prof. J. G. Moore of the Horticulture Department attended the meeting for a short time and discussed the possibilities of the Society and College of Agriculture cooperating in another gladiolus trial and display garden. Prof. Moore stated that the College was again willing to cooperate and expressed himself as pleased with the results obtained from the last display garden.

The Board of Directors voted to continue the display garden another year and appropriated a small sum of money to cover the expenses. Growers in various sections of the United States as well as Wisconsin will be asked to donate or loan the better varieties of gladiolus bulbs to be planted in the garden next spring. An effort will be made to time the planting so that the garden will be in bloom during the gladiolus show which will be held within two blocks of the trial garden.

HOW DOES THE SYMPOSIUM WORK?

C. G. YOUNG
Oshkosh

WHEN people ask me, "Which are the best glads?" I usually refer them to the symposiums last published by the Gladiolus Societies. In so doing I feel I am giving the best advice at hand and at the same time, giving them no advice at all. The person so directed will immediately turn to the list and ponder over it in a vain attempt to choose therefrom the number of varieties he or she can grow. Surely this same person will in a short time rebuke me because he failed to pick out of the symposium some spectacular variety he saw at one of the shows.

To the average person pink is pink and white is white. This statement is borne out by an experience of my own this year. The United Press wrote a story to the effect that I have been trying to produce a pure white glad. Since then I have received letters from all over the United States offering me stock of pure white glads these well wishers have been growing for years.

It is also a matter of record that many persons will be influenced somewhat by names in choosing varieties. In looking over the list of whites many would probably prefer, so far as name goes, the variety, Star of Bethlehem, to the variety Solvieg. In this case we believe they would be fortunate in that the former variety although not so beautiful as the latter, does better in the hands of an amateur.

Through all the maze of uncertainty we believe a solution has presented itself. By maintaining the trial garden at Madison we will be enabled to grow

these newer sorts along with the good old standbys. We can then call in the professional and advanced amateurs and ask them to vote on the varieties so grown. This list would certainly be an accurate opinion so far as experts go and could then be published along with the symposium.

Some will advance the argument that this would not be practicable due to the fact the people voting would not be able to observe the varieties under various growing conditions. As rebuttal to this argument we say a voter voting in any other symposium observes the varieties only under his own growing conditions. We could plant these varieties so that all the various colors come into bloom at the same time. We have in our files blooming dates of practically all the newer sorts. Grown at a central point where all are given the same soil and treatment it would be very easy to choose between the varieties.

OFFERS BULBS FOR NEW MEMBERS

I will give catalog value of bulbs equal to one year's dues to anyone in Wisconsin joining the Wisconsin Gladiolus Society. Varieties will be such as: Picardy, Salbach's Orchid, Stuttgardia, Mother Machree, Marmora, Loyalty, Mammoth White in blooming size, and bulblets on Early Dawn, Blue Danube, Miss Greeley, Champlain, Sweetheart, etc.

—C. G. YOUNG,
Oshkosh.

NEW GAILLARDIAS

THE perennial Gaillardia is trying new shades of one-color blossoms in yellow, apricot, orange, and red. Burgundy, the red perennial variety, is rather disappointing, the flowers small in size and rather dingy. The all-yellows are better and may be had in various named varieties, such as Golden Gleam, Tangerine, and the new much-advertised novelty of 1934, called Sun-God. From the descriptions, this is the greatest improvement in Gaillardias so far; it is claimed to bear great golden-yellow blossoms, some four inches in diameter.

Gaillardias come quickly from seed, though, as is often the case with new hybrids, they are rather shy of germination. The annual ones sown in May will flower by July, and the perennial varieties will bloom the first season from seed.—*From Gardeners' Chronicle.*

STATE FLORISTS' ASSOCIATION NEW OFFICERS

THE Wisconsin Upper-Michigan Florists' Association held their annual convention at Milwaukee November 8–9. The following officers were elected for the coming year: President, George Peterson, Escanaba, Michigan; Vice-president, Walter Bauernfeind, Menasha; Secretary, Earl J. Bell, Milwaukee; Treasurer, Eugene Oestreicher, Milwaukee.

New Directors are Jules Boelter, Appleton, and George Rentschler, Madison.

Defeat State License Plan

After having considered for more than a year possible benefits of a license law for florists in Wisconsin, the Association finally voted at the convention against such a plan. The ballots showed 48 opposed to a license bill, and 8 favoring it.

The school for florists was a feature of the convention. Many kinds of arrangements were made, including bride's and bridesmaid's bouquets, colonial bouquets, hospital bouquets, prayer book bouquets, a cuff bouquet, holly wreaths and baskets of flowers.

The artists were Edgar Wareham, Pittsburg, Pennsylvania, Mrs. "Tommy" Bright of Chicago, J. E. Stapleton, Duluth, Gertrude Sommers of Fox's, Inc., and Arnold Preuss of Milwaukee. Special table arrangements were made including a silver anniversary table by Froemming Bros., a bridal table by Chas. Menger, Inc., a Thanksgiving table by Wolf's Majestic Flower Shop, and a Christmas table by G. Holtz & Sons.

Relative Importance

The doctor was examining school children. One youngster was under weight.

"You don't drink milk?"

"Nope."

"Live on a farm and don't drink milk at all?"

"Nope, we ain't hardly got enough for the hogs."

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CONTENTS

Chapter 1, History N. E. G. S.; 2. The Aesthetic Viewpoint Of the Gladiolus; 3. Gladiolus Development; 4. Ideal Gladiolus; 5. Outstanding Varieties; 6. Special Culture; 7. General Culture; 8. Varieties; 9. The Fischer Color Chart, 10. Exhibitions; 11. Home Decorations; 12. Roadside Stands; 13. Future of the Gladiolus; 14. Other Shows; 15. All Over The World; 16. 1935 Introductions.

This book will be sold at book stores for $1.75. Free to members. If you are not a member you may join. Send $1.00 dues which pays for membership for the full year of 1935 with all privileges.

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STATE GARDEN CLUB FEDERATION NEWS

Federation Aims: To stimulate and help garden clubs throughout the state; to develop interest in and broaden the knowledge of gardening; to aid in the protection of trees, plants and birds, and promote civic beautifications.

7TH ANNUAL CONVENTION VERY SUCCESSFUL

THE attendance at our 7th annual convention was beyond all expectation. The attendance at the afternoon session of the first day was so large that it was necessary to move to the Auditorium of the Woman's Building from the Hotel in order to accommodate the visitors.

The joint banquet with the State Horticultural Society was also greatly appreciated by everyone, though unfortunately it was necessary to turn away about 25 people because of lack of room. The dining room would accommodate only 250 persons and when this number of tickets were sold, about 25 people were disappointed at being left out, though some attended the program later.

One of the features of the convention was the flower show which many people stated was well worth the trip alone. It was much larger than anticipated. There were eighteen shadow boxes and dozens of special bouquets. The show is described in another article in this issue.

Mr. J. H. Burdett of Chicago was unable to be present but his place was ably filled by Mr. W. A. Toole, Baraboo, Mr. John Hauser, Bayfield, and Mr. Axel Johnson of Lake Geneva, who spoke on New Varieties of Annuals and Perennials which they had grown. These talks were greatly appreciated by all, as were the talks of Mrs. Joseph Harrington, Riverside, Illinois, on Garden Centers, Mrs. Euclid Snow, president of the Garden Club of Illinois on "How I Grow Iris." Mrs. Snow also gave a splendid talk at the banquet program.

Prof. J. G. Moore, Madison, told of the plans of the University Horticulture Department and Prof. C. J. Chapman of the Soils Department who was unable to come sent a manuscript on fertilizers for the lawn and garden.

The illustrated lecture on flower arrangement with the slides from the National Council of Garden Club Federations, the lecture being read by Mrs. Mabel Johnson Fuller of Riverside, Illinois, was one of the highlights of the convention. There was considerable difference of opinion as to the quality of some of the arrangements shown in the slides, and there was an animated discussion in the very large crowd present throughout the showing of the slides.

The illustrated lecture "Simplicity—the keynote of home grounds beautification," given by Prof. Franz Aust, Madison, was also one of the highlights of the meeting.

The music furnished through the courtesy of the Racine Garden Club, together with their splendid cooperation in helping with the details of the convention, notably in staging shadow boxes and helping with the flower show is greatly appreciated by the Garden Club Federation, and the State Horticultural Society.

FEDERATION ELECTS NEW OFFICERS

MRS. Chas. Jahr, Elkhorn, formerly second vice-president of the Wisconsin Garden Club Federation was elected president at the annual convention. This is a very happy selection because Mrs. Jahr has had two years of experience on the Board and is well qualified for the position.

Mrs. E. R. Durgin of Racine, formerly president of the Racine Garden Club, and one of the active workers in the very successful Racine flower shows was elected first vice-president, while Mrs. Edw. E. Browne, Waupaca, president of the Waupaca Garden Club, who has done such splendid work with the Waupaca Club, was elected second vice-president. The other officers of the Federation were reelected, namely Mrs. D. W. Weart, Oconomowoc, member of the Executive Committee, Mrs. Ralph R. Hibbard, Wauwatosa, recording secretary - treasurer, and H. J. Rahmlow, corresponding secretary.

Mrs. Harry Bullard, past president of the Federation was presented with a floral tribute at the banquet in appreciation for her services as president and vice-president during the past three years.

EXECUTIVE COMMITTEE MEETS DECEMBER 13

The Executive Committee of the Wisconsin Garden Club Federation will meet at Milwaukee on Thursday, December 13. Plans for Federation activities during 1935 will be made. Standing committees will be appointed and district meetings discussed. Chairmen of organized districts will also meet.

PROGRAM SUGGESTIONS

MRS. S. R. ELLIS
Ripon

Stones

MARY LEWIS said, "There is charm in the unevenness of stones, and great fascination in collecting them, one by one." Perhaps every garden club member has a special interest in the use of stone for a particular place in his garden.

A study treating on how stone plays an interesting part in the history of garden art would be of value. Stones form one important characteristic of Chinese gardens. Hills and their native stones are sacred to many Japanese as well as to many Chinese. Study about the monastic gardens and temple gardens in Japan. How have stones been utilized in American gardens? Perhaps you need a more practical program for your particular club with topics on how to build a stone path, bird bath, garden furniture, outdoor fireplace or stone wall.

Study effective Christmas decorations for churches, halls and public buildings. Demonstrate Christmas decorations for the living room and stimulate interest in Christmas decoration and lighting of home exteriors in your community.

PLANT MATERIALS

MRS. L. P. C. SMITH
West Allis

DURING the winter months an appreciation of the wealth of plant material now available for home gardeners and the ways in which it has been made available may be gained by the study of the lives and work of botanists and plant collectors. Choose Linnaeus or Burbank or "Chinese" Wilson but inform yourselves, too, of the work of the army of men and women who are hybridizing, testing and improving in every plant family. There are outstanding workers in every class.

Become acquainted with the work and history of such institutions as The Arnold Aboretum near Boston, The Brooklyn Botanical Gardens or Shaw's Gardens in St. Louis.

The review of such books as "Aristocrats of the Garden" and "More Aristocrats of the Garden" by Wilson will bring before your club a mine of information on choice plants and shrubs. It will make them realize what some of the far places—China, Russia, Korea, Turkestan, etc., have contributed to the beauty of their gardens and it may be a matter of surprise to learn how recent is our use and appreciation of this material.

Last of all *study* your catalogs. After the first glance and the note of new things, settle down and take advantage of the help these catalogs offer you. Whether it is plants or seeds you will find a hint on how and where to plant them. A new lily to your garden may need leaf mold, peat, half-shade or a ground cover for its roots. You won't find it all in one catalog but follow that variety through all the catalogs and you'll be well repaid. Jot down notes. Keep at least one note book but if you are interested in shrubs, bulbs and phlox or annuals keep a note book for each. Some of the things your catalog tells you are —the scientific name, the height, the soil, the requirements of sun or shade, the blooming period, the habit of growth, hardiness or lack of it and always the information as to class; if it is annual, biennial or perennial.

DONATIONS TO SPEAKERS FUND

THE following garden clubs gave $1.00 toward the speakers fund at the convention and future meetings: Baraboo, Blue Beech (Milwaukee), Blue Mound (Wauwatosa), Cambridge and Lake Ripley, Cedarburg, City Club of Milwaukee, Elkhorn, Fond du Lac, Green Bay, Hawthorne (Hales Corners), Home Garden Club of Ripon, Jefferson, Kenosha, North Shore (Milwaukee), Oakfield, Ripon, Ripon Yard & Garden Club, Superior, Wisconsin Rapids.

The following clubs gave $2.00. Fort Atkinson, La Belle (Oconomowoc), Madison, Milwaukee County, Sum-Mer-Del, West Side (Madison).

The following sent $3.00. Sheboygan, West Allis, while $5.00 was received from Hillcrest (West Allis), Milwaukee Art Institute, Oshkosh Garden Club, Wauwatosa.

GARDEN CLUBS IN THE UNITED STATES

THERE are 1,722 garden clubs in the National Council with 84,661 members, according to the November quarterly bulletin of the National Council of State Garden Club Federations. Only 30 states are listed, however, other states not yet having organized state federations, so that there are no doubt a great many more clubs and members in the United States.

The state of New York leads with 174 clubs and 10,735 members. Ohio has 115 clubs and 4,800 members, Pennsylvania 68 clubs with 7,000 members, and Massachusetts 92 clubs with 7,000 members.

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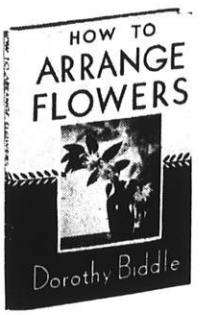

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Report of the Federation Business Meeting

Mrs. R. R. Hibbard

THE annual meeting of the Board of Managers of the Federation convened at 9:45 o'clock, November 9th, at the Hotel Racine, Vice-president Mrs. Chas. Jahr presiding.

Thirty-two clubs responded to roll call.

The minutes of the annual Board of Managers meeting for 1933 were read and approved.

Flower Shows

A discussion was held on the comparative merits of competitive and non-competitive flower shows. The general opinion was that at present shows that were competitive with possibly a non-competitive department would be most satisfactory.

Wisconsin Horticulture was discussed and very favorable comments were made.

Mr. Rahmlow was called in to discuss the state appropriation for the Horticultural Society. He stated that this appropriation began in 1865 and has been changed from time to time. Two years ago the appropriation was reduced 55%, to $4,000. This amount must cover the cost of two salaries, travel and office expenses. Last year the magazine cost $100 a month. This year the new State printing contract will raise this to $170. Two years ago the Society had a reserve fund of $1,500. By the first of next July this reserve will be exhausted. The membership dues and the money from advertising amount to $1,700, but this year the magazine will cost $1,870 as compared to about $1,200 the past two years. The Society is asking this year for a $6,000 appropriation, which is 33% less than formerly received. If necessary, the garden clubs will be asked to cooperate in obtaining this.

The following motions were made and carried:

That the Board recommend for adoption by the annual convention that:

We continue district flower shows rather than a state flower show for the coming year.

No definite boundaries be established at present for garden club districts.

A constitution committee be appointed to revise the constitution, and that this committee make their report at the summer meeting.

A nominating committte consisting of Mrs. B. W. Wells, Mrs. Chas. Schuele and Mrs. R. L. Pulford made the following reports. They recommended for president Mrs. Chas. Jahr, Elkhorn; 1st Vice-president, Mrs. E. R. Durgin, Racine; 2nd Vicepresidtnt, Mrs. Edw. E. Browne, Waupaca, and that the present Secretary-Treasurer, Corresponding Secretary, and the members of the Board at large succeed themselves for one year.

The Annual Business Meeting

The annual business meeting of the Federation convened on November 10th, President Mrs. H. E. Bullard presiding.

The minutes of the annual meeting were read and approved as well as the minutes of the meeting of the Board of Managers.

Reports were read by the President and Recording Secretary. The Treasurer's report showed that there was a balance of $71.73 on November 1 in the general fund, $52.26 in the Speaker's Fund, and $333.61 in the flower show fund.

The recommendations made by the Board of Managers were all adopted at the annual business meeting.

The election of officers resulted in the election of the officers nominated by the nominating committee.

A suggestion was made that the presidents of the garden club districts be invited to attend meetings of the Executive Board.

Resolutions thanking the Hotel Racine, speakers, Association of Commerce, entertainers and the Woman's Club of Racine for their help in making the convention a success were passed.

The meeting then adjourned to the summer meeting.

OSHKOSH SOCIETY HOLDS INFORMAL MEETING

AN INFORMAL meeting of the Oshkosh Horticultural Society was held during October at the Museum, opening at 6:30 with a cafeteria supper. It was decided to invite a member of the Roadside Beautification Committee to tell what has been done to beautify Winnebago County highways.

Three new members were admitted to membership, Mrs. J. W. Schloesser, and Mr. and Mrs. Harvey Meyer. There was an informal discussion on various garden subjects.

The question was asked "how can a new oleander plant be started?" The answer was that a slip be taken from as near the root as possible, placed in the ground and kept well watered. New shoots are best.

The rooms of the Museum were decorated with a profusion of flowers, and at the close of the meeting these bouquets were sold, the money being donated to the society.

The next meeting will be conducted by the men of the organization.

—FLORENCE WINCHESTER,
Secretary.

The High Cost of Language

"Your doctor's out here with a flat tire."

"Diagonose the case as flatulency of the perimeter, and charge him accordingly," ordered the garage man. "That's the way he does."

Flower Show Premium Winners

SOME of the most beautiful arrangements ever shown at a Wisconsin flower show were exhibited in connection with the convention in the Racine Hotel. The following were the premium winners.

Shadow Box Premium Winners

Class 1. A harvest scene, using fruit, with or without other accessories.

1st, Elkhorn Garden Club, Mrs. Robert Alder.

2nd, Racine Garden Club, Mrs. A. M. Schneider.

Class 2. An autumn picture using any horticultural material.

1st, Racine Garden Club, Mrs. W. C. Williamson.

2nd, Elkhorn Garden Club, Mrs. Robert Alder.

3rd, La Belle Garden Club, Oconomowoc, Mrs. Sidney Welch.

Class 3. A picture typifying the cold winter months, using any material.

1st, West Allis Garden Club, Mrs. P. C. Cooper.

2nd, Blue Beech Garden Club, Milwaukee, Mrs. Chester Thomas.

3rd, City Club of Milwaukee, Mrs. J. Taylor.

Class 4. Arrangement of hardy chrysanthemums.

1st, Racine Garden Club, Mrs. Harold Pugh.

2nd, Art Institute Garden Club, Milwaukee, Mrs. Emma Schipper.

3rd, Madison Garden Club, Mrs. Robert Lorig.

The judges selected by the Executive Committee who judged the show were: Mrs. Euclid Snow, Hinsdale, Illinois; Mrs. Mabel Johnson Fuller and Mrs. Joseph Harrington, Riverside, Illinois; Mrs. B. W. Wells, and Mrs. Sam Post, Madison; Mrs. Edw. E. Browne, Waupaca; Mrs. Chester Thomas, Fox Point; and Mrs. Harold Bergman, Milwaukee.

Winners in Artistic Arrangements

Class 5. Appropriate for Thanksgiving.

1st, Art Institute Garden Club, Milwaukee, Mrs. Arthur Janes.

2nd, Wauwatosa Garden Club, Mrs. E. C. Haasch.

3rd, Fort Atkinson Garden Club, Mrs. Theo. Ward.

Class 6. Appropriate for the Christmas season.

1st, Ripon Garden Club, Clare Mears.

2nd, Wauwatosa Garden Club, Mrs. E. C. Haasch.

3rd, Milwaukee Art Institute Garden Club, Mrs. Frederick Neidermeyer.

Class 7. Garden or hardy chrysanthemums.

1st, Milwaukee Art Institute Garden Club, Mrs. Arthur Janes.

2nd, Fort Atkinson Garden Club, Miss Abbie Kyle.

Class 8. Branches with berries, without leaves.

1st, Fort Atkinson Garden Club, Mrs. W. R. Gates.

2nd, Art Institute Garden Club, Milwaukee, Mrs. F. Cushman.

INCREASING INTEREST IN HIGHWAY BEAUTIFICATION

I WAS elated with the reports from nearly every club at the annual convention of the Federation of the progress being made in Wisconsin on roadside beautification and billboards which have been removed, and many which have been prevented from being erected.

There has been considerable action this year and I believe we shall have a good chance of passing a bill before the Legislature to restrict billboards in Wisconsin.

I think the meeting at Racine was wonderful.

On October 24th at 2 p. m. many members of the Milwaukee Art Institute Garden Club met at Highway 100 and Capital Drive and dedicated trees planted as a promotion to roadside beautification. The trees were American Elms eight years old. The project was assigned us by Mr. M. W. Torkelson, Director of Regional Planning in cooperation with our County Park Board. We appreciated this privilege.

Mr. Alfred Boerner, landscape architect of the County Park System gave an instructive talk at this meeting and Miss Gretchen Colnik read several beautiful poems on trees.—MRS. DELPHINE BIEBLER, *Chairman Committee on Conservation and Billboards.*

OSHKOSH HORTICULTURAL SOCIETY MEETING

THE December meeting of the Oshkosh Horticultural Society opened with the regular 6:30 cafeteria supper. After a program of music, the topic "Storing Bulbs and Covering Perennials for Winter" was discussed.

Mr. Everett Turley stated that the first step is to find if the perennials you wish to keep will winter in this climate. Good drainage is essential so that ice will not form about the plants. Marsh hay, he stated, makes the best covering, although straw is also good.

H. C. Christensen stated that there are three types of perennials, the first being of the lily and tulip family, best taken care of by covering with marsh hay; the second are those that die to the ground, which should have a light covering of marsh hay; and the third class those plants whose crown is above the ground. These should not have the tops cut off until spring and should be covered with branches and marsh hay. Pansy and English violet plants, should be first covered with fine branches and then marsh hay.

H. W. Gerdes stated that Dahlia bulbs should be packed closely in boxes and kept covered over winter. They should be dampened occasionally during the winter. Gladiolus bulbs should be treatd with napthalene flakes to prevent thrips. Strawberry plants should be covered before frost.

Mrs. J. H. Davidson spoke briefly on a lovely dahlia garden she saw near Bowling Green, Kentucky.

At the close of the meeting the bouquets of chrysanthemums which had been used to decorate the tables were sold, the money donated to the Society.

—FLORENCE WINCHESTER,
Secretary.

FORT ATKINSON GARDEN CLUB

THE Fort Atkinson Garden Club had the privilege and pleasure of having Prof. Franz Aust and Prof. R. E. Vaughan of Madison conduct some most delightful meetings in our city during August and September.

These gentlemen adapted their talks to our local wants and conditions. In fact, they conducted a sort of local garden clinic, and gave us valuable information, and we want them to know that we appreciate it.

We had afternoon meetings and visited gardens and evening meetings with slides and talks. We also appreciated having Mr. H. J. Rahmlow with us.

We feel that it was a real treat to have these gentlemen with us, and a great help to our club.

—ABBIE KYLE,
Corresponding Secretary.

THE CONVENTION FLOWER SHOW

(Continued from page 76)

of the ship but I voted for this arrangement on originality and suitability.

Christmas Arrangements

Class 6. An arrangement, any type of material appropriate for the Christmas season.

First prize was awarded to a group of three lovely tinselled Christmas trees of varying size placed on the floor near a wall. Streamers led from the tree branches to a lighted star placed against the wall about three feet above the top of the taller trees. Perfect attention to balance, detail and unity were here present.

Second prize was given to a low flat table arrangement of spruce sprays with cones and three soft green candles well and substantially placed for balance. Perfection of material, suitability and simplicity with elegance were outstanding.

Third place went to the tall clear glass vase having a slight rose cast. This contained well chosen sprays of coral berry. The stems were the distinctive feature but unfortunately their lines near the holder were crossed. There was also a feeling of instability where these few stems left the wide mouthed container.

Another exhibit worth mentioning had a green octagonal vase containing pine and silver ornaments. There were green candles in wrought iron holders.

Small pine branches with lovely cones in a burnished brass bowl had one red candle stick in the center which looked too accidental. One wanted to run out and get two burnished brass candle sticks with red candles to place at either side.

Class 7. Artistic Arrangement of Garden or Hardy Chrysanthemums.

Personally, I think this was one of the hardest classes to judge. There were many entries and several of them looked like just one more bouquet of chrysanthemums.

First prize went to the arrangement of yellow mums having bronze centers in a perfectly harmonious oval container of amber glass. Distinction lay in the excellence of the plant material and the symmetry of its arrangement.

The second place was on a taller arrangement of small mums, varied shades of cream to deep rose in a dark pottery vase.

Personally, I liked best the yellow mums in the blue vase having a teakwood standard and the all white mums in a white vase.

Branches and Berries

Class 8. An artistic arrangement of branches with berries without leaves.

There were many entries in this class and judging was difficult.

The winner of first prize scored for its distinction. Bittersweet and a most artistic bare branch of scrub oak in a sturdy bronzey black container that harmonized in color and texture and gave to the whole a substantial unity and balance of line.

Second prize went to a superb arrangement of dull black berried branches of Baptisia in an old Chinese iron container of the same color placed on a teakwood stand. Uniqueness and use of plant material were outstanding. It fell below the first award in distinction of line and design.

Many perfect branches of bittersweet in a copper container won third place for its excellent harmony and simplicity of arrangement.

A pewter vase of rose hips was a rival for third place. However, it was thought that the pewter vase was too delicate of texture for the branches of rose hips.

Class 9. An artistic arrangement of strawflowers.

There were many entries on this table only three of which were strawflowers. Each lacked distinction or individuality. Strawflower stems are stiff when dried and this was taken into consideration but there was also something faulty in the arrangement of each.

The plume grass in the yellow and brown mottled vase deserved honorable mention but was out of place in this class.

I wonder now if the judges had judged this group before they analyzed the beautiful shadow box pictures if they might not have been more favorably impressed. Perhaps this is an example of comparative judgment unconsciously exerting its influence.

The Proper Instrument

"What would you do, Goofus, if you were running a circus and the monkeys got out of their cages?"

"I'd get a monkey wrench and tighten them up."

Grow Lilies of the Valley this Winter

LILIES of the valley are one of the easiest grown and surest bloomers in the house of all plants well adapted for indoor use. The lily of the valley is practically an all-season plant now, although its natural season is early spring. This is due to the development of cold storage, in which the lily of the valley roots or, as they are commercially known, pips, are held dormant until needed.

Lily of the valley roots potted from the garden, allowed to freeze, and then brought into the house, thawed and placed in a window will proceed to send out their spikes of snowy, fragrant bells in short order. The only requisite to be sure of blooms is that a blooming sized pip is planted, the bud being already formed and dormant in the pip. While roots can be dug from the garden for this purpose, it is much easier and more certain to buy the prepared commercial pips, which are sold so cheaply and are so certain to bloom that it is hardly worth while to dig them in the garden. One month from potting to bloom is all that is required in growing cold storage pips. You can order them at any time all winter, as needed.

One of the most artistic methods of growing them is in bowls of moist sphagnum moss. When they are brought from cold storage the preliminary freezing needed for roots dug from the garden is unnecessary. You simply plant them and in the course of about three weeks they are in bloom. About 25 pips in a good sized bowl, say about 7 inches across, will give a beautiful display. Plant them in moss, fiber or soil, keep shaded until well into growth and then bring to the light. They should be stored in a cool place while growth is starting and kept shaded. A pot turned over the bowl will furnish the shade necessary.

They can be grown in soil in an ordinary flower pot most easily of all. Planted in November, they will be in flower by Christmas, putting them out about Thanksgiving time. Cold storage pips should be planted as soon as received and they will start into growth at once. Garden dug roots are slower and must be left out to freeze and brought in as needed. The cold storage pips give larger spikes and larger bells, as they are specially grown for indoor use and are much finer than those dug from the garden. Try half a dozen pots or bowls of lilies of the valley this winter at least. Once you have them they will be permanent additions to your winter decorations.

"Lady's purse left in my car while parked. Owner can have same by paying for this ad. If she will explain to my wife how the purse got there I will pay for the ad myself.

"Phone M-123 League City."

AQUILEGIA FLABELLATA NANA ALBA

TRANSLATED, the title says "dwarf white Siberian Columbine".

Sometimes, I wonder if I repeat myself too much in constantly insisting on the importance of varied foliage, color and texture in the rock garden and perennial border. If so, I hope I may continue to sin for some time to come, for it is foliage that paints the garden picture while the flowers give a brief but changing decoration.

The foliage of this attractive Columbine is its greatest asset, though the milk white flowers are beautiful in their season.

It is adapted to the foreground of the perennial border and its height of eight or ten inches is not too large for most rock gardens. A well-drained, fertile, sandy loam soil and full sun or light shade seems to suit it well. Early June is its flowering time with me. Fresh seed germinates and grows readily.

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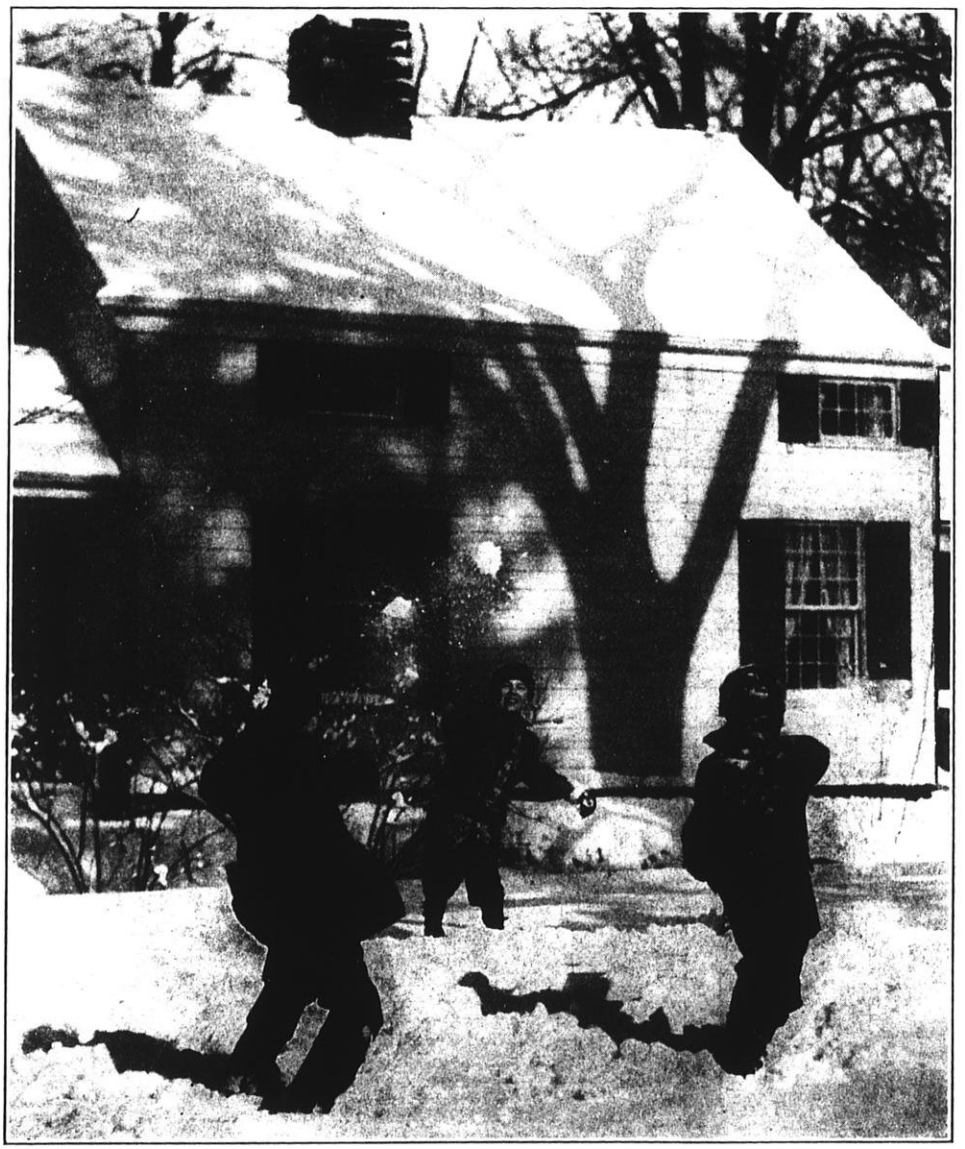

JANUARY, 1935

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Fig. 1 Fig. 2 Fig 3

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The Official Organ of the Wisconsin State Horticultural Society
The Wisconsin Garden Club Federation

Established 1910

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Please Do Not Send Stamps

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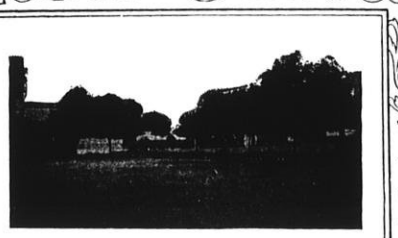
OUR PROGRAM
1. A more beautiful Wisconsin, secured by cooperation with all existing agencies.
2. Improvement of Wisconsin's fruits and ornamentals. Establishment of plant breeding and testing work. An active group of plant and fruit testers within the society.

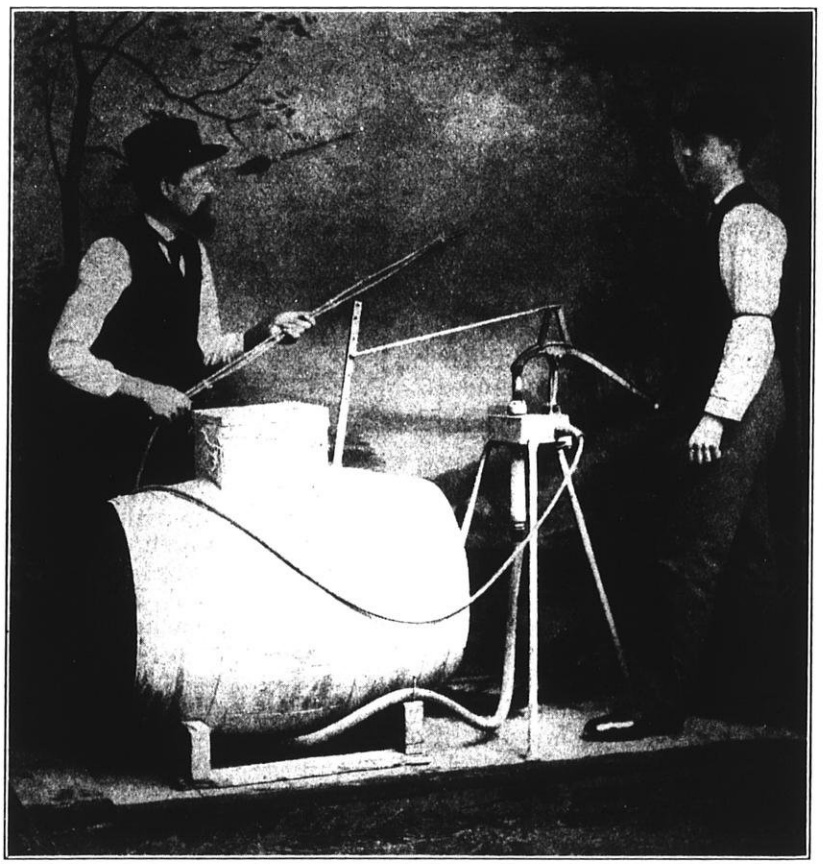


OUR PROGRAM
3. Greater publicity for Wisconsin grown fruits and vegetables.
4. A constantly improving magazine for the distribution of timely horticultural information.
5. Organization of local horticultural clubs in all sections of the state.

Forty Years of Fruit Growing

D. E. Bingham
Sturgeon Bay

IN 1891 I went to work for a leading fruit grower in Richland County. I was not unfamiliar with farming, and fruit growing immediately became fascinating to me. I learned a few of the fundamentals that first season—learned to distinguish as I drove by different trees the differences in varieties and by fall knew accurately 25 or 30 varieties of apples, which pleased my boss. He could send me into the orchard for a basket of White Pigeon, or Canady Peach, or Hallas Winter, or Repka Malinka, or Gideon, with some degree of assurance, a matter of convenience to him and pride to me. Perhaps I was a little more attentive to these finer details of the business than a boy might be on account of the fact that my boss had three daughters, upon one of whom I wished especially to make an impression.



An up-to-date spray rig in 1891.

Early Spraying Methods

This, as I said, was in 1891. That summer I worked the pump handle (first the pump handle on the well, and then the pump handle on the sprayer) for application of the first Bordo spray applied in a commercial orchard in the state of Wisconsin. The formula was 8 pounds of copper sulphate, 12 pounds of fresh stone lime, and 1 pound of London Purple to 50 gallons of water. The spraying equipment consisted of a 50 gallon wood barrel on a stone boat, together with a Nixon tripod pump having a ¾ inch piston. By dint of much exertion about 30 gallons of spray an hour went out through a white rubber hose (¼ inch) which was fastened to a bamboo pole and equipped with a Vermorel nozzle at the end. We could apply 6 barrels of spray in 10 hours of steady work. Sufficient pressure to throw spray to the tops of the trees taxed the strength of the airchamber to such a degree that

when the boss, who wielded the bamboo pole et cetera, called for more pressure, the airchamber burst.

Another detrimental feature of the equipment, to my way of thinking, consisted in the friction developing between my hands and the pump handle; blisters were numerous.

It was in this manner that 25 acres of orchard were sprayed for four years. By that time I was deeply interested in fruit growing.

On to Sturgeon Bay

At seven o'clock in the morning on April 1st, 1895, Mr. A. L. Hatch and myself started for Sturgeon Bay 250 miles away with a horse and buggy—and for five days we jogged along at 50–55 miles per day. Four more beautiful days I've never seen. The fifth day, at 3:30 in the afternoon, we arrived at Sturgeon Bay in a drizzling rain.

I was then to be the local manager for Hatch, Bingham, and Goff Nursery Company. We had 80 acres of wild land bought a year or so before and had 100,000 apple grafts, planted during the two previous years, and 16 acres of European plums—to care for these was my job. The plums were all European varieties except for three Japanese varieties, Abundance, Burbank and Willard.

In addition to the nursery stock and the plums we had one acre of strawberries which was planted the previous spring and was to bear that year, 1895. We found on examination that the plants had been somewhat injured during the winter. We were selling plants and had a few orders, so we ordered some 35,000 or so from Michigan. As was the custom of nurserymen in those days, the plants were tied in bunches of 25 with twine and packed in boxes. They all heated and were spoiled, so we had to dig our own plants anyway and they turned out to be fine. The varieties of strawberries were Warfield, Parker Earle, Bederwood, Haverland, Crescent, Bubach, etc.

Jarring the Curculio

The idea of plum culture seemed to be uppermost in the minds of my two associates. I often heard the remark that the plum curculio had not as yet swum the canal or dared to cross the bridge, but when those plum trees began to bear he was here in abundance. Of course, our method of control then was to jar the tree. Many a morning after bloom, and the plums just setting, did my wife and I get out at 4 o'clock, first spreading a white canvas underneath and then jarring the trees by striking the trunk with a padded mallet. Picking up the bettles from the canvas finished the job. This could be continued until the sun warmed the air so that upon jarring the trees the beetles would fly away instead of falling. About 400 curculio was our usual reward each morning, some trees yielding 25 on the first jarring. We saved several very fine crops of plums in this way. One season we produced 1500 one-fifth bushel baskets of Abundance on 80 trees, but the plum orchard was short lived, severe winters crippling many trees and killing many more.

D. E. Bingham of Sturgeon Bay has been a member of the Wisconsin Horticultural Society for 42 years. We consider him our oldest member. If anyone has been a member for a longer period, we will be glad to hear from him.

Because Mr. Bingham is so well acquainted with Wisconsin's early fruit industry, especially in Door County, he has been asked to write an account of his early experiences. You will find them interesting.

Try Cherries

Our experimental plantings, for trial of different fruits and different varieties, included both sweet and sour cherries; Dyhouse, E. Richmond, Montmorency, Wragg, Morello, and Gov. Wood, Yellow Spanish, Black Tartarian, Baldwin, Black Eagle, May Duke, Late Duke, etc. Of course, we observed any old trees in the territory; they bore fine fruit and bore well, so I suggested the planting of 10 acres of cherries, which was agreed to. In 1896 we planted 3 acres of the 10 and prepared 7 acres for planting in 1897—the land had to be cleared which meant lots of work.

I think it was in 1898 that I ordered from Morrill and Morley of Benton Harbor, Michigan, a barrel pump, with a brass-lined bamboo spray rod, of a capacity for spraying about 10 acres. It was called "Eclipse" and looked and handled rather clumsily compared to the little Nixon tripod we had used. I was told I'd never like the clumsy thing, but I did like it and did a great deal of spraying with it. We were planting more and more each year and soon needed greater spraying capacity, so I got one of the Wallace Traction gear rigs, the rear wheel furnishing the power for the pump when it didn't slide which was most of the time.

Early Cooperation

In 1898 we started a sort of co-operative sales association to handle strawberries, as there were more being grown than could well be sold individually, considering the shipping facilities we had then. Of course, in 1898 the idea of cooperation among farmers was in its infancy—if it isn't yet. While there was progress made, and benefits derived from our little association beyond what could have been accomplished otherwise, its life was marked by the suspicion and detrimental criticism we have observed in like ventures many times since. Shipping 16 quart crates of raspberries across Green Bay to Marinette and Menominee by sail boat for one dollar per crate delivered was not highly remunerative to the growers contributing to the cargo, as each ship-

ment carried its own cost of marketing. One voyage resulted in shipwreck on the return trip, which meant $125 for boat repair. Some other voyages were nearly as expensive, so you see water transportation is not always cheap.

At about this time, four or five years after planting, we began to have some cherries to ship. During the next 10 years it was a struggle to establish markets and to secure the cost of production. As the crops increased in volume the market became farther removed, Minneapolis becoming our principal market. Had it not been for two or three factors we would never have survived that ten years. Our returns were under $1.00 per crate average on the commission basis; picking cost was low, 1¢ per quart; 16 quart crates cost 12¢ each; freight rates were 60-65¢ per Cwt. to Minneapolis. I think that if there was any money made in those days, in the cherry business, it was made by the commission men in Minneapolis. The crops were truly wonderful in quality and volume, which was the factor, I think, that caused the boom that started in 1910 and continued to 1914, when the acreage had jumped to 3500 acres in the county.

(To be continued)

JOIN THE A. P. A.

Membership dues in the American Pomological Society are $1.25 per year. Each annual member received a complete report of the convention and a year's subscription to the American Fruit Grower. If a member is already receiving the American Fruit Grower, dues are placed at $1.00 per year. Dues may be sent to Secretary H. L. Lantz, Station A, Ames, Iowa.

Important Question

Timid Wife (to husband who has fallen asleep at the wheel): "I don't mean to dictate to you, George, but isn't that billboard coming at us awfully fast?"

HARDY STOCKS

R. H. ROBERTS
Wisconsin Agricultural Experiment Station

MUCH interest has been developing of late years in the question of hardy stocks for apple trees. This has arisen particularly because of the longer life and seemingly better production of such southern varieties as Jonathan and Delicious when top-worked upon such varieties as Virginia Crab and Hibernal.

The common procedure in growing double worked trees is to bench graft the stock variety upon seedling piece roots in the winter time and grow trees in the nursery row. As one of the principal items in top-grafting is to secure a hardy tree head and have strong wide-angled branches, the one or two year old nursery tree is planted in the orchard and the commercial variety desired is budded or grafted on after the tree has become established and trained into a well shaped head. A well balanced tree can be secured by setting the buds in early summer or placing the grafts in early spring at about the locations where tipping of the annual growth would be done in pruning the young orchard tree.

Choosing Stocks

The best stock variety to us is not known. Very clearly different varieties respond unequally on the same stock. The stock varieties grow unequally well in different locations. If double-worked trees are desired, it would be best to use a stock which has proven to be satisfactory for the variety and location to be used. If no experience is available use a variety as a stock which grows to be a large productive old tree in the location chosen for the orchard. It would not be known if the variety to be grafted on would combine well with this stock but that is part of the gamble of top-working. It is no assurance of success to use a stock which has been satisfactory under another variety and in another location.

CAUSE OF FRUIT RUSSETING

AFTER considerable thorough research, Dr. J. G. Gourley and Mr. Leon Havis of Ohio Agricultural Experiment Station have published a paper regarding fruit russeting. As a summary of their work, they state:

"Russeting injury may or may not be within the control of the orchard operator and an analysis of the factors involved is here presented.

"When the skin is slightly injured from any cause, the superficial cells are replaced by cork cells which give the surface the characteristic russet color. Beneath the epidermal layer a cork cambium is formed whose cells divide, as is characteristic of a cambium, and cork cells are produced to the outside. There may be few or many such cells cut off, giving a light or heavy russet. In this process the cuticle of the skin is destroyed, or partially so, and loss of water follows.

"Mechanical brushing or wiping machines used in the removal of spray residue did not measurably remove the cuticle, as determined by an eye-piece micrometer. This would bear out the practical experience that keeping quality of the fruit is not reduced by this process.

"The chief factor of the environment associated with russeting under Ohio conditions is topography. High lands or locations with good air drainage show less of it than low lands or depressions.

"Dilute or modified sprays or dusts are less toxic than caustic or concentrated ones and the injury is still further reduced by the addition of extra lime. Bordeaux mixture is more likely to cause russeting than lime-sulfur.

"Coarse sprays are particularly damaging; hence, the regulation of nozzles and guns is important.

"Spraying when the temperature is above 82 F. and when the humidity is high is conducive to russeting."—*From the Maryland Fruit Grower.*

American Pomological Society Considers Spray Residue Problem

H. L. Lantz
Secretary

THE 50th convention of the American Pomological Society, held in joint session with the Michigan State Horticultural Society, December 4-6 at Grand Rapids, Michigan, was an outstanding meeting, being well attended. There were delegates and others present from a considerable number of states. The program dealt with present day problems, and the speakers in many cases were national authorities in their field.

President Pickett called a special meeting to consider the spray residue problem on Tuesday evening. It was attended by nearly one hundred representative fruit growers. Much spirited discussion followed after President Pickett outlined the problem and called for comments. The president was asked to appoint a special committee to draw up resolutions relative to the spray residue problem. This committee consisted of: H. J. Rahmlow, Madison, Wisconsin, Chm.; F. H. Wissler, Mt. Jackson, Va.; John A. Gage, Mt. Vernon, Illinois; George Friday, Coloma, Michigan; and F. H. Beach, Columbus, Ohio.

The following is the Resolution which was adopted.

Resolution

We, the members of the American Pomological Society, in annual meeting assembled at which there were present ninety representative fruit growers from Michigan, Ohio, Illinois, Wisconsin, New York, Virginia, Indiana, Iowa and Missouri, do unanimously resolve as follows:

1. That we are in favor of marketing only apples above reproach from the standpoint of public health.

2. We recommend that the U. S. Department of Agriculture carry on research to determine safe tolerance for lead and other spray residue on fruits.

3. We recognize the need for close cooperation between the Federal government, State authorities and growers. To this end we request that the U. S. Department of Agriculture work out with each of the fruit growing states an acceptable working plan for certification of fruit to meet the required tolerances.

4. We recommend the establishment of analytical laboratories by the U. S. Department of Agriculture at strategic production points to standardize the analytical service. The economic welfare of the fruit industry demands that growers have an approved means of knowing before shipping that their fruit will not be condemned thereafter.

5. We deem it necessary that all states cooperate and enforce the approved regulations for tolerances.

6. We recommend that the U. S. Department of Agriculture continue diligent research in an effort to discover satisfactory spray materials not objectionable to public health.

Pending the development of more satisfactory spray materials we urge that the tolerance on lead be placed at .025 gr. per pound of fruit because there is no reasonable evidence that this amount is injurious to public health, and because experience in washing indicates that this tolerance can be attained with reasonable certainty.

Presented by the special committee on resolutions of the American Pomological Society this fifth day of November, 1934, at Grand Rapids, Michigan.

Tolerance Too Low

The lead residue situation is at a critical juncture at this time in relation to the fruit growing industry of this country. It was the concensus of the meeting at Grand Rapids that the present tolerance, .019, was too low to be met with reasonable certainty by fruit growers with present methods of washing.

Mr. D. F. Fisher, in charge of fruit washing investigating, U. S. D. A., presented the findings of the department which showed that .019 was in many cases reached with considerable difficulty. His data also showed that were the tolerance placed at .025 growers could, with reasonable certainty, achieve that tolerance. The resolution suggests that lead tolerance be raised to .025 grains per pound of fruit.

At the present time no announcements from the department of agriculture have been made relative to tolerance for next year. It is feared in many quarters that the present tolerance will be lowered, and if so it is felt that such a change would be a very serious matter to fruit growers all over the United States.

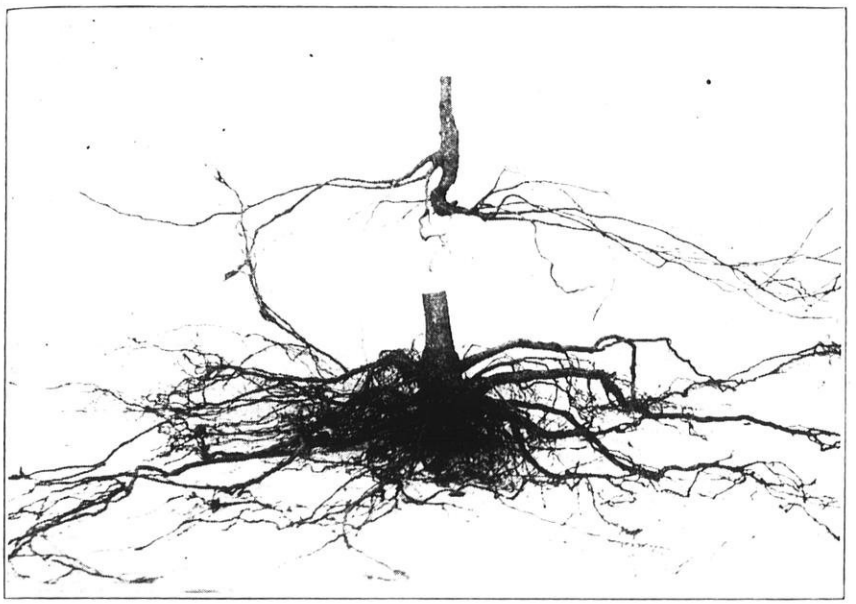
DEPTH OF FROST PENETRATION IN ORCHARD SOIL

TESTS were made at the Wooster, Ohio Experiment Station in February, 1934 to determine the depth of frost penetration under different types of orchard soil treatment. February, 1934 was one of the coldest on record.

Measurements were made under trees heavily mulched during the fall of 1933; under trees where the mulch was decayed; in a clean cultivated apple and peach orchard; in cover crop plots; under trees growing in new sod not mulched, and under trees growing in sod which had not been broken for many years.

(Continued on page 107)

Curl Leaf of Cherry Related to Root Injury



Typical 8 year old Montmorency cherry root systems. Upper from a "curly leaf" tree in Door County. Lower a normal tree at Madison. Cut courtesy Wis. Experiment Station.

CURL leaf of sour cherry trees is quite widespread in the cherry growing region of Door County. The leaves of affected trees show characteristic curling followed by stunting of tree growth and reduction in yield. For some time the cause was popularly supposed to be a lack of moisture during the growing season. However, studies made by L. Langord and R. H. Roberts (Horticulture) during the past year revealed that this apparently is not the case. In 1933 curl leaf appeared early in June, following a prolonged rainy period when the soil was well supplied with moisture. Soil moisture determinations showed that there was no relationship between lack of moisture and the leaf condition.

Examination of a representative number of cherry trees has definitely connected curl leaf with a root injury of unknown origin. Affected trees showed not only a larger percentage of dead roots, but also a lack of the smaller fibrous roots. Counts of the feeding roots of the curl leaf trees showed less than 2% apparently alive and functioning. Comparison of cherry roots at Sturgeon Bay with those at Madison where curl leaf is uncommon showed the roots at Madison to be much healthier and to have a brighter appearance. The curling of the leaves is believed to be traceable to the failure of the root system to absorb enough moisture to supply the foliage. This study is being continued to learn more about the possible causes of the root injury.—*From the Annual Report of the Director of the Wisconsin Experiment Station.*

Loud Speaker

A certain salesman has a very loud voice. One morning, when he was shouting in his office, the manager said to his secretary:

"What's all this noise about?"

"Mr. Browne is talking to London, sir," was the reply.

"Then why on earth doesn't he use the telephone?"

'AERO' CYANAMID

The Fruit Fertilizer

It FEEDS the Tree and LIMES the Soil

'AERO' CYANAMID

A non-leaching form of nitrogen
May be applied in fall, winter (in Southern States), or early spring, as one prefers

Feeds the tree throughout growing season
Produces dark green leaves and holds them on until fall (On sandy and shaly soils the supplemental use of potash is recommended)

Keeps the soil sweet and healthy
Destroys acids resulting from use of sprays and cover crops

Produces good terminal growth and fruit buds
Gives bigger yields of better-quality fruit

●

Write for Leaflet X-307, "Fertilizing Fruit with Granular 'Aero' Cyanamid"

AMERICAN CYANAMID COMPANY
30 ROCKEFELLER PLAZA—NEW YORK, N. Y.
779 VIRGINIA AVE., N. E.—ATLANTA, GA.

With Our Fruit Growers

RACINE FRUIT GROWERS HOLD SUCCESSFUL MEETING

THE Racine County Fruit Growers Association held their annual meeting at the County Agricultural School at Rochester on December 14th. The following officers were re-elected:

President, Charles Patterson, Franksville

Vice-president, Wm. Verhulst, Franksville

Secretary-treasurer, Lyman H. Skewes, Union Grove

The meeting began at 10:30 a. m. The Home Economics Department of the school served a nice luncheon during the noon hour. Over 100 growers attended the meeting.

The speakers included H. J. Rahmlow, secretary of the State Horticultural Society; C. L. Kuehner, Extension Horticulturist; Dr. C. L. Fluke of the Entomology Department; and Lester Tans, Waukesha, secretary of the Southeastern Association.

Mr. Rahmlow discussed briefly recent developments in spray residue regulation which may concern fruit growers in this section. He told of several other fruit growing items discussed at the Michigan Horticultural Society meeting, and exhibited some new varieties of apples which he recommended for trial in this section.

C. L. Kuehner discussed what the fruit growers should do during the 1935 season in their orchards. Mr. Tans told of the very successful year the Southeastern Association had, the sales amounting to a great increase over previous years.

Dr. C. L. Fluke described the control of different orchard insects.

Lyman Skewes, secretary of the Association, reported business amounting to $2,000.00 for 1934 in orchard supplies and spray materials. 4,900 gallons of lime sulphur and 4,096 pounds of arsenate of lead were used, in addition to other spray materials, and 25,900 pounds of ammonium sulphate. The members purchased 541 apple trees as well as 45 pear trees, 244 cherry trees and 9 plum trees. 5,500 strawberry plants were shipped in.

BENEFITS FROM SMALL WOOD PRUNING

THE so-called "small wood" pruning of apple trees has a number of distinct advantages according to a talk given by Mr. G. L. Ricks of the Horticulture Department, Michigan State College at the annual convention of the Michigan State Horticultural Society. In experiments carried on to determine the value of taking out the small and unproductive wood as compared to the vigorous and productive type of wood, Prof. Ricks stated that on unpruned Jonathan trees there were 21% of small apples, 2¼ inch in diameter and less, but in the "small wood" pruned trees there was only 7% of small apples. These trees were 15 to 35 years old.

Unpruned McIntosh trees, 17 years old, produced 56% small apples, while those from which the unproductive wood had been pruned, only 13% of small apples were found. These were on a sandy soil.

McIntosh on a sandy loam soil, 27 years old trees, produced 52% small apples on unpruned trees, and only 14% small apples on the pruned trees.

Improved Color

The color of both McIntosh and Jonathan apples was improved when the small unproductive wood was taken out. Unpruned Jonathans had 22% poorly colored apples, but pruned trees had only 11%.

The tests also indicated that there was no decrease in yield due to this type of pruning. Mr. Ricks stated that often times in regular pruning yields are cut from 15 to 30% due to poor pruning methods. Many orchards would be better unpruned than with the kind of pruning they are getting.

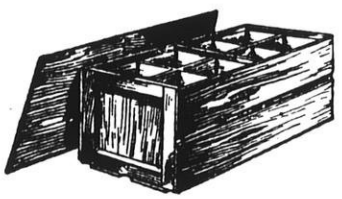
Compare With Light Regular Pruning

Comparing the "small unproductive wood" pruning with light regular pruning, it was found that there were twice as many small apples on trees given the regular pruning than on the other type.

There were 19% of green apples on the unproductive wood pruned trees, and 32% green apples on those given light regular pruning. The yield of the small wood pruned trees was 25 bushels per tree while the regularly pruned trees produced 21 bushels per tree.

Helps Spraying

In addition, taking out small wood was a help in better spraying. It was found in certain orchards 1 out of 5 codling moths entered the apples from the outside of the tree, while 4 out of 5 entered from the inside of the tree. Opening up the tree by taking out small wood enabled the sprayer to cover the apples on all sides.



Berry Boxes and Crates

Either made up or in the K. D. American Quart Berry Baskets, Climax Grape and Peach Baskets, Till or Repacking Baskets, Plant Boxes and Veneer Tree Protectors. Circular and Price List mailed upon request. Special liberal discounts on early orders.

Write for special prices on carload lots.

SHEBOYGAN FRUIT BOX COMPANY

Sheboygan, Wis.

Orcharding Experiences at Galesville

Fred Sacia

MY APPLE crop came through to a fine harvest, thanks to the absence of storms. (Cyclone and hail just passed us by.) The crop was not large but of exceptional quality. There were about 7000 bushels of Delicious, nearly 4000 of which went to a La Crosse firm and directly into cold storage. These are now coming out to the trade in very desirable condition.

Conditions this year made a rapid harvest necessary. We packed about fifteen hundred bushels daily. To facilitate the movement from orchard to packing place we rigged up two trucks with racks six feet by sixteen. These long racks extending well over the rear end of the truck seem to have a way all their own of missing things generally.

We think more and more of the Quack digger on wheels as an all around orchard cultivator. There are few orchards but are unnecessarily ridged, ditched, sodbound, or eroded if lying on a slope.

The very toughest sod can be torn up successfully by removing half of the teeth of the machine, to prevent ridging and erosion in side hill orchards the rows should be cultivated diagonally in two directions. The two cultivations are effective and at the same time economical. If done late in the fall the roughened surface will serve to hold snow and water. Planking in the spring will smooth the ground sufficiently for spraying and mowing. Barn grass and weeds will spring up surprisingly to produce mulch and humus at a very small cost. There are two types of machines. The digger with wheels in from the end and with rigid teeth would be the more convenient where there are no stones.

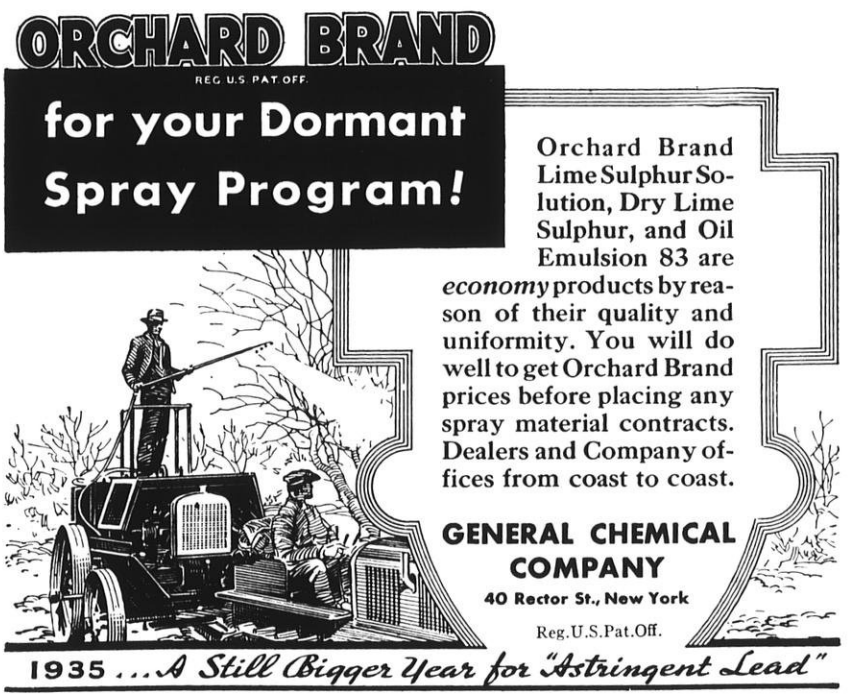
I visited three strawberry growers this fall that had Wayzata growing along side rows of Mastodon. There was practically no difference as to the firmness of the berry, but at the same time the Wayzata is very desirable.

SUITABLE ANTISEPTIC FOR NURSERYMEN'S TAPE DEVELOPED

A FURTHER development in the use of adhesive tape for the prevention of overgrowths (excess callus, hairy root and crown gall) on grafted nursery apple trees, recommended in previous reports, is the incorporation of antiseptic with tape. Trials conducted by A. J. Riker and S. S. Ivanoff (Plant Pathology) have resulted in the elimination of a considerable number of antiseptics as unsuitable and in determining the most satisfactory concentration of the best antiseptic employed. The requirements which this antiseptic had to meet were: (1) It had to kill pathogenic bacteria with which it came in contact; (2) it had to be non-injurious to the graft itself; (3) it had to reduce injury from molds and insects without at the same time preserving the cloth long enough to permit girdling at the union.

The antiseptic tape finally selected prevents a considerable number of graft knots which were not controlled with ordinary tape. With string and similar wrappers nurserymen commonly lost between 30 and 45% of the trees harvested. With nurserymen's tape there was commonly only 10 to 25% loss. With this improved tape there was commonly only 2 to 15% loss. In cases of badly infected seedling roots, their treatment a week before grafting in mercuric chloride, 1 to 1000, and then wrapping with nurserymen's tape commonly gave up to 90% effective control.

Commercial antiseptic tapes are now available. Naturally, the tape cannot be expected to protect the graft after decay of the cloth, when possibilities of serious infections are, however, comparatively slight.—*From the Annual Report of the Director of the Wisconsin Experiment Station.*



Strawberry Yields and July Rainfall

Noel F. Thompson
Associate Plant Pathologist, Wisconsin Department of Agriculture & Markets

THERE are a large number of factors involved in the production of a bumper strawberry crop. Among these weather plays a major role. The plants are set out in the spring and must have favorable growing conditions to produce a full bed of well-rooted plants by fall. The hazards of the winter must be passed with the danger of winter injury to unprotected plants. Frost or abnormally hot dry weather during the blossoming period may ruin the crop and lastly there must be sufficient moisture during the harvest. Lack of sufficient and well-timed rain during the harvest may easily result in a great reduction in yield when all the other hazards have been safely passed. It is possible that, over a period of years and with intelligent growers, the moisture supply during the harvest may be the most important of the factors grouped under "weather".

Reasons For Smaller Yields

For several years past the strawberry crop in the Bayfield district has been unsatisfactory and many explanations have been offered. Undoubtedly winter injury has played an important part in these successive failures. Mulching the plants with straw is not generally practiced in this district and delayed snowfall or partially open winters have resulted in much injury to the roots of the plants as well as to the buds. Even under the best of growing conditions, winter-injured plants cannot yield a large crop.

In further explanation of the partial crop failures in this district a study has been made of the July rainfall for the past forty-three years. It is believed that the major portion of the Bayfield strawberry crop is harvested during July in most years so the July rainfall is probably the most critical.

The accompanying chart indicates the results.

Official rainfall records have been kept for various lengths of time at four stations in northern Bayfield county. These stations are Bayfield, Ashland Junction, Cornucopia and Iron River. The rainfall reported at these various stations was averaged to secure the data presented in the chart.

Rainfall During July

It is evident from a study of this chart, that July rainfall has occurred in cycles — several years of excessive, followed by several years of subnormal rainfall. For instance the 17 years from 1897 to 1913 were characterized by generally abundant July rains. Whereas the 21 years from 1914 to 1934 were in general deficient in rain at the time the strawberries were ripening. In connection with this it is interesting to note that some of the growers report that about 1910 marked the end of generally good strawberry crops in this district. It is possible that 1911 or even 1913 might be a more accurate date.

If we assume that the average rainfall of 3.63 inches in July is necessary to produce an average strawberry crop, then the six-

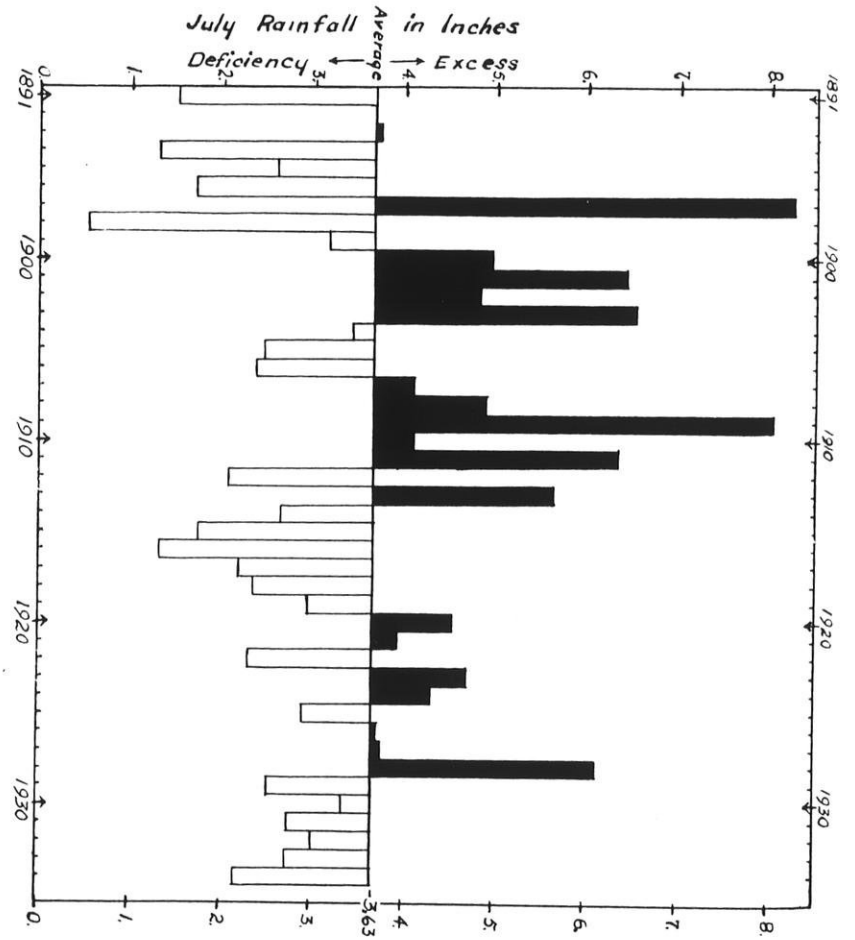


Chart showing how July rainfall occurred in cycles, in Bayfield County. Black lines show years in which rainfall was ample for a good strawberry crop.

year period 1914 to 1919 was one of discouraging yields. Likewise the period 1929 to 1934 would have produced low yields.

It is recognized that the distribution of rain during the month may be as important as the total rainfall. In other words, if half the rain fell during the last day or two of the month, as happened in 1931, the crop might be shorter than with slightly less rain but better distribution. It is also recognized that the rainfall may be spotted. That is, one farm may receive sufficient rain while another, only a few miles distant, may not. It is also recognized that rains during the latter half of June and the first of August are very important. Nevertheless it would be interesting to compare authentic yield records with this chart and see if they do not fluctuate more or less as the July rainfall. As was stated before, there are many factors involved in the production of a bumper strawberry crop. This study of rainfall is offered as one of the factors that should be considered.

The following official rainfall records were used in deriving the data for the table. Bayfield 1891–1900 and 1911–1914. Ashland Junction, 1900–1934. Iron River 1909–1913 and 1915–1934. Cornucopia 1912–1934.

(Continued from page 102)

Decayed Mulch Prevents Deep Frost

Under decayed mulch the frost penetrated only two inches; under new mulch, three inches; under clean cultivation, twelve inches, and in sod not mulched, eight inches.

His Reward

Pat determined to pass his favorite "pub" on his way home. As he approached it he became somewhat shaky, but, plucking up courage, he passed it. Then, after going about fifty yards, he turned, saying to himself, "Well done, Pat, me boy. Come back and I'll treat ye."

Spacing a Big Factor in Strawberry Yields

UNTIL strawberry growers know the proper spacing for their plants, they cannot always be sure whether or not a variety is adapted to their location. In other words, the right spacing of strawberry plants is one of the important factors in yield, size, and quality of berries, control of losses from decay, in resistance to drought, and, finally, in bringing the grower a profit from his crop. Specialists of the Department of Agriculture have been giving this matter of spacing strawberry plants much attention the past season. Some of the results were astonishing.

For instance: At Willard, N. C., Blakemore strawberries with 30, 4, and 1.8 plants, and two-thirds of a plant as an average per square foot yielded respectively, 42, 119, 131, and 99 crates (32 quarts) of marketable berries per acre. Less than 2 plants to the square foot yielded more than three times as many berries as 30 plants to a square foot. Observations in fields of Dorsett, Fairfax, and other varieties in other strawberry sections also indicated that the number of plants in any given area is the chief factor in quantity and quality of yield and greatest profits. Overcrowding is frequently the cause of failure of very vigorous varieties such as Blakemore, Dorsett, Narcissa, and others. Too few plants is also frequently the cause of failure of such varieties as Chesapeake, Mastodon, Rockhill, and others. Other factors are hours of daylight, temperature, and length of winter.

In varieties such as Blakemore and Dorsett yields can be increased by restricting the number of runner plants. This conserves soil nutrients and moisture, tends toward more crowns, more fruit buds, and more and better berries per plant.

"Valuable new seedlings may be discarded and new varieties have been and are being rejected simply because the plants have been grown in too dense stands," says George M. Darrow of the Bureau of Plant Industry, who first saw the relation between optimum spacing and variety adaptation in strawberries. "In testing seedlings or varieties, a stand of 1 to 4 plants per square foot by July seems near the optimum. All later runners should be removed at frequent intervals. Culture should be such as to maintain the highest vigor in the remaining plants."—*U. S. D. A. in Market Growers Journal.*

RATTLE BOX PEA

Crotalaria sagittalis

N. E. SCHMIDT
Sarona

RATTLE Box is one of our entertaining, native, wild plants. It grows in patches on gravelly, lake shores in Washburn county. It is one of the many plants that to-day helps to cover the sandy stretches left by our receding lakes. The Rattle Box Pea is a little, bushy, annual that grows from three to ten inches in height. It has a small yellow flower that later develops into an inflated pod. The green pods pop when you step upon them while the blackish, ripe pods rattle and jingle when you walk among the plants. When the pods are ripe and the sun warms them up they twist open throwing the seeds two or three feet. There are from twelve to fifteen pods on a fair sized plant and they continue to bloom long after the first pod ripens. Rattle Box is an ideal plant for a dry sunny rock garden. The best place to plant them is around the flagstones in your walk where they will prove most entertaining.

NOTE: My small boy has collected a considerable amount of seed of Rattle Box and will be glad to send it to any rock garden enthusiast for postage. Address: N. E. Schmidt, Sarona, Wisconsin, R. 1.

Horticultural News

A. F. Yeager
North Dakota

Evidently a great deal of worthwhile work has been done on the International Peace Garden in the Turtle Mountains during this last summer. However, it must be remembered that such work is largely preliminary, and that the main constructive program must occupy many years. Incidentally, this Turtle Mountain region seems to be becoming increasingly popular as a summer camp site. The church with which I am affiliated in participating in the construction of a summer camp for boys and girls on the shores of Lake Metigoshe.

A correspondent asks about the possibilities of raising hops in North Dakota. This is another one of the crops which looks like a bonanza when one is far away from it. It is not suited to the North Dakota climate, though the hop vine can be raised as an ornamental, especially in partially shaded locations.

If you wish to try something new in the yellow sweet corn line I suggest Spanish Gold. Its season is between Golden Gem and Sunshine. The variety originated in Connecticut and has much resistance to wilt.

Florida has never been able to compete with California in lemon growing. However, a new variety of lemon called Perrine produced as a cross between the lemon of Sicily with the Mexican lime by Dr. Swingle of the U.S.D.A. is reported to be giving promise for the successful establishment of the industry.

Reports have been coming in from the Warba potatoes distributed as a premium last spring. While almost everyone complains of bad weather, Warba has in almost every case been a large yielder and is complimented because of its earliness. These two features are the things which recommended it to us.

The U.S.D.A. reports that if sweet corn is scalded before freezing it will come out of storage six months later approximately like corn only four hours from the field. This scalding process evidently overcomes the objectionable cobby taste which was sometimes present in the frozen corn we put up a few years ago. Personally, I feel that this method of preserving sweet corn will eventually become a very important one.

Plum, sandcherry or chokecherry seed which is to be planted in the spring is much better stored buried in the ground out-of-doors in the shade than in a root cellar. In the root cellar, seed is likely to germinate in midwinter and the seedlings die before spring.

A correspondent asks whether there is a way to keep horse radish all winter, suggesting that grated horse radish put up with vinegar does not store so well. Horse radish roots may be kept in storage like beets and carrots and grated when wanted, and, of course, roots may be dug from the garden in the spring rather than in the fall.

In the English Gardeners' Chronicle, the suggestion is made that if weather conditions are bad so bees do not fly, fruit may be pollinated by hand with the aid of a rabbit's tail fixed to the end of a bamboo cane.

Fritz Bahr in the Florists' Exchange recommends covering Canterburybells with dry straw in the winter. He says the leaves and especially the center of the plant must be kept dry if they are to winter in the best possible condition.

Progress is being made at the Michigan Experiment Station in the breeding of varieties of corn resistant to the corn borer.—*From North and South Dakota Horticulture.*

BOOKS FOR VEGETABLE GROWERS

A PARTIAL list of the books available from the Free Traveling Library, State Capitol, Madison. Books may be borrowed for a period of three weeks, only return postage need be paid.

Manual of gardening; a practical guide to the making of home grounds and the growing of flowers, fruits, and vegetables for home use. Bailey, L. H.

Principles of vegetable-gardening. Bailey, L. H.

Home vegetables and small fruits; their culture and preservation. Duncan, Mrs. Frances.

Practical gardening; vegetables and fruits, helpful hints for the home garden; common mistakes and how to avoid them. Findley, Hugh.

A home vegetable-garden; suggestions of real gardens for homemakers and others. Freeman, E. M.

The little kitchen garden. Giles, Dorothy.

Vegetable growing. Knott, J. E.

Growing vegetables. Watts, R. L.

Vegetable forcing. Watts, R. L.

Muck crops; a book on vegetable crops raised on reclaimed land, in some localities known as black dirt or muck. Wilkinson, A. E.

Specific Vegetables

Cabbage, cauliflower and allied vegetables; from seed to harvest. Allen, C. L.

Celery culture. Beattie, W. R.

Cauliflower and broccoli culture. Bouquet, A. G.

The potato. Gilbert, A. W.

Tomato culture. Tracy, W. W.

Tomato production. Work, Paul.

Books on Greenhouse and Commercial Gardening

Available from the free traveling library, State Capitol, Madison.

Fritz Bahr's commercial floriculture; a practical manual for the retail grower.

Practical floriculture; a guide to the successful cultivation of florists' plants, for the amateur and professional florist. Henderson, Peter.

The modern nursery; a guide to plant propagation, culture and handling. Laurie, Alexander and Chadwick, L. C.

American greenhouse construction, heating and equipment. Muller, R. T.

Starting early vegetable and flowering plants under glass; including details of construction, heating and operation of small greenhouses, etc. Nissley, C. H.

Gardening under glass; a little book of helpful hints written particularly for those who would extend their gardening joys around the twelvemonth. Rockwell, F. F.

The principles of floriculture. White, E. A.

Greenhouses; their construction and equipment. Wright, W. J.

Garden flowers in color; a picture cyclopedia of flowers. Stevens, G. A.

Books on Ecology and Plant Breeding

Available from the free traveling library, State Capitol, Madison.

Plant breeding. Bailey, L. H. and Gilbert, A. W.

The nursery-manual; a complete guide to the multiplication of plants. Bailey, L. H.

The principles of plant culture; a text for beginners in agriculture and horticulture. Golf, E. S.

Practical plant propagation; an exposition of the art and science of increasing plants as practiced by the nurseryman, florist and gardener. Hottes, A. C.

Plant ecology. McDougall, N. B.

Diseases and Pests

Manual of vegetable-garden diseases. Chupp, Charles.

Manual of tree and shrub insects. Felt, E. P.

Spraying, dusting and fumigating of plants; a popular handbook on crop protection. Mason, A. F.

Destructive and useful insects; their habits and control. Metcalf, C. L. and Flint, W. P.

Insect pests of farm garden and orchard. Sanderson, E. D.

Diseases of truck crops and their control. Taubenhause, J. J.

Mystery

An Englishman was on his first visit to America. While driving along he saw a sign that said: "Go slow; that means you."

"By Jove," said the Englishman, "how did they know I was here?"

New Dahlia Varieties

Karl Junginger

David Petranek of Madison holding a bloom of Murphy's Masterpiece, grown by Mr. Junginger. Size 17 inches.

MANY gardeners are becoming interested in the modern Dahlia and are at a loss to know what varieties will grow well for them and produce a wealth of good blooms. I am listing below 15 varieties that are seldom disappointing. They are all highly recommended for the beginner. These are just 15 sorts that have been picked at random—and there are dozens of other varieties that are just as good.

Dorothy Stone—Huge mallow pink.

Edna Ferber—Large semi-cactus bloom of coral and old gold.

Ft. Monmouth—One of the largest and one of the finest varieties ever grown. A huge claret-red.

Ft. Washington—Dark ruby red.

Good Night—Large red shaded towards black.

Helen Ivens—Fine large rose pink.

Janet Southwick — American Beauty shade.

Jean Trimbee—Huge fluffy blooms of petunia violet. One of the finest varieties ever produced.

Jane Cowl—The most popular Dahlia today. A prolific producer of fluffy buff colored blossoms that just naturally grow big. Be sure to grow this one.

Marmion—Golden yellow.

Mrs. Alfred B. Seal—Large old rose.

Prince of Persia—A rugged grower. Rich cardinal-red.

Star of Bethlehem—Shaped like a star. Snow white.

Thos. Edison—Rich reddish purple.

The Commodore—Huge clear lemon yellow.

The above varieties are all fine sorts—varieties which a few years ago sold for at least $10.00 per root and which may all, with two or three exceptions, now be purchased for not more than $1.00 each.

Accompanying this article is a print of a snapshot taken of a bloom of Murphy's Masterpiece that was 17″ in diameter grown by the writer with ordinary feeding and disbudding such as outlined above. This same plant a few weeks later had four blossoms on it at one time, the smallest of which was 14″.

PLANS FOR THE IRIS SOCIETY

TO DATE, twelve iris fans have indicated their desire to join the proposed new Wisconsin Iris Society. Of this number, six are from Milwaukee County. Other cities represented are Thiensville, Fond du Lac, Fort Atkinson and Superior.

It has been suggested that all plans for the proposed organization be made by a committee and then a meeting be called as soon as weather and roads permit at which the organization can be launched and possibly a good program held. A State Iris Show and an Iris display and trial garden are among the projects suggested for the Society.

Anyone interested in joining the organization should write us so that we may have their name to notify them of the time and place of the meeting.

TREES—SHRUBS—FLOWERS

Trees, Shrubs, Perennials and Rock Garden Plants; some new and beautiful varieties. Write for free price lists and order early for spring planting. American Forestry Company, Pembine, Wisconsin.

Plant Premiums For Members

PLANT premiums will again be given this year to all who pay their dues during *January, February* and *March* only. Premiums are given only for membership in the Wisconsin Horticultural Society.

How Individual Members May Get Premiums

Individual members of the Horticultural Society paying the regular membership fee of $1.00 per year, or $1.50 for two years may select any plant premium which will be sent during the planting season, postpaid. Always give second choice.

How Affiliated Club Members May Get Premiums

Members of local clubs or societies such as garden clubs and fruit growers associations and others affiliated with the Horticultural Society who pay a reduced membership fee through their local secretary are required to pay the postage of 15¢ per premium which the Society pays to the Nurserymen. *Membership fees and premium requests must be sent in together. Always give second choice.*

We wish to express our appreciation to the nurserymen and growers who so generously cooperate with us in this work.

Premium No. 1

H. C. CHRISTENSEN
1625 Ninth Street, Oshkosh, Wis.

Regal lily bulbs.
Premium: 3 bulbs.
Lilium tenuifolium.
Premium: 5 bulbs.

Premium No. 2

COE, CONVERSE & EDWARDS CO.
Fort Atkinson, Wis.

Felix Crousse Peony.
Festiva Maxima Peony.
Premium: 1 root.

Premium No. 3

DAHLBERG NURSERIES
E. M. Dahlberg, Ladysmith, Wis.

Spirea Vanhoutte—Bridal Wreath.
Premium: 2 plants.

Premium No. 4

EVERGREEN NURSERY CO.
Sturgeon Bay, Wisconsin

Colorado Blue Spruce, 3 year seedlings, size 3-5 inches.
Premium: 10 trees.

Premium No. 5

FAIRVIEW GARDENS
M. L. Cady, Mgr., Fox Lake, Wis.

Dahlias: Avalon, Countess Lonsdale, Elite Glory, Ida Perkins, Jane Cowl, Kathleen Norris, King of the Shows, Monmouth Champion, Rose Fallon.
Pom Pom Dahlias: Pink, Salmon, Red, White, Yellow, Orange.
Premium: 1 root.

Premium No. 6

FANCHER'S NURSERY
Sturtevant, Wisconsin

Phlox: R. P. Struthers, Richard Wallace, Eclaireur.
Premium: 1 plant of each.
Phlox: R. P. Struthers.
Premium: 3 plants.
Hydrangea Hills of Snow, R. P. Struthers Phlox.
Premium: 1 plant of each.
Persian Lilac, R. P. Struthers Phlox.
Premium: 1 plant of each.
Shasta Daisy, Thor Phlox, Coreopsis.
Premium: 1 plant of each.
Physostegia Vivid, Perennial Sweet Pea, Pentstemon Grandiflora.
Premium: 1 plant of each.
Campanula Persicifolia, Shasta Daisy, Pyrethrum.
Premium: 1 plant of each.
Sedum kamtschaticum, Sedum stoloniferum, Veronica Alpine.
Premium: 1 plant of each.

Premium No. 7

J. T. FITCHETT
735 Milton Avenue, Janesville, Wis.

Dahlias: Jane Cowl, bronze, Jersey's Beauty, pink.
Hercules, tangerine and yellow.
Mrs. I. de Ver Warner, orchid.
Premium: 1 root.

Premium No. 8

JOHN F. HAUSER
Bayfield, Wisconsin

Lupine Harkness Regal Hybrids.
Physostegia vivid.
Prunella grandiflora.
Platycodon.
Premium: 4 plants, 1 variety.

Premium No. 9

KELLOGG'S NURSERY
M. S. Kellogg, Prop., Janesville, Wis.

Crimson Rambler rose.
Shower of Gold rose.
Retail value $1.00.
Premium: 1 of each.

Premium No. 10

McKAY NURSERY COMPANY
911 University Ave., Madison, Wis.

Prunus Triloba—2-3 ft.
Premium: 1 plant.

Premium No. 11

MYERS NURSERY
A. W. Myers, Arcadia, Wisconsin

Gladiolus bulbs, each different.
Premium: 12 bulbs.
Dahlias:
Mrs. I. de Ver Warner.
American Beauty.
Premium: 1 of each.

Premium No. 12

THE NORTH STAR NURSERY COMPANY
Pardeeville, Wisconsin

Caragana Arborescens (Siberian Pea Tree), 2-3 ft.
Cut Leaf Elder, 2-3 ft. Golden Elder, 2-3 ft. Purple Lilac, 2-3 ft. Ninebark, 2-3 ft. Mock Orange, 2-3 ft. American Bittersweet, 2-3 ft.
Premium: 1 plant.
Iris: Madam Chereaux (White, purple fringed).
Sherwin Wright (Yellow).
Queen of May (Rose Pink).
Florentine (Purple).
Premium: 2 roots.

Premium No. 13

SISSON'S PEONIES
W. A. Sisson, Rosendale, Wis.

If it's a peony wanted, we have it.
If you do not know names, state color wanted.
Premium: 1 root, value $1.00.

Premium No. 14

STONECREST GARDENS
W. A. Dana, Prop., Eau Claire Wis.

Iris: Vesper Gold, Julia Marlowe, Opera, Mildred Presby, Red Wing, Dawn, Labor, Madam Gandashaw, L. A. Williamson.
Premium: 3 iris.
Choice iris roots, grower's selection, unlabeled, all different colors.
Premium: 4 iris.

Premium No. 15

SWEDBERG NURSERIES

Battle Lake, Minnesota

Delphinium—Gold Medal Hybrids; Improved seedlings; choice colors.
Premium: 5 plants.
Pentstemon grandiflora. Light lavender. Native Minnesota hardy flower.
Premium: 4 plants.
Hardy Phlox. Choice varieties. Colors all different.
Premium: 2 plants.

Premium No. 16

W. A. TOOLE

Garry-nee-Dule, Baraboo, Wisconsin

Chrysanthemum Aladdin, Chrysanthemum Azaleamum, Iris arenarius, Irish dichotoma.
Premium: 1 plant or root.
Arabis Sturgi, Dianthus Crimson King, Dianthus Beatrix.
Premium: 2 plants.
Galium verum, Sedum acre minus, Sedum anglicum chloroticum, Sedum hispanicum minus aureum.
Premium: 3 plants.

Premium No. 17

AMERICAN FORESTRY CO.

Pembine, Wisconsin

Chinese Juniper—5-8 inches.
Chinese Elm—12-18 inches.
Premium: 2 trees, 1 variety.

Premium No. 18

THE HAWKS NURSERY COMPANY

Wauwatosa, Wisconsin

Prunus Glandulosa, 2-3 feet.
Rhodotypos Kerrioides, 2-3 feet.
Symphoricarpus Vulgaris, 2-3 feet.
Rosa Hugonis, 2-3 feet.
Premium: 1 plant.

Premium No. 19

RASMUSSEN'S FRUIT FARM AND NURSERIES

R. F. D. No. 4, Oshkosh, Wis.

Pink or white peony.
Premium: 1 root.
Iris, German.
Premium: 6 plants.
Oshkosh Strawberry Plants.
Premium: 50 plants.

Premium No. 20

WHITE ELM NURSERY COMPANY

Hartland, Wisconsin

Aquilegia Dobbies Hybrids; Arabis Alpina; Campanula Persicifolia White; Echinacaea Purpurea; Helianthemum Mutabile.

PENTSTEMON — Grandiflora, Shell Pink, Torreyi.

PHLOX—Divaricata Canadensis, Subulata Fairy, Subulata Lilacina.

Sempervivum named varieties; Tunica Saxifraga, Verbascum Phoenicum, Verbascum Gentionoides.

IRIS: Afterglow, Fairy, Isoline, Juanita, Miranda, Mrs. Alan Gray, Rheine Nixe, Seminole, Sweet Lavender, Violaceae Grandiflora.
Premium: 3 plants, 1 variety.
Arabis Alpina Rosea, Clematis Recta, Euphorbia Polychroma, Geranium Sanquinea, Heuchera Sanquinea, Primula Polyanthus, Saxifraga Cordifolia.
Premium: 2 plants, 1 variety.

Premium No. 21

H. B. BLACKMAN

Richland Center, Wis.

Strawberry Plants—
Dorsett, Fairfax.
Premium: 25 plants.
Bellmar, Southland, Blakemore.
Premium. 30 plants.
Newburgh Red Raspberry plants.
Premium: 15 plants.
Viking Red Raspberry plants.
Premium: 20 plants.

NEW ENGLISH WALNUTS CONSIDERED HARDY

SEVERAL new English walnuts of Russian and Polish origin are considered quite hardy and may do well in southern Wisconsin from reports of tests of these trees in Michigan made by Prof. J. A. Neilson of Michigan State College.

A new variety of English walnut called the Broadview is said to have withstood temperatures of 25 below zero. This variety is of Russian origin and was found first at Broadview, British Columbia. The nut is of large size and good quality.

The McDermid, a variety obtained from Mr. Peter McDermid of St. Catherines, Ontario, withstood temperatures in Michigan of 18 below zero, topworked on black walnut and did very well. The nuts of this variety are of moderately thick shell but contain a kernal of excellent quality.

The Carpathian strains of English walnuts introduced by Rev. P. C. Crath of Toronto from the Carpathian Mountains of southeastern Poland are doing very well. Temperatures in this section of Poland go to 20 below zero and lower. In the winter 1928–29 a vast amount of injury was done to fruit trees and the less hardy English walnut trees in Poland, but a number of the English Walnuts came through without serious injury. Scionwood of some hardy selections were sent to Prof. Neilson by Rev. Crath from Poland and these new strains have done well at the Michigan station with no injury during the past winters.

In contrast to the results obtained with the English walnuts mentioned above, it was found that English walnuts originating in the United States were winterkilled at below zero temperatures. A number of nut nurseries report having tried English walnuts during past years, but never were able to carry them over. They, however, used English walnuts of American origination. One of these called the Alpine originated in Pennsylvania. It has not been found hardy however in northern climates.

Prospects are very bright that the Polish or Russian strains may be adapted to Wisconsin conditions, at least we are going to try them out as soon as stock is available.

PLANT PREMIUM APPLICATION BLANK

1. ☐ I am an individual member and enclose $1.00, dues for one year, or $1.50 for two years.

2. ☐ I am affiliated through a local club and attach 15¢ to cover postage. (Give this to your local club secretary when you pay your dues.) State name of local club _____

State choice of plant premium by number and name of variety.

Second choice must be from a *different grower*.

1st Choice: Premium No._____Variety _____ _____

2nd Choice: Premium No._____Variety _____

-- _____

Name _____

Street or RFD _____

City _____

EDITORIALS

1935

WE WISH to each and every one of our members, a happy and prosperous 1935.

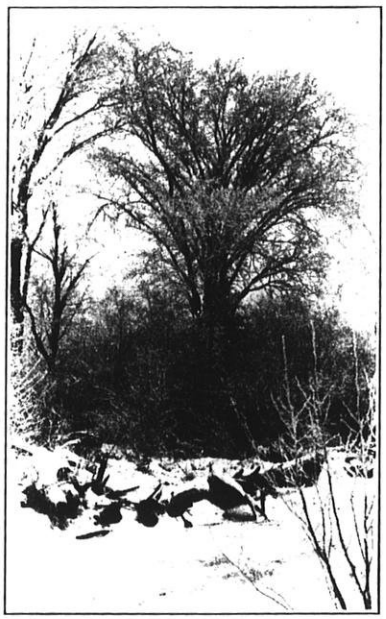
At this time the future of the Wisconsin State Horticultural Society looks bright. During 1934 we had an increase of 600 members, and 11 new organizations affiliated. At this time we have 76 affiliated local organizations, and 4,000 members.

During the coming year there will be a dropping off in membership in some organizations, but a further increase in others. During 1935 it is reasonable to expect a net increase.

On December 1 the president and secretary of the Society and the presidents of two affiliated state societies and one orchardist and nurseryman, appeared before the Governor-elect to present our budget for the coming two years. The Governor was told of the work we are doing and the reasons why we must have an increase in our funds which were cut 55% two years ago. If no increase is granted, drastic changes will have to be made beginning next July 1 as the organization cannot function as it is now with our present appropriation.

During the past year the secretary has given 97 talks on different subjects including gardening, small fruit growing, tree fruit growing etc. Seventeen talks were given over Radio Station WHA on these topics.

The work of plant and fruit testing, while hampered by lack of funds, went forward with good results. Over 2,000 cions of different varieties of apples and plums were sent to 110 of our members. Our officers all feel that this work should be increased and more funds used for this purpose.



We should not underestimate the importance of fruit and plant testing for the future of Horticulture in Wisconsin. We must eliminate all poor varieties and standardize the good kinds, but we must also search diligently for better kinds. Changing varieties in Horticulture, is after all a very slow process, and even if a very desirable variety is found, it is sometimes years before it becomes known and the benefits derived from its growing made available to the fruit growers. This is illustrated by the McIntosh apple which has been known for many years but was not grown in Wisconsin as early as it might have been.

We wish to take this opportunity to thank the officers and members of the Society for their loyal support. With your help and cooperation we will continue to make the Wisconsin Horticultural Society one of the leading societies in the nation.

COMING EVENTS

Farm and Home Week, Wisconsin College of Agriculture, Madison, February 4–8.

New York State Horticultural Society 80th annual convention, Rochester, New York, January 16–18.

Ohio State Horticultural Society convention, Columbus, Ohio, January 28–31.

FARM AND HOME WEEK

Strengthening the farmers position is the key note slogan for this year's Farm and Home Week. In connection with it there will be the annual State Grain Show, the Little International or College of Agriculture Showmanship Contest, and the State Rural Drama Festival.

Nationally known speakers on the program will include Dr. E. C. Stakman of the University of Minnesota, Governor elect Phillip F. La Follette, Dean Chris L. Christensen of the Wisconsin College of Agriculture, and Governor W. I. Myers of the Farm Credit Administration, Washington, D. C., and Dr. Edmund Brunner of Columbia University who will talk on What's Ahead for Rural Life and Education.

For a complete program address the College of Agriculture, Madison, Wisconsin.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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Vol. XI **JANUARY, 1935** **No. 1**

A Program For 1935

WE WISH all the members of the Wisconsin Beekeepers' Association a very happy and prosperous 1935.

Conditions are now greatly improved over what they were a year ago. We have learned to cut down costs. Prices are from 50 to 100% higher than at the lowest point. We find beekeepers again enthusiastic about honey production and better methods of beekeeping as well as in better selling methods.

Better Local Organizations

The important problem confronting the beekeepers of Wisconsin is to improve and strengthen our county and district beekeepers associations. A meeting of the Executive Board of the State Association will be held during January to discuss the problem. We hope during the spring and summer of 1935 that the state officers and those connected with the state department will be able to attend and help in the better organization of these local groups.

We would like to suggest that every member of the State Association make it a part of his duty during 1935 to help improve his local organization. If you haven't any in your county, can we help you start one? If it is impossible to organize an association in a single county, then we should organize by districts. Two or three counties can go together and have a strong district association. This plan has been highly successful in Michigan.

It is important to have good officers. Many beekeepers who are capable hesitate to assume the responsibility. This is a mistake. The industry needs the help of capable men.

Programs

At every county or district meeting there should be an interesting program. Never call a meeting unless you have something planned. It is not necessary to have a meeting every month. Meetings should be held when there is something of interest to be discussed, and something of importance for the organization to do. There should however be at least 4 meetings each year.

We suggest the following outline for every program.

1. A very brief business meeting. The president must see to it that this does not lag in interest. Make it snappy.

2. A talk on some timely topic on beekeeping. In the spring have a talk about spring management, but not about preparing for winter.

3. A discussion to help improve honey marketing, either by an outside member or by the members.

Be sure there is something of interest on the program for everybody who will come.

Speakers Wanted

We would like to hear from members as to beekeepers who are capable of speaking on local programs. Such beekeepers might go to meetings in adjoining counties and greatly help with the program.

EXPERIENCES OF THE PAST SEASON

A. E. WOLKOW

Now faith is the substance of things hoped for, the evidence of things not seen.—HEBREWS 11-1.

IT IS just human nature for a beekeeper to try to guess, in early spring, what the harvest will be. Too often we allow the prospects to influence our efforts in preparation for the crop.

In order to be prepared for that occasional bumper crop, we must prepare for it every season with the greatest of enthusiasm. Prospects are not reliable, as conditions often change overnight.

The past season's experience left its lesson indelibly impressed upon the writer's mind. When the frost in the ground had disappeared many fields had a good stand of the little Dutch white clover, from which the farmers hoped to harvest seed. It was just what the beekeeper likes to see.

One of my yards had 50 acres of the little white, and 50 acres of sweet clover surrounding it—surely a wonderful prospect for a crop. Naturally enthusiasm was high, and the bees were given every possible encouragement to get ready for a bumper crop. Of course, we looked to the dandelion and fruit bloom to give us a hand, but the lack of moisture in the subsoil was already beginning to tell in that the dandelion failed to develop as usual. Neither did the fruit bloom yield any nectar, with the result that our brood chambers were fast being exhausted of stores, and broodrearing was, in many chambers, radically restricted.

We bought a quantity of

sugar, but hesitated to feed. Prospects for a crop from the white clover were fast disappearing. The drought and extreme heat were literally burning up the clover plants, and many farmers, seeing no prospect for seed, plowed the clover fields and planted corn.

Due to the extreme heat, the yellow blossom sweet clover began to bloom early, and yielded just enough nectar to carry the bees along, just above the starvation line. Then came the basswood bloom, the flow of which lasting but five days, being so heavy that normal colonies stored a super full from that source.

Soon after the basswood, white blossom sweet clover and second growth alfalfa yielded slowly, but continuously until about the 10th of August, which was the end of our surplus flow. There was an almost constant very light flow from various minor sources until frost in October, which resulted in abundant stores and young bees for winter.

Until the past season I could not imagine a man running the whole gauntlet of human experience in one season, from boundless enthusiasm down to utter despair and back again, ending up with a *just good crop*, and the clover and bees in prime condition for another season.

HONEY EXPORTS FROM THE UNITED STATES DECREASING

THE U. S. report states that the total export of honey from January–October, 1934 were about 1½ million pounds, while in 1933 during the same period the exports were over 4 million pounds.

During September and October this past year we imported from Puerto Rico and the Hawaiian Islands, about five times as much honey as we exported to foreign nations. We also imported from January–October, 1934, over three million pounds of beeswax just slightly less than was imported in 1933 during the same period.

THE HONEY MARKET

PROSPECTS for next year's crop are much improved due to heavy rains this fall, though rains are reported as still being needed in parts of the clover belt and several states in the Plains area and westward, according to the Crop Reporting Service of the U. S. Department of Agriculture.

Demand for honey continues in small lots and carload lot inquiry is reported active in the mountain states. Carlots are getting scarce everywhere however, and honey is being held by many beekeepers for higher prices. Some beekeepers after selling out their own crop completely are already buying from others to supply their customers.

Reports from Wisconsin, Michigan and Minnesota state that local demand for honey is good with stocks lighter than normal at this season of the year. Honey is reported to have moved well in Minnesota during National Honey Week following the Governor's proclamation regarding it.

Small pails are reported as selling at from 8–9¢ per lb. wholesale. Light amber, large lots at 7¢ per lb.

Reports from Chicago states that supplies of extracted are light outside of bottlers hands. Demand and trading moderate, market firm.

Prices: Wisconsin mixed clovers, white, 7½–8¢ per lb. Light amber mostly 6¼¢ per lb., delivered.

Dealers are paying 21¢ per lb. for beeswax delivered at Chicago.

FROM WASHINGTON COUNTY

A. H. SEEFELDT

I HAVE just run across some notes taken at the Washington County Fair.

Two girls were looking at the bees in the observation hives, and this is the conversation that took place:

First Girl: A bee is an insect, isn't it?

Second Girl: Yes, it has six legs. What else could it be?

First Girl: It might be a wasp.

Question—What is a wasp?

I am very glad that the convention at Green Bay turned out so successfully, and I feel sure that during the coming year the membership in the state organization can be increased considerably.

SPECIAL ANNOUNCEMENT TWO DAY BEEKEEPERS SCHOOL

Madison, February 4–5

In connection with Annual Farmers Week. By the Wisconsin Beekeepers' Association and the Department of Entomology, Wisconsin College of Agriculture cooperating.

All Beekeepers Invited.

A program will be mailed to all members of the State Association in a few days.

Bring your neighbor beekeeper.

WIRED FRAMES

Wires will not rust or sag. Packed in flat. Easily assembled. Strong and perfectly straight combs assured. Catalog and literature on request. A. E. Wolkow Co., Hartford, Wis.

WANTED—45 gallon honey tank, or old extractor without baskets, but with gate. John G. Franz, Darlington, Wisconsin.

HONEY FOR SALE—8,000 pounds packed in 60 pound cans; two cans to the case. —F. E. Matzke, Juda, Wis.

HONEY WANTED: Comb and extracted; all grades. Send samples and best price delivered Oconomowoc. C. W. Aeppler Company, Oconomowoc, Wisconsin.

Results With Package Bees

F. B. Paddock

THE use of package bees in the production of honey was developed very materially during the last 15 years and our producers are becoming interested in this matter in several ways over the entire state. One of our cooperators has become interested in the production of honey through the use of package bees entirely, which means that the bees are killed at the end of the honey flow and the entire number of hives are restocked the following spring through the purchase of package bees.

Size of Package

The size of package bees has been of considerable interest but for general apiary use the 3-pound package has been recommended but there are still some who feel that the 2-pound package may give satisfactory results. In one demonstration it was shown definitely that this was not the case and this is in line with general observations which have been made but no records on the exact production were available until this demonstration was completed.

Time of Arrival

The time of arrival is of extreme importance and one demonstration conducted this year is not conclusive but indicates that it is possible to have the packages arrive too early during that period when the weather is entirely unfavorable the package bees seem to use up a great deal of their energy in becoming established. If the packages can be received when good weather is definitely to be expected they will establish themselves and do much better in the way of honey production than the packages which are received too early. Of course this is the result of only one year and in only one locality, but it is in line with general observations which have been made generally over the state.

Three cooperators were interested in comparing the production obtained from package bees and from overwintered colonies and in each instance the package bees of the 3-pound size produced a trifle more honey than the overwintered colonies. A factor which is hard to control in this instance is the age of the queen of the overwintered colony and this probably has a big influence upon the results which were obtained. A colony headed by a queen more than two years old is sure to be low in production whereas a colony headed by a queen in the second year might be compared with the package having a new queen. But under best conditions this is not an exact comparison for it is very evident that the queen in her first year produces a colony superior to that which is produced any succeeding year.—*From the 1934 Iowa Report of the State Apiarist.*

CONDITIONS AT REEDSBURG

A. L. KLEEBER

BEES in this locality went into winter quarters in very good condition with plenty of stores and young bees. They ought to winter well. My bees carried pollen quite freely on the 16th of November. They gathered it from dandelion which had not been frosted at this time. I never had them do that so late since I kept bees.

The honey crop here was just fair, mostly basswood as the clover crop dried up and buckwheat froze early so was a short crop. We have had plenty of moisture this fall which should leave the clover in good shape for a good crop next year.

I put up two different honey displays in two different stores during honey week which increased my honey sales very much.

Honey is retailing at 55¢ for a 5 lb. pail, $1.00 for a 10 lb. pail, and comb at 20¢.

DYSENTERY CAUSED BY EXCESS MOISTURE IN WINTER STORES

EXCESS moisture in winter stores is the real cause of bee dysentery, according to a series of trials conducted by E. C. Alfonsus and H. F. Wilson (Economic Entomology).

Other conditions suspected of causing this disease, including bad weather in the spring, undigestible dextrines in winter stores, overabundance of mineral matter in honey, spoiled or fermented stores, pollen in the winter food, moist winter quarters, lack of water and overheated honey or sugar, have been eliminated as principal causes.

Serious losses in bee colonies occur in certain years, and up to 80 per cent of them can frequently be traced to dysentery. This winter disease appears during months when bees are prevented from leaving the hives. The alimentary tract of the bee can retain normal accumulations of undigested materials for five or six months without injury. The reason is that bees normally drop their feces while flying, and hence are required to withhold relatively large amounts during the winter months. With improper food the alimentary tract may become filled in a month. Where this is the case, and the bees are forced to remain in the hive, dysentery develops, resulting in the death of the bees within a short time.

While the trials show that excess moisture in winter stores is definitely associated with dysentery, the exact part it takes in causing the disease is being investigated further. Excess moisture in the winter stores is often produced by the formation of sugar crystals in the honey, which in turn cause excess moisture in the liquid portions upon which the bees feed. This dilution of honey further causes an excess quantity of moisture in the alimentary tract which is believed to cause the dysentery.

The prevention of dysentery will consist in measures to avoid having the bees feed on crystal-

lized honey. A simple way to do this is in the fall to feed the bees sugar syrup so that they do not have to depend on honey for their winter food supply. An ordinary colony of bees can be wintered on about fifteen pounds of cane sugar made into a syrup. —*From the Annual Report of the Director of the Wisconsin Experiment Station.*

CONDITIONS IN CLARK COUNTY

THE very severe drought in Clark County this past season gave us a very short crop. The fall so far has been mild and we have had a number of opportunities for flights during this period. Several inches of rain fell which revived the clover plants that had not been completely killed, and greatly improved prospects for next season.

Stores are generally ample and bees are in excellent condition. Honey is rapidly disappearing with supplies of comb especially light.

I winter my bees in the cellar and put them in on December 5th. I had an average crop this year of 121 pounds of extracted honey and 100 pounds comb honey per colony.—FRANK E. GREELER, *Neillsville, President Clark County Beekeepers Association.*

LARGE OR SMALL ENTRANCES FOR WINTER VENTILATION

L'APICULTURE Belge (July), contains a discussion of methods of wintering bees. The author contrasts two theories. In the one, the hive is reduced in size for winter and made snug, allowing only an entrance width of at most 4 cm. (an inch and a half): the idea being, that the bees warm the hive throughout, and that by these measures the heat is kept in.

The author's method (which is obviously based on sounder notions) assumes that the bees only warm their immediate neighborhood, not the entire hive, and that good ventilation is desirable. The author not only opens the entrance, but approves of ventilation holes at the top of the hive in addition. He uses single-walled hives. He wintered stocks with front and back, and also with front, back and top entrances, and had good results (during the winter of 1933–34). He believes that bees propolise, not to prevent ventilation, but to stop up all holes through which a bee cannot creep and the wax moth could. They propolise against their enemies.—*From The Bee World.*

IN OUTAGAMIE COUNTY

The weather has been cold up here for several weeks and the bees have kept pretty much in the hives.

I have heard a lot of remarks about what a successful convention we had at Green Bay this fall. Chances are if we have a convention or summer meeting in the Northeastern section of the state again we will have a still larger crowd.

Honey is moving nicely. I haven't very much left.

Another beekeeper, Peter Hanson, has passed on to his reward. Mr. Hanson died November 19th. He kept bees at Pittsville for a number of years. Lately he had lived near Kaukauna and was building up a nice bee yard.

—GEO. JACOBSON,
Kaukauna.

BEEKEEPING IN SWEDEN

There are 571 local beekeepers associations in Sweden which held 1512 meetings in 1933, according to the Swedish Bee magazine.

Winter losses during the past year totaled 8.7% of the colonies. These losses were accounted for as follows: Queenlessness, 58%; Dysentery, 12%; Starvation, 7½%; Damp and mould, 4½%; while the remaining 16–17% came under the head of other causes.

WHAT IS A GOOD BEE?

ONE of the principal characteristics of a good colony is undoubtedly long life of the individual bees. H. Storch (Deutsche Imker, August) marked a number of newly-emerged bees of two colonies—the one a good honey-producer, the other given to overmuch breeding and little surplus. The bees in the good stock lived longer than those of the unsatisfactory colony. In the latter, the first diminution in numbers began on the 30th day, and the last bee vanished by the 39th day. In the good colony, disappearances began a week later, and the last bee disappeared on the 48th day. The author regards increased flying power and efficiency as probably one of the chief factors in long life. It is incorrect to say that a good colony is so because it is industrious. It is probably no more industrious than the worst persistent swarmer in the apiary; but it has qualities, of which unusual flying efficiency is one of the chief, which make it first-class. Good winter stores—of honey, not solely of sugar—are important for the development of good flying power and other important characteristics.

The author shows how many dangers bees are exposed to, from storms, adverse winds and the like; here the strong-flying bee has a great advantage. She can also work over a larger range of forage. Her chances of dying prematurely in the field are less, especially if she has to cross a sheet of water or work in mountainous country. A colony with such bees will be able to fill the tops of its brood combs with honey earlier in the season than other stocks; and all the more so, as the queen will not be unduly prolific (not needing to replace her workers so quickly). It will, therefore tend to restrict its broodnest automatically, and will gather surplus instead of swarming. For the same reason it will always have good winter stores—in the right place.—From *The Bee World.*

Plants Covered With Marsh Hay Kept at Uniform Temperature

PLANTS covered with four inches of marsh hay were kept at a fairly uniform temperature, according to results in experiments conducted at Madison in unpublished data from the Pea Insects Control Laboratory of the U. S. Department of Agriculture.

In this experiment, when the outdoor temperature dropped to 13° F. below zero, the temperature under four inches of marsh hay which at that time was covered with an additional four inches of snow, dropped to only 25° F. above zero. 13° below zero was the lowest point reached in February, 1933. From December 10 to April 10, 1933 with the exception of the temperature stated above, the lowest point reached under four inches of hay was 28° F., and the highest was 31° F. Throughout this period the temperature under the hay was fairly uniform even with no snow covering, averaging around 30° F.

The highest temperature during this time was reached on March 12th when the thermometer went to 48° F., but under the four inches of hay it did not go above 30° at this time.

Light covering does not protect plants from cold. The temperature of plants in another plot which were covered with only one-half inch of marsh hay varied considerably excepting when covered with some snow. When the air temperature, for instance, was 10° F., under one-half inch of hay, it was 19° F. However, the temperature did not rise under the half-inch of hay nearly as much as air temperature.

For instance, while air temperatures were from 32° to 40° these plants remained frozen and at a temperature of about 24° F. during February and March.

The temperature of plants shaded from the sun without covering did not rise very high when the air temperatures were above freezing but dropped practically as low as air temperatures in cold weather.

Protection from the wind has a considerable influence upon the temperature under a covering as indicated by results in these experiments during the winter of 1931-32. Small piles of marsh hay eight inches deep did not protect the plants as much as a larger area covered four inches and somewhat protected from the wind.

At What Temperatures Are Plants Killed?

More information is needed before we can draw definite conclusions as to proper winter covering. At what temperatures are such tender varieties as Foxgloves and Canterbury bells killed? Are they injured at a higher temperature in the early fall before they become fully dormant than later in January or February. If we knew, for example that Foxgloves are killed at a temperature of 20° above zero, then the next step would be to determine a safe covering for such plants at the lowest temperatures likely to prevail in a certain locality.

Can Plants Be Smothered?

The statement is often made that too heavy a covering especially with leaves will smother plants. There is a difference of opinion in regard to this question. We know, of course, that any amount of covering which excludes sunlight and air will kill plants while they are in a vegetative condition. For instance, if a board is placed on the lawn during the summer time it will kill the grass. It is questionable, however, if a heavy covering placed on the plants during mid-winter and removed before growth starts will kill plants, providing the plants are in a fully dormant condition.

Here is a practical problem on which more research work is needed.

HORTICULTURISTS INVITED TO ATTEND FARM AND HOME WEEK

TWO programs for horticulturists have been arranged by the Horticulture Department of the College of Agriculture to be given during Farm and Home Week, February 6-7.

The fist day will be devoted to farm home grounds improvement. The second day to flower arrangement for the home. The programs are as follows:

FARM HOME GROUNDS IMPROVEMENT

Wednesday, February 6

Room 116, Horticultural Building

a. m.
9:00. Methods of Improving the Farm Home Grounds, L. G. Holmes.
10:00. Trees for the Home Grounds, F. A. Aust.

p. m.
2:30. Shrubs for the Home Grounds, L. G. Holmes.
3:30. Perennials and Annuals for the Home Grounds, G. Wm. Longenecker.
4:15. The Farm Lawn, James G. Moore.

FLOWER ARRANGEMENT FOR THE HOME

Thursday, February 7

Room 201, Diary Annex

a. m.
9:00. Current Opinion Regarding Flower Arrangement, James G. Moore.
9:15. Elements of beauty in a Composition, F. A. Aust.
9:35. Color Harmony, Mrs. Ruth Randolph, Dept. of Related Arts.

p. m.
2:30. Harmonizing Other Elements in the Composition, G. Wm. Longenecker.
3:30. Securing proper Mass Relations, F. A. Aust.
4:00. The Proper Measures of Self Expression in the Composition, James G. Moore.

SEEDS—SEEDLINGS

Tree and shrub seeds; seedlings and small transplants. Nurserymen write American Forestry Company, Pembine, Wisconsin.

About the Home and Garden

MRS. C. E. STRONG

A HAPPY NEW YEAR ALL THE YEAR TO EVERYBODY

TO BOTH old and new gardeners, the New Year means planning for the garden again, scanning the catalogs for the fascinating descriptions of both old and new flowers.

To the old gardener—by old I mean one who has had some years of experience—it is the newer things that intrigue. It is the unusual plant or shrub that interests them, the seeds of plants that have not been offered before. And this is well—for their gardens are in such a condition that even if the new plants, shrubs, or seeds are a total failure, it does not make very much difference to the appearance of the garden. If successful and the plants worthwhile, they have added just that much more beauty to their own and other gardens.

But the new beginner can safely stay within bounds and still have a wealth of bloom to choose from. There are hundreds of easily grown annual and perennial plants.

Study Catalogs

The modern catalog is a wonderful help if you study it carefully. It tells you how to prepare the soil, to sow the seed, to cultivate, whether this or that plant likes a sunny or a shady location, or perhaps is one of those happy dispositioned varieties that is contented almost anywhere. If some varieties are fussy and sulk in anything but an acid soil, there it is for you to read. Catalogs even tell you that a good drainage in winter is necessary to most acid soils. Quite a number of the catalogs give as much or more information as some of the garden books.

You will not find all of this information in one catalog. I

make notes in my garden notebook from different catalogs like this:

Annual Larkspur. Needs to be sown early while soil is cool and damp. Later sowings,—the seed should be soaked over night, then sown in shallow trenches that have been thoroughly watered, cover seed with damp soil, then with lawn clipping or finely shredded manure so the sun will not dry out soil before seed germinates, water carefully in evening.

I then list colors of larkspur bought and the name of the seedsman from whom they were purchased, when they germinated, how often cultivated, when they bloomed and if they were satisfactory.

Such a record will in a few years be of great value, especially if you keep adding to this any other cultural notes you may find—and after trying them out, record the results. Give each variety a half dozen pages, some will not need so much room, but others will need perhaps more. You will want to use the book for several years you know—and keep them always for reference.

One catalog lists 135 varieties of Campanulas. Are you interested in Campanulas? Try reading that list over and over until you begin to remember the names of quite a few of them, then read the descriptions, color, height. You will be surprised to find after a while that you will be able to recognize some of them when you meet them in a garden.

Perhaps it is Hemerocalles that you admire. Study the catalog descriptions, soon you will be able to say, "Why that must be J. A. Crawford because it has such pure apricot golden blossoms."

Mahonias

Sometimes it is well to study the catalogs for those which cater to very slim purses, they offer tiny plants of unusual varieties at a very small price—one of these quotes small plants of Mahonias at 35¢ each. Many times these small plants grow better than larger specimens. Am speaking of Mahonias because sprays of the glossy leaves were shown at a garden club meeting, used with fruit in a table decoration.

The plants are grown at Beloit. If in Beloit, why not elsewhere? So we are hoping they may be seen in our town some day. Mahonias are known to many under the common name of Oregon Holly.

This same catalog lists the hardy Begonia evansiana, which reestablishes itself from root tubers in the spring, price 18¢. If you are a Begonia fan, there are some thirty more varieties listed.

Lots of interesting reading in the catalogs, especially those which visit socially with the reader, implying that they quite understand your interest in gar-

dens and plants, hoping they can help you in some way, for they too are interested.

Early Blooming Hardy Mums

If, like myself, you were leaning towards middle age and with absolutely no illusions as to your charms, wouldn't you be surprised to receive a letter from a gentleman—a perfect stranger, in which he stated that he had been reading my articles in Wisconsin Horticulture and felt that he was the answer to a Maiden's prayer?

I fully believe he must have been listening in to Alfred Hottes at some time when he was talking of the value of the unexpected, in arousing interest. Anyway, I was very curious as to why? The gentleman went on to say that he had read of my desire to know of real early flowering chrysanthemums and believed he could tell me much about them as he had been working on a strain for a number of years. He thinks—no, I mean he says, he has now many plants that start blooming in early August and from then on through September and later of course, fine colors and very thrifty hardy plants. He states he has none for sale at present—but invites those who are interested to come to his garden at blossoming time and see them.

If all he says about his Chrysanthemums proves true, I am quite sure that while he may not be the answer to a Maiden's prayer—he will be to the seekers after early blooming hardy chrysanthemums.

Before blooming time comes again I will give the name and address of this grower to everyone so they too may go and see for themselves.

A Garden Record

On November 29th, 1934 I gathered a bouquet of hardy chrysanthemums from the garden for a decoration on Thanksgiving table, all nice blooms.

On November 30, 1934, I gathered a box of mixed flowers for a neighbor in the hospital. Chrysanthemums, Swiss Violets, Helleborus Niger, (Christmas Rose) Anthemis tinctorus, Trollius, along with a few blossoms of lavendar Phlox subulata, this evidently thinking it was getting towards spring and time to get ready to start flowering again.

GARDEN FERTILIZERS

MANY gardeners complain of injury to their plants from the use of fresh chicken manure. Part of this difficulty is due to the fact that it may be two or three times more concentrated than ordinary stable manure and consequently is not to be used so heavily. Probably one pound per square yard would be a sufficiently large application. Even with this amount it would be better if it could first be mixed with one to two parts of soil, sand, or peat moss. Better still if placed in a compost pile with peat moss, leaf mold or soil and allowed to decompose, it could be safely used on most plants. If to be used in the fresh state, it should be dug in and mixed thoroughly with the soil. Dried hen manure contains from 1 to 2 percent of nitrogen, 0.4 to 2.2 percent of phosphoric acid, and 1.9 to 5.3 percent of potash. It will be seen from this analysis that hen manure is a "complete" fertilizer in that it contains all three of the fertilizing elements commonly added in fertilizers.

—W. R. BALLARD,
Extension Horticulturist,
Maryland.

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Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

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Good Gladiolus Varieties of the Past Season

W. E. Menge

ONE of the best of Pfitzer's that I have grown recently is the white Maid of Orleans, several years old, but certainly very fine. I note that the Cornell Station and several others call it a prim grand and if so it is far ahead of any other of that type. It has a bit of cream in the throat but in the spikes I have seen it was very slight. This variety and Jonkheer von Tets I consider the best two whites although many think Mammoth White the best.

Outstanding Varieties

Of the newer Pfitzer's I grew last year, I thought Rosemarie Pfitzer and Pelegrina the most outstanding. Rosemarie Pfitzer is a light pink that goes to a light creamy white at the center and did not show the least bit of a greenish cast as did the color cut in the catalog. The color was very much better than the picture. The blooms are of fine formation, extra large, of good substance and perfectly placed on a tall 19 bud spike with possibly 10 open at once.

Pelegrina is wonderful from the standpoint of color, is the purest dark violet blue of any I have seen. It makes a good spike of 18 buds and will open about seven well shaped blooms at once. Almost every bud will show color when the first one or two open. This variety makes a good increase from my two years experience with it and most certainly will be one of the leaders in this color class.

Another good Pfitzer is Wurtembergia, a very large red with white throat, tall, strong grower, and a wonderful glad in this color. Five to seven flowers open and one of Pfitzer's best. One spike makes a whole bouquet. If there is anything more brilliant than a planting of Wurtembergia, I have yet to see it.

Varieties From Scotland

Many fine varieties have come from Mair, Scotland. They do not become acclimated as easily as the varieties from some of the other European originators. This may be one of the reasons why they are not more widely grown. Berty Snow and Queen Mary are two real glads although not really new enough to be in the rare class at this date. Berty Snow has become widely known very rapidly because it makes rapid increase.

Berty Mair the new one which Mr. Mair says is an improvement on Berty Snow appears to be just that. The blooms are slightly ruffled, a bit lighter in color and have not flecked in the two seasons I have grown it.

John Hill, rose salmon, with white lips, has 5 to 7 open flowers at one time. This is one of Mair's newer exhibition sorts.

John Ramsey is a deep salmon with rose white throat. It makes a strong spike of good big flowers with many open.

Netherland Prince is a bright salmon, very tall, strong grower, with 5 to 7 large blooms open at a time. A fine husky glad.

Robert The First is rose-lavender with purple markings heavily ruffled. It has very large wide open flowers, 8–10 open at one time. This was the tallest spike in my garden last season.

The best scarlet in my garden is H. W. Taft. It stands heat well, grows a good spike with 5 to 7 large blooms open at one time, a very good variety.

Good Yellows

Yellows I have grown are: Golden Cup, Spray of Gold, Miss Bloomington, Cadillac, Golden Chimes, Canberra and Mary Sharry. The latter is the most outstanding yellow in my garden, tall and stately with good placement, 6 to 8 large flowers open. Of all the good yellows Canberra, I still believe, to be the best exhibition yellow and while it has a slight greenish tinge in the bud it opens clear in color. Some spikes come with the blooms separated rather too widely, but it will open 10 blooms at once of good size and substance. While it is not a perfect yellow, I believe it has less faults than other yellows I have grown.

The best smoky in my garden this season was Chippewa. It has a 5 inch flower, 6 to 8 open on a tall straight spike. One of R. C. Burtner's good ones.

Lucifer is very similar to Red Lory and is one of the strongest I have grown from Australia. It has the same peculiar habit as our Los Angeles of sending outside shoots, and many of these on Lucifer are really spikes in themselves. The color is very brilliant and attracts much attention in the garden.

Lotus is a dainty glad. Its snowy waxy texture carries the merest tint of cream and pink. This grew a spike 5 feet high with 6 good sized flowers open at one time.

Sweetheart I consider one of the most beautiful glads I grew. It has a straight spike, 4 inch

flowers, pure waxy snow white blending to a dainty pink.

Silversheen is good. It is a tall, pink variety with white blotch. The petals seem to be covered with a silver dust which glistens in the sunlight. Has 6 to 8 flowers open at one time.

Lindesta makes a beautiful spike of bloom and I feel will become popular. Often has 8 to 10 flowers open at one time. I agree with Mr. Palmer, it is a very much improved Jenny Lind.

Wasaga a glowing capucine buff with wide open somewhat ruffled petals. I would like to grow a large amount of this variety.

Among the dark blues, Rosa Raisa is a fine glad. It grows a good spike with 6 to 7 medium blooms. A good performer this last season.

Blue Royal is a fine tall dark blue. Placement not good this last season but well worthwhile.

Lavender Delight. Here is a new lavender which is a bit lighter and more brilliant than Minuet, making the longest flower head and spike of the various lavenders offered, well worthwhile.

Hyacinth is a very delicate shell pink with lemon lip and a bit of mauve deep in the throat. Has 6 to 7 inch florets, 8 to 10 open. A good Australian variety and possibly the only one able to dispute the throne with Fredrich Christ. This one made a good showing in my garden.

New Introductions

Among the new introductions originating in this country I feel that Heritage was easily the best. In fact, I saw only two new United States varieties that interested me enough to really want to grow them. Heritage originated by Edwin H. Ristow, Oshkosh, received the gold medal as best seedling and gold medal grand champion spike of the Iowa State show August 10–11. At the Minnesota State Show August 20–21, it was the best seedling and grand champion of the show. At the National Gladiolus Show, Century of Progress, August 18–24, it was the best exhibition seedling, winner of George Habberstad Memorial.

Winter Care of Gladiolus Corms

Noel F. Thompson

Associate Pathologist, Department of Agriculture and Markets

WINTER care of gladiolus should be a pleasure to the glad fan, rather than a chore. While one is cleaning, culling, sorting and treating the corms, the characters of the different varieties can be recalled with memories of the past season and anticipation for the season to come.

Cleaning may commence as soon as the corms are dry enough, but should not be delayed much beyond the Christmas season. Cleaning consists in breaking off and discarding the old corm and roots. Some or all of the cormels, the small, hard-shelled little corms attached near the base of the new corm, may be saved if desired. Never remove more of the dry husks of the new corm than is absolutely necessary as they are a great protection to the corm during the balance of the storage period. The outermost husk may be removed in the spring if it is desired to improve the appearance of the corm at that time, but it is not good practice to husk the corms at any time—not even just before planting. Of course the top of the plant should have been cut off near the corm when it was dug. If this was not done then it should be done as the corms are cleaned. The top should be cut off, not twisted, for the latter process is apt to take the husks off to.

Detecting Disease

The corms should be culled as they are cleaned. Badly diseased, injured or misnamed corms should be eliminated. Scab is recognized by black-bordered holes through the husks and sunken glossy pits in the corm itself. Fusarium rot, hard rot and dry rot may sometimes be seen at the base of the corm as brown to black sunken areas or may be detected by the feeling of such areas through the husks. Except with the more choice varieties, it is not worth while to attempt to save badly diseased corms.

Grading usually consists in separating the corms into the various size classes, but with amateurs having small numbers of corms of one variety, the age of the corm is more important than the size. Corms are raised from cormels and the second or third year the plant will produce the largest and most perfect bloom. Corms that are more than three or four years from cormels should as a rule be discarded even though they are the largest in the lot. It is for this reason that it is advisable to save and plant a few cormels of each worth-while variety each year unless it is desired to purchase new stock. In sorting, the young corms should always be saved in preference to the old ones.

Control Thrips Now

Treatment of the corms for disease at this time of year is not generally recommended. Spring treatment is usually preferable. However, winter treatment for thrips, the most serious gladiolus pest we have, is recommended. Various treatments for this insect are effective but probably the simplest and safest is the use of naphthalene flakes. Naphthalene flakes are very cheap and may be purchased from drug stores, dime stores, or seed houses. One pound of flakes will treat about 1,600 corms, that is, one ounce for 100 corms. With small lots of corms the most convenient method is to place all the corms of one variety in a paper bag and add a sufficient amount of the chemical. Then fold over the top and place the bag in storage. The chemical may be left with the corms for a period of three weeks to two months without danger. It is then advisable to open the bag and remove most of the naphthalene.

A storage temperature of

(Continued on page 127)

Novelties For Next Year's Garden

New Annual Flowers Which Have Been Tested and Found Worth While

The new Fantasy zinnias which have quilled and twisted petals.

The cosmos Klondyke Orange Flare, awarded a gold medal.

OVER 100 tests of annual flowers made in ten different sections of the United States have resulted in the selection of novelties which will be called the 1935 All-America winners. Some of them are illustrated herewith and all are worth trying.

Rust-proof Snapdragons

An indication of the remarkable progress being made in plant breeding is the introduction this year of rust-proof snapdragons. The rust disease has made it practically impossible in many sections of the country to grow snapdragons in the garden successfully. Seedsmen cooperating with the University of California have now perfected a strain which will produce plants that are 75 per cent rust-proof. The original strain comes only in mixture but separate colors have also been selected. In recognition of the distinct advantage that these new snapdragons have over old strains, the All-America council awarded them a certificate of honor the first to be issued.

We recommend for trial to our members this list of novelties for our next year's gardens.

There is no greater fascination in gardening than growing new varieties we have never seen before.

We wish to thank the Massachusetts Horticultural Society, and Edward I. Farrington, Secretary, for the use of the cuts and this article which was published in the November 15 issue of Horticulture.

A Golden Cosmos

By unanimous vote, a new golden yellow cosmos was awarded the grand champion or first gold medal. Apparently this novelty will be introduced under several names as, for instance, the cosmos Klondyke Orange Flare and Golden Cosmos. For years the Klondyke cosmos has been grown in the South, or even in the North by starting the seeds early indoors, but rarely did the plants flower before the first frost. The new variety Orange Flare, which was developed in Texas, requires only three months in which to flower and thus can be grown in any garden into Canada. The plants make compact bushy specimens two to three feet high that are covered for weeks on end with single golden yellow blossoms on long stems. The flowers of this cosmos are not as large as those of the usual pink, white and red varieties. The foliage, too, is much different and is light yelowish green in color. Wthout question the cosmos Orange Flare is the outstanding novelty of the season.

Scarlet Gleam Nasturtiums

Greater variety is now to be found in double nasturtiums. The second gold medal this year went to Scarlet Gleam, a companion flower of the now popular Golden Gleam variety. It has the same general characteristics of its parent, being bushy with short runners and having semi-double blossoms with ruffled petals.

A New Marigold

It is only natural to find that other prize winners are included among popular classes of garden annuals. The new marigold Yellow Supreme was awarded a gold medal. The blossoms are completely double, creamy lemon yellow or rich primrose yellow in color, and carnation-flowered in type. The plants grow two to three feet high. Apparently the odor of the marigold has been subdued, even as in the new double nasturtiums, for it is claimed that marigold Yellow Supreme is odorless or it may have a delicate honey fragrance.

A Shaggy Calendula

Calendulas have come in for considerable advancement during the last few years as a result of the fine new varieties that have been developed. This year's offering is the gold medal winner called Orange Shaggy. The name is suggested by the beautiful, fringed, narrow petals that give the bloom its shaggy appearance and by the rich orange color which, however, is slightly lighter toward the center of the bloom. The blooms are excellent for cutting.

Several other annuals did not score high enough to receive gold medals and yet were considered worthy of awards of merit.

Striking New Zinnias

Highest among these was the zinnia Fantasy, which is most striking in appearance. The petals are quilled and twisted. At the present time the colors are mixed. The blooms are of medium size and they last well when cut. The plants average two or two and one-half feet high in the garden.

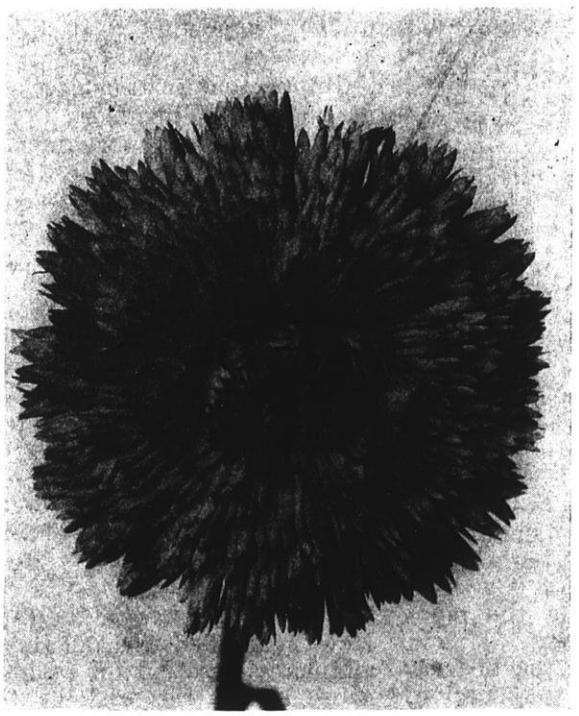
Good Dwarf Petunia

The originators of the new Martha Washington, which also received an award of merit, had difficulty in selecting a name for their creation. The dwarf compact plants are covered with flowers colored white tinged with blue and lavender and with deep violet veination. The formation and ruffling of the petals, however, suggested the blooms of pelargoniums, so that the name Martha Washington was considered appropriate.

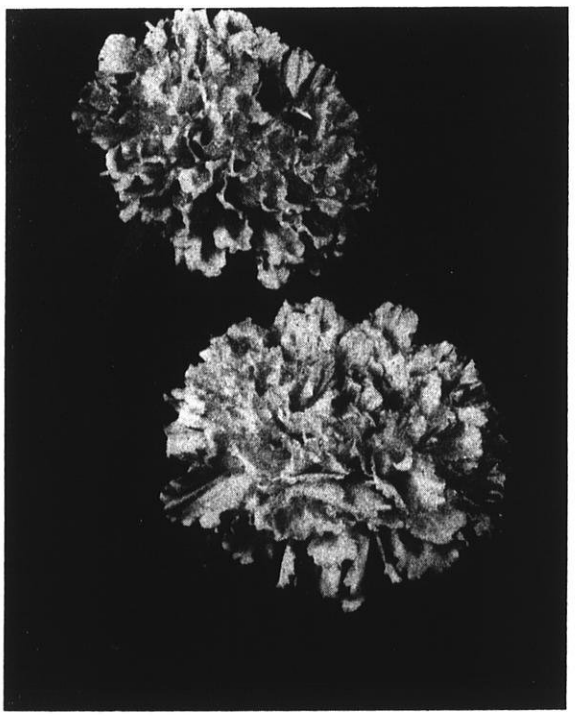
Much emphasis will be laid on double nasturtiums because another strain is featured in the All-America selections, this one being Bodger's Glorius Gleam-hybrids, which gained an award of merit. These hybrids have rich colors and were derived by making crosses with Golden Gleam.

The last annual on the list to win an award of merit is the phlox of the Drummond or annual type named Gigantea Art Shades. Twelve-inch-tall plants produce extra large flowers, each of which has a large light-

(Continued on page 127)



The calendula Orange Shaggy represents the latest development in this popular annual.



A gold medal has been awarded the new marigold Yellow Supreme.

STATE GARDEN CLUB FEDERATION NEWS

Federation Aims: To stimulate and help garden clubs throughout the state; to develop interest in and broaden the knowledge of gardening; to aid in the protection of trees, plants and birds, and promote civic beautifications.

A MESSAGE FROM OUR PRESIDENT

Dear Garden Club Members:

WHAT a splendid meeting we did have in Racine. And such a large number there. I wish it could be possible for every member to attend these meetings. But if we can't, the next best thing will be the district meetings during the year.

I hope every district is beginning to think and plan for their flower show next summer. As you know, if you read the report of the annual meeting, we are going to omit the state flower show and have only district flower shows again this year. These shows were worthwhile last year and we hope to have them bigger and better this year. We must continue our judging schools. But if held in conjunction with the district flower show, separate arrangements should be made for the school in the room where the school is to be held.

The new Executive Committee held its first meeting December 13th. We didn't take time off to tell what we wanted for Christmas we were so busy. Two new committees were added to the standing committees. Because of her splendid leadership, Mrs. Harry Bullard was appointed chairman of the garden club organization committee.

We are now beginning our seventh year as an organization and find that there are many interesting and valuable records that we should have compiled so we appointed Mrs. R. H. Malisch historian chairman. Both of these chairmen will need the assistance of the Federation and I am sure they will receive it.

Plant Testing

Just a word about the plant testing. Here is a way we can render service to our state. This next year when the list of horticultural material for testing reaches your club, interest several members to try at least one thing. We have been well pleased in the past with some things. Others were failures. But that is what we must expect. Some have made the remark, "They are so expensive." All new varieties are expensive. But what satisfaction and joy to raise successfully something that is on trial. We can help the nurserymen by plant testing. And they surely have done much for us.

We can be real proud of our Wisconsin Horticulture. Get in the habit of reading it from cover to cover, even to the ads. Pay especial attention to the Federation news. This is our letter to you each month. Often you can get splendid ideas for your club program by reading the news from the other clubs. If you have a message for the Federation send it in for publication.

We can all find time for the things we like best to do. Happy is the one who finds time for gardening. "God walks in the Garden." Maybe this summer we thought not, but occasionally when we heed not the teachings of the prophets, more drastic lessons are needed. We need only to pick up any paper to see how conservation minded many people have become. Let us lead the way by awakening people to the facts and teaching them what to do. Rich or poor; high or low; most people are glad to do if they know what to do.

In the garden among the flowers, birds, trees and shrubs, we find peace, contentment and joy. There we rest our tired minds and live with the beauty of nature. There we learn the lessons of our maker and take on new hope and faith in our fellowmen.

Happy and fortunate are we as garden club members. Fortunate to have an organization which gives us and in designing our gardens, in selecting proper material, in growing the same and last but not least in arranging effectively that which we have grown. Fortunate too in the opportunity for friendships such as we find in the Garden Club Federation.

Let our New Year resolutions be: "Pluck a thistle and plant a rose where we think a rose will grow," "Open a garden to every man, woman and child" that they too may share in the beauties of Nature.

That this may be a Happy New Year filled with all the old and many new joys for each and every one is the wish of your president.

—MRS. CHAS. A. JAHR.

Federation Executive Board Appoints Committees

THE Executive Committee of the Wisconsin Garden Club Federation met at Milwaukee on December 12. The recording secretary, Mrs. R. R. Hibbard, reported satisfactory balances in the three Federation funds.

Plans were made for the work of the Federation and districts for the coming year. Standing committees for 1935 were appointed. The following committees were appointed:

Conservation and Highway Beautification:
Mrs. Clarence Schultz, Neenah, Chairman.
E. H. Miles, Fort Atkinson.
Mrs. C. W. Wilson, Milwaukee.
Mrs. Edw. E. Browne, Waupaca, representative of Board.

Visiting Garden Committee:
Mrs. Chester Thomas, Milwaukee, Chairman.
Mrs. Harry L. Macdonald, Lake Geneva.
Mrs. E. J. Wells, Oakfield.
Mrs. E. R. Durgin, Racine, representative of Board.

Garden Club Programs:
Mrs. H. B. Hitz, Nashotah.
Mrs. J. M. Kennedy, Superior.
Mrs. C. E. Strong, West Allis.
Mrs. N. W. Evans, Oconomowoc.
Mrs. D. W. Weart, Oconomowoc, representative of Board.

Historian:
Mrs. R. H. Malisch, Hales Corners.

Speakers Bureau:
Mrs. N. W. Evans, Oconomowoc.

Junior Garden Club:
Mrs. Frank Quimby, Racine, Chairman.
Mrs. Samuel Post, Madison.
Mrs. E. D. Iverson, Wauwatosa.
Mrs. Chas. Jahr, Elkhorn, Representative of Board.

Legislative Committee:
Mrs. B. W. Wells, Madison.

Garden Club Organization:
Mrs. Charlotte Bullard, Menasha.
District Chairmen:
Mrs. Irving Lorentz, Milwaukee.
E. L. White, Jefferson.
Mrs. J. M. Johnson, Ripon.

Plant Testing:
James Livingstone, Milwaukee, Chairman.
M. S. Kellogg, Janesville.
Wm. Longland, Lake Geneva.
Mrs. Maude Smythe, Delafield.
Grant Park Representative.
W. A. Toole, Baraboo.
G. Wm. Longenecker, Madison.
Mrs. R. R. Hibbard, Wauwatosa.
Mr. E. L. White, Jefferson.
H. J. Rahmlow, Madison, Secretary.

Constitution:
Mrs. A. W. Sperber, Hales Corners.
Mrs. W. A. Peirce, Racine.
Dr. Carl Schwendener, Milwaukee.
Mrs. Chas. Jahr, Elkhorn.
Mrs. R. R. Hibbard, Wauwatosa.
H. J. Rahmlow, Madison.

The duty of the representative of the Executive Board on each committee will be to advise with the committee at their meetings what work the Executive Board planned for the coming year. Board members will be ex-officio members of the committees.

It was recommended that regularly organized districts provide their own finances, and as soon as possible pay the traveling expenses of their chairmen to Executive Board meetings. A regularly organized district consists of such districts as have had organization meetings, having held regular elections and having elected a district chairman, a vice-chairman and secretary-treasurer.

Plans For Flower Arrangement Slides

Plans for preparing a set of slides on flower arrangement to be owned by the Federation and made available to all clubs through the Bureau of Visual Instruction of the University of Wisconsin were discussed. The Federation, however, is at the present time unable to finance the cost of a complete set of slides and hopes for suggestions along this line. Many beautiful arrangements are exhibited each year at flower shows. If photographs of such arrangements could be taken and colored slides prepared together with a lecture, it would be a valuable aid in our educational work on flower shows.

Board members present at the meeting were: Mrs. Chas. Jahr, Elkhorn, president; Mrs. E. Durgin, Racine, 1st vice-president; Mrs. Edw. E. Browne, Waupaca, 2nd vice-president; Mrs. R. R. Hibbard, Wauwatosa, Rec. secretary-treasurer; H. J. Rahmlow, Madison, Cor. secretary; Mrs. D. W. Weart, Oconomowoc, Executive Board; Mrs. J. M. Johnson, Ripon, district chairman Fox River Valley; E. L. White, Jefferson, chairman South Central district. The chairman of the Milwaukee district was unable to be present.

A GARDEN CENTER IN EVERY COMMUNITY

IN this issue is an article written by Mrs. B. W. Wells of Madison reporting on the discussion on Garden Centers at our annual convention. Here is a project to which every garden club can be of great help to the people of the community.

May we suggest that every garden club appoint a committee to investigate the possibilities of establishing a garden

CUT ME OUT

and mail me with a recent copy of your local telephone directory, checked with the names of your Garden Club Members and local garden fans, to English Estates Seeds, Fox Lake, Wis.—and I will send you a generous pkt. of imported French Chateau Delphinium Seed. Enjoy the breath-taking loveliness of these giant double blooms (many with pink fillings) this coming season. Kindly include 3¢ stamp to cover postage and packing.

English Estates Seeds
FOX LAKE, WIS.
(Associated with Fairview Gardens)

center? Space for a garden center can be found in most any library or public place available to the people of the community. It should be designed not as a social gathering place, but where the beginners in gardening can and will feel free to come for information. Illustrative material should be prepared to illustrate different phases of gardening to help in answering questions. The months of March and April would be most timely as that is the time when beginners are asking questions.

SHALL WE CONTINUE GARDEN CLUB REPORTS?

A FEW years ago we were publishing several pages of garden club reports. Recently, however, they have stopped coming in. Evidently there is a lack of interest in continued reports of programs.

However, we believe there is much of value to garden clubs from reports giving ideas to others of programs which a club may have carried on at different seasons of the year. With 50 garden clubs belonging to the Federation it will be impossible to publish a report of their meeting each month. We hope, however, that we may receive a brief report of anything of especial interest which took place at a meeting which other clubs might use.

As to what not to do, recently we picked up a magazine in which was published an item from a reader about as follows: "Please see to it that we get the news as it should be of what is said at the coming convention. Do not say *'So and so gave a talk.'* Give us what is said that was of value."

HOW GARDEN CLUBS MAY ORDER PLANT PREMIUMS

THE Wisconsin Horticultural Society is again offering plant premiums for membership in the Society during January, February and until March 20 for garden club members.

Garden Club members who become members of the State Horticultural Society by paying their dues of 50¢ to the State Garden Club Federation, 35¢ of which pays the membership in the Horticultural Society for which they receive the magazine, are entitled to receive premiums.

The dues are first sent to our Federation recording secretary, Mrs. R. R. Hibard, 7034 Aetna Court, Wauwatosa *by your garden club secretary. Dues and premium requests must always be sent together.* Because of the tremendous amount of work involved, each club should be careful about observing the rules. Otherwise Mrs. Hibbard will not be able to handle the work. Please make it unnecessary for her to write for more information. Observe these rules:

1. Do not send a premium request unless accompanied by 50¢ membership dues.
2. Try to get all the requests in to Mrs. Hibbard during February at the latest. The office is always swamped by late requests. None accepted after March 20.
3. Never send in a plant premium application without second choice, and accompanied with 15¢ postage.

The reason for making a second choice is because most nurserymen set a limit on the total number they can give and often these are soon taken up.

HELP AVAILABLE

Mary Wilson Vail, 86 South Clinton Street, East Orange, New Jersey, is the first chairman of the National Committee on Garden Centers. The National Council of State Garden Club Federations through this committee is helping groups to establish centers. A booklet is now available to anyone who sends for it, that furnishes information on "The Value of the Garden Center to the Community." "Practical Suggestions on Establishing Garden Centers," "Methods of Financing a Center," and "Programs for a Garden Center." Posters are also available. An illustrated lecture having forty slides is in preparation. The posters and lecture may be had for the cost of insurance and transportation.

In talking with members of our Wisconsin clubs I learned that several have made beginnings in establishing centers —among these the Waupaca Club. Mrs. Edward E. Browne was enthusiastic over the possibilities of garden centers.

WE MUST PAY FOR WHAT WE GET

NOW and then we hear a complaint from those who have given premiums for flower shows or helped in some other way to make the work of a garden club successful, that those who benefited gave nothing in return.

If we solicit nursery stock from a nursery for flower show premiums, we should give that nursery at least partial payment for the gift in advertising. If a premium list is not published giving the names of the donators, then the information should be published in local papers. If this cannot be done, then we should not solicit premiums. In fact, the practice of soliciting premiums has become very burdensome to many nurseries.

In giving publicity we should also be careful to give the correct name of the firm or nursery mentioned, using correct spelling and the correct address.

GARDEN TALKS OVER RADIO STATION WHA

Two more garden talks "Tips for the Spring Garden" have been scheduled over the University of Wisconsin Radio Station WHA for Tuesday, January 29th and Tuesday, February 5th over the Home Maker's Hour between 10 and 10:45 a. m. The talks will be given by the editor. We will try to have something of special interest to garden club members.

Garden Books

Available From the Free Traveling Library, State Capitol, Madison

Rose garden primer. Holmes, Eber.
The rose manual; an encyclopedia for the American amateur. Nicolas, J. H.
How to grow roses. Pyle, Robert, and others.
Roses. Rockwell, F. F.
Climbing roses. Stevens, G. A.
Roses in the little garden. Stevens, G. A.
Practical book of outdoor rose growing for the home garden. Thomas, G. C.

Colour and Scent

Gardening with herbs for flavor and fragrance. Fox, Mrs. H. M.
The gardener's colour book. King, Mrs. L. (Y.) and Fothergill, John.
The scented garden. Rohde, E. S.
The fragrant path; a book about sweet scented flowers and leaves. Wilder, Mrs. L. (B.)
Colour in my garden; illustrated in colour by Anna Winegar. Wilder, Mrs. L. (B.)

Rock Gardens and Garden Pools

The rock garden; its construction and care. Aust, F. A. and Hankinson, Hazel.
American rock gardens. Hamblin, S. F.
Water gardens and goldfish. Sawyer, R. V. and Perkins, E. H.
Rock garden primer. Thornton, Archie.
Pleasures and problems of a rock garden. Wilder, Mrs. L. (B.)
The rock garden. Wilder, Mrs. L. (B.)
Lily pools and rock gardens. Wilson, E. H. and Wilson, R. T.

Wild Flower Gardens

Pioneering with wild flowers. Aiken, G. D.
Wisconsin wild flowers. Clohisy, Matt.
Spring flora of Wisconsin. Fassett, N. C.
Western American alpines. Gabrielson, I. N.
Flowers of the wild; their culture and requirements. Pellett, F. C.

House Plants, Miniature and Window Gardens

Success with house plants. Kift, J. L. and Hedenberg, K. B.

Flower Arrangement

Japanese flower arrangement applied to western needs. Averill, Mary.
Arranging flowers througout the year. Cary, Mrs. K. T. and Merrell, Mrs. N. D.
Manual of floral designing. Harry, W. C.
Flower and vase; a monthly key to room decoration. Lamplugh, Anne.
Flowers for every occasion. Tipton, Mrs. E. (S.)
Principles of flower arrangement. White, E. A.

Gardens of Many Countries

The gardens of Japan. Harada, Jiro.
Chinese garden architecture; a collection of photographs of minor Chinese buildings. Howard, E. L.
Old gardens of Italy; how to visit them. LeBlond, Mrs. E. A.
My African garden. Macdonald, Mrs. S. (S.)
What England can teach us about gardening. Miller, Wilhelm.
English pleasure gardens. Nichols, R. S.
Italian pleasure gardens; with nearly 200 reproductions of photographs and plans. Nichols, R. S.
English flower garden and home grounds of hardy trees and flowers only. Robinson, William.
Beautiful gardens in America. Shelton, Louise.
The Shakespeare garden. Singleton, Esther.
Old-fashioned gardening; a history and a reconstruction. Tabor, Grace.
Japanese gardens. Taylour, Mrs. H. O.
Italian villas and their gardens. Wharton, Mrs. E. N. (J.)
America's greatest garden, the Arnold arboretum. Wilson, E. H.

Landscape Gardening—General

The design of small properties; a book for the home-owner in city and country. Bottomley, M. E.
Practical landscape gardening. Cridland, R. B.
Everybody's garden; talks on natural design and the use of simple material. Eaton, W. P.
Foundation planting. Johnson, L. H.
Landscaping the small home. Olver, E. W.
Landscaping the home grounds; Ramsey, L. W.
The outdoor living room. Ramsey, L. W. and Lawrence, C. H.
Everybody's garden; the how, the why and especially the wherefore, of the home garden, with emphasis upon the interests of the average American. Waugh, F. A.
The lawn; the culture of turf in park, golfing and home areas. Dickinson, L. S.
Lawns, Rockwell, F. F.
Parks, Weir, L. H.

Vines, Trees and Shrubs

Care of trees in lawn, street and park with a list of trees and shrubs for decorative use. Fernow, B. E.
The care of ornamental trees. Greeves–Carpenter, C. F.
The book of shrubs. Hottes, A. C.
The book of trees. Hottes, A. C.
A little book of climbing plants, including a discussion of climbing roses, ground covers, trailers, arbors, and trellises. Hottes. A. C.
Our northern shrubs and how to identify them. Keeler, H. L.
Flowering trees and shrubs. Macself, A. J.
Practical tree repair. Peets, Elbert.
Evergreens for the small place. Rockwell, F. F.
Shrubs, Rockwell, F. F.
Hardy evergreens; a practical handbook on the planting, growth and management of all hardy evergreens, exclusive of the broad-leaved species. Schrepfer, F. A.

SHADOW BOXES AVAILABLE

The Racine Garden Club has four sets of shadow boxes for sale. These boxes are well made and consist of six shadow boxes made as one unit. They will be sold for the cost of the material. Write: Miss Margaret Teuscher, 1650 College Ave., Racine, President of the club.

ADDITIONS TO THE SPEAKERS FUND

Since our last issue two more donations have been received for the Speakers Fund of the State Garden Club Federation. The Oshkosh Horticultural Society contributed $1.00, and the Racine Garden Club, $5.00.

At the present time there is a small balance in the Speakers Fund which will be used for district meetings next spring.

A complete treasurer's report will be given in our next issue.

Garden Centers

Mrs. B. W. Wells

GARDEN Centers was one of the most timely subjects presented at the annual meeting of the Garden Club Federation.

Mrs. Joseph Harrington of Riverside, Illinois, gave a report on the nature of garden centers, their value to a community and the progress made thus far in establishing such centers.

The garden center provides a wider contact between garden clubs and the community by establishing a centrally located place where anyone may go for information and inspiration on gardening subjects.

Since only *one percent* of the homes of America now have gardens and we have such great resources in the way of horticultural societies, expert nurserymen, landscape architects, and garden club members what we need is a convenient friendly place where such knowledge, experience, and ideals may be made accessible to all the people of a community or neighborhood.

How to Begin

The establishing of a garden center may be undertaken by any group no matter how limited its means or facilities. Any club may start such a center by displaying garden magazines, books, catalogs, leaflets, charts, posters, scrapbooks, files or clippings or a question box. Information on wild flower culture, weeds, pests, fertilizers, landscaping and other subjects of general interest could be disseminated without cost to anyone. Specimens of fungus and insect pests (probably dead) could be exhibited along with instructions as to their control.

An artistic arrangement of flowers, a plant, surplus seeds and bulbs or new equipment for gardeners might form part of an exhibit. The possibilities of educating the general public by means of such centers are almost limitless.

Location

Location is important. It should be central and attractive to passers by. At first it might consist of a table or wall space in the library or some prominent window in the downtown section. As the interest and service grew someone might be in attendance one day a week or more who could give reliable information on lawns, trees, flower growing etc. The presence of a garden club member with a friendly interest in community beautification would do much to stimulate the interest of would-be gardeners who are not members of a garden club.

Successful Garden Centers

Garden centers are a new development in the middle West. New Jersey was the pioneer. Their first center was established in 1929 by Mrs. Frederick Fisher. Since that time many have been started there and in other states. The beginnings are usually humble but increase rapidly in size and service.

The Cleveland Center, the combined effort of thirty-five clubs, is the outstanding example of how extensive and serviceable a garden center may become. It occupies a two-story brick building in the Fine Arts Garden. This building was formerly a boat house. It is owned by the city and rented to the center at one dollar per year. A fine library and an exhibit room with three attendants provide instruction six days a week and two evenings. There is a regular schedule of lectures on timely subjects.

The Detroit Center also does extensive educational work in connection with demonstration gardens. California, Pennsylvania, Maryland, Kentucky and Illinois are showing great enthusiasm in establishing these centers.

OSHKOSH HORTICULTURAL SOCIETY

THE men of the Oshkosh Society took complete charge of the supper and meeting held during December. A baked ham supper was served, table decorations being in Christmas colors. After some musical numbers a business meeting was held featuring the election of officers. D. G. Stroebel was elected president, E. W. Mouck, vice-president, Florence Winchester re-elected secretary–treasurer.

Reports on the convention of the State Horticultural Society were given by N. A. Rasmussen. Mrs. E. W. Johnson who attended the garden club sessions was not able to be present.

Mr. Rasmussen reported that the sessions for fruit growers were especially interesting and beneficial.

A report of the important things our Society has accomplished during the past year was given. The flower show, junior garden club work, the work of the tree committee was especially praised. It was stated that about one-third of the trees in Menominee Park have been named. Plans are made to beautify the Elizabeth Davis home.

—FLORENCE WINCHESTER,
Secretary.

GOOD PHLOX VARIETIES FOR 1935

Ethel Pitchard — Lavender mauve
Firebrand—Bright scarlet
Count Zepplin Graff — White with red eye
Baron Von Heckerey—Rose pink
Saladin—Bright Orange scarlet
Le Mahdi—Blue violet
Eclaireur—Rose magenta
H. B. May—Lilac Rose
Flora Riedy—White
Dr. Charcot—Blue
Rheinlander—Salmon pink–dark eye

Good Varieties For the Border

Mrs. B. W. Wells

THREE of Wisconsin's well known gardeners, Mr. W. A. Toole, Baraboo, Mr. John Hauser, Bayfield, and Mr. Axel Johnson, Lake Geneva, in their discussion of annuals and perennials pleased the members of the State Garden Club Federation at our recent Racine meeting. Inspirational talks are never so well received by this practical minded group as are the practical suggestions of practical growers.

New Mums

Mr. Toole brought the blooms of some new seedling Chrysanthemums. Vera — a dainty pink one, was especially pretty. He spoke of the growing interest in hardy mums and urged people to try the new Aladdin which blooms early and long—the color, a rich bronze.

The new Azaleamum which fades early in the season is really a compact bloomer and retains its color later, he said. Mr. Toole spoke of his experiences in growing dwarf iris and the number of varieties he had successfully grown. He showed a blooming plant of the new compact pink gypsophila especially adapted for rock garden use. Bellis, rotundifolia and pink arabis were other new plants for rock gardens. In his usual generous way he gave his specimen plants to gardeners present.

Good Varieties to Grow

Mr. Johnson made a plea for a new interest in old favorites. He also named a few new varieties. Cary — a new yellow Chrysanthemum; Aster-Climax; Bleeding Heart; a perennial phlox, the new annual Canterbury Bell; Hunnemannia, Sunlight; Marigold, Josephine; Pansy, Maple Leaf; the new scabiosa flowered and midget zinnias were all endorsed by him.

Tritoma he had found to be a fine plant for the back of the border. Scarlet sage was an old favorite he considered worth keeping.

Perennials

Mr. Hauser is also a standpatter when it comes to favoring tried and true varieties and showed us that we still had things to learn about their culture.

Salvia—pratensis, he said, should be treated as a tender perennial. Pentstemon should be classed with annuals. The seeds of Iceland Poppy should be planted in the fall in the spot where we wish to grow them, if possible. Verbascum pannosum should be cut back before it goes to seed. Mr. Hauser did not minimize the difficulty in growing Lupine.

He mentioned Tom Thumb, a yellow feverfew, Plumbago, Adonis and annual gypsophila for the rockery.

Physostegia-vivid he commended highly.

Knowing the adversities that these gardeners have faced in recent years, just to listen to their hopeful interest in growing new and old varieties of plants inspired us with fresh interest in gardening.

GROWING TIGRIDIAS

AFTER eight years of study and experiment, I pass along the following simple rules for tigridia growing:

1. Plant bulbs after all danger of frost is over. A rich, sandy loam with partial shade is best.

2. When bloom stalks appear, water heavily and keep it up. Soak the soil, don't just wet the surface. If this program of watering is adhered to, the blooming season will continue until frost nips the foliage.

3. Leave tops on after digging. Tie in bunches like carrots and hang up to cure out of reach of rodents. When cured (in about five weeks) remove tops and dried roots and store in a box, crock or large flower pot, filled with dry sand. Be sure the container is securely covered to exclude the aforementioned rodents.

4. Never separate the bulbs until just before planting time when they will come apart readily as the forming of new rootlets will release the bulb from the base without injury to itself.

Try Tigridia Pavonia grandiflora in your garden next season. Follow these simple rules and you will be rewarded with a wealth of exotic, triangular flowers.—NORMAN DONALD MORSE, *in Golden Gardens.*

FORT ATKINSON GARDEN CLUB

DURING the past two years the Fort Atkinson Garden Club has a rather enviable reputation in that every member who has been scheduled to appear on the program, has taken his or her part or furnished a substitute. It has been the saying of the club that any person failing to do his or her part, must furnish the "wieners" for the club.

At the October meeting two members "forgot" and so on November 22nd the club met at the home of Mr. and Mrs. Chas. Vosberg, and had one of the most enjoyable meetings of the year. The members brought in the "trimmings" and an old fashioned picnic supper was the result.

Charles Vosberg, one of the offending members, gave a highly humorous discussion of the "Three Links of Mystery". He exemplified his point by hauling two big fat wieners from his inside pocket. Needless to say, Charles does not pass as the "missing link."

The regular program was given. The meeting adjourned for the year.

The club voted to have a banquet at the January meeting at which time the officers for the coming year will be elected.

—E. H. MILES,
President.

Growing Orchids in the Home

HAVE you ever tried to grow orchids in your home? Most of us have felt that orchids should be grown in a conservatory and that they would not succeed in the home.

In the American Home is an article describing how Mrs. Mary Collins grows them successfully in her home. This is her method.

"Orchids are not nearly so delicate as people think. True, they have certain peculiar needs and these must be considered. They do not grow in soil, although they are not parasites; they take their nourishment from the air. They must also have an abundance of moisture.

"Now the air must circulate around the roots, but the roots must not dry out so the plants are loosely wrapped in osmunda peat (the fibrous fern root found in southern swamps) and put in flowerpots which are, in turn, wrapped in moss or peat and placed in wire baskets. By keeping the peat well watered the plants will not dry out and still have the circulation of air it needs. The roots are tough and strong and the leaves leathery. No, Orchids are not delicate. I started raising them with no previous experience and have never lost a plant.

"Because my sunporch has a hardwood floor it is not practicable to hose down the room so I had to find other means of keeping the moisture content high. Low flat pans of water are kept on the radiators at all times but, during the hot, dry summer and many times when the furnace is in use, this does not furnish enough humidity; so I spray the plants several times daily, using the small spray pump kept for spraying insecticide in the garden.

"Of course I cannot always maintain an even temperature; it does vary a great deal, as much as from sixty degrees on a winter night to a hundred on a summer day; but I can keep the changes from being too sudden. I watch my thermometer and just try to maintain an ordinary room temperature.

"No, I did not buy all my plants in the flowering size. Orchids do not bloom until they are from five to seven years old, but the number can be increased by dividing strong clumps.

"I paid $7.50 for my first Orchid, an Oncidium splendidum, and it bloomed in a few weeks; it has a flower branch that grows tall and falls over the side of the basket; the flowers are brown and yellow. Prices for Orchids vary widely; hybrid seedlings may be purchased for from fifty cents to five dollars and named plants for any price up to hundreds of dollars.

"Generally speaking, Orchids bloom but once a year; some bloom twice but most do not; but then neither do Iris or Peonies! And Orchids have this advantage: there are so many kinds one can have blossoms every month in the year if one plans right."

HOW TO MAKE A WINTER GARDEN OR TERRARIUM

MOST housewives like to have house plants for the winter. Some, however, think they are too much trouble or find that the dry, heated atmosphere of the modern house is ill-adapted to their successful culture. Perhaps these difficulties have stimulated interest in the "glassed-in" winter garden, or terrarium.

This is simply a glass container such as an aquarium or fish bowl. There should be a close fitting glass cover for when the garden is fully established it is kept tightly closed. Under these conditions the air in the container remains moist even though the air outside may be abnormally dry.

Certain types of plants such as those found in moist, woodsy conditions are best adapted to this kind of a garden. A good way to start is to collect green sheet moss from the woods. With this line the sides for an inch or so from the bottom with the moss side against the glass. Cover the bottom with small pebbles and a mixture of sand and leaf mold or peat moss. A few pieces of charcoal will help to keep the soil sweet.

Set in such plants as Bluets, Hepatica, Wood anemone, Rattlesnake Plantain, Pippssissewa, Small Ferns, Club Mosses, Partridge Berry and seedlings of various evergreens such as Hemlocks, Cedars, and Yews. To add color a few bulbs such as crocus, scillas, and snowdrops may be added. After plants are in place, cover the surface with moss and water gently. If too much moisture accumulates on the sides, leave the top off for awhile. Equilibrium will soon be established and the container can then remain closed.—W. R. BALLARD, *Extension Horticulturist, Maryland.*

IDEAS FOR THE WINDOW BOX

An effective window box of ivory white and green. This past spring I tried a new window box combination that proved most satisfying. I combined bi-colored spider plants and wandering jews. The Spider plant has grassy foliage with an ivory white stripe down the midrib. It has long, drooping, side sprouts that terminate with a young plant which resembles a long legged spider. These side sprouts number fourteen or more to a plant and measure sixteen to eighteen inches in length. Dainty, white flowers are scattered the entire length of these drooping sprouts. The Spider plant belongs to the lily family and its botanical name is Anthericum Mandiana, The Wandering Jew also was ivory white and green. The reason I specify ivory white and green is that I have an oyster white and green Wandering Jew that does not harmonize well with the Spider plant.

—N. E. SCHMIDT,
Sarona.

FORGET-ME-NOTS

MYOSOTIS, or Mouse Ears, are beautiful little plants, useful for edging and much appreciated when grown in large masses. There are two distinct forms of Myosotis grown in our gardens. Palustris, the swamp forget-me-not, is a stringy everblooming perennial which will grow in either wet or dry ground. Alpetris are the compact edging plants that are covered with bloom in early spring. Most of our named varieties belong to the latter class.

Sutton's Royal Blue is my favorite. It is early freeblooming and covered with sprays of deepest indigo blue. Victoria is a standard variety—a compact edge of clear azure blue. Alba is the white form of this variety and Rosea, or Pink Bouquet, have beautiful rose-colored flowers.

I have tried the larger flowered types, such as Ruth Fisher and Marga Sacher. They are beautiful but not as profuse bloomers as the smaller flowered type.

I have found that seed sown in July will produce strong plants before cold weather arrives. The Alpetris are not always hardy in the open border. Last winter was specially severe, and I lost nearly all. I find it safest to grow them in a cold frame—keep them covered during the winter and transplant to the border early in spring.

A bed of Tulips edged with Myosotis makes a beautiful picture.

—LILLESAND E. LEANDER.

WINTER CARE OF GLAD CORMS

(Continued from page 117)

about forty degrees is best for glads. They should never be allowed to freeze but there is less drying at low temperatures than at high. The storage, however, should be dry. Fortunately, the gladiolus is tolerant of variation from the ideal condition and so long as it is fairly dry, almost any temperature above freezing will be quite satisfactory.

NOVELTIES FOR NEXT YEAR'S GARDEN

(Continued from page 119)

colored eye. The colors are in delicate art shades.

A few more annuals were given special mention by the council. These include the dianthus Laciniatus Splendens with large two-inch flowers colored brilliant shades of crimson with a white eye, the celosia Flame of Fire, the anchusa Annual Bluebird, and several marigolds of English origin.—*From Nov. 15 Horticulture.*

GOLDENRODS

THE Goldenrod, with their wealth of golden blossoms, are the glory of flowerland during the late summer and Autumn. Botanists tell us there are over a hundred varieties. Some are only a few inches high, others up to fifteen feet. Some show close, compact heads of bloom, while others divide into numerous feathery panicles. Most Goldenrods are bright golden in color, but there are variations. I have seen them in canary and lemon and a few nearly white. Solidago bicolor is cream colored and sometimes milky white. It is called the Silver rod.

One of our earliest is Solidago juncea, which begins to bloom early in July. It is often four feet high with graceful, golden clusters. Solidago canadensis is abundant in the Northwest states. Its large gracefully arched plumes are beautiful. Solidago speciosa grows very tall with magnificent heads.

It is surprising that more people do not grow the Goldenrod in their gardens. It grows taller and develops very fine plumes under garden culture. I have a lemon-colored variety that is only eighteen inches tall, but very floriferous. The taller varieties will often reach ten feet under cultivation.

Nothing in a fall border is more beautiful than the golden yellow plumes of the Goldenrod behind clumps of blue or purple Michaelmas Asters. In England the Goldenrod is a treasured perennial in many of the finest gardens. It is worthy of a place in your back border.

—LILLESAND E. LEANDER,
Cambridge, Wis.

WISCONSIN NURSERYMEN'S ASSOCIATION MEETING

Republican Hotel, Milwaukee
February 13

The annual meeting of the Wisconsin Nurserymen's Association will be held this year in the Republican Hotel on February 13. An interesting program is being prepared. The afternoon program is open to all horticulturists who may be interested.

The program will consist of talks and papers on the production of nursery stock and other topics of interest to nurserymen.

How Different

Potts: Who told you to plant petunias there?"

Gardener: "Your wife."

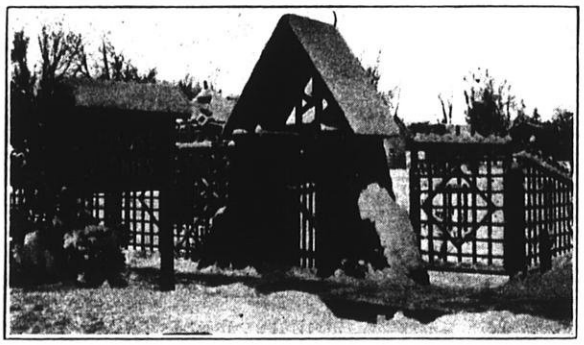
Potts: "Pretty, aren't they?"

1935

We wish to take this opportunity to thank our friends and customers for their patronage in 1934. We hope that 1935 will be a happy and properous year for all.

Let us quote you prices on foundation, sections, frames, or anything in the line of bee supplies.

GUS DITTMER COMPANY
AUGUSTA, WISCONSIN



"We Make Good"

So reads the tag on each peony root we send out. If you have any peony roots of ours or know where there are any which have not given satisfaction, we will consider it a favor if you will drop us a card.

Greetings For The New Year

Sisson's Peonies
Rosendale, Wisconsin
Hi-ways 23-26 intersection

Another Year

We are beginning our 32nd year of service to the beekeeping industry and we hope that we will be here to serve you for many years to come.

Your patronage and loyalty indicate to us that you appreciate the effort we put into the manufacture of LOTZ SECTIONS—care in selecting the best material—care in the workmanship.

We want to thank all of our friends for the orders they have favored us with in the years past. Soon our 1935 catalogs will be ready for distribution and when you get your copy be sure to give it a few minutes of your time. You will find it to be worth while. If any of you should not get a copy, please write for it. They are free and everybody is welcome to one.

August Lotz Company
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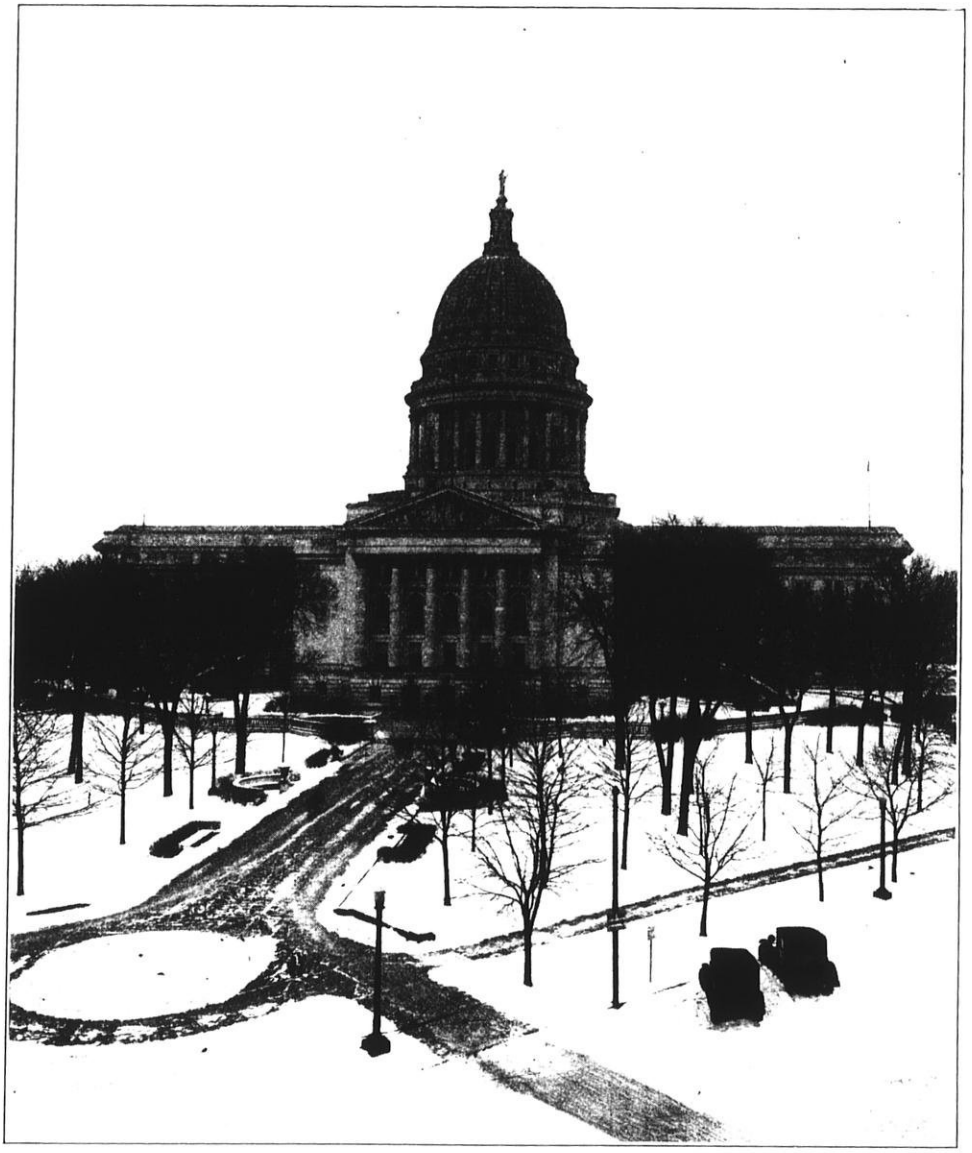
WISCONSIN HORTICULTURE



FEBRUARY, 1935

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60 Prize winning Gladiolus Bulbs, blooming size—$1.00.

15 DELPHINIUMS, Gold Medal Hybrids. Improved seedlings, very choice blooms—$1.

Caragana Hedge Plants, 18–24" @ $3.25. 2–3 ft. size @ $5.00. 3–4 ft. @ $7.00 per 100. (25 at 100 rate).

Chinese Elm trees, 3–4 ft. 10 for $1.30. 5–6 ft. five for $3.00. All above prepaid. Be sure to send for our twentieth anniversary catalog, it's free.

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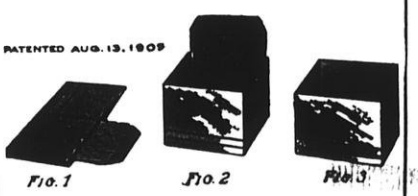

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Crates, Bushel Boxes and Climax Baskets

As You Like Them

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Cumberland Fruit Package Company

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society
The Wisconsin Garden Club Federation

Established 1910

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Please Do Not Send Stamps

Wisconsin Horticulture

OUR PROGRAM
1. A more beautiful Wisconsin, secured by cooperation with all existing agencies.
2. Improvement of Wisconsin's fruits and ornamentals. Establishment of plant breeding and testing work. An active group of plant and fruit testers within the society.

OUR PROGRAM
3. Greater publicity for Wisconsin grown fruits and vegetables.
4. A constantly improving magazine for the distribution of timely horticultural information.
5. Organization of local horticultural clubs in all sections of the state.

National Cherry Week

February 15-22

Karl Reynolds

NATIONAL Cherry Week will be held this year February 15–22, ending on Washington's birthday, which is a significant date for the contest.

The National Cherry Pie Baking contest will be held in Chicago on Washington's birthday, February 22nd. Three hundred dollars in prizes are being offered for contestants at the Chicago contest as follows: 1st, $100; 2nd, $75; 3rd, $60; 4th, $40; 5th, $25; Contestants are expected from Wisconsin, Michigan, New York, Ohio, Indiana, Illinois, Missouri, Iowa and Minnesota. Mr. Wm. Kinnaird has full charge of the details of the contest, which will be held at the Morrison Hotel, Chicago.

In conjunction with the girl's contest, there will be a Chicago housewives' contest. There is also planned a chef's contest with a prize of $25 open to any chef in the United States.

National Cherry Week is of considerable importance to the cherry growers as it stimulates interest on the part of the public in the value of cherries as a food.

Delivering Cherries to the President

The accompanying picture shows the tractor that carried Door County cherries to President Roosevelt on the occasion of his visit to Green Bay last August. In the background is shown President Roosevelt's special train from the rear platform of which he accepted the basket of cherries from the queen of cherryland, Miss Claire Marion Acker of Sturgeon Bay, who is seated on the tractor. Mr. Gust Carlson, cherry grower from Sister Bay, is the driver, Town Chairman Eugene Lampereur of Union, which boasts of being the only voting precinct in the United States to cast a unanimous vote for Roosevelt in 1932, is the other gentleman, and the writer, who promoted the stunt, is in front of the tractor.

Delivering Door County Cherries to President Roosevelt. Miss Claire Acker, Sturgeon Bay, Door County's representative to the National Cherry Pie Baking Contest. Gust Carlson, cherry grower of Sister Bay is the driver, and Mr. Karl Reynolds who promoted the stunt, in front.

Miss Acker has been chosen by the canners of Door County to represent them at the national cherry pie baking contest. She is 19 years of age, a native of Door County.

Mr. A. W. Lawrence of Sturgeon Bay is on the National Cherry Week committee this year, with Mr. Harold Royal of Shelby, Michigan, chairman. On the advisory committee are Wm. Kinnaird and Karl Reynolds of Sturgeon Bay.

New Apple Varieties For Trial

NO NEW varieties of apples have been introduced during the past year which merit trial in Wisconsin. Consequently, the list presented here is the same as last year, and is for continued trial.

No unfavorable reports have been received from any of the varieties listed here, although some of them have been grown in Wisconsin for a number of years.

Melba and Milton

These two early varieties are becoming well known in Wisconsin. In fact, Melba promises to be the standard early variety for future planting. It ripened at Madison this past year the last week in July. It is a McIntosh cross with McIntosh flavor and color, and where an early apple is wanted for roadside market, it is perhaps beyond the trial stage.

Milton, coming later, just a week before Wealthy, is a high quality apple. The fruit runs rather irregular in shape however, and ripens over a period of from one to two weeks. For roadside market this may be an advantage as it need not be picked all at one time.

Kendall

There is considerable interest in Kendall because it promises to be a very desirable late McIntosh. It is the newest to be introduced by the New York Station and by far the most attractive. In New York it has attracted more attention from fruit growers than any other new apple. It is just a little later in maturing than McIntosh and keeps a little longer. It is said to hang better than McIntosh, but not as well as Cortland. In flavor it is much the same but more spritely than McIntosh.

Orleans and Newfane

These are crosses of Delicious and we hope will produce larger sized fruit of better color in sections of Wisconsin where Delicious does not do well. In shape and flavor they are similar to Delicious. The apples promise to keep better and will not get mealy as do Delicious in storage. Since Delicious does not do well in many sections of Wisconsin, we hope these varieties will prove a desirable substitute.

NEW APPLES

Recommended for Continued Trial in Wisconsin

Early varieties for roadside sale or local market:

1. Melba
2. Milton

Late varieties:

1. Kendall
2. Orleans
3. Newfane
4. Secor
5. Macoun

Sweet apple:

Sweet Delicious

Macoun

Macoun is a McIntosh cross considerably later than McIntosh and will keep longer. It has McIntosh flavor and color. However, it may be too late for most of Wisconsin, excepting the southern section. Farther north we would recommend Kendall for trial instead.

Secor

An Iowa seedling cross of Jonathan and Salome. Its principal value is that it is said to be free from Jonathan spot and will keep longer. The tree grows rapidly and comes into bearing early. In Iowa it is claimed to be hardier than Jonathan. The fruit is of attractive appearance and of excellent flavor. It may be a trifle late in maturing for central and northern Wisconsin.

Sweet Delicious

For those who want a red sweet apple, the Sweet Delicious may be of value. An apple of large size, similar in shape to Delicious with a very sweet and pleasing flavor, it is probably better than the sweet apples we now grow. A sweet apple, however, is not a commercial apple, and therefore its use will be limited.

All of the varieties mentioned, excepting Melba and Secor were produced by the New York Experiment Station. Melba comes to us from Canada, while Secor was produced at Iowa.

APPLE CIONS AVAILABLE FOR TESTING NEW VARIETIES

WE WILL again try to furnish apple cions to members of our Plant Testing Club to test the new varieties of apples we are recommending for trial in Wisconsin.

As we go to press all arrangements have not been completed for the purchase of the cions we need. However, we hope to have a sufficient supply of the following varieties for our members.

1. Melba
2. Milton
3. Orleans
4. Newfane
5. Macoun
6. Kendall—in limited quantity.

We will have more information on this subject in our next issue.

Anyone purchasing Kendall trees direct form the New York Experiment Station will confer a favor upon the Society by so informing us. It is possible that in case these trees are dug in the spring, to use the branches cut off in pruning for cions. Kendall cions will be rather difficult to get this year.

Importance of Bud Sports in Tree Fruits

V. R. Gardner

WITHIN recent years color variations that originated as bud sports have been found of a considerable number of the more prominent apple varieties. Some of these high color strains include what are practically solid red forms of Delicious, McIntosh, Northern Spy, Ben Davis, Fameuse, etc. There are also darker colored or more highly colored strains of such varieties as Winesap, Stayman Winesap, Jonathan and Baldwin that normally possess more or less red color but that are not striped or splashed. In most instances growers are finding these high color strains more profitable than their parent forms and, in general, they can be recommended as preferable to them when making new plantings.

Color Sports Differ in Value

Attention is called to the fact, however, that there may be a number of high color sports of a single variety, of distinct origin, and oftentimes these differ considerably from each other. As a matter of fact, there is often as much difference in general attractiveness and probable value between two so-called high color sports of the same variety as there is between one of these sports and the parent variety. Therefore, growers need to exercise almost as much care in deciding on what strain of a variety to grow as in deciding on the variety itself.

Striking Variations Found

Sporting is not limited to variations in color. It extends to all characters of the fruit and likewise to those of the flower, flower bud and tree. Incident to the study that has been made of this question at the Michigan Station, striking variations have been found in size and shape of fruit in apples, pears and cherries, in the susceptibility of buds of the cherry to winter injury and spring frost, in the percentage of the blossoms that set fruit, in the susceptibility of the fruit to certain diseases, etc. Many of these heretofore unrecognized variations are of greater economic significance than the more obvious variations in color of fruit. Thus far, intra-varietal strains of these types have not been introduced to the trade and stock cannot be obtained of the nurseries. Growers, however, find them from time to time and many more would be found if they started to look for them carefully. When found, favorable variations should be watched for several seasons to make sure of their permanence and then they should be put to the propagation test. In this way much improvement can eventually be obtained.

Undesirable Sports May Appear

Of perhaps still greater importance is the fact that undesirable sports are constantly appearing in the orchard—sports that are inferior in size, color, shape, frost and disease resistance, productivity, etc., to the parent forms. In the ordinary course of events many of these "off" types are unwittingly propagated, the result being a certain amount of deterioration of stock. As a consequence, many of our older varieties of tree fruits contain a considerable percentage of inferior trees. The selection of cions from trees of bearing age and known to be at least typical or standard for the variety is a means of eliminating this type of variation. Incidentally, the use of the so-called improved strains of those varieties for which they are now available is also a reasonably sure means of eliminating off types and is another argument in favor of their use.

'AERO' CYANAMID

The Fruit Fertilizer

It FEEDS the Tree and LIMES the Soil

'AERO' CYANAMID

A non-leaching form of nitrogen
May be applied in fall, winter (in Southern States), or early spring, as one prefers

Feeds the tree throughout growing season
Produces dark green leaves and holds them on until fall (On sandy and shaly soils the supplemental use of potash is recommended)

Keeps the soil sweet and healthy
Destroys acids resulting from use of sprays and cover crops

Produces good terminal growth and fruit buds
Gives bigger yields of better-quality fruit

●

Write for Leaflet X-307, "Fertilizing Fruit with Granular 'Aero' Cyanamid"

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779 VIRGINIA AVE., N. E.—ATLANTA, GA.

With Our Fruit Growers

SOUTHEASTERN FRUIT GROWER'S ASSOCIATION HAS GOOD YEAR

MR. LESTER TANS, Secretary of the Southeastern Wisconsin Fruit Grower's Association Co-operative, reports that the organization has had a very successful year. Business in 1934 was over $5,000 more than in 1933.

The Association is composed of the five county associations in southeast Wisconsin. However, other orchardists and fruit growers can join the Southeastern by sending $1.00 per year dues to Mr. Lester Tans. His address is Waukesha, R. 3, Box 110.

During the year the Association sold the following supplies:

Arsenate of lead, 17,745 lbs.; Lime Sulphur, 17,465 gallons; Copper Sulphate, 3,600 lbs.; Grafting Wax, 170 pints and 5 gals.; Nicotine Dust, 100 lbs. They also handled a large supply of dry lime sulphur, calcium arsenate, spray guns, pruning saws, etc.

Eighty-five tons of Sulphate of Ammonia were sold for fertilizer.

3,103 standard varieties of fruit trees were sold, and 570 of the new varieties for trial. 14,700 strawberry plants were ordered for the members, also 40,900 paper bags, and 12,000 berry boxes.

Total sales for the year were $13,048.67.

Strawberries PAY

50 years' experience behind our 1935 Berry-Book. It will help you. It describes Fairfax, Dorsett, Catskill, etc. New and Better Varieties and tells How to Grow Them. Valuable both to the Experienced and beginners. Your Copy is Ready. Write today.

The W. F. ALLEN CO.
349 Market St. Salisbury, Md.

MILWAUKEE COUNTY FRUIT GROWERS MEET

THE annual meeting of the Milwaukee County Fruit Growers Association was held on January 10. A new feature was the all day session. The ladies were invited and brought the lunch and the coffee was served free by the association.

During the morning program, Mr. Wm. Basse talked on "Why A Fruit Growers Association" in which he brought out many convincing facts.

He was followed by Mr. H. J. Rahmlow who talked on "New Varieties of Apples" and "The Spray Residue Situation." He answered many questions which were of real interest and value.

After lunch the meeting was divided into two groups.

Mr. Rahmlow talked to the ladies on "The Backyard Flower Garden" using slides, and Mr. C. L. Kuehner spoke on "Small Fruit." In the men's group Mr. Kuehner talked on "Apples as a cash crop." Mr. Tans followed with a report of the Southeastern Wisconsin Fruit Growers. The secretary's report showed a membership of 144 for 1934, a gradual increase from 69 in 1931.

Award For Clean Fruit

As suggested by the Board of Directors a motion was adopted that a plaque be awarded for two outstanding orchards with reference to clean fruit during 1935. One award is to go to a spray ring member and one to a non-spray ring member, same to be held until awarded to another member. All those who wish to compete must make application to the Secretary at the beginning of the season.

Officers Elected

The following officers were elected: Albert Schreiber, President; John Conrad, Vice-president; Alfred J. Meyer, Secretary-Treasurer; Wm. Basse re-elected delegate to Southeastern Wis. Fruit Growers, and A. H. Pierner director to represent non-spray ring members.

It was also suggested that spray rings call meetings, take orders for supplies and turn them in to the secretary by February 15.

ALFRED J. MEYER,
Secretary.

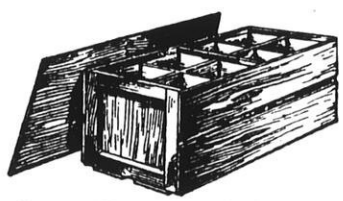
WAYZATA — BEST FLAVORED EVERBEARING

I think Wayzata the best flavored everbearer I ever grew, and very productive on the mother plants—but I have been unable to get them to make runners enough to keep up a supply of new plants even by keeping off all blossoms, and on ground where Mastodon made plenty. Shall try getting runners on last year's setting.

H. H. HARRIS,
Warrens.

Tommy, who had no great love for soap and water, was observed by his mother washing the forefinger of his right hand. "What's the idea of washing only one finger?" she inquired.

"The boy next door has asked me to come over and feel his baby sister's new tooth," explained Tommy.



Berry Boxes and Crates

Either made up or in the K. D. American Quart Berry Baskets, Climax Grape and Peach Baskets, Till or Repacking Baskets, Plant Boxes and Veneer Tree Protectors. Circular and Price List mailed upon request. Special liberal discounts on early orders.

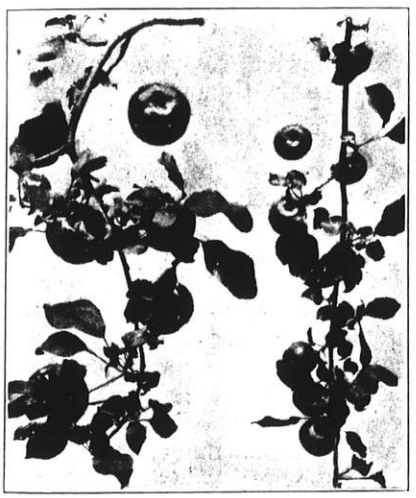
Write for special prices on carload lots.

SHEBOYGAN FRUIT BOX COMPANY
Sheboygan, Wis.

Pruning the Bearing Tree

R. H. Roberts
Wisconsin Agricultural Experiment Station

THE accompanying photograph is not an illustration of different varieties, the results of different cultural treatments or even the differences between trees of a variety. It was made to show the differences in productivity of different branches on the same tree. A greater difference could have been shown for growths which are less vegetative than the one at the right would set practically no fruit. This photograph presents in one the necessity and the rule for pruning the old bearing tree:



Right, a weak or "run-out" branch producing small fruit which should be pruned out. Left, the kind not to prune.

Prune out by small cuts such weak and "run-out" branches as are too poorly vegetative to produce average sized fruit.

This does not mean that pruning is to be used to regulate the amount of growth on the main branches. That should be done by culture or fertilizer. Neither does it mean that no "good" wood should ever be pruned from the tree. The McIntosh, for instance seems to require a relatively open upper top in order to set fruit well. It does mean, however, that uniformity in size and color of fruit is much dependent upon having the bearing wood of the tree in a relatively uniform condition of growth. This necessitates the pruning away of wood which grows too poorly to fruit well.

The test of the pruning operation is, of course, the fruit produced but it can also be judged at the time of pruning by the kind of wood on the ground: Are the prunings composed of strong growing branches, or weak old branches; is the poorly fruiting wood still on the tree or is it on the ground after the tree is "pruned"?

CHANGING GRAPE VARIETIES

SINCE the repeal of the Eighteenth Amendment a new interest has arisen in grape growing. Growers find that the type of grapes now being grown, such as Concord, do not suit the needs of the wine industry. Attempts are being made to grow new varieties in a short time. This is being done by cutting off the vines at the surface of the ground and cleft grafting cions of the desired varieties on the trunk.

How the Graft is Made

To accomplish this graft, cions are obtained from the desired vine; these are pieces of canes usually containing two healthy buds. In the spring before the sap flows a cleft is made in the old trunk by means of a saw or knife. The cions are beveled at the end to be inserted into the cleft, and the cleft is pried open and the cion placed close to the outside surfaces. If the trunk is more than one inch thick two cions should be used, each placed on the outside surfaces of the trunk. In small trunks twine may be used to hold the grafts in place, but in large vines the grafts need no binding or wax. The soil is mounded up over the graft leaving one bud above the surface; later in the season this soil mound may be removed.

SEEDS—SEEDLINGS

Tree and shrubs seeds; seedlings and small transplants. Nurserymen write American Forestry Company, Pembine, Wisconsin.

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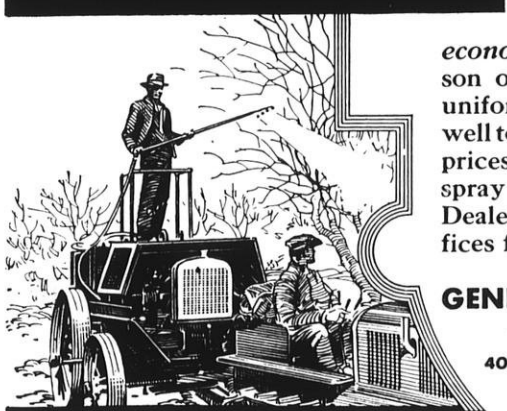
REG. U.S. PAT. OFF.
for your Dormant Spray Program!



Orchard Brand Lime Sulphur Solution, Dry Lime Sulphur, and Oil Emulsion 83 are *economy* products by reason of their quality and uniformity. You will do well to get Orchard Brand prices before placing any spray material contracts. Dealers and Company offices from coast to coast.

GENERAL CHEMICAL COMPANY
40 Rector St., New York
Reg.U.S.Pat.Off.

1935 ... A Still Bigger Year for "Astringent Lead"

Horticultural News

A. F. Yeager
North Dakota

Pennsylvania State College is introducing a new tomato variety this year developed by Dr. Meyers of the Experiment Station. The interesting thing about this variety is that it offers a variety of the same vine type as Bison. I still believe as I did in 1927 when the possibilities of this particular type of plant were discussed in an article in the "Journal of Heredity" and at the meeting of the Society for Horticultural Science, that this vine type is destined to be of great importance to breeders who are attempting to improve the tomato. This procession, headed by Bison, will likely be a long one e'er many years have passed.

Thompson and Knott of Cornell University have found that head lettuce will make no heads at all where a temperature from 70 to 80 degrees is maintained. Sixty to 70 degrees is most favorable for head formation. This, together with the fact that long days tend to cause lettuce to run to seed explain why it is difficult to raise good head lettuce when the plants strike a hot spell in June before the heads are formed.

According to Platenius of the New York Cornell Experiment Station, carrots may be stored without serious deterioration for six months if the temperature is kept between 32 and 42 degrees. At 50 degrees, breakdown begins in three months. Chemical analyses showed that stored carrots are bright in color, have as much sweetness and no more fibre than the fresh product. He concludes on the basis of chemical data that the eating quality of old carrots is equal to, if not better than that of young carrots. To me this conclusion merely indicates that chemical data does not tell the whole story. Often we have found changes in the flavor of a product when stored which the chemist has been unable to measure. Despite Mr. Platenius's conclusion, I believe that the consumer has found the flavor of fresh carrots to be superior and that is the reason for the increase in shipments of fresh carrots.

In the "American Nurseryman," R. S. Herrick of the Iowa Horticultural Society calls attention to the fact that some folks think bees sting apples causing them to decay, whereas the fact is that bees will starve to death in a container with ripe fruit where the skins have not been broken.

P. R. White in "Plant Physiology"for July, 1934 tells of an experiment in which it was found possible to grow tomato root tips indefinitely in a properly constructed liquid solution. These root tips increased in size 40,000 times without there being any top connected with them whatever. Such experiments as this might well lead eventually to the healing of wounds in an animal body which would be entirely impossible without such knowledge, and of course, there are other numerous possibilities for its practical use.

Boswell and Jackson of the U. S. D. A. report that ultra-violet transmitting glasses are no better than ordinary glass for cold frames.

Dr. J. M. Arthur of the Boyce Thompson Institute has found that ultra-violet light is decidedly injurious to tomato plants.

Ten thousand bushels of pine cones and other seeds harvested by the C. C. C. are to be used for reforestation work by the Tennessee Valley Authority. From December, '34 North and South Dakota Horticulture.

WASHINGTON COUNTY FRUIT GROWERS MEET

THE members of the Washington County Fruit Growers Association met at West Bend January 11th. It was an afternoon meeting with a very good attendance. A very interesting program was presented with talks by C. L. Kuehner and H. J. Rahmlow of Madison discussing cultural problems, and Lester Tans, Waukesha reporting on the work of the Southeastern Association.

Wm. Gruhle, president of the Southeastern was called as was also Martin Wiepking, president of the Ozaukee County Association who attended.

Limit Number of Apple Varieties

A forward step was taken by the organization when a motion was presented asking the Southeastern Association to recommend and sell to members, not more than eighteen varieties of apples in 1935.

The Wisconsin Horticultural Society heartily endorses this step. During the past few years members of the Southeastern have purchased as high as 65 or more varieties of apples which were often difficult to obtain. Furthermore, many of these varieties were obviously of poor quality which does not help Wisconsin's reputation as an apple producing state. There are far too many poor varieties already being grown on our farms.

Notice to Members

Members of the Washington County Association are requested to send in their dues for 1935 before March 1st. The Directors voted that dues should be paid in advance in order that they might know who wishes to be a member for the coming year. Unless the membership is paid by March 1st the name will be dropped from the list, and Wisconsin Horticulture will be discontinued after that date.

Strawberry Varieties

H. H. Harris
Warrens

THE catalogs are beginning to arrive. Thus far I have received one strawberry catalog from Maryland, one from Michigan and one from Ohio. Including the everbearers, the catalogs, in the order the states are mentioned, list 45, 20 and 14 varieties each. All these catalogs use Premier as a standard to judge the value of any of the new varieties on their list, and all three list the new Dorsett and Fairfax, with the prediction that both are likely to exceed the Premier both in productiveness and quality.

Experience With Dorsett and Fairfax

In 1933 we set 25 plants of each of these. Both varieties made a much heavier stand of plants than our Premier and were nice looking thrifty rows. The first berries on the Dorsett did not develop as well as the first on the Premier, nor ripen quite as early. The Fairfax was still later in ripening and all berries that formed were perfect. Neither one produced as many quarts of fruit as the same length of row of Premier. Both were better than Blakemore, Bellmar or Beauty, and are worthy of a thorough further trial.

We have a small plot of nice plants of both Dorsett and Fairfax, also Catskill, Clermont, Culver, Premier and Beaver on ground that was a garden in 1933. This plot was covered early with marsh hay and soon after with snow, so we are hoping for a good fruiting season to test these new varieties more fully. Neither Beaver nor Premier were up to their usual standard, as it got so hot and dry in the fruiting season.

The Beaver

None of the three catalogs listed the Beaver. At the present time most of those at Warrens who are growing strawberries for shipping are setting more Beaver than all other varieties and quite a few plant nothing else. On the lighter soils it usually makes a better row than the Premier.

NEW STRAWBERRIES FOR CONTINUED TRIAL—1. Dorsett; 2. Fairfax; 3. Catskill.

EVERBEARING—Wayzata.

FOR COMMERCIAL PLANTING IN WISCONSIN—1. Beaver; 2. Premier.

Probably our 1935 setting will be two-thirds Beaver with most of the other third Premier. But I hope either Dorsett, Fairfax or Catskill will prove to be even better, than either Beaver or Premier. Catskill is a midseason berry from the New York Experiment grounds.

Old Varieties

Before the Beaver was introduced at Warrens, Warfield and Dunlap were grown more extensively than any other variety, and when the condition of the soil or season has caused Beaver to be a poor crop, some growers would say "I guess we will have to go back to Warfield and Dunlap."

Warfield often suffers from leaf spot but was our most productive variety unless the season was too dry during fruiting —Dunlap sometimes was considered to be less productive due to its blossoms blighting, but it seldom failed with us if not allowed to set too many plants. It does not carry as well to distant markets as the Beaver.

Ours Won't Do

"Doesn't your mother have a pair?" the lady asked the boy who was at the door to borrow her scissors.

"Yes," he replied, "but hers won't cut tin."

DOW INSECTICIDES

Wisconsin fruit and vegetable growers are familiar with the high quality of Dow Spraying Materials. They are your best protection against insects and fungus diseases.

Dow Spray Materials Are

Dry Lime Sulphur
Dowco
Calcium Arsenate
Bordow
Special Potato Spray
Magnesium Arsenate
Lead Arsenate
Paris Green
Paradow

THE DOW CHEMICAL COMPANY

MIDLAND - MICHIGAN

TRADE DOW MARK

Plant Premiums For Members

PLANT premiums will again be given this year to all who pay their dues during *January, February* and *March* only. Premiums are given only for membership in the Wisconsin Horticultural Society.

How Individual Members May Get Premiums

Individual members of the Horticultural Society paying the regular membership fee of $1.00 per year, or $1.50 for two years may select any plant premium which will be sent during the planting season, postpaid. Always give second choice.

How Affiliated Club Members May Get Premiums

Members of local clubs or societies such as garden clubs and fruit growers associations and others affiliated with the Horticultural Society who pay a reduced membership fee through their local secretary are required to pay the postage of 15¢ per premium which the Society pays to the Nurserymen. *Membership fees and premium requests must be sent in together. Always give second choice.*

We wish to express our appreciation to the nurserymen and growers who so generously cooperate with us in this work.

Premium No. 1

H. C. CHRISTENSEN
1625 Ninth Street, Oshkosh, Wis.

Regal lily bulbs.
Premium: 3 bulbs.
Lilium tenuifolium.
Premium: 5 bulbs.

Premium No. 2

COE, CONVERSE & EDWARDS CO.
Fort Atkinson, Wis.

Felix Crousse Peony.
Festiva Maxima Peony.
Premium: 1 root.

Premium No. 3

DAHLBERG NURSERIES
E. M. Dahlberg, Ladysmith, Wis.

Spirea Vanhoutte—Bridal Wreath.
Premium: 2 plants.

Premium No. 4

EVERGREEN NURSERY CO.
Sturgeon Bay, Wisconsin

Colorado Blue Spruce, 3 year seedlings, size 3-5 inches.
Premium: 10 trees.

Premium No. 5

FAIRVIEW GARDENS
M. L. Cady, Mgr., Fox Lake, Wis.

Dahlias: Avalon, Countess Lonsdale, Elite Glory, Ida Perkins, Jane Cowl, Kathleen Norris, King of the Shows, Monmouth Champion, Rose Fallon.

Pom Pom Dahlias: Pink, Salmon, Red, White, Yellow, Orange.
Premium: 1 root.

Premium No. 6

FANCHER'S NURSERY
Sturtevant, Wisconsin

Phlox: R. P. Struthers, Richard Wallace, Eclaireur.
Premium: 1 plant of each.
Phlox: R. P. Struthers.
Premium: 3 plants.
Hydrangea Hills of Snow, R. P. Struthers Phlox.
Premium: 1 plant of each.
Persian Lilac, R. P. Struthers Phlox.
Premium: 1 plant of each.
Shasta Daisy, Thor Phlox, Coreopsis.
Premium: 1 plant of each.
Physostegia Vivid, Perennial Sweet Pea, Pentstemon Grandiflora.
Premium: 1 plant of each.
Campanula Persicifolia, Shasta Daisy, Pyrethrum.
Premium: 1 plant of each.
Sedum kamtschaticum, Sedum stoloniferum, Veronica Alpine.
Premium: 1 plant of each.

Premium No. 7

J. T. FITCHETT
735 Milton Avenue, Janesville, Wis.

Dahlias: Jane Cowl, bronze, Jersey's Beauty, pink.
Hercules, tangerine and yellow.
Mrs. I. de Ver Warner, orchid.
Premium: 1 root.

Premium No. 8

JOHN F. HAUSER
Bayfield, Wisconsin

Lupine Harkness Regal Hybrids.
Physostegia vivid.
Prunella grandiflora.
Platycodon.
Premium: 4 plants, 1 variety.

Premium No. 9

KELLOGG'S NURSERY
M. S. Kellogg, Prop., Janesville, Wis.

Crimson Rambler rose.
Shower of Gold rose.
Retail value $1.00.
Premium: 1 of each.

Premium No. 10

McKAY NURSERY COMPANY
911 University Ave., Madison, Wis.

Prunus Triloba—2-3 ft.
Premium: 1 plant.

Premium No. 11

MYERS NURSERY
A. W. Myers, Arcadia, Wisconsin

Gladiolus bulbs, each different.
Premium: 12 bulbs.
Dahlias:
Mrs. I. de Ver Warner.
American Beauty.
Premium: 1 of each.

Premium No. 12

THE NORTH STAR NURSERY COMPANY
Pardeeville, Wisconsin

Caragana Arborescens (Siberian Pea Tree), 2-3 ft.
Cut Leaf Elder, 2-3 ft. Golden Elder, 2-3 ft. Purple Lilac, 2-3 ft. Ninebark, 2-3 ft. Mock Orange, 2-3 ft. American Bittersweet, 2-3 ft.
Premium: 1 plant.

Iris: Madam Chereaux (White, purple fringed).
Sherwin Wright (Yellow).
Queen of May (Rose Pink).
Florentine (Purple).
Premium: 2 roots.

Premium No. 13

SISSON'S PEONIES
W. A. Sisson, Rosendale, Wis.

If it's a peony wanted, we have it.
If you do not know names, state color wanted.
Premium: 1 root, value $1.00.

Premium No. 14

STONECREST GARDENS
W. A. Dana, Prop., Eau Claire Wis.

Iris: Vesper Gold, Julia Marlowe, Opera, Mildred Presby, Red Wing, Dawn, Labor, Madam Gandashaw, L. A. Williamson.
Premium: 3 iris.

Choice iris roots, grower's selection, unlabeled, all different colors.
Premium: 4 iris.

Premium No. 15

SWEDBERG NURSERIES

Battle Lake, Minnesota

Delphinium—Gold Medal Hybrids; Improved seedlings; choice colors.
Premium: 5 plants.
Pentstemon grandiflora. Light lavender. Native Minnesota hardy flower.
Premium: 4 plants.
Hardy Phlox. Choice varieties. Colors all different.
Premium: 2 plants.

Premium No. 16

W. A. TOOLE

Garry-nee-Dule, Baraboo, Wisconsin

Chrysanthemum Aladdin, Chrysanthemum Azaleamum, Iris arenarius, Irish dichotoma.
Premium: 1 plant or root.
Arabis Sturgi, Dianthus Crimson King, Dianthus Beatrix.
Premium: 2 plants.
Galium verum, Sedum acre minus, Sedum anglicum chloroticum, Sedum hispanicum minus aureum.
Premium: 3 plants.

Premium No. 17

AMERICAN FORESTRY CO.

Pembine, Wisconsin

Chinese Juniper—5-8 inches.
Chinese Elm—12-18 inches.
Premium: 2 trees, 1 variety.

Premium No. 18

THE HAWKS NURSERY COMPANY

Wauwatosa, Wisconsin

Prunus Glandulosa, 2-3 feet.
Rhodotypos Kerrioides, 2-3 feet.
Symphoricarpus Vulgaris, 2-3 feet.
Rosa Hugonis, 2-3 feet.
Premium: 1 plant.

Premium No. 19

RASMUSSEN'S FRUIT FARM AND NURSERIES

R. F. D. No. 4, Oshkosh, Wis.

Pink or white peony.
Premium: 1 root.
Iris, German.
Premium: 6 plants.
Oshkosh Strawberry Plants.
Premium: 50 plants.

Premium No. 20

WHITE ELM NURSERY COMPANY

Hartland, Wisconsin

Aquilegia Dobbies Hybrids; Arabis Alpina; Campanula Persicifolia White; Echinacaea Purpurea; Helianthemum Mutabile.

PENTSTEMON — Grandiflora, Shell Pink, Torreyi.

PHLOX—Divaricata Canadensis, Subulata Fairy, Subulata Lilacina.

Sempervivum named varieties; Tunica Saxifraga, Verbascum Phoenicum, Verbascum Gentionoides.

IRIS: Afterglow, Fairy, Isoline, Juanita, Miranda, Mrs. Alan Gray, Rheine Nixe, Seminole, Sweet Lavender, Violaceae Grandiflora.
Premium: 3 plants, 1 variety.
Arabis Alpina Rosea, Clematis Recta, Euphorbia Polychroma, Geranium Sanquinea, Heuchera Sanquinea, Primula Polyanthus, Saxifraga Cordifolia.
Premium: 2 plants, 1 variety.

Premium No. 21

H. B. BLACKMAN

Richland Center, Wis.

Strawberry Plants—
Dorsett, Fairfax.
Premium: 25 plants.
Bellmar, Southland, Blakemore.
Premium. 30 plants.
Newburgh Red Raspberry plants.
Premium: 15 plants.
Viking Red Raspberry plants.
Premium: 20 plants.

Premium No. 22

FRANK J. BLOOD

1036 Normal Ave., Stevens Point, Wis.

Gladiolus bulbs of the following varieties: A. E. Kunderd; Helen Howard; Mrs. Leon Douglas; Yellow Wonder; Aflame; Nancy Hanks; Mrs. P. W. Sisson; Betty Nuthall.
Premium: 10 bulbs, grower's selection.

Premium No. 23

C. G. YOUNG

115 Oakland Ave., Oshkosh, Wis.

Gladiolus bulbs of choice named varieties. My selection.
Premium: Bulbs, varieties my selection, to retail value of 50¢.

BEWARE IN BUYING NURSERY STOCK

ALL purchasers of nursery stock are warned to obtain trees and shrubs only from licensed agents or direct from licensed nurseries.

All nursery agents in Wisconsin must carry the state license issued by the division of insect and plant disease control of the department of agriculture and markets, says E. L. Chambers, state entomologist.

Complaints of fraudulent agents come to the department every spring, and Mr. Chambers advises all purchasers of nursery stock to ask that the agent *display his credentials.*

In some cases, unlicensed agents ask for a down-payment on an order, and then pocket the money without delivering the goods, Chambers reports. Sometimes a wife will sign an order for nursery stock under the high-pressure sales talk of some out-of-state nursery salesman with the understanding that her husband can cancel the order. This can not be done and the shipment of goods will have to be paid for when it is delivered.

RASPBERRY AND STRAWBERRY PLANTS

Latham raspberry plants from new beds grown on new soil. Twice inspected. Not a diseased plant found. *Newburgh* raspberry plants grown as above. A productive handsome and large raspberry.

Strawberry plants: Dorsett, Fairfax, Southland, Bellmar, Blakemore and Aberdeen. Special prices by hundred or thousand. H. B. Blackman, Richland Center, Wis.

PLANT PREMIUM APPLICATION BLANK

1. ☐ I am an individual member and enclose $1.00, dues for one year, or $1.50 for two years.

2. ☐ I am affiliated through a local club and attach 15¢ to cover postage. (Give this to your local club secretary when you pay your dues.) State name of local club _____

State choice of plant premium by number and name of variety.

Second choice must be from a *different grower.*

1st Choice: Premium No._____Variety _____

2nd Choice: Premium No._____Variety _____

_____

Name _____

Street or RFD _____

City _____

EDITORIALS

FARM INCOME UP

DESPITE the worst drought in history of the country, 1934 brought a billion dollar increase in the cash income of agriculture over 1933, according to the U. S. Agricultural Adjustment Administration. The cash income of 1933 was 700 million more than in 1932. The purchasing power per unit of farm commodity was about 80% of pre war in 1934 compared with 60% in '32. The above included benefit payments made by the AAA.

OVERPRODUCTION

Merely because it has served us well is no reason why we should charge science with the responsibility for our failure to apportion production to need and to distribute the fruits of plenty equitably. That failure we must charge squarely to organized society and to government.—HENRY A. WALLACE, *Secretary of Agriculture.*

LEAD ARSENATE TOLERANCE ON APPLES REDUCED

As we go to press a bulletin is received from the U. S. Department of Agriculture stating that Secretary Wallace announced on January 25th, that the tolerance on apples for 1935 will be 0.018 grain of lead per pound of fruit. The reduction was made despite requests from the American Pomological Society and Horticultural Societies that tolerance be increased to 0.025 as stated in our last issue. This may seriously effect Wisconsin growers.

COMING EVENTS

Wisconsin Nurserymen's Association annual convention, Republican Hotel, Milwaukee, February 13.

Annual spring flower show Milwaukee Florists Club in connection with Home Show, Milwaukee Auditorium, March 16–23.

Michigan Flower and Garden Exhibition, auspices Michigan Horticultural Society, Detroit, Michigan, March 30–April 7.

Spring Flower Show, Garden Club of Illinois at Navy Pier, Chicago, Illinois, April 6–14.

National Council Garden Club Federations 6th annual meeting, Los Angeles, California, April 10–14.

First National Exhibition American Rock Garden Society, Cincinnati, Ohio, May 16–18.

HAVE SOMETHING TO SELL

IN MARCH, 1934 the Society conducted a series of strawberry growers meetings at which Mr. Ike Hall, Economist of the College of Agriculture, was the principal speaker. He made this remark to the growers, in substance.

"The depression is definitely over, and prices will begin to advance. The important thing from the farmers' standpoint is to have something to sell when prices come back."

Today there is a new interest in more efficient production, better quality, better varieties. We know that the most profit is in high production per acre, per tree or per plot, produced at the lowest cost.

MRS. M. S. KELLOGG HONORED BY COLLEGE OF AGRICULTURE

MRS. M. S. Kellogg of Janesville was awarded honorary recognition by the Wisconsin College of Agriculture during Farmers' Week, for her work in promoting 4-H Club work and improving country life and living.

Mrs. Kellogg has been the leader of a 4-H sewing club and a 4-H baking club for seven years. She took part in club work when it first began in Rock County, served as president of the Rock County Federation of 4-H club leaders for nine years. She has been vice-president and a member of the Board of the Rock County 4-H club Fair for a number of years. Her meritorious extension work in Rock County has been fittingly recognized by the College.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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Vol. XI | FEBRUARY, 1935 | No. 2

The National Convention

Arlene Weidenkopf

EVERYONE enjoyed the fine program presented at the 75th annual meeting of the American Honey Producers' League held at Valdosta, Georgia, December 17–21. We appreciated the opportunity to meet many of the foremost beekeeping experts in America, the winter sunshine and warm weather, and the hospitality and entertainment for which our southern friends are famous.

Wisconsin Represented

Twenty-nine states and several Canadian provinces were represented. Those registered from Wisconsin were: Reuben Neises, Junction City; Mr. and Mrs. A. J. Schultz and Miss Bernice Schultz, Ripon; Joe Elsinger, Knowles; Mrs. Malitta F. Jensen, and Miss Cranston, Madison; George Lotz, Boyd; H. F. Wilson, Madison; Kennith Hawkins, Watertown; and Miss A. Weidenkopf, Madison.

The following officers and members of the Board of Directors of the American Honey Producers' League who held office during 1934, were re-elected. J. W. Newton, president, Baton Rouge, La.; E. T. Cary, vice-president, Syracuse, N. Y.; V. G. Milum, secretary-treasurer, Champaign, Ill.; Directors, C. A. Reese, Columbus, Ohio; H. C. Short, Fitzpatrick, Ala.; T. W. Burleson, Waxahachie, Texas; H. D. Rauchfuss, Worland, Wyo.; C. A. Gooderham, Ottawa, Canada; Cary W. Hartman, Oakland, California.

Committees Appointed

A special committee on market reporting was appointed. The duty of this committee is to secure more complete and accurate reports on marketing and conditions in the various sections of the United States, including the condition of wintering bees and the probable resulting influence on the shipment of package bees.

A committee on standardized grading of bee products was appointed to investigate the advisability of requiring uniform honey grading and individual inspection and enforcement of grades.

A committee on Emergency legislation, with Kennith Hawkins, Watertown, Wisconsin as chairman, was appointed to protect the beekeepers of the United States from unfavorable national legislation which might result in injury to the industry.

A committee on credit loans was appointed to investigate and promote the recognition of bees and beekeeping equipment as collateral for Federation Farm Loans, in the same sense that other farm assets have been used in securing loans.

The constitution of the American Honey Producers' League, as adopted at Minneapolis in February, 1934, was rescinded, and the constitution of the American Honey Producers' League used for several years previous and published in the 1931 Report was re-adopted.

Mr. Morley Pettit was elected to Honorary Life Membership in the American Honey Producers' League.

Excellent Entertainment

A real southern barbeque was served to about 300 persons the evening of December 18. Entertainment consisted of a choir of 100 negroes, and the fine rendition of many of the old southern favorites, sung as only the negroes can, was certainly a treat.

A banquet was served to about 200 beekeepers December 19, with Mr. E. G. LeStourgeon as toastmaster. Your delegate hadn't really appreciated how many distinguished personages were present at the meeting until they started vieing with one another to see who could tell the biggest "whopper" and describe the attributes of his native state in the most glowing terms.

Entertainment at the banquet consisted of songs by a negro quartet, solos, dancing and music furnished by a negro band.

At the conclusion of the banquet, Mr. Kennith Hawkins presented a silver tea set—the gift of their many beekeeping friends in America—to Mr. and Mrs. E. R. Root, conveying to them the regard and affection of the entire industry.

Prof. Wilson Re-Elected

I am sure members of the Association will be pleased to learn that Prof. H. F. Wilson was re-elected chairman of the American Honey Institute Finance Committee for 1935.

And something which should

make our Association members very proud is the fact that Wisconsin stood at the head of the list in donations to the American Honey Institute and number of members during 1934. Our 1934 suggested quota was $300—and it was reported at the American Honey Institute meeting that Wisconsin beekeepers came through with approximately $387, and 125 members. Am I proud to be the Recording Secretary of an organization with such a fine record? Yes, ma'm!

Impressions of a Northerner

And at this point I confess to you that I had never before been any further south than Chicago in the winter time! And to say the visit was thoroughly enjoyable is too mild . . . I'm going to give you a few fleeting impressions of a south-bound Recording Secretary . . .

Just before Christmas . . . an old lady wearing a sunbonnet walking along the street . . . youngsters playing barefoot . . . a lawn sprinkler in action . . . miles and miles of pecan groves . . . oranges growing in large orchards . . . yards and yards of moss hanging from lovely old trees . . . the courtesy and consideration extended to visitors . . . the Atlantic Ocean, just as big as anticipated, and as wet! . . . grits (not sure yet what they are) . . . vereeee strong coffee . . . beautiful, warm sunshine, which we all wish there was more of in Wisconsin in December . . .

And, firecrackers for Christmas!! with fire-works venders on nearly every corner. We very carefully brought palm leaves from Florida, but we didn't have the courage to display them when we reached Illinois Christmas Eve and found ice and snow!

Mr. E. R. Root was right when he said several months ago —"If you once go south, you won't want to come back!" — and I might add "Especially if you're a Recording Secretary."

Best wishes for a prosperous and pleasant 1935.

TOP VS. BOTTOM ENTRANCE

THE value of the top entrance device which has been recently recommended from the northern section of the United States was tried out by one cooperator quite extensively and the results which were obtained indicate there was no particular difference in the colonies with a top entrance and the colonies with a bottom entrance. This was followed up by honey production and was not judged entirely by the apparent vigor of the colony during the spring building-up period. Such items as the age of the queen were leveled off through the use of large numbers of colonies in the two groups.

In this connection some of the bees were packed and some were unpacked and while the whole yard was well protected and the winter rather mild it was felt that there was no particular difference between the unpacked and the packed colonies. However, the packed colonies developed better during the spring and consequently produced a better crop of honey.—*From the Report of the Iowa State Apiarist.*

AMERICAN HONEY INSTITUTE ADOPTS A 5-YEAR PLEDGE PLAN

EXPERTS have estimated that each dollar paid to the Institute has produced $40 to $50 worth of honey publicity.

At the Valdosta meeting the Board of Directors voted to make the 5-year pledge plan a permanent part of the Institute finance program. As a result of the discussion in the bee journals more than 60 beekeepers have already sent in their pledges for 5 years.

The Institute should have at least 1500 members during 1935.

Permanent Endowment Fund Established

The Board of Directors also voted to establish a permanent endowment fund, and $100 has been set aside as a beginning. Any member may become a life member upon payment of $25 to the permanent endowment fund which should in normal times produce interest of at least $1 per year, therefore entitle each life member to all membership privileges.

Any beekeeper may set aside a definite sum to be paid to the Institute Endowment fund from his estate with the knowledge that the money will be permanently protected and remain forever a memorial to the donor.

Prof. H. F. Wilson, chairman of the Institute Finance Committee suggests that each state accept a permanent state quota at the rate of 10¢ per ton for the honey produced in the state. California and Minnesota produce in the neighborhood of 7000 tons annually, Michigan about 6000, Iowa, 5000, Illinois, Ohio and Wisconsin almost 5000. Therefore the quota for Wisconsin would be $500 annually.

Send in Your 5-Year Pledge to the American Honey Institute, 114 N. Carroll St., Madison, Today.

HONEY FOR SALE

6 tons basswood honey in 60 lb. cans. Price 7¢ F.O.B. Wm. Michaelson, Arkansaw, Wis.

Beekeepers: If sold out and can use more honey to supply your trade, write for prices in sixties. The Garre Apiary, Aniwa, Wis.

WANTED: Bees and second hand equipment. Quote prices F. O. B. shipping point. Hugh Johnson, Kleinheinz Hall, Madison, Wis.

WORK WANTED: Experienced beeman wants steady work for summer. Short course graduate. 27 years old. Kenneth W. Pierce, Baraboo, Wis., R. 4.

HONEY WANTED: Comb and extracted; all grades. Send samples and best price delivered Oconomowoc. C. W. Aeppler Company, Oconomowoc, Wisconsin.

Correct Temperatures Prevent Fermentation

EXTRACTED honey can be stored indefinitely without change in color or flavor, and without fermentation, if the temperature is low and constant. This has been demonstrated repeatedly during five years work by H. F. Wilson, Geo. R. Marvin and E. C. Alfonsus (Economic Entomology). This study, completed in 1933, offers information that should help both beekeepers and honey buyers avoid serious losses.

Fermentation Rapid at 60°

That the original quality, flavor and color of honey was best maintained at a temperature of 40° F. or lower, and that rapid deterioration took place at 60° F. was shown in earlier experiments. Subsequent ones have dealt largely with a study of temperatures and conditions in honey most favorable for fermentation.

Temperature was found to affect fermentation in two ways. The lower the temperature, the more rapid the crystallization; and crystallization is necessary before fermentation can begin. In none of the many samples studied, excepting those that had not been thoroughly processed by the bees, did fermentation begin until after the honey had crystallized. After crystallization fermentation took place slowly or quickly according to definite ranges of temperature. Data recorded for the five-year period showed that in honey kept constantly below 52° F., fermentation was prevented because the types of yeasts commonly present in honey did not grow at these low temperatures. When honey was subjected to a constant temperature of 75° the fermentation process developed very slowly.

The range from 58 to 65° F. proved the optimum for yeast growth, as evidenced by the fermentation of all samples held at a constant temperature of 60° F. In some samples the process began within a few months after being put in storage; in the rest it took four years. The length of time depended on conditions within the sample. Honey dew appeared to hasten the process.

Good Temperatures

Honey taken from the same lots as that which fermented at 60° F., but kept in a temperature chamber varying between 40° and 50° F., did not ferment over a period of five years. Samples of honey placed in a constant temperature of 75° to 80° F. for the same number of years also showed no signs of fermentation, except where honey had not been completely processed by the bees. This is explained by the fact that honey kept at these high temperatures did not entirely crystallize.

Beekeeper Not Liable For Spoilage

These research findings are important to honey producers as well as dealers in bulk honey, inasmuch as they place responsibility for fermentation on the party holding the honey. In the past there has been considerable controversy as to who was liable. In buying from apiaries, therefore, dealers should examine samples carefully, and reject honey that is not in good condition. If fermentation occurs in any lot after it has been accepted by the dealer, then the responsibility rests on the dealer and not on the beekeeper.—*From the Annual Report of the Director of the Wisconsin Experiment Station.*

MARKET REPORT

FOR Michigan, Wisconsin and Minnesota. The ground is well covered with snow, and as this fell upon soil well saturated with moisture prospects for next season have been advanced. Even northern Minnesota, which had been dry, now has from eight inches to a foot of snow. The weather has been mild and though not sufficiently warm to permit flights, bees in some cellars are reported a little uneasy. Stocks of honey are everywhere light, with some beekeepers holding for higher prices. Local sales are better than those at a distance. Sales reported of White extracted, 1 car 6 1/5¢ per lb., 60s or more 7–8 2/3¢ per lb., one lot cans returned 6⅜¢ per lb., small pails 8–10¢. Fancy and No. 1 White Clover comb $3.30–3.75 per case; Fancy up to $4.35 per case, No. 2, $2.80 per case.—*From Crop Report Service U. S. Department of Agriculture.*

SELLS HONEY EARLY

Mr. Frank Yansky, Route 1, Hillsboro, writes that he was sold out of honey early this year as so many customers came directly to his farm for it. He states that selling honey is the easiest part of beekeeping. His price has been $1.20 for a 10-lb. pail though he knows some beekeepers selling it for 90¢.

WIRED FRAMES

Wires will not rust or sag. Packed in flat. Easily assembled. Strong and perfectly straight combs assured. Catalog and literature on request. A. E. Wolkow Co., Hartford, Wis.

BADGER BRAND HONEY LABELS
Ready For Members

	PRICES Lots of 250	Lots of 500	Lots of 1,000
Comb honey sections	$1.25	$1.75	$3.00
½ pound size	1.65	2.25	3.50
1 pound size	1.75	2.50	4.00
5 pound size	2.00	3.00	5.00
10 pound size	2.25	3.50	6.00

We cannot accept orders for less than 250 of one size, due to cost of imprinting.

Important—In placing your order, give name and address as you wish them to appear on the labels, with the name of your apiary if you wish. Be sure to state packer number and color of honey.

Send orders to: Arlene Weidenkopf, P. O. Box 2020, University Station, Madison, Wis.

How to Raise Queens

Jay Smith
Vincennes, Indiana
(In The Iowa Beekeepers' Bulletin)

AS DR. Miller used to say "The queen is the soul of the colony." This is true, for no matter how well you care for your bees in every other respect your labors will come to naught if the queen be a poor one. No matter how large a hive you use and how much honey you leave with the bees no matter how well you may protect your bees in the winter, you will fail with them unless your queens are good. Now by "good" queens I do not mean any race or strain in particular but I mean young, prolific queens that have been properly raised.

No part of beekeeping is so fascinating as the home rearing of queens. The many difficulties experienced by the beginner only add to his enthusiasm.

Let me describe the system I use for it is the result of many years of experiment and study.

The question is very frequently asked, "Shall I use the grafting method?" The grafting method is used by practically all who rear 200 or more queens in a year.

The Dipping Stick

One can make a dipping stick by whittling down a stick till the end will just go into the mouth of a drone cell. Make the stick slightly tapering. Sand it down until it is smooth. To dip the cells, melt some beeswax and keep it at a temperature just a trifle above the melting point. First dip the stick into cold water and then in the melted wax and again in the water. Repeat this four or five times then remove the wax cell by slightly twisting it.

Mounting Cells

When enough cells are made dip them in hot wax and set them on a bar of wood. A common bottombar will do. Mount two rows as far apart as the bar will allow. If a single row is used the bees will build wax all over the cells and many will fail to hatch. About 40 cells to a bar is the right number. The end on the bar must be cut off so it will fit inside the standard frame. Cleats inside the frame hold the bar in place.

Three bars may be used to a frame and a blank bar put at the bottom to keep the bees from building comb on the bottom row of cells, unless you have a very powerful colony to accept the cells; however, one bar of cells is enough. The remaining three bars should be blank. If one expects to use but one bar, the extra space may be filled in with wood. The bars should be near the center of the frame. Grafting is not a difficult task if the operator has good eyesight; if not, he can readily teach a boy or girl to do it.

Prepare Colony to Build Cells

First prepare the colony to build the cells. Select a colony containing the most unsealed larvae as such a colony contains a large number of nurse bees. Age does not determine a nurse bee but any bee becomes a nurse when required.

After selecting the colony to be used for cell building, turn it round and set it back of the stand it occupied and where it stood put an empty hive. Next remove two frames from the first hive and put them with the adhering bees into the hive on the old stand. Be careful not to get the queen. These frames should contain honey and pollen but no brood. They should also have plenty of empty cells. Space them about 6 inches apart.

Next shake in the bees from four frames leaving the queen in the old hive. If no honey is coming in, this colony should be fed sugar sirup 3 days before starting the cells. Now put the cover on the hive and leave it for about half an hour when it is ready to receive the cells.

Grafting Larvae

From your breeding queen, graft larvae into the cells taking the smallest larvae you can readily see. The smaller the larvae the better it is reared as the bees have more time to place food in the cells before it is sealed over. The bees will accept larvae more readily if they are larger but the quality of the queens will not be so good. When a bar is finished put it in a frame and set it in the hive prepared for it, placing it between the combs. The bees will be found clustered between the combs. Use no smoke; gently move the combs together. The bees will be pressed right in among the cells and at once begin to feed the larvae in the cells.

As these same bees have just been feeding a large number of larvae they will at once accept and feed the larvae in the queen cells. This colony should be fed sugar sirup till the cells are sealed which will be in about 4 days.

When the cells are sealed the colony is set aside and the one containing the queen is set on its old stand. A queen excluder is put on and the colony containing the cells is set on top of that. Two or three frames of unsealed larvae should be placed on each side of the frame containing the cells in order to keep plenty of bees up there to care for the cells.

To Introduce the Cell

Ten days after grafting the cells will be hatching. Never use a nursery cage or cell protector but give the bare cell direct to a colony to be requeened or better still to a small mating hive. Remember that a well-fed colony, large or small, if queenless will *never* tear down a cell.

(To be continued)

APPLE VARIETIES LISTED BY SOUTHEASTERN ASSOCIATION

INSTEAD of handling 65 different varieties of apple trees this spring, the Board of Directors of the Southeastern Wisconsin Fruit Grower's Association voted to limit the list to be handled this spring to the following varieties.

Summer-Melba, Duchess, Dudley, Milton.

Fall-Wealthy, Snow, McIntosh, Wolf River.

Winter—Northwestern Greening, Tolman Sweet, Salome, Jonathan, Red Delicious (Stark Bros.), Golden Delicious (Stark Bros.), Northern Spy, Stayman Winesap.

For Trial-Secor, Macoun, Kendall, Orleans, Newfane.

Crabs—Whitney, Virginia, Hyslop.

There will no doubt be some disagreement as to the merits of this list. There may be some question, for instance, as to whether we should plant Northern Spy which comes into bearing so late. Others again may feel that Grimes Golden should be on the list or any of a number of other varieties. However, the Association has taken a forward step in limiting the list to the best varieties and wise fruit growers will probably limit it still further.

It should be remembered that this list is recommended for southeastern Wisconsin, though most of the varieties will be hardy in all of the good apple growing sections of the state.

The Association will also handle other varieties of fruits such as pears, plums, grapes and small fruits. In red raspberries they list June, Chief and Latham.

HONEY OVER THE RADIO

In the Joe Penner Program on February 3rd and April 28th, at 6:30 p. m., Honey Topped Coffee Cake will again be featured.

Honey will be called to the attention of millions of listeners.

Forty Years of Fruit Growing

D. E. Bingham

(Continued from January)

The Cherry Boom

Doctors, lawyers, merchants, everyone bought land. Considering the picture they saw at that time, it would be no wonder that one would want an orchard. The beauty of that picture blotted out all thought of work and the costs of maintenance and production. The news spread far and wide, and the boom was on. For five years, A. W. Lawrence and I planted 500 acres each year on contract—for $25 to $30 per acre we staked out, furnished and planted 100 trees to the acre on whatever land the prospective fruit grower said he owned.

When consulted we gave good advice, but if they wanted trees planted, we planted them, deep or shallow. Our charges were too low to enable us to amass any great amount of wealth, but we contented ourselves with the higher idea that we were contributing to the development of the country. That is a potent idea, and can afford one a great deal of satisfaction; but twenty years later I was told, "I guess you didn't know much about fruit growing in those days."

There were some erroneous beliefs prevalent in those days. One was that it was thought nursery stock was no good unless grown almost in your own backyard, and I had some pretty good arguments with some of the older nurserymen. I maintained that variety was the important factor in hardiness rather than the locality of propagation. Up to 1910 we bought cherry trees mostly from W. F. Heikes, Huntsville, Ala., 'Below the Blizzard Line.' After 1910 we found trees larger and younger in the quantities we needed at Vincennes and bought large quantities there over a period of years. In fact, a large portion of the cherries in Door County today came from Vincennes, Indiana.

My interest in fruit growing since 1891, centered largely on apples, and, in 1910, when the first corporation to be engaged in commercial fruit growing was organized, I was largely responsible for the acreage being planted one-fourth to cherries and three-fourths to apples. Such factors as life of tree, perishability of fruit, labor, etc., were my considerations. In the matter of labor, for example: it requires 150 pickers to harvest 40 acres of cherries in a short period of time; and 50 persons can pick and pack the apples from 120 acres, the period of time available for harvest accounting for the difference. Anyone who has been in Door County during cherry harvest in years of good crops and fair prices has seen what this high labor requirement means — an influx of 8,000 to 10,000 persons during the month of July.

Of course, such things as the advisability of planting apples instead of cherries, or cherries instead of apples, are highly debatable, but I think Door County is destined to become some day quite an apple section, and largely for the reasons which prompted me, 24 years ago, to plant a greater proportion of apples.

(To be continued)

NURSERYMEN'S CONVENTION

A very interesting program has been arranged by the Wisconsin Nurserymen's Association for their annual convention at the Republican Hotel, Milwaukee, February 13. All nurserymen of Wisconsin are invited to attend the noon luncheon and afternoon educational program.

Yum! Yum!

First Eskimo: "How did you like our Christmas tree?"

Second Eskimo: "It was swell. Those were the best candles I ever ate."

About the Home and Garden

MRS. C. E. STRONG

AN INDOOR COLD FRAME VALUABLE

FLATS leaking over the floor, flower pots filling the window sill also leaking—a flat upset with all its tiny plants lost—and the indoor cold frame came to life.

It is a drawer from an old discarded bureau, given a coat of enamel to make it look presentable from the outside, lined with oilcloth on the inside to make it leakproof—several inches of peat moss well soaked to furnish an even moisture, a cover made exactly like a hotbed sash with sliding glass, and many of my troubles took flight.

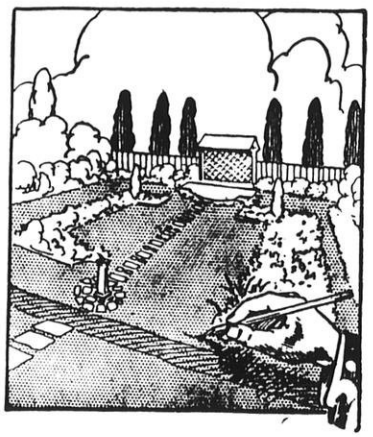
The drawer holds many small pots. Standing on the dampened peat it keeps the soil nicely moist. The sliding glass can be opened so there is always plenty of air. If I am busy and neglect the frame for a few hours—there is no fear that my seeds and plants are ruined.

In the spring the cold frame may be set outside without disturbing the pots, especially those that need to be left alone for some time on account of slow germination.

There is another drawer in the basement that will be made into a frame in the near future. Some choice seeds will be sown early and left in the frame during the summer to be transplanted to an outside frame early in the fall where they can be protected until the following spring, then placed in their places in the borders. I find some of the unusual Iris, also Trollius, do nicely when treated this way.

Catalogs

Not all of the catalogs have come at this date—January 12th, but there are many interesting novelties, some that have been tried out for several years at the nurseries before being



listed. For those enthusiastic gardeners who like to see new things growing in their borders and cold frames perhaps the following list may prove of interest.

Erigeron hybridus, Azure Fairy—hardy perennial. This Erigeron reaches a height of about 2½ feet, and is literally covered with double blue blossoms. Seed sown in March or April will bloom the following spring. The single Erigeron is so very attractive one wonders why it is not more generally grown.

Viscaria, Blue Pearl, hardy annual. Average height one foot, color a clear lavender blue with no eye. Very attractive for mass planting. Viscarias belong to the Lychnis family we should become better acquainted with them.

Salvia dichroa magnifica, hardy perennial. About three feet, with long elegant spikes of deep lavender, set off with white midlobes, splendid for grouping.

Salvia splendens, Coral, annual. This Salvia is a sport from Fireball, compact, early and free flowering. The flower spikes are a vivid coral pink, with a brick red corolla. It comes true from seed. The description goes on to state that this Salvia will prove most welcome because of its soothing color? Well—perhaps—but coral and brick red does not sound soothing to me. However, I hope someone will try this Salvia if only to prove that I am mistaken about the soothing effect.

Poppy Fairy, annual. Plants of bush habit, carrying flowers five inches across on stout stems, making them useful for cutting. Colors, pink, salmon, rose, flame, etc., each flower has a maltese cross in the center varying in color. Many have brown stamens.

Papaver nudicaule Gartref, hardy perennial, is a reselected strain of art shades, and, as a distinctive feature, has dark edges to the petals, both in dainty tonings and in sharp contrast to the base colorings. Blooms are large—4½ to 5½ inches.

Campanula Carpatica—dwarf hybrids, perennial. The ideal small rock garden Campanula, being about 4 inches in height. Broad bell shaped flowers in white and shades of blue. Easily grown and free flowering during July and August.

Best Edging Dianthus

Someone—I am sorry to say that I have forgotten who it was, asked me to tell them through Horticulture—the best edging Dianthus both for the border and to cut. In one of my notebooks I found this: Dianthus Salmon Beauty, a most lovely shade, Snow White, and Vesuvius, intense orange scarlet are the three finest Dianthus for edging and also for cutting that I have grown in a number of years. Flowers are very double, strong stems and the plants have very good compact foliage.

These Dianthus are advertised in almost all catalogs, being standard varieties.

Midget Zinnias

Midget Zinnias were a try out in the garden last year. No other annual in the garden received so much attention. The foliage was attractive, while the unusual shades of the velvety long stemmed blossoms, their constant blooming early and late, made them desirable in this garden. Judging by the number of people who took the name and address of this charming Zinnia, there will be many gardens in which it will be at home.

Have you been reading up on some of the newer varieties of Oriental Poppies? If you have not, just try reading the descriptions of June Delight, that wonderful pink, Purity a soft pink, Enchantress, Lilac rose, Splendour, a blend of peach and apricot, Silver King, tall pure white.

Hemerocallis

And Hemerocallis—I read about them—think about them. They are so little trouble, nothing seems to bother them, they will grow either in sun or shade. Before you know it there are large clumps—and you wake up to the fact that they are lovely—and you think you will have a few more. And those new ones are even lovlier than the others. Then you read that soon there will be pink shades brought out—and you wonder why anyone has to spend money for coal and clothes when they would like to buy Hemerocallis with that money.

If you have just started on your way to being a Hemerocallis collector—really you are very lucky, for the older varieties are moderate in price and very lovely.

Here are a few of the newer varieties that help prolong the blooming season, Anna Betscher, Mikado, Ophir, Vesta, Gold Imperial, Goldeni, J. A. Crawford, Mrs. W. H. Wyman, Lemona, Cinnabar, Soudan, Wau-Bun.

Boy Friend—"Guess who it is, and if you can't guess in three guesses, I have a right to kiss you."

Helen—"Jack Frost — Father Time—Santa Claus."

SOIL IN POROUS POTS DRIES OUT RAPIDLY

IN A *non-porous* pot, it is comparatively easy to maintain an even distribution of moisture in the soil, according to experiments conducted at the Massachusetts Experiment Station.

In greenhouses, nearly one-fourth of the water applied was lost through the walls of porous flower pots within 1½ hours. In fact, twice as much water was evaporated from the wall as from the soil surface, indicating a strong lateral movement of moisture. However, when the pot was placed on a moist surface a considerable proportion of the lost water was replaced. Cement pots did not have as large a water-holding capacity as those made of clay.

The root system was affected by the character of pots; for example, in a non-porous container the roots penetrated the entire soil mass, whereas in a porous pot they were largely located between the soil and the pot.

Porous pots are therefore satisfactory in a greenhouse because they are usually standing on a bed of moist sand, but in the home they are likely to dry out rapidly.

Sow the Seeds That Professionals Prefer

●

Vaughan's Seed Store, founded in 1876, has specialized for 59 years in seeds, bulbs and plants for florists, private estate and market gardeners and amateur gardeners.

Gardening Illustrated, issued each spring, illustrates, describes and prices everything the garden lover needs or desires. Illustrates 240 different flowers in true color and lists 2,164 separate varieties of annuals, perennials, roses, water lilies, and gladioli. Also includes the tender, finely flavored table quality vegetables.

Famous Rainbow Garden of Gladioli, $2. Our 1935 Rainbow Garden of Gladioli includes 100 bulbs, ten each of the following varieties: Betty Nuthall, Dr. F. E. Bennett, Golden Dream, Kalamazoo, Mrs. Leon Douglas, Mrs. Von Koynenburg, Pfitzer's Triumph, W. H. Phipps, and Seafoam. Prepaid to 600 miles.

Vaughan's Gardening Illustrated, 1935, free on request.

●

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OTTO KAPSCHITZKE, Rec. Sec.
1710 Illinois Ave., Sheboygan

Our Best Gladiolus Varieties

E. H. Ristow

OUR members were asked to list on a postal card what they considered to be the best ten varieties of gladiolus, and also what place they occupied, in their opinion. Each variety listed would be entitled to one vote.

A quick appraisal of this symposium revealed that the first ten were nearly the same as the A. G. S. symposium. To list the other forty varieties would be almost meaningless, because from six to eight varieties received the same number of votes. To correct this and get some real value out of the symposium, a simple point system was worked out. A variety listed first was given 10 points, 2nd 9 points, and so on down. This method of rating is by no means perfect, but it is much better than first suggested. To get a point system to work out better, we should list at least 20 varieties. The value that we will get out of this method is in seeing what rating was given to the newer varieties. It is only by checking on the experiences of others, that we learn whether a new variety is worthy or not.

A check of this symposium with the 1932 A. G. S. symposium will show that we have eliminated 23 varieties that were used as the basis for the planting of the 50 best varieties for our trial garden. I do not believe we are just right in saying that this method has given us the 50 best varieties to use for our trial garden next year. The last 15 varieties received at the most only two votes, although they had a high rating. A check with our experience at the trial garden reveals that many of these varieties were grown there, and proved to be superior to the planting of the 50 best. A comparison with the 1933 A. G. S. symposium reveals that we list 33 varieties out of the 50.

1934 Symposium of the Wisconsin Gladiolus Society

Place	Name	Points
1.	Picardy	294
2.	Minuet	246
3.	Commander Koehl	117
4.	Marmora	88
5.	Betty Nuthall	82
6.	Pfitzer's Triumph	75
7.	Dr. F. E. Bennett	66
8.	Mother Machree	60
9.	Maid of Orleans	59
10.	Albatross	56
11.	Margaret Fulton	48
12.	Mildred Louise	40
13.	Mrs. L. Douglas	40
14.	Lotus	39
15.	W. H. Phipps	38
16.	Heritage	37
17.	Solveig	37
18.	Pelegrina	30
19.	Mammoth White	30
20.	Emilie Aubrun	30
21.	Mrs. P. W. Sisson	25
22.	Miss Greeley	23
23.	Red Lory	23
24.	Golden Dream	23
25.	King Arthur	20
26.	Bagdad	20
27.	Winged Beauty	17
28.	Blue Danube	16
29.	Dr. Hoeg	16
30.	Wuertembergia	16
31.	Ave Maria	15
32.	J. Van Tets	15
33.	Schwaben Girl	15
34.	Gloriana	15
35.	Aida	14
36.	Aflame	14
37.	Golden Chimes	14
38.	Veilchenblau	13
39.	Hercules	10
40.	Gunvor	10
41.	Red Wood Beauty	10
42.	Hinemoa	10
43.	Purple Glory	10
44.	Mary Elizabeth	9
45.	Miss New Zealand	9
46.	Crinkles	9
47.	Netherland Prince	8
48.	Red Phipps	8
49.	Moorish King	8
50.	Salbach's Pink	8
51.	Ruffled Gold	8
52.	Takina	7
53.	Salbach's Orchid	7
54.	Giant Nymph	7
55.	Duna	5
56.	Star of Bethlehem	5
57.	Dream O' Beauty	5

A VISIT TO COLONIAL GARDENS

WHILE attending our State Gladiolus Show at Hartford last August, it was our privilege to see the seedling "Heritage" originated by Edwin Ristow of Oshkosh, and introduced by Colonial Gardens. We were very much impressed with this new variety, its beautiful pink color, good substance, and immense spike. Having heard some rumors that it was grown under a cloth house, we decided then we would visit the Colonial Gardens and see how it was done.

On the morning of September 3, Labor Day, we started for Rushford, Minnesota. Arriving there Mr. Baerman's home was pointed out to us.

He took us out to see his patch of glads and after walking about halfway through the wonderful specimens, I inquired where he had his cloth houses and he said, "Right here they are." Just before us were two long rows of the new seedling "Heritage" in full bloom, grown out in the open the same as we grow them. And what a beautiful sight it was. Spikes 5 feet tall and over from No. 3 bulbs with 6–16 flowers open and all in good condition. We just marveled at such straight uniform spikes. From what we saw we will say that this new seedling has been

well named, for it surely has inherited all the good qualities of both parents and we predict for it a great future.

We also saw four or five rows of the white variety "Solveig" in full bloom, and "such spikes," with 5–7 immense flowers open. He also showed us his new seedlings, some of which will be introduced in the near future. Our visit was a pleasant afternoon and evening which will be long remembered.

MR. AND MRS. ARNOLD STAUTZ,
West Bend, Wis.

SOME LITTLE KNOWN VARIETIES

C. G. YOUNG
Oshkosh

OUR garden is an average garden, well suited for growing glads. The soil is light, sandy and black with good drainage. We plant about 35,000 glads suitable for decorative or exhibition purposes. The past year we had to depend a great deal on rain for moisture and the amount which fell was sufficient, due to the good moisture holding capacity of the soil. We used one large load of well rotted manure and eight large bales of peat moss on the plot (250x200 ft.) Peat keeps the soil friable and is a great aid in holding moisture. In placing the manure, we dug a trench deep enough to enable us to place about two inches of it under the bulbs so that the root was attracted downward where the moisture ordinarily stays. After placing the fertilizer in the bottom of the trench we placed about two inches of soil on top of this and set the bulbs thereon. We then filled up the trench to about three inches of the top and from there on used an equal amount of peat and soil to fill up the trench. This system gave us the best crop of glads we have ever seen. Most all varieties were planted too early and bloomed before the State show started so we did not have the pleasure of showing our best at Hartford.

We had spikes of Picardy, Netherland Prince, Irene, Star of Bethelhem, Champlain, Blue Danube, Early Dawn, Beat All and Tip Top well over five feet tall. In fact, the general run of all varieties was above the four foot level.

New Varieties

Several newer varieties did exceptionally well. In this newer class we wish to mention especially the Scotch varieties of Mair. They are as a whole very tall growers. The coloring is not of the soft pastel shades so pleasing to the eye, but runs more to the pronounced shades. This is no serious fault for exhibition purposes. In this group of Scotch varieties we wish to mention in particular the variety "Irene" a wonderful flower, gigantic in size and of perfect growth and habit. The color is light salmon rose with silver flecking and creamy blotches.

Other Scotch varieties worthy of trial are: Violet, Apricot, David Airdrie, John Hill, John Ramsey, Mabel, Mrs. Wm. Cuthbertson, and St. Cuthbert.

The Stevens variety "Netherland Prince" is another newcomer suited for exhibition. Growing well over five feet tall it opens six large wide open florets of a bright salmon pink shade.

Much comment will be heard on the new Briggs' variety "Early Dawn" during the next year. This variety gave us the best spike of all. It was slightly taller and larger than my best spike of Picardy and had not a single fault. The color is not so pleasing as others, being about a shade deeper than Mrs. Douglas. This can be disregarded in view of the other qualities of the flower.

Champlain we believe is the best near blue to date and certainly the largest. Our planting includes all the blues in the various shades and Champlain was outstanding.

Other varieties we would briefly mention are: Polar Ice, a lovely white and first of all to bloom; Dr. Hoeg, best of the dark reds; Miss Greeley, a new variety very similar to Phipps but three weeks earlier and larger; Lavender Douglas, a huge

(Continued on page 146)

30 Exhibition Glad Bulbs $2.50
(*Value $4.00*)

Ten great exhibition varieties. Three large bulbs each of the following Ten great glads, thirty bulbs all labeled, delivered postpaid to you for $2.50.

Picardy finest glad
Marmora silvery lavender
Veilchenblau finest blue
Our Selection huge salmon red
Betty Nuthall finest orange
Johnkeer Van Tets large, pure white
Minuet finest lavender
Bill Sowden huge, deep, rich red
Loyalty big yellow
Schwaban Girl pure pink

Picardy

Picardy the most beautiful pink gladiolus introduced in the last twelve years, is only one of the fine varieties which we list in our catalog. Send for free copy today. Picardy special for Feb. only—5 large, 5 medium, 10 small, 100 blts. all prepaid for $1.00.

Riverview Gardens Dept. W., - St. Paul, Minn.

Garden Notes

GOOD DAHLIAS OF 1934

A SELECTION of the best dahlias of 1934 has been made by Mr. D. O. Eldredge, editor of the Mid West Dahlia News published in Madison. The list was published in the fall edition of the Mid West Dahlia News.

His selection of best varieties is as follows:

Wenoka—Rosy mauve in color. Enormous blooms. Referred to as a purple Jane Cowl.

America's Sweetheart — An immense informal decorative of a pure yellow color.

Mrs. Bruce Collins—Straight cactus, of a lemon yellow color.

Cornelia Brice Pinchot—An informal decorative of huge size. A rich burgundy with rose red reverse.

Shalimar—Poinsetta red in color.

Honor Bright—A formal decorative of a copper or peach red color.

Hillcrest Nuggets—A real nugget of gold.

Cavalcade—A formal of an old rose or mulberry pink.

Mid West—Incurved cactus. Color is a deep mauve.

Kay Francis—A light lemon yellow semi-cactus.

Dorothy Mathews—A lavender formal decorative.

Lemonia—Color is similar to Lord of Autumn and the 12x6 blooms are of a semi-cactus to incurved cactus type.

City of Cleveland—A semi-cactus of a rust red, with blooms 10 to 11 inches.

Century of Progress—A formal decorative. Royal purple.

Zion's Pride—A yellow formal decorative.

Little Nemo—A red, tipped white miniature.

Fairy—A pink miniature, referred to as the miniature Jersey Beauty.

Persimmon—A miniature.

A DESIRABLE ANNUAL

RUTH HODGSON
Waukesha

IF YOU have only a small space in your garden to plant flowers I suggest that you plant a few seeds of the Golden Glem Nasturtium. I am sure you will be overjoyed at the amount of lovely, double, golden-yellow blossoms they will give you. We planted a few hills last year. The seeds germinated well, and we just left one sturdy plant at each place.

They began to bloom when they were quite small plants, and kept on blooming all summer. They were still covered with buds and blossoms when the frost killed them. Unlike most nasturtiums, they do not stop blooming if you don't pick them. The reason is that they do not form many seeds, only one here and there. I could not find one matured seed on our bushes.

SHADING PRODUCES EARLIER BLOOMS OF CHRYSANTHEMUMS

CHRYSANTHEMUMS may be forced into bloom as much as 70 days before their normal season by reducing the length of day to eleven hours by shading with black cloth, in an experiment conducted at the Cornell Station, New York.

Discontinuing the short day treatments before the buds were selected on disbudded plants before color was showing in the pompoms caused the buds to cease further accelerated development until the length of day was of proper length for flowering. By alternating the shading to short and long days, flowering was delayed by the full days included in the schedule.—*From U. S. Department of Agriculture Experiment Station Record.*

SOME LITTLE KNOWN VARIETIES

(Continued from page 145)

spike much lighter than the original Douglas; Gold Mine, a newer yellow of Briggs; Star Lily, beautiful ruffled and pale yellow by Kunderd; Elor Rico, silky purple with darker throat and well ruffled; Beat All, a beautiful light soft pink similar to Schwaben Girl, but larger.

The varieties we have mentioned herein are, we believe, all worthy of trial and are certainly much better than many of the old standbys many are trying to win prizes with. There is no mystery about successful glad growing. The fundamentals of success depend mostly upon getting the proper varieties and laying the proper planting foundation.

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GARDEN BOOK
(200 PAGES)
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The one complete guide to successful gardening. 200 pages, full of interesting information about the finest of the new varieties and all the old favorites. Free on request to anyone interested in Vegetable Seeds, Flower Seeds, Roses, Perennial Plants, etc. . . . all of choicest quality and everything reasonably priced.

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PHILADELPHIA, PA.

STATE GARDEN CLUB FEDERATION NEWS

Federation Aims: To stimulate and help garden clubs throughout the state; to develop interest in and broaden the knowledge of gardening; to aid in the protection of trees, plants and birds, and promote civic beautifications.

WHAT OUR COMMITTEES WILL DO

IN THE January issue of Wisconsin Horticulture is a list of members of the standing committees appointed by the Executive Board. The work these committees do during 1935 will be important for the development of garden club work in Wisconsin.

The following suggestions give some idea of the work the committees may undertake this year. Further suggestions will be appreciated.

Conservation and Highway Beautification. Obviously the committee members or garden clubs cannot go out and beautify highways or actually take part in practical conservation. What is needed most of all along this line is an enlightened public sentiment for more conservation and more beautiful highways. The committee can therefore devise means whereby garden clubs can create this publicity and sentiment. The committee should work in close harmony with other organizations such as the Women's clubs, State Highway Department and the State Conservation Department.

Visiting Gardens Committee. We need more information as to the beauty spots in Wisconsin which garden clubs may visit. The committee can also list outstanding gardens in different sections of cities, which are available for visits by garden club members. Some of these may be available only to those having membership cards of the State Federation. If you know of beauty spots or gardens open for visits in your section notify a member of the committee. Gardens should be listed in season; that is, Iris and Peony gardens should be listed in May and June; Gladiolus and Dahlia gardens in July and August, etc.

Garden Club Programs. New garden clubs especially and the older clubs quite often ask for information as to what type of program would interest their members, where they can obtain materials, books, lantern slides, and lectures. Suggestions and names of speakers from your club or city should be sent to members of the committee. Perhaps program suggestions by the committee will take the place of garden club reports from which a great deal of such information has been obtained. This committee works hand in hand with the Speakers Bureau.

Historian. It is the thought that the Federation compile and keep a history of the activities of the organization. Mrs. R. H. Malisch, Hales Corners, was the first president and is well qualified to write the history. Members should send her any suggestions they may have.

Junior Garden Club. What can we do to increase the number of junior garden clubs in Wisconsin? This is the problem of this committee. Perhaps the committee members can talk at garden club meetings on the subject, or advise clubs by mail on how to proceed.

Legislative Committee. If at any time the Legislation is needed to protect or improve our line of work, the committee chairman will be on the lookout.

Garden Club Organization. In every county there are cities and villages in which there is a dormant desire for a garden club not yet formed. Cooperate with this committee in devising means for organizing at least 25 new clubs this year. How can it be done?

Plant Testing. The recommendations of the plant testing committee will be published in the March issue of this magazine. We hope our members will cooperate by purchasing some of these new varieties for trial.

Constitution. A need was expressed at the last convention for changes in the constitution. This committee will report at the next meeting.

Members of the Executive Board were appointed ex-officio members of these committees to help them carry out the ideas of the Board. It is the duty of the committee chairman to correspond and call meetings of the committee members.

THE CATALOGUE

The snow swirles at the window sills,
The drifts are high,
The pale gold winter sunlight spills from a cold sky.
But in my hand I hold a small and lovely thing
A nursery catalogue.
With all the light of spring and summer in it.
As I turn a page and see
Tulips and scarlet poppies burn their fires for me.
Across the winter whiteness drifts the misty red of peonies
And blue smoke lifts from a larkspur bed.
I warm my heart at a crimson rose,
These berries feed a hunger and an apple glows to meet my need.
Swirl at my window snow and see if you can prison me.

—GRACE NOEL CROWELL.

The Garden Clinic

THE extension activities of the University Department of Horticulture were explained to Garden Club members at our annual meeting in Racine, by Prof. J. G. Moore.

Funds for this extension work are appropriated under the Smith-Lever Act. However, this act provides for work in rural communities only. Prof. Moore feels that the extension service of the University should not stop at the city limits and that the city gardener should not be denied the help which the Horticultural Department might give him in meeting his garden problems.

The special extension feature offered last summer known as the garden clinic was designed to take up the gardeners' problems in the garden where they could be handled more efficiently than by abstract lectures. In order to reduce the expense of conducting the clinic, the meetings were arranged as a series. Particular problems were taken up at each series and the various groups with which the clinics were held were met in sequence during the week. Prof. Aust was in charge of the meetings, spending the afternoon with the club members in visiting gardens which furnish illustrations of the particular problems under consideration. During the evening in a lecture open to persons enrolled in the course and to other interested parties, a more detailed consideration of the problems was given.

The groups selected for the past summer's work were those which seemed most anxious to have the clinic and which had first secured sufficient enrollment. These groups felt that the meetings were very much worthwhile.

It was stated that the continuation of this service depended upon how much the garden clubs want it and in the securing of sufficient funds to make it available. The latter will be considerably influenced by how well the officials having the allotment of funds in hand are informed as to the needs and the desire of the garden club members for this type of service.

MRS. B. W. WELLS,
Madison.

NATIONAL COUNCIL TO MEET IN CALIFORNIA

THE National Garden Club Council will meet in Los Angeles, California, on April 10–14.

Wisconsin is entitled to a number of delegates and the officers of the Wisconsin Federation will be very glad to hear from anyone who may be able to make the trip to California and who could represent the Wisconsin Federation at this convention.

The first and last day of the meeting will be spent in Los Angeles, while one day will be spent in Beverly Hills, and one day in Pasadena. A day after the meeting will be spent making a trip south of Los Angeles to Rancho Santa Fe. Then there will be a four-day motor trip up through the state, garden clubs at various points extending hospitality. This will include a two-day trip to San Francisco enjoying the gardens in that city.

A complete program may be obtained by writing Mrs. Richard W. Kirkley, 432 South Serrano Street, Los Angeles, California.

IMPORTANT—RADIO PROGRAM

Arrangements have just been completed with WHA, Wisconsin radio station, to present the HOME MAKER'S GARDEN CLUB OF THE AIR every Tuesday at 10:30 a. m. during March and April.

The series will open on March 5th. Officers of the State Garden Club Federation will appear on the program, at 10:10 A. M. Watch for it every Tuesday.

ELKHORN GARDEN CLUB

THE Elkhorn Garden Club has brought to a close a year which in the minds of its members, has been a most successful one. At the February meeting plans were made which later developed into a district flower show held here on May 23rd, with clubs from Racine, Ft. Atkinson, Whitewater and Elkhorn participating, under the chairmanship of Mrs. Robert Alder of this city.

Some of the outstanding events of the year were as follows. A lecture in March on the practical side of growing of plants and flowers given by Mr. Alex Gardiner, in charge of the Ryerson summer home on Lake Geneva; a discussion on early blooming bulbs on May 4th, illustrated with many actual specimens; a garden tour of several large estates on the shore of Lake Geneva; a meeting held in a real rose garden in June; a drive in the months of August and September to eradicate ragweed in Elkhorn and vicinity; a flower judging school and a flower identification contest in September held in the Masonic Temple, to which the public was invited; a demonstration of the use of Christmas greens in and about the home, directed by Mrs. Chas. Jahr, State president, and arranged in the Public library where it was left for a few days for the public to see; and the sponsoring of a campaign of home decoration at Christmas time, with the giving of a first, second and third prize to those who, in the decision of out-of-town judges, held the three best decorations.

The banner event of year was a series of four garden tours and lectures conducted by Prof. Franz Aust and assisted by Prof. R. E. Vaughan, arranged by the Extension Department of the University, during the months of August and September.

The club has a membership of 50.

MRS. HARRY F. HOWE,
1934 Secretary.

New Goals For Garden Clubs

THE following is a condensed article from the Garden Club Exchange published by Better Homes and Gardens, Des Moines, Iowa.

The Garden Club Exchange will be sent free to every garden club president. Members may subscribe for it at the rate of 25¢ per year. Every Wisconsin garden club should subscribe to the Garden Club Exchange.

"As Edward Everett Hale once wrote:

Coming together is the beginning.
Keeping together is progress.
Working together is success.

"Perhaps they are new, perhaps they are old, but these are three basic goals to which every club must aspire if it is to live.

Meet the Need of Members

"The dominant motive back of any club organization is to give individuals an opportunity to meet and discuss a mutual interest. If that coming together is to fulfill its purpose, the discussion must be of benefit to all. Therefore the club's first milestone toward the attainment of its goal, coming together, will be the planning of a program of study, profit, and pleasure that meets the needs of every member. How can this be done? Require each member to give the program chairman a statement of his or her individual needs and interests. Those members who are not sufficiently interested to co-operate to this extent may be transferred from active to associate membership, and the program planned to cover the problems and interests of active members.

Restricted Membership

"Many clubs feel that their coming together is more successful if they restrict their membership to a size that can conveniently meet in the average home and garden. If this is done it will be necessary to keep every member an active working unit. One way this may be accomplished is to have each applicant for membership fill out a questionnaire and be rated by an admission committee or the executive board.

Large Club Needs

"On the other hand, if the goal of an organization is to rouse the entire town to garden consciousness, membership may be opened to all. That the needs of each member may be served and the ever desirable personal touch retained in so large an organization it will be found wise to offer specialized study groups, these to be limited in number, usually to 50. Club members will be allowed to designate at the beginning of the year the study group whose program best fulfills his or her personal interests or needs. That such an organization may retain its spirit of oneness, monthly programs of general interest to everyone should also be planned. Outside speakers of note, seasonal exhibits of flowers, and special demonstration meetings will feature these general programs. This type of organization, originating in Des Moines, Iowa, to fill the needs of its membership of 400, has proven successful wherever used. Details of the study groups will be found in 'The Garden-Club Handbook,' published by Better Homes and Gardens, available for 50 cents.

Keeping Together

"This is the club's second and more difficult goalpost of attainment. That the membership may be kept together in its interests, it is essential that each individual be given some part in the year's program, if it is nothing more than serving on the social committee that introduces members after the meeting. No club is dull to the person who has a responsibility in it, and the so-called deadwood membership menace will have less opportunity to accumulate under such a plan. That each member may be given a constructive part in the club's program of activities it is important that the executive board carefully analyze the qualifications and interests of each member. If the club's membership is to be kept together, members of the program committee will need to be veritable hawks of detection for the least sign of lagging interest and enthusiasm. Record should be kept of programs that meet with popular appeal and those to which there is least response. Thus each year's regime wil be able to avoid the repetition of errors.

"It may seem the goal unattainable to keep every member's interest enthusiastically alive and together, but with careful study of the club's clientele, ways and means of keeping interest high may be found quite simple. For instance, many organizations are finding that a cleverly handled monthly news letter greatly stimulates membership attendance and activity. The secret of the news letter's success is an editor who knows how to flavor the practical with just the right dash of human interest.

Continuity Program

"Another milestone in the attainment of the club's goal of keeping together is a unified and continuity program that, over a period of years, leads the entire membership into a clearer and more enthusiastic understanding of the art of gardening. A promiscuous program of hit-and-miss subjects leaves members with a smattering of this and that, insufficient to be of any practical value to their needs and problems. Because a program has an underlying theme and purpose does not mean that it will be tiresome. Each phase of the subject must be varied if it is to be stimulating. Each program will present a new, inspiring, and practical angle of consideration that increases knowledge of the subject and deepens interest in it. We should be kept in anticipation of the next meeting, much as we

are with a fascinating continued story.

Look Well to the Officers

"The selection of officers with the ability to use every suggestion is important. Officers that never lose their poise, officers who will control and shape their own ideas to the channel that best serves membership needs, officers that never forget the value of seeing a humorous light in every trying situation, officers who understand human nature, officers that are thoroughly conversant with club objectives and enthusiastic workers in the club's theme. If you think your organization boasts no such Utopian mortals select those that come nearest the ideal and then give them a list of the qualities they will need to develop.

"Details for Junior Garden Club organization and activities may be secured for a 3-cent stamp sent to The Junior Garden Clubs of America, Better Homes and Gardens, Des Moines, Iowa."

HAVE YOU ELECTED YOUR GARDEN CLUB OFFICERS?

THE directory of the officers of all Wisconsin Garden Clubs, members of the Wisconsin Garden Club Federation, will be published in Wisconsin Horticulture, April issue.

The names of all officers for 1935 must reach us not later than March 15.

This directory has been found to be a very convenient record of the officers for the year, and the Federation Board will appreciate very much if all clubs hold their election by March 1st, in order that the names of their officers for this year may be published in the April number.

Change There

Gladys—"I'm so thrilled, dear. It's tomorrow that Reginald will conduct you to the altar."

Muriel—"Yes, darling, and right there Reginald will stop being a conductor and start being a brakeman and porter."

TREASURER'S REPORT

GENERAL FUND

Balance on hand Nov. 1, 1934		$ 71.73
RECEIPTS:		
Dues received:		
Horticulture dues:		
1 @ 35¢	$0.35	
15 @ 20¢	3.00	
Federation dues:		
1 @ 15¢	.15	
16 @ 5¢	.80	
Total dues		4.30
Total Receipts		76.03
DISBURSEMENTS:		
To Wisconsin Horticultural Society: Dues—		
1 @ 35¢	$0.35	
15 @ 20¢	3.00	
Total		3.35
Expenses—Board Members November convention		35.98
December meeting—Board members and district chairmen		15.43
One member April and Sept. meetings		4.35
Secretary's supplies		4.43
Stationery and postage for Chm. Speaker's Bureau '34		2.23
Federal Tax on Oct. & Nov. checks		.32
Total Disbursements		66.09
Balance on hand Jan. 1, 1935		9.94

FLOWER SHOW FUND

Balance on hand Nov. 1, 1934		$333.61
DISBURSEMENTS:		
Vases for prizes at convention		10.31
Balance on hand Jan 1, 1935		323.30

SPEAKER'S FUND

Balance on hand Nov 1, 1934		$52.26
RECEIPTS:		
Donations from 15 clubs	30.00	
Total Receipts		82.26
DISBURSEMENTS:		
Rental of flower arrangement slides	10.00	
Expense: Carfare and meals for speakers at State Convention	19.68	
Freight charges:		
Vases	3.14	
Slides	2.00	
Federal Tax on Oct. & Nov. checks	.10	
Total Disbursements		34.92
Balance on hand Jan. 1, 1935		47.34

OSHKOSH HORTICULTURAL SOCIETY

THERE was a large attendance at the January meeting of the Oshkosh Horticultural Society which was opened with the regular cafeteria supper, with Mrs. E. R. Vader and Miss Ruby Winchester in charge.

Plans were already underway for the annual flower show sponsored by the Society, and Alan H. Davis was named general chairman, assisted by Miss Clara Friday and Miss Florence Winchester.

The speaker of the evening was Prof. W. C. Hewitt who gave an interesting talk on "People." He stated that one's good deeds are not praised enough, while unworthy deeds are magnified too much. Praise, he said, is an uplifting power. People should think more about the love and works of literature that reach the human heart.

An invitation was extended by the city librarian, for the members of the Society to use the books on gardening that the library has to offer.

Several new members were taken into the club and committees for the year appointed.

MISS FLORENCE WINCHESTER,
Secretary.

Another Year

We are beginning our 32nd year of service to the beekeeping industry and we hope that we will be here to serve you for many years to come.

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August Lotz Company
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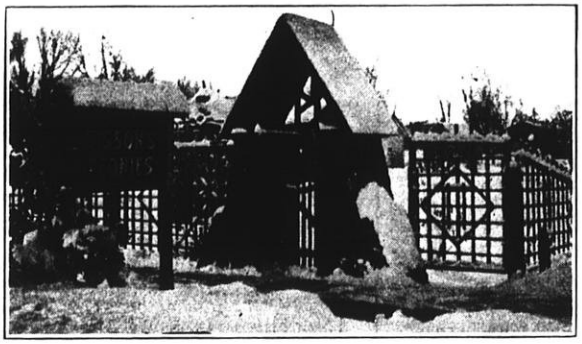

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MARCH, 1935

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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
The Wisconsin Garden Club Federation

Established 1910

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Please Do Not Send Stamps

Wisconsin Horticulture

OUR PROGRAM

1. A more beautiful Wisconsin, secured by cooperation with all existing agencies.
2. Improvement of Wisconsin's fruits and ornamentals. Establishment of plant breeding and testing work. An active group of plant and fruit testers within the society.

OUR PROGRAM

3. Greater publicity for Wisconsin grown fruits and vegetables.
4. A constantly improving magazine for the distribution of timely horticultural information.
5. Organization of local horticultural clubs in all sections of the state.

How Much Nitrogen Do Apple Trees Need?

R. H. Roberts

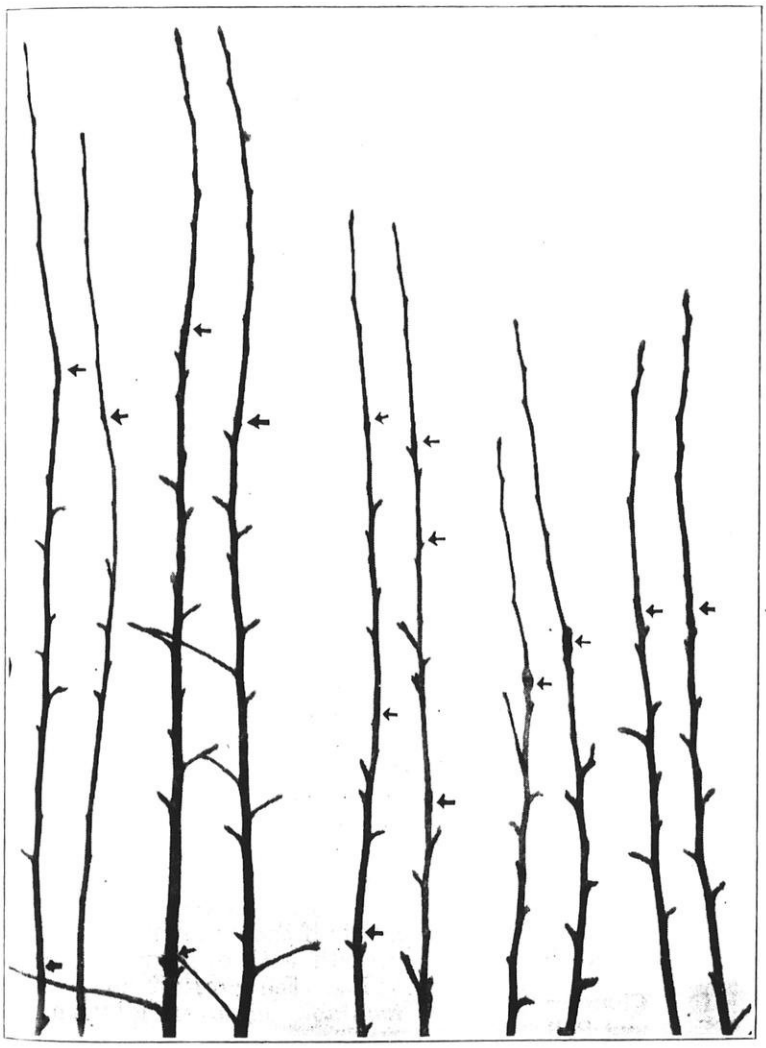


FIG. 1—DIAMETER OF TERMINAL GROWTH IS AN INDEX OF FRUITING CONDITION

Compare the diameters of the new growth of the above pairs of shoots. Left to right: "over-vegetative" (high nitrogen, poorly fruitful); moderately vegetative (balanced nitrogen, very fruitful); "under-vegetative" (low nitrogen, poorly fruitful); the "off year", Wealthy; the "on year", Wealthy. Arrows indicate end of annual growth. The shoot at left blossomed but set no fruit—a high nitrogen (or low carbohydrate) condition.

Note the marked differences in spur diameters.

—Cut Courtesy Wis. College of Agriculture.

"NITRATING" the orchard became a regular practice about eighteen or twenty years ago, when it was reported that applying quickly available fertilizer to the apple orchard greatly increased the yields. This practice has spread to such an extent that we now commonly hear it advised to measure the annual application by the age of the tree. A generally recommended amount is one-fourth of a pound to each year of age. However, this pound-per-year idea is particularly unhappy as it seems not to recognize differences in soils, varieties, individual trees or differences in trees of the same age.

While evidence of excessive use of nitrogen in some orchards has been accumulating for some seasons, the appearance of the amount-to-age rule has suggested that we review the nitrogen needs of the tree from the standpoint of the relation of growth condition and fruiting response.

When Does a Tree Need Nitrogen?

How can we tell when the tree needs or lacks nitrogen? The yellow foliage and accompanying short growth and reddish bark color of the nitrogen-starved tree are commonly recognized. The tree which has too much nitrogen for best fruiting is as

readily distinguished by its slender growth (Fig. 1), smallish dark green leaves and greenish bark color. Of course, such a condition need not be limited to trees receiving very large amounts of nitrogen fertilizer. Shade conditions may cause a high nitrogen situation. In this case more available light as well as less nitrogen is a remedy to be used.

The "over-vegetative" tree does not always have a long terminal growth. The amount of terminal growth is reduced where too much nitrogen is available to the tree, the length of growth being limited by carbohydrate supply. Slenderness of growth is a better and rather accurate measure of the fruiting condition. Blossom buds and good apples follow good diameter conditions.

Nitrogen Needs Determined by Growth Conditions

As an indication of the effect of nitrogen upon fruiting, data taken on the variety McIntosh are shown by Chart I. This variety was chosen because of its regular fruiting habit. The alternate fruiting of some kinds so varies the yearly growth conditions that it is difficult to measure the effect of a cultural treatment as the nitrogen application (Fig. 1, Wealthy). From these data it is very apparent that the nitrogen needs of the tree should be determined by its growth condition. Any other rule must, because of the relation of growth character to fruitfulness, fail to give the best results.

Other varieties show comparable responses to the nitrogen nutrient. The degree of response varies, of course, with the variety growth character. For example, with a biennial Wealthy tree a relatively large use of readily available nitrogen fertilizer is needed in its off year to balance its marked accumulation of carbohydrates in that season and leave it in condition to start a satisfactory growth in the blossoming season.

On the other hand, the marked effects of fruiting so limit carbohydrate accumulation and induce a relatively high nitrogen condition that the fertilizer application should be relatively light on the blossoming tree if good colored fruit is to be obtained. Spy may be used as another case; here the typical shade condition of the young tree delays fruiting especially in the presence of available nitrogen.

While the different varieties have different "nitrogen needs," yet the excessively vegetative or non-fruitful stage of each appears to be related to a noticeably slender type of growth with its typically greenish leaves, so that this character can be used as a basis of the nitrogen need.

Effect of Manure

The form of nitrogen to be used varies with soil type and location. However, such sources of nitrogen as manures and legumes are to be avoided if the late summer soil content is to be kept low enough to give good fruit coloring conditions.

Other fertilizer elements rarely appear to have a satisfactory compensating influence for the presence of too much nitrogen.

Drought effects appear to be aggravated by a too-high nitrogen content of the apple tree. Such trees have reduced root systems, in addition to a foliage type which transpires water rapidly.

Also, certain types of spray injury appear to be the result of an over-vegetative type of growth.

Partial defoliations very early in the growing season as by scab, tend to produce a relatively high nitrogen tree (through a reduced carbohydrate content) so the cultural treatment in such cases should not include a large application of nitrogen.

Consider Changes in Plant and Soil

The seasonal change in plant composition as well as soil nutrient content is a very important practical consideration in orchard fertilization. It is desired to secure a vigorous growth in early spring when the soil is low in nitrogen; it is desired to secure early maturing of growth (for fruit color reasons) in early fall when the soil is relatively high in nitrogen. Thus, it is hoped that a nitrogen supply be available to the tree very early in the spring and also that there be relatively little in the late summer. Theory calls, then, for a fall application immediately following harvest. Practice appears to support the theory, at least on some soils. After fall fertilizing, the early spring growth (made largely upon reserves) has a good nitrogen supply and the supply from natural soil nitrification is not increased by a late spring application.

The effect of reserves upon seasonal growth is shown by the leaf sizes on shoots, Chart I. The previous season's treatments markedly affected the early leaf sizes but if more than 10 leaves were developed the current season's conditions made them much alike in size. Thus trees with much nitrogen (as young non-bearing trees) have small spur leaves and yet may have some large leaves on terminals in mid-season. Large diameters and auxiliary blossom buds follow from such a condition.

Amount to Apply

From observing the relation of nitrogen applications upon orchard production for several years, as represented by the data of Chart I, it seems that the nitrogen fertilizer application should be varied according to the growth condition of the trees. If the tree does not grow enough and has foliage that is too yellow, increase the application; if the trees are at maximum production repeat the present treatment; if the tree makes a slender growth with over-green foliage, reduce the amount of quickly available nitrogen given the tree.

A particularly important item in securing maximum acre yields is to vary the nitrogen application according to the differences in growth condition of the individual trees.

(Continued on page 161)

The Cherry Situation

Karl Reynolds
Sturgeon Bay

THE cherry trees should be in nice shape for a good crop this next year, unless something severe happens between now and blossom time, the latter part of May. We have had a fine moist fall, and lots of snow this winter. There is very little frost in the ground, and all of this snow should go right into the ground where it will do the most good. Last month we had some pretty cold weather, with temperatures down to 25° below, but we have had those temperatures before, and with the covering of snow we had, we should not suffer much bud killing.

Trees Replanted

There seems to be more interest in fertilizing, replanting trees and general good orchard practices than in a number of years. It looks like the Door County growers are realizing that even though the price of cherries has been awfully low, that they can't afford to let their orchards go to ruin entirely. Good trees for spring planting are scarce, and have gone up in price. One of the big orchards here is replanting about 7,000. That is just good sense, for it costs nearly as much to have those blank spaces in the orchard as to cultivate and spray a young growing tree.

Growers Using Fertilizer

Several cars of ammonium sulphate fertilizer have already been ordered, and no doubt there will be a bigger purchase of this fertilizer in 1935 than in several years past. Some growers will be using Cyanamid, which is the air fixation nitrogen fertilizer that becomes available a little slower and lasts a little longer in the ground. Some growers are even showing interest in a complete tree fertilizer, but the quantities used will not be large.

Growers Want Marketing Agreement

Probably much of this general improvement in interest is born of the hope that 1935 will see the Cherry Marketing Agreement and a minimum price of 3¢ per pound in effect. It would not be wise to depend too much on this, as the prospects are none too bright. True, the Wisconsin packers and growers approved the marketing agreement plan unanimously, but an overwhelming opposition was met by the AAA hearing conductors in Michigan and New York. We have not heard from the Utah hearing as yet. Growers in 11 states are in favor of the plan, but it is being submitted for approval of processors, not producers. It is still possible that the Secretary of Agriculture will declare the Agreement in effect, even if only a few packers sign, because it should be quite evident to him and to his assistants that the opposition comes from selfish interests, and the cherry industry will continue to struggle along at 1¢ and 2¢ per pound until something is done to break the slump that we are now in.

Advertising

Of course, many of us think that an aggressive advertising campaign can and should be put on to move more cherries at higher prices, and that the growers should agree to finance the campaign because they are the ones who will benefit immediately. Even if the marketing agreement plan fails entirely, we still have hopes of the advertising plan. We as growers can't just sit and wait any longer. We probably will have to help ourselves out of this trouble.

What the cherry industry needs more than anything else, is a way to continue the nation-wide interest in cherries after National Cherry Week is over—and the answer is a year round

(Continued on page 161)

Dormant Sprays For Door County Apple Trees In 1935

John H. Lilly and C. L. Fluke

THE problems of choosing and applying dormant spray treatments are once more "just around the corner" for Door County fruit growers.

There are such differences in insect populations, orchard locations, variety and vigor of trees, previous spray treatments, financial conditions of owners, and various minor factors, that it is necessary for each individual orchardist to analyze his own particular situation and to plan his spray campaign accordingly.

What to Spray For

The following points should be decided by every grower before he considers the material to be used. Are all three of the common insect pests present which may be checked by dormant sprays, namely, *case bearers, leaf rollers,* and *bud moths*? If so, which ones are apt to cause the most damage and how do they compare with one another as to probable injuries? This can be accurately determined by very careful inspection of the trees at this time of year.

A far more satisfactory basis of judgment for the average grower is the assumption that each insect is apt to be present in approximately the same degree that it was last season. While this is a very crude foundation on which to work, it holds fairly well under most conditions. The most common exceptions occur when the insect in question has been well controlled by thorough treatment the previous year. With this in mind one must decide which of these insects it will pay him to combat with a dormant spray.

It will be recalled that all dormant spray treatments are rather costly. On the other hand, a single application is sufficient, in sharp contrast to the seasonal program required to control the codling moth or apple scab, for example. Furthermore, some dormant treatments are at least partially effective against more than one insect.

What to Use

A grower must consider the respective merits of the various dormant spray materials from which he can choose. These products may be roughly divided into four main classes, from the orchardist's standpoint. They are as follows:

1. Petroleum oils of the light lubricating type which may be applied as "cold-mixed," tank-made emulsions.
2. Ready-made "miscible oils" and "oil emulsions" which mix readily with water, in which petroleum oil is the principle toxic ingredient.
3. Ready-made miscible oils and oil emulsions which contain varying concentrations of tar oil products, usually in addition to some oil of petroleum origin.
4. Dormant strength lime sulfur.

Each of these types of material has both advantages and disadvantages as a dormant treatment in Door County. One of them is usually better adapted for use in a given orchard than are any of the others.

The Cold-Mixed Oils

In general, the cold-mixed preparations are the cheapest and they are reasonably effective at concentrations of 6% against both case bearers and leaf rollers if the coverage is thorough. They have the disadvantage of being the most difficult to prepare and use. The most serious objection to them is the fact that under Door County conditions, they almost invariably cause some tree injuries, even at 6%. Furthermore, this effect is somewhat accumulative where they are used over a period of years, at least under prevailing conditions in this area.

The Ready Made Oils

The ready-made miscible oils and oil emulsions containing only petroleum oils are invariably more expensive than the first group. Their efficiency in killing insects is roughly proportional to their total oil content. As they always contain some emulsifying agents, they usually must be applied at concentrations of 7 or 8% in order to be effective against case bearers and rollers. Their advantages over the first group are their relative ease of preparation and comparative safety to trees in proportion to oil content.

The miscible oils and oil emulsions which contain tar products are in general the most expensive of the materials discussed here. Those with a high tar oil content are especially effective against the case bearer. This group as a whole is also partially effective against both leaf rollers and bud moths as it is used in Door County. The better preparations have become quite well established as a control measure for the bud moth. In most cases they should be used at about 7%.

Dormant Lime Sulfur

Dormant lime sulfur has proven a very effective control against the case bearer when applied in the fall, and high concentrations are fairly effective when used in the spring. A concentration of 1-12 is sufficient for fall treatments, while 1-8 is preferred for spring usage. It gives a fairly cheap coverage at these concentrations and has the great advantage apparently of presenting no danger of causing tree injury of any kind when properly used. Its usefulness in

Door County is sharply limited by the fact that it is not effective against either leaf roller eggs or bud moth larvae.

Four or five additional points apply to all of these materials. As one might expect, companies of good repute manufacture and sell spray products that compare quite closely to other materials of their class in effectiveness and usually in cost. In fact, out of the many samples tested over a period of years, only a few brands have been markedly inferior to others of their kind. Likewise, only one or two brands have shown indications of being noticeably superior to the majority of competitive brands in their respective classes.

How to Spray

In general, case bearers are mainly located on the under sides of the branches and should be sprayed from below, with the operator on foot. Unfortunately both leaf roller eggs and bud moth larvae are largely situated on the upper sides of the branches where they are most effectively hit from above. Therefore, the manner of application depends primarily on which insect of those present is the most serious.

Experiments made during the past year proved that the concentration of any material used to control the case bearer is partly dependent upon the numbers of live insects present. Where the cases are few and scattered, they are easily covered with any spray, and all of these dormant treatments kill by contact. It is a well known fact that empty cases often remain on trees one or two years after the insects within them have been killed. Where these old cases are present in large numbers, the new generation becomes largely attached above the old cases where it is also easy to hit.

Two rules should always be kept in mind when applying dormant sprays. First, the coverage must be thorough if it is to be effective. Second, they should always be made in the dormant stage, that is before the buds are greatly enlarged.

MY EXPERIENCES WITH RASPBERRIES AND PLUMS

J. A. PIERCE
Rochester, Minn.

THE Latham Raspberry still is in the lead. Why should it not be? I think it will be a long time before you get any better.

The berries are nice for canning — they cannot be better. The bushes are very prolific and none are better as plant makers.

I am a great believer in fall planting. Last fall I put in 7,500 plants. The ground was in the best of condition with plenty of moisture. I will have five acres in bearing this year. I also like the Chief very well as it is somewhat earlier than the Latham.

Plums

I have 200 Underwood plum trees in bearing now, 13 years old. This year I got 400 bushels from these trees. The plums were not quite so large in size as usual but they made up in number. It surely was a sight to look at them. All you could see were plums on the branches. I sold them at $1.50 a bushel to the city folks and country folks did their own trucking at $1.25. I had my trees mulched very well.

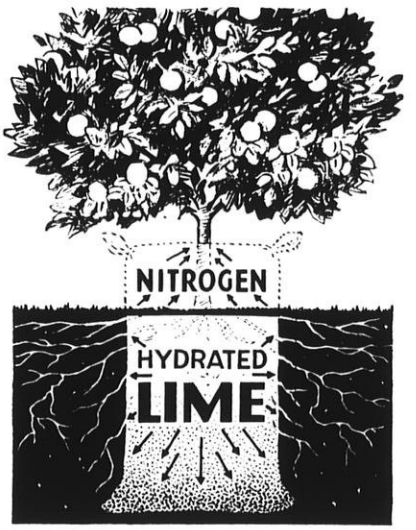
I also have the Monitor plums which are larger and later. They are a good fruit and being so large are good for peeling and surely make a good sauce. You will find the Underwood plums are good for canning as they have such a small pit. Just wash them, cook until soft, add sugar and put them into cans.

These plums start bearing three years after planting. It is not much work to cultivate and prune the trees. That is all the care they need. *Have some bees to help you get a crop. It is well you plant one wild plum tree to every 15 of the cultivated varieties.*—From the *Minnesota Horticulturist.*

Customer—"I—er—ah — um —"

Jeweler—"Yes, sir. Mr. Tucker, please show this gentleman that tray of engagement rings."

'AERO' CYANAMID
The Fruit Fertilizer



It FEEDS the Tree and LIMES the Soil

'AERO' CYANAMID

A non-leaching form of nitrogen
May be applied in fall, winter (in Southern States), or early spring, as one prefers

Feeds the tree throughout growing season
Produces dark green leaves and holds them on until fall (On sandy and shaly soils the supplemental use of potash is recommended)

Keeps the soil sweet and healthy
Destroys acids resulting from use of sprays and cover crops

Produces good terminal growth and fruit buds
Gives bigger yields of better-quality fruit

Write for Leaflet X-307, "Fertilizing Fruit with Granular 'Aero' Cyanamid"

AMERICAN CYANAMID COMPANY
30 ROCKEFELLER PLAZA—NEW YORK, N. Y.
779 VIRGINIA AVE., N. E.—ATLANTA, GA.

With Our Fruit Growers

TREE ROOTSTOCKS

THE rootstock question is getting up out of the ground into the air. Half of the tree is below ground, yet that half is an almost unknown quantity. We use tops of known varieties taken from known trees, but the rootstocks are largely hit and miss. Here and there throughout America studies are quietly going on which will lead eventually to a given root for a given variety. Pears do better on French roots than Japanese roots; plums do better in the East on Myrobalan roots than on peach roots; white walnut rootstocks are preferred in California to black rootstocks because they are rot-resistant, and Virginia apple-growers want an apple stock that is rot-resistant. Would some of the old varieties be winners if they were grown on suitable understocks? Would Spy be an early producing and more profitable variety on some as yet unknown stock? — By H. B. Tukey in *The Rural New Yorker.*

MANY APPLE TREES LOST

ESTIMATES by the federal department of agriculture are that a census of apple trees in 1935 will show not more than 95,000,000 trees in the United States or less than half the number listed in 1910 and not more than 75 per cent of the total in 1925.

At the same time it is estimated, because of a number of factors, that with average weather conditions the total apple crop will be equal to or somewhat higher during the next five years than it has been in the past five.

This estimate is based on a higher percentage of trees in bearing, which has increased to 80 per cent from 75 per cent in 1930.

The survey indicated losses of approximately 3,000,000 to 3,500,000 apple trees from cold weather during the winter of 1933-34, the largest number in New York, some in Pennsylvania and Michigan, and loss of a considerable number in Massachusetts from removal for apple maggot control.—From February *"Better Fruit."*

NEW BRAMBLE FRUIT BULLETIN

A VERY good new bulletin on bramble fruits — raspberries, blackberries and dewberries for Illinois—is just off the press. The author is Prof. A. S. Colby. The bulletin is published by the Illinois College of Agriculture, Urbana, Illinois, and is known as circular No. 427.

Part two of the bulletin is entitled "Bramble Diseases and Their Control," by H. W. Anderson, and part three, "Bramble Insects and Their Control" by W. T. Flint. The bulletin is very thorough in its discussion of the culture of these fruits.

BLACK RASPBERRY VARIETIES

THE Quillen black raspberry is considered to be a very promising late variety according to the new bulletin on Bramble Fruits from the Illinois College of Agriculture. Relative to the Quillen the author says, "A very promising late variety. Most resistant to anthracnose of all varieties tested by the Illinois Station and in other sections of the state. Fruit—large, firm, good quality. Very productive. Season—ripens later than Cumberland. Plants are hardy and vigorous. Origin — said to be a cross of Cumberland and Hopkins originated by Charles Quillen, Monrovia, Indiana."

Cumberland has for many years been the standard midseason black variety, but is very susceptible to anthracnose and the virus diseases. Now being superseded by more resistant varieties.

Logan is a very promising early variety. The fruit is large, firm and very good quality. Ripens most of its crop before Cumberland. Hardy and vigorous. Claimed to be resistant to virus diseases and not subject to drouth.

LESS LEAD PERMITTED ON APPLES AND PEARS

THE quantity of lead residue permitted on apples and pears in interstate commerce for 1935 is 0.018 grain of lead to a pound of fruit, according to an announcement issued by Secretary of Agriculture Wallace.

The tolerance for 1934 was 0.019. Fruit interests had requested an increase in the tolerance to 0.025 because it was stated that there was no evidence that this amount was detrimental to health and ordinary washing and spraying methods enabled the grower to attain this tolerance with some degree of certainty.

Secretary Wallace has added that there can be an "expectation of continued progress downward" meaning that no doubt next year the tolerance will be still lower. If this is the case, Wisconsin growers will find it necessary to use some method of lowering the residue on their fruit. In the past we have not paid much attention to this ruling because our fruit is relatively free from lead arsenate. In a dry season, however, early varieties are likely to contain a residue above this low tolerance.

Continue to Look for a Substitute

"The Department of Agriculture is continuing its efforts to find a safe and effective substitute, but lead arsenate is still considered essential to orchard management," according to the Department of Agriculture.

A FRUIT GROWER VISITS FLORIDA

MR. AND Mrs. Fred Sacia of Galesville, Wisconsin, are spending the winter in Florida. A letter from Mr. Sacia dated February 4, described very enthusiastically the wonderful fields of strawberries he has seen. The Missionary variety is used which is a true everbearing variety. Mr. Sacia writes:

"I have never seen better berries, color, texture and flavor considered. They were planted September 15th, last year. They were spaced about 16 inches in the row and in rows about 14 inches apart. Every four rows were spaced about two feet apart which allowed for passage.

"These berries are produced on muck lands or drained everglades, and you can imagine that there is most no end of it. There is a strip a few miles north and on south to Miami—one mile wide or more and twenty-five miles long. This is only a beginning considering what is south of Miami and west of here. This land without variation lies from three to four feet above sea level. The water raises in the ditches about a foot with the tide.

"These thousands of acres of improved muck lands are used entirely for truck gardening. Strawberry growing is on a very small scale as yet, although the weather conditions would seem ideal. After planting time there are few rains and those during the night almost entirely. The day temperatures run very evenly at from 70° to 80°. The nights average 10° lower. The temperature on the ground is much higher because of the more direct rays of light here."

EVERBEARING STRAWBERRIES

WAYZATA Everbearing Strawberry. Proven to be the outstanding everbearer for market gardener and home use. A full crop first year. Write for price list. Braden Brothers, Wayzata, Minnesota.

HOW MUCH NITROGEN DO APPLE TREES NEED?

(Continued from page 156)

The function of pruning in older trees is of course, to maintain a uniformly strongly vegetative and good fruiting condition by cutting out "weak, run-out" old branches. (Fruit set is at times, as in McIntosh, much dependent upon light conditions as affected by pruning). Do not, however, attempt to replace nitrogen needs by pruning.

Use each according to the growth and fruiting condition of the trees.

Vows

The new wedding pledge for the bride is "to love, cherish, and inspire." For the groom probably it will be "to love, nourish and perspire."

THE CHERRY SITUATION

(Continued from page 157)

advertising program. It would cost from 1/8¢ to 1/4¢ per pound and would undoubtedly return handsome dividends to the growers by making possible a higher selling price for the canned and frozen cherries, and increasing growers' payments by as much as 1¢ per pound. Practically all vegetables and fruits are selling at higher prices than cherries. If the price on canned cherries in the No. 2 household size can could be raised but 15¢ per dozen, and the price on No. 10s 75¢ per dozen, the canneries could return another 1¢ per pound to the grower. These figures assume, of course, that the costs of processing are not increased by higher labor and supplies costs.

Niagara Emulso—The Perfect Oil Spray

for Dormant and Delayed Dormant applicatians

Some facts about EMULSO:

Mixes perfectly with Lime and Sulphur, therefore these two materials can be combined for your delayed Dormant application for scale, aphis and scab.

Mixes perfectly with any kind of water.

Does not separate on freezing.

High toxic effect on scale insects.

EMULSO is the large drop mechanical type oil emulsion, which means safety, economy and effectiveness.

See your Niagara Dealer or write direct to

WHEN YOU BUY Niagara YOU BUY PROTECTION

Niagara Sprayer and Chemical Co., Inc.

J. Henry Smith, Sales Representative

Waupaca, Wisconsin

Spring Care of Strawberry Plants

IT IS important to give soil for strawberries thorough preparation. Strawberry plant roots rarely penetrate further than one foot into the soil. Most of the roots are to be found in the top twelve inches; in fact it has been found that 90% were in the top six inches of soil with 73% in the top three inches. It is evident, therefore, that the condition of the top few inches of soil is very important for a crop as shallow rooted as strawberries.

The land selected should be plowed in early spring. If the field has been selected the preceding fall and rye planted, a heavy sod of rye plowed under in early spring will help, although, of course, it is not necessary. After the ground is plowed in the spring it should be harrowed thoroughly. If stable manure is to be used we like it best spread broadcast on the land just after it is plowed. Then the land, either with or without the manure, should be disced thoroughly, and, if necessary, dragged to level it up so that a nice, soft, even planting bed is available.

Clipping the Roots

Clipping the roots is not necessary nor helpful if you can get the roots of the plants in the soil without being doubled up. It is better, however, to clip the roots somewhat than to have them doubled up in the ground. Where a horsedrawn transplanter is used, it is probably better to clip the roots anyway to expedite handling the plants, unless they are very small.

How Early?

Just as soon as weather permits getting ground ready. In the northern states, April.

Why so early? Experience has taught that strawberries live better and grow better if they can become established early in the spring while the soil is still cool and moist. Late set plants are more likely to run into hot, dry conditions which make good results unlikely if not impossible. Furthermore, investigations have shown that runner plants made early are much more fruitful than those made in late summer or fall. Early spring planting, therefore, tends to promote a larger percentage of highly productive, early set runner plants. If ordering plants be sure to order early enough so that they can be at hand as soon as the ground is prepared.

When a plant grower can dig plants, berry growers in that section should be setting their plants.—From *Allen's, "Book of Berries."*

AMMONIUM SULPHATE GOOD FERTILIZER FOR RED RASPBERRIES

A MARKED beneficial response both in cane growth and yield from applying ammonium sulphate was found in an experiment conducted at the Ohio Experiment Station on Cuthbert raspberries. The plants were set out in 1929 and fertilized annually beginning with the spring of 1931 with 250 pounds of ammonium sulphate per acre. In 1931 three unfertilized rows, each 84 feet long, produced 103, 159 and 127 canes per row as compared with 211, 211, and 318 in the three fertilized rows. The diameter of the canes in the fertilized rows was the same as those where there was a smaller number of canes.

In 1933, 30% of the canes in the unfertilized rows were over 5 feet tall, while 37% were over that size in the fertilized rows. The first year after the fertilizer treatment, the three unfertilized rows produced a total of 237 pints of berries as compared to 355 pints for the fertilized rows. In 1933 the corresponding yield was 213 and 315 pints.—From *U. S. Dept. of Agriculture Experiment Station Record.*

VIKING RASPBERRY

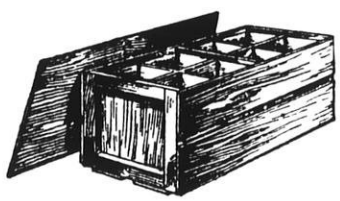
THE Viking raspberry was one of my best varieties this past season. So far I do not think there is any other one variety having as many good points as Viking. I am going to continue to compare carefully with other varieties this coming season. I have sold all my Viking plants for this year. H. B. Blackman, Richland Center.

(EDITOR'S NOTE: We suggest to our members that they try the Viking raspberry during the coming year. It appears to be one of the most promising of the new varieties.)

STRAWBERRY PLANTS IN GOOD CONDITION AT WARRENS

On February 17th I dug through about fourteen inches of snow to get down to the strawberry plants in my field. I found that the ground is not even frozen. They are the same as they were last fall, and I think about the best I have ever had.

VICTOR ORCHARD,
Warrens.



Berry Boxes and Crates

Either made up or in the K. D. American Quart Berry Baskets, Climax Grape and Peach Baskets, Till or Repacking Baskets, Plant Boxes and Veneer Tree Protectors. Circular and Price List mailed upon request. Special liberal discounts on early orders. Write for special prices on carload lots.

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Strawberries PAY

50 years' experience behind our 1935 Berry-Book. It will help you. It describes Fairfax, Dorsett, Catskill, etc. New and Better Varieties and tells How to Grow Them. Valuable both to the Experienced and beginners. Your Copy is Ready. Write today.

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349 Market St. Salisbury, Md.

Forty Years of Fruit Growing

D. E. Bingham

(Conclusion)

WE HAVE seen that a boom or wave of enthusiasm runs its course, and so the cherry boom of 1910 to '14 or '16 subsided, 3,500 acres being about the mark reached. About 1920 to '25 prices were good and another wave of planting started, continuing until 1930, so that at present the cherry acreage in Door County is at or near the 10,000 mark. Over half of this acreage is still unproductive or just beginning to produce. The statistician of the Michigan Canner's Association has estimated Door County's average production (in cans) for the next five years to be 9,000,00 pounds per year. I think that estimate is low, and that Door County's production, unless portions of some crops remain unharvested, will average substantially more. There has been no increase in acreage for the past three years, and it is not likely there will be until some means is evolved to increase the consumption of sour cherries. In many orchards even replacement planting has been discontinued.

Apple Varieties

Having been involved in the fruit growing business for more than 40 years now, I have listened to many a discussion of fruit varieties. Speaking of apples, I still feel that there is considerably too great an element of risk in selecting a widely different list of varieties than are now grown. The list need not be long now. I have tested 65 or 70 varieties in this section, and have their peculiarities and market value well in mind. Were I to plant a new orchard today, I would select only four or five out of the whole list. Testing varieties is a long process at best, and it often continues way on and beyond the point at which you'd like to stop. I might consider planting a few of the new varieties, but fewer of these are of value than the statements of their originators would lead you to believe. I do think that there are some old forgotten varieties that, could they be reintroduced, would make a list of equal value to the lists of new varieties.

Early Richmond cherries have been relegated to a place second to Montmorency that they do not quite deserve. I do not think that, for economy of operation, etc., a planting of Montmorency exclusively is wise. I'd say that one-fourth Richmond, three-fourths Montmorency would be about right for economy and convenience of harvesting.

One cannot change varieties in tree fruits very often in the ordinary span of human life. The only way I know of would be to buy another orchard, and if it was planted about the same time as yours, the chances are the other fellow made the same mistake or worse. If one has made a mistake in varieties and has grown the trees for 25 years, he might just as well let well enough alone. Top-working at that age of tree, has its drawbacks, I think, unless, of course, one has other sources of revenue than the orchard. The apple varieties that I would plant today would be McIntosh, Snow, Wealthy, Wolf River, and perhaps a few Talman and Greening. I have seen the fruit of some of the newer varieties that look good enough to plant, but I would want to know more than I do about their characteristics of tree growth, before I'd say I'd plant this or that. After all, the tree is what one must look at, not just the fruit, at least if one contemplates commercial production.

The apple acreage in Door County has not increased materially in the last ten or fifteen years, but it seems to me the time is about ready to begin an increase which I feel is somewhat warranted.

For the Best Results Use

DOW INSECTICIDES

The money you get from your crops depends as much on the quality of insecticides used as on any other factor. No matter what you grow, you cannot afford to experiment with inferior sprays and dusting materials.

DOW LEAD ARSENATE

Most leading growers demand Dow Lead Arsenate because they know it is dependable and their best assurance against Codling Moth. Uniform coverage, superior suspension, thus better protection, are gained from using Dow Arsenate of Lead.

DOW DRY LIME SULPHUR

This fine powder mixes readily in cold water, will not burn foliage, or cause fruit to russet. Dow Dry Lime Sulphur is clean and easy to handle, conveniently packed and may be stored without deterioration.

DOW SPRAY MATERIALS ARE

Paris Green
Calcium Arsenate
Bordow
Special Potato Spray
Dowco

THE DOW CHEMICAL COMPANY
MIDLAND MICHIGAN

TRADE DOW MARK

Horticultural News

A. F. Yeager
North Dakota

L. W. Kephart of the Bureau of Plant Industry says, "There is no grass or mixture of grasses which has the ability to drive out noxious weeds in a lawn. Grass seed advertised as such usually consists of the ordinary lawn varieties."

The English "Gardeners' Chronicle" says that immersing strawberry plants in water for 20 minutes at 110 degrees Fahrenheit before planting will rid them of strawberry mite.

B. T. Moreland of Central City, Iowa, reports that he planted four Buttercup squash seeds last spring from which he raised 85 squash big enough to market and 15 smaller ones.

"Garden Gossip" reports that a pinch of nitrate of soda dropped in the heart of a dandelion plant will kill it. In addition the nitrate will benefit the lawn as fertilizer. We have observed a somewhat similar effect from the use of ammonium sulphate.

H. V. Wright in the "Gladiolus Review" says that he sprouts his glad bulblets by the use of a rag doll such as is used for germination tests of corn. The bulblets are shelled before putting in the rag doll.

In an experiment with hardwood cuttings, C. F. Swingle, of the U. S. D. A. found that soaking cuttings one hour in water before planting resulted in increased rooting, whereas soaking 48 hours was detrimental. The best temperatures for rooting seemed to be from 75 to 85 degrees Fahrenheit. Apples and willows were the materials used.

Louisiana Bulletin No. 254 reports that where large sized seed pieces of Irish potatoes were used for planting the plants recovered better from frost injury.

In North Carolina it was found last year that Blakemore strawberries with 30 plants per square foot yielded 42 crates of berries per acre; with 4 plants per square foot, 119 crates; with 1.8 plants per square foot, 131 crates, and with 2 plants for each three square feet, the yield was 99 crates. The moral is, do not let the plants get too thick.

The New York Geneva Experiment Station reports that the best single treatment for worms on cauliflower is ground derris root. Pyrethrum ranks second best because it is less effective and higher in price.

Kansas Experiment Station has been able to increase the volume of popcorn popped from a pound of shelled corn by more than 25 per cent by selecting higher popping quality ears as seed stock over a period of seven years. — From January *North and South Dakota Horticulture.*

INCREASE IN TRUCK CROP VALUE

THE farm value of Wisconsin's commercial truck crops last year was nearly 43 percent greater than that of 1933. The increase in harvested acreage was almost 37 percent greater than the previous year, the crop reporting service of the Wisconsin and United States departments of agriculture just announced.

The total farm value from the production of the state's 168,460 acres of commercial truck crops was $6,168,000. Producers of truck crops harvested 17,400 acres for market and 151,000 acres for canning and manufacture.

CORN STALKS FOR MAKING HOTBEDS

IN OUR February, 1934 issue we published an article on how to make a hotbed using cornstalks for the heating material as developed by the University of Kentucky. A number of our members report using this material with success so we are repeating the method for those who may be interested.

Advantage

Some of the advantages of this new material are: 1. It does not become too hot. 2. No heat is wasted as in excessive stages of manure heating. 3. There is no injury from fumes. 4. Heat lasts from one to two months. 5. The heat is uniform. 6. Cornstalks usually are cheap and readily available. 7. It can be used for fertilizer after the hotbed is abandoned.

Method Used

The method of making a hotbed out of this material consists of erecting the framework as for any other hotbed except it should be six inches deeper. Cut up the cornstalks into pieces one inch long and place in a barrel or container and soak them thoroughly with water. Tramp them into the hotbed until a two inch layer is reached; then spread a layer of cottonseed meal—½ lb. per sash, over the cornstalks and apply another layer of cornstalks. Continue this, using a layer of cornstalks and cottonseed meal until the bed is about twelve to eighteen inches; if you formerly used twelve inches of manure use eighteen inches of cornstalks. Limestone, sodium carbonate or phosphate may be used instead of cottonseed meal.

About four inches of soil should be spread over the cornstalks and the plants set or the seeds planted when the temperature in the cornstalks reaches 70 degrees F. There is no danger of overheating.

This method of hotbed heating would be practical for most sections of Wisconsin where there are plenty of cornstalks available and saves the trouble of looking for manure.

New Peony Varieties

W. A. Sisson and Geo. W. Peyton

ABOUT one thousand new peonies have been introduced within the past fifteen years. Probably more than a fourth of these should not have been named and not over half ever will reach world fame and only a scant dozen of the doubles will approach the perfection of the great peonies of the past. However, since more attention is now given to the qualities that go to make a good peony, the majority of the new ones average far better than the old ones and are well worth growing when offered at a reasonable price, in spite of the fact that some of the most magnificent of them are not dependable bloomers.

Since little attention was formerly paid to the single and Japanese types, the new ones in these types are, as a rule, far superior to the older ones and deserve a place in every garden. They are unsurpassed for garden decoration also for cut flowers.

Recent introductions seem to run to the colors; doubles, white, blush or light pink. The great dark pink or red double has yet to come. The red singles and Japanese are far more brilliant and purer in color than the red doubles. May we submit the following list which we believe to be among the leaders.

White and Blush Doubles

Alice Harding, Mrs. J. V. Edlund, Nick Shaylor, A. B. Franklin, Dr. J. H. Neeley, Elsa Sass, Odile, Mrs. Frank Beach, W. L. Gumm, Judge Snook, Mrs. J. H. Neeley and Mary B. Vories.

Pink Doubles

Victory Chateau–Thierry, Blanche King, Ella Christiansen, Lady Kate, Majestic, Elise Renault, Silvia Saunders, Mme. Emile Debatene, Grace Batson, Anna Sass and Marietta Sisson.

Red Doubles

Janes Oleson, Matilda Lewis, Priam, Splendor, Daniel Boone, Mary C. Wedge, and Louis Joliet.

Japanese

Leto, Silver Plume, Kukeni-Jishi, Antwerpen, Yellow King, Nippon Beauty, Nippon Princess, Hari-ai-nin, Charm, Onahama, Shaylor's Sunburst, and Largo.

Singles

Vera, Verdun, Pres. Lincoln, Mr. Thim, Mischief and Krinkled White.

Caution

The reader should not take too seriously extravagant propaganda in regard to prize winning peonies. We have never seen at National Shows any representative display of new varieties. The judges can only judge the varieties on display and therefore the blue ribbon may mean little if anything at all.

EDITOR'S NOTE: This article on new peonies has been furnished by two growers who work in conjunction growing about all the peonies introduced. Either one of their peony gardens contain more varieties than perhaps any other garden in the world. Therefore, their statements should mean something.

EARLY HISTORY OF SOCIETY

"A State Horticultural Society was organized about the beginning of the statehood period, under the leadership of men like Dr. Philo R. Hoy of Racine. It performed invaluable service to the state in the way of popularizing a love of fruits and flowers. It was said that the severe winter of 1856–57 almost totally destroyed the orchards grown prior to that date, but, nothing daunted, the society urged replanting and the planting of new orchards about all homes which were unsupplied."—(Excerpt from *Agriculture in Wisconsin, General Studies 1* by Joseph Schafer).

Our Growers Market

STRAWBERRY PLANTS

STRAWBERRY PLANTS. Heavily mulched and state inspected. Beavers. Only a limited number. First orders will be filled first. Also a few mosaic free *Latham Raspberry plants*. John Jensen, Warrens, Wis.

STRAWBERRY PLANTS for sale: Beaver, Dunlap and Champion Everbearing. Good plants. Alfred Isaacson, Menomonie, Wis., R. 3.

BEAVER STRAWBERRY PLANTS. I expect to have the best plants I have ever had for sale this spring. Write for prices. Victor F. Orchard, Warrens, Wis.

SEEDS—SEEDLINGS

Tree and shrubs seeds; seedlings and small transplants. Nurserymen write American Forestry Company, Pembine, Wisconsin.

RASPBERRY AND STRAWBERRY PLANTS

Lathan raspberry plants from new beds grown on new soil. Twice inspected. Not a diseased plant found. *Newburgh* raspberry plants grown as above. A productive handsome and large raspberry.

Strawberry plants: Dorsett, Fairfax, Southland, Bellmar, Blakemore and Aberdeen. Special prices by hundred or thousand. H. B. Blackman, Richland Center, Wis.

Make Your Little Farm Pay!

ALL-AMERICAN Tractor fills the gap between garden and farm Tractors. **The All-American is a small, compact, riding Tractor designed for few-acre farmers and commercial growers. Plows, harrows, cultivates, mows, furnishes belt power and does many other jobs at low cost. Foot lift tools. Write Donald & Boerner Corp., Dept. 16 4143 N. 27th St., Milwaukee, Wis.**

Plant Premiums For Members

March is the last month for plant premiums.

The list of plant premiums will be sent to the nurserymen on April 1st. Please do not send any premium selections to arrive after that date.

Members of the Wisconsin Garden Club Federation must have their premium selection in the hands of Mrs. R. R. Hibbard by March 20th.

Individual members paying the regular membership fee of $1.00 per year or $1.50 for two years, direct to us, may select a plant premium which will be sent during the planting season, postpaid, without the 15¢ postage required of the affiliated Society members.

Premium No. 1

H. C. CHRISTENSEN

1625 Ninth Street, Oshkosh, Wis.

Regal lily bulbs.
Premium: 3 bulbs.
Lilium tenuifolium.
Premium: 5 bulbs.

Premium No. 2

COE, CONVERSE & EDWARDS CO.

Fort Atkinson, Wis.

Felix Crousse Peony.
Festiva Maxima Peony.
Premium: 1 root.

Premium No. 3

DAHLBERG NURSERIES

E. M. Dahlberg, Ladysmith, Wis.

Spirea Vanhoutte—Bridal Wreath.
Premium: 2 plants.

Premium No. 4

EVERGREEN NURSERY CO.

Sturgeon Bay, Wisconsin

Colorado Blue Spruce, 3 year seedlings, size 3-5 inches.
Premium: 10 trees.

Premium No. 5

FAIRVIEW GARDENS

M. L. Cady, Mgr., Fox Lake, Wis.

Dahlias: Avalon, Countess Lonsdale, Elite Glory, Ida Perkins, Jane Cowl, Kathleen Norris, King of the Shows, Monmouth Champion, Rose Fallon.
Pom Pom Dahlias: Pink, Salmon, Red, White, Yellow, Orange.
Premium: 1 root.

Premium No. 6

FANCHER'S NURSERY

Sturtevant, Wisconsin

Phlox: R. P. Struthers, Richard Wallace, Eclaireur.
Premium: 1 plant of each.
Phlox: R. P. Struthers.
Premium: 3 plants.
Hydrangea Hills of Snow, R. P. Struthers Phlox.
Premium: 1 plant of each.
Persian Lilac, R. P. Struthers Phlox.
Premium: 1 plant of each.
Shasta Daisy, Thor Phlox, Coreopsis.
Premium: 1 plant of each.
Physostegia Vivid, Perennial Sweet Pea, Pentstemon Grandiflora.
Premium: 1 plant of each.
Campanula Persicifolia, Shasta Daisy, Pyrethrum.
Premium: 1 plant of each.
Sedum kamtschaticum, Sedum stoloniferum, Veronica Alpine.
Premium: 1 plant of each.

Premium No. 7

J. T. FITCHETT

735 Milton Avenue, Janesville, Wis.

Dahlias: Jane Cowl, bronze, Jersey's Beauty, pink.
Hercules, tangerine and yellow.
Mrs. I. de Ver Warner, orchid.
Premium: 1 root.

Premium No. 8

JOHN F. HAUSER

Bayfield, Wisconsin

Lupine Harkness Regal Hybrids.
Physostegia vivid.
Prunella grandiflora.
Platycodon.
Premium: 4 plants, 1 variety.

Premium No. 9

KELLOGG'S NURSERY

M. S. Kellogg, Prop., Janesville, Wis.

Crimson Rambler rose.
Shower of Gold rose.
Retail value $1.00.
Premium: 1 of each.

Premium No. 10

McKAY NURSERY COMPANY

911 University Ave., Madison, Wis.

Prunus Triloba—2-3 ft.
Premium: 1 plant.

Premium No. 11

MYERS NURSERY

A. W. Myers, Arcadia, Wisconsin

Gladiolus bulbs, each different.
Premium: 12 bulbs.
Dahlias:
Mrs. I. de Ver Warner.
American Beauty.
Premium: 1 of each.

Premium No. 12

THE NORTH STAR NURSERY COMPANY

Pardeeville, Wisconsin

Caragana Arborescens (Siberian Pea Tree), 2-3 ft.
Cut Leaf Elder, 2-3 ft. Golden Elder, 2-3 ft. Purple Lilac, 2-3 ft. Ninebark, 2-3 ft. Mock Orange, 2-3 ft. American Bittersweet, 2-3 ft.
Premium: 1 plant.
Iris: Madam Chereaux (White, purple fringed).
Sherwin Wright (Yellow).
Queen of May (Rose Pink).
Florentine (Purple).
Premium: 2 roots.

Premium No. 13

SISSON'S PEONIES

W. A. Sisson, Rosendale, Wis.

If it's a peony wanted, we have it.
If you do not know names, state color wanted.
Premium: 1 root, value $1.00.

Premium No. 14

STONECREST GARDENS

W. A. Dana, Prop., Eau Claire Wis.

Iris: Vesper Gold, Julia Marlowe, Opera, Mildred Presby, Red Wing, Dawn, Labor, Madam Gandashaw, L. A. Williamson.
Premium: 3 iris.
Choice iris roots, grower's selection, unlabeled, all different colors.
Premium: 4 iris.

Premium No. 15

SWEDBERG NURSERIES

Battle Lake, Minnesota

Delphinium—Gold Medal Hybrids; Improved seedlings; choice colors.
Premium: 5 plants.
Pentstemon grandiflora. Light lavender. Native Minnesota hardy flower.
Premium: 4 plants.
Hardy Phlox. Choice varieties. Colors all different.
Premium: 2 plants.

Premium No. 16

W. A. TOOLE

Garry-nee-Dule, Baraboo, Wisconsin

Chrysanthemum Aladdin, Chrysanthemum Azaleamum, Iris arenarius, Irish dichotoma.
Premium: 1 plant or root.
Arabis Sturgi, Dianthus Crimson King, Dianthus Beatrix.
Premium: 2 plants.
Galium verum, Sedum acre minus, Sedum anglicum chloroticum, Sedum hispanicum minus aureum.
Premium: 3 plants.

Premium No. 17

AMERICAN FORESTRY CO.

Pembine, Wisconsin

Chinese Juniper—5-8 inches.
Chinese Elm—12-18 inches.
Premium: 2 trees, 1 variety.

Premium No. 18

THE HAWKS NURSERY COMPANY

Wauwatosa, Wisconsin

Prunus Glandulosa, 2-3 feet.
Rhodotypos Kerrioides, 2-3 feet.
Symphoricarpus Vulgaris, 2-3 feet.
Rosa Hugonis, 2-3 feet.
Premium: 1 plant.

Premium No. 19

RASMUSSEN'S FRUIT FARM AND NURSERIES

R. F. D. No. 4, Oshkosh, Wis.

Pink or white peony.
Premium: 1 root.
Iris, German.
Premium: 6 plants.
Oshkosh Strawberry Plants.
Premium: 50 plants.

Premium No. 20

WHITE ELM NURSERY COMPANY

Hartland, Wisconsin

Aquilegia Dobbies Hybrids; Arabis Alpina; Campanula Persicifolia White; Echinacaea Purpurea; Helianthemum Mutabile.

PENTSTEMON — Grandiflora, Shell Pink, Torreyi.

PHLOX—Divaricata Canadensis, Subulata Fairy, Subulata Lilacina.

Sempervivum named varieties; Tunica Saxifraga, Verbascum Phoenicum, Verbascum Gentionoides.

IRIS: Afterglow, Fairy, Isoline, Juanita, Miranda, Mrs. Alan Gray, Rheine Nixe, Seminole, Sweet Lavender, Violaceae Grandiflora.

Premium: 3 plants, 1 variety.

Arabis Alpina Rosea, Clematis Recta, Euphorbia Polychroma, Geranium Sanquinea, Heuchera Sanquinea, Primula Polyanthus, Saxifraga Cordifolia.

Premium: 2 plants, 1 variety.

Premium No. 21

H. B. BLACKMAN

Richland Center, Wis.

Strawberry Plants—
Dorsett, Fairfax.
Premium: 25 plants.
Bellmar, Southland, Blakemore.
Premium. 30 plants.
Newburgh Red Raspberry plants.
Premium: 15 plants.
Viking Red Raspberry plants.
Premium: 20 plants.

Premium No. 22

FRANK J. BLOOD

1036 Normal Ave., Stevens Point, Wis.

Gladiolus bulbs of the following varieties: A. E. Kunderd; Helen Howard; Mrs. Leon Douglas; Yellow Wonder; Aflame; Nancy Hanks; Mrs. P. W. Sisson; Betty Nuthall.

Premium: 10 bulbs, grower's selection.

Premium No. 23

C. G. YOUNG

115 Oakland Ave., Oshkosh, Wis.

Gladiolus bulbs of choice named varieties. My selection.

Premium: Bulbs, varieties my selection, to retail value of 50¢.

VARIETIES OF ORNAMENTALS WHICH HAVE BEEN TESTED AND FOUND OF VALUE IN WISCONSIN

Recommended For Increased Growing

Shrubs

Kolkwitzia amabilis, Beautybush.

Viburnum carlesii.

Trees

Dolga Crab.

Vine

Polygonum auberti.

Evergreens

Taxus cuspidata — Japanese Yew.

Taxus cuspidata nana.

GOOD LOW EVERGREENS WITH A BLUISH GREEN HUE

Juniper Sabina prostate—Waukegan, probably the bluest and best of all.

Juniper horizontalis douglasi—Waukegan.

Juniper sabina tamariscifolia.

Juniper japonica procumbens—a very low growing type.

DUTCH ELM DISEASE THREATENS

SEARCH for the dreaded Dutch elm disease which has been killing elm trees in eastern states is now being made in Wisconsin, reports E. L. Chambers, state entomologist of the department of agriculture and markets.

All elm trees in large areas of Europe have been killed by the disease, the first evidence of which was discovered in the United States in 1930. The disease is spread by a beetle and if uncontrolled threatens to kill all elms just as the chestnut blight killed the chestnut trees.

"We do not anticipate finding the Dutch elm disease in Wisconsin," Chambers says, "but reports have reached us that elm trees in the vicinity of some Wisconsin veneer mills are dying, and the investigation is being made to make sure that the trees did not die of the Dutch elm disease."

A possibility exists that infected elm logs may have reached a Wisconsin mill from Europe either directly or in re-shipments from eastern states where the European logs were received.

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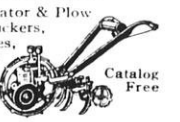
A Practical, Proven Power Cultivator & Plow for Gardeners, Fruit Growers, Truckers, Florists, Nurserymen, Suburbanites, Country Estates and Poultrymen.

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PLANT PREMIUM APPLICATION BLANK

1. ☐ I am an individual member and enclose $1.00, dues for one year, or $1.50 for two years.

2. ☐ I am affiliated through a local club and attach 15¢ to cover postage. (Give this to your local club secretary when you pay your dues.) State name of local club _____

State choice of plant premium by number and name of variety.

Second choice must be from a *different grower.*

1st Choice: Premium No._____Variety _____

2nd Choice: Premium No._____Variety _____

_____

Name _____

Street or RFD _____

City _____

EDITORIALS

ORDER APPLE CIONS NOW

THE State Horticultural Society will again try to furnish cions of the new apple varieties for members for trial. It is going to be very difficult this year to get cions and we will probably not be able to furnish very many of a variety to one person. However, send in your orders before *March 20th* and we will send you as many as possible. Please send 10¢ to cover the postage and wrapping.

The following are the varieties which we recommend for trial: *Early varieties:* Melba, Milton. *Late varieties:* Kendall, Newfane, Secor, Macoun, Orleans.

By grafting these cions on trees of other varieties in the orchard, it will be possible to obtain fruit from them within two or three years. This will enable us to more quickly determine the value of the apples from the standpoint of quality, appearance and market desirability.

ORDER APPLE TREES OF NEW VARIETIES NOW

APPLE trees of the new varieties listed in our last issue and recommended for trial may be obtained at a reasonable price this year.

The Rasmussen Fruit Farm and Nurseries, Oshkosh, Route 4, were the low bidders and were awarded the contract for furnishing new fruits and ornamentals for trial by the Society. The following varieties are 65¢ each: Melba, Milton, Secor, Macoun, Sweet Delicious.

The following varieties are 90¢ each: Kendall, Orleans and Newfane.

For description of these varieties, see our February issue. Write the Rasmussen Fruit Farm direct in placing your order.

Members of the Southeastern Wisconsin Fruit Growers Association may buy these varieties through their Secretary, Mr. Lester Tans, Waukesha, R. 3, Box 110.

COMING EVENTS

FOR FRUIT GROWERS

Jefferson County Fruit Growers Association annual meeting, March 8.

Strawberry growers meetings—Tomah, April 10, Alma Center, April 11, Warrens, April 12.

FOR GARDENERS

Annual spring flower show Milwaukee Florists Club in connection with Home Show, Milwaukee Auditorium, March 16–23.

Michigan Flower and Garden Exhibition, auspices Michigan Horticultural Society, Detroit, Michigan, March 30–April 7.

Spring Flower Show, Garden Club of Illinois at Navy Pier, Chicago, Illinois, April 6–14.

National Council Garden Club Federations 6th annual meeting, Los Angeles, California, April 10–14.

First National Exhibition American Rock Garden Society, Cincinnati, Ohio, May 16–18.

Wisconsin Iris Society, organization meeting, Milwaukee Public Museum, March 20.

STRAWBERRY MEETINGS PLANNED

Tomah, Wednesday, April 10

Alma Center, Thursday, April 11
Warrens, Friday, April 12

ONE day strawberry institutes are again being planned this year by the State Horticultural Society cooperating with the Warrens, Alma Center and Tomah Strawberry Growers Associations.

This year we will have the opportunity of hearing Prof. George Briggs of the Dept. of Agronomy, one of the most popular speakers at farmers meetings in the state. He will talk on two important subjects. First, Pastures and emergency hay crops for 1935, and Alfalfa and crop rotation for strawberry growers.

H. J. Rahmlow will talk on New discoveries of interest to strawberry growers, while Rex Eberdt of Warrens will discuss the marketing situation. Additional speakers will be announced later. Watch for further announcements about the program. All strawberry growers are invited to attend these meetings.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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Vol. XI | MARCH, 1935 | No. 3

Legislature May Change Tax Law on Bees

A BILL to change slightly the occupational tax law on bees in Wisconsin was introduced by Assemblyman J. D. Millar of Menomonie, who is a beekeeper, at the request of the Wisconsin Beekeepers' Association.

The Association officers and members present at a meeting on February 4th unanimously voted that they were in favor of making the following changes in this law.

In Section 70.423 of the Wisconsin Statutes, omit the words: "Or any used and unsterilized or undisinfected bee equipment."

Also omit the words: "There shall be deducted from taxes collected under this Section, the reasonable cost incurred by said municipality in administrating this Section."

Relative to the undisinfected bee equipment, it was brought out that assessors are usually not beekeepers and do not know what this item means. Consequently many of them have washed their hands of the entire matter and have not assessed bees at all. Since this item cannot be enforced, it is thought best to drop it from the law.

Several assessors and town clerks were among those present at the beekeepers meeting and stated that a municipality should not incur any extra expenses in collecting the tax on bees. Consequently the privilege of taking out the "reasonable cost incurred," might be abused. As it is now, 20% of the receipts remain in the municipality, and 80% goes to the state. Consequently there will be no reason why beekeepers cannot request funds for bee disease control.

ASK ENFORCEMENT OF OCCUPATIONAL TAX ON BEES

STRICT enforcement of the occupational tax on bees by the State Tax Commission was requested by the Wisconsin Beekeepers Association in their February meeting. A number of beekeepers have paid their bee tax under protest this year, as they have a right to do if the law is not fairly administered, that is, if all beekeepers are not taxed in the same manner. In another year, no doubt, the assessors will be properly informed and the bees will be taxed. The revenue so derived will then be sufficient to take care of disease control work.

TWO DAY SUMMER MEETING PLANNED FOR BEEKEEPERS

A TWO-DAY convention is planned by the Wisconsin Beekeepers' Association to be held the latter part of July or about August 1st, according to the vote of the Executive Board of the Association at their recent meeting. The Board expressed themselves in favor of Marathon County for the location of this two-day meeting. Watch for further information.

OUR AIM FOR 1935—"EVERY ASSOCIATION MEMBER A MEMBER OF THE AMERICAN HONEY INSTITUTE"

THE American Honey Institute is enthusiastic about the response received from Wisconsin beekeepers since January 1st. We are pleased that so many have responded.

Memberships have been received from: E. A. Duax, Chippewa Falls, $3; Chas. McKinney, Bagley, 30 lbs. honey; A. H. Seefeldt, Kewaskum, $4; V. G. Howard, Milwaukee, $2; Dewey Bayliss, Wausaukee, $1; Chas. N. Roy, Sparta, $1; Harry Lathrop, Bridgeport, $1; E. H. Hanselman, Augusta, $5; A. L. Kleeber, Reedsburg, $1; Ralph Irwin, Lancaster, $2; Helmuth Klingbyll, Cambria, $1; Pete Dismowich, Hartford, $1; Ferdinand Hencke, Van Dyne, $1; Wis. State Beekeepers' Ass'n., $10; Kennith Hawkins, Watertown, $25.

Pledges have been received from: Frank P. Reith, Stratford, 60 lbs. honey; Nathan Paddock, Warrens, 20 lbs. honey; H. J. Rahmlow, Madison, $1; C. D. Adams, Madison, $4.50; Ivan Whiting, Rockford, Ill., $1; A. E. Wolkow, Hartford, $4 per ton; Leland R. Mueller, Seymour, $1; Klem Wilkas, Pittsville, $1; Frank J. Beran, Athens, 10 lbs. honey; Vernon Homer, Menomonie, $1; Arlene Weidenkopf, Madison, $2; Frank Reith, Stratford, $1 per year; C. W. Radloff, Cecil, $2 per year; George Jacobson, Kaukauna, $1 per year; S. P. Elliott, Menomonie, $1 per year; H. A. Barlament, Green Bay, $1 per year; Alfred Bauman, Glenbeulah, $1

per year; H. F. Wilson, Madison, $5 per year; F. E. Matzke, Juda, $1 per ton; Leroy Colbert, Exeland Village, $1 per ton; E. C. Alfonsus, Madison, $1.50; Edith Mickelson, Madison, $1.

NUMBER OF BEES IN WISCONSIN

ACCORDING to the estimate of the Wisconsin Department of Crop Statistics there were about 90 thousand colonies of bees in Wisconsin in 1930, estimated from the Census report. This census report states that there were bees on 8,373 farms, and the estimated production of honey was 5,069,897 pounds.

Of course we know that the census did not give the total number of bees in the state, but this is the best estimate we have.

BEES NEED WATER IN SPRING

BEES must have pollen and water for spring brood rearing, was the statement of Prof. H. F. Wilson in his talk at the beekeepers' school on "What we can do in the spring to increase honey production." Prof. Wilson stated that observations at Madison indicated that colonies which were given water in the spring did not fly out on cold days as did those colonies which had not been provided with water. Obviously it will wear out bees much faster if they have to fly out in cold weather to get water for brood rearing.

This may also be important from another standpoint as was brought out by H. J. Rahmlow. It has been observed in fruit sections that bees in search of water will visit trees that have been sprayed. If the spray contains arsenate of lead and lime sulphur bees may carry this poison to their hives, even though there are no blossoms open, taking the poison in their search for water, resulting in loss of bees and brood.

While lime sulphur does not poison the bees, it causes dysentary.

District Beekeepers Meetings Planned

AT A meeting of the Board of Directors and members of the Wisconsin Beekeepers Association held at Madison on February 4, it was voted to try out the plan of holding a series of district beekeepers meetings. A good practical program will be presented for the beekeepers, and a district association will be organized if the beekeepers approve the plan.

The benefits of a district organization are many. First of all it would enable us to hold all-day meetings, providing a good program of value to beekeepers by getting good speakers at a minimum of expense. There are a great many counties in Wisconsin and it will be almost impossible for speakers to attend very many of these county meetings. If the state is divided into about seven districts, all the beekeepers would find it possible to attend a good program at not too great a distance from their homes.

The district meetings would supplement the state convention which is only held once a year and in a section where not all beekeepers find it possible to attend due to the cost of travel.

Another benefit would be that beekeepers from adjoining counties will get together and get acquainted. Interest in our beekeepers' school held in Madison the first week in February indicates that beekeepers are anxious to hear talks on beekeeping and honey production problems.

We Must Have a Good Crowd

The traveling expenses of the speakers to these meetings will be considerable. We believe the program will be of unusual value. Unless the beekeepers turn out in good numbers, we cannot continue this plan. If interest is shown, we can organize and hold regular district meetings in the future. If the plan works it will be extended to other sections of the state.

To try out the plan three district meetings are being planned as follows.

Southwestern Wisconsin meeting at Lancaster, Wednesday, March 27th.

Southeastern Wisconsin meeting at Waukesha, Thursday, March 28th.

Fox River Valley district meeting at Appleton, Friday, March 29th.

PROGRAM

A.M.	
10:30	How to obtain good brood combs. Suggestions for overcoming swarming. Practical hints for beekeepers. A. E. Wolkow, Hartford, president State Beekeepers' Association.
11:30	Answers to practical beekeeping questions. H. J. Rahmlow, Cor. Sec. State Association.
M.	
12:00	Luncheon plans to be announced by local organization. Get together luncheon in the hall.
P.M.	
1:30	What we can do this spring to increase honey yields. Prof. H. F. Wilson, Madison.
2:30	How to identify American and European Foulbrood and other diseases. Keeping the apiary clean. Discussion and questions answered. E. L. Chambers or C. D. Adams, Madison.
3:30–4	New discoveries of interest to beekeepers. Organization of a district association. H. J. Rahmlow, Madison.
4:00	Adjournment.

FOR SALE or trade. Root 4 frame extractor. Dadant uncapping can, 25–8 frame bodies. Wanted, capping melter, wax press, honey. Daffodil Bee Farm, Mt. Horeb, Wis.

WIRED FRAMES

Wires will not rust or sag. Packed in flat. Easily assembled. Strong and perfectly straight combs assured. Catalog and literature on request. A. E. Wolkow Co., Hartford, Wis.

SOME FACTORS IN BEE DISEASE CONTROL

C. D. ADAMS
Chief Apiary Inspector

SINCE 1918 the State Department of Agriculture and Markets has been attempting to control bee diseases by educational and other methods. Most of the educational work has been under the leadership of the Bee Department of the University. Beekeepers who read and attend beekeepers meetings have profited greatly by these efforts, but it is a well known fact that a rather large percentage of people who own bees never read a bee paper nor attend a beekeepers meeting. To this class the inspectors have been valuable teachers, though it must be admitted that they may have a few unattentive pupils at the start.

Two Important Diseases

The beekeeper soon learns that there are several bee diseases, but that there are two diseases that cannot be ignored if he is to remain in the business. These two are called American and European foulbrood. Up to about twenty years ago the European foulbrood was probably as destructive as the American, but it was learned that it was a disease primarily of poor bees and poor beekeeping. Profiting by this knowledge the good beekeeper has been able to eliminate European foulbrood as a major problem in beekeeping

A. F. B.

But the American foulbrood has not yielded greatly to educational work. It is a lamentable fact that a "little learning is a dangerous thing" with many beekeepers when this disease is introduced in their yard. It is a fact that this disease is easier to eliminate from the small apiary and the "let alone beekeepers" yard than it is from the apiary of the commercial beekeeper.

HONEY WANTED: Comb and extracted; all grades. Send samples and best price delivered Oconomowoc. C. W. Aeppler Company, Oconomowac, Wisconsin.

FROM MARATHON COUNTY

JOS. GARRE
Aniwa

AT PRESENT it is a little too early to say how the bees will come out of the cellars. Quite a bit of ventilation was necessary since Feb. 1st to keep the temperature down. Some beekeepers reported to me that on account of not having a proper ventilating system, they find it difficult to give the proper ventilation and the bees are uneasy.

Honey in 10¢ pails sold good during the past few weeks right here at home but for the bulk in 60¢ cans we so far failed to get a satisfactory offer.

BEE LABORATORY IN DANGER

THE appropriation for the U. S. Bee Culture Laboratory at Washington is again in danger of being cut. Last year a 20% cut was given resulting in the dismissal of two men.

Further reductions in the appropriation would cripple the Laboratory. Beekeepers should therefore write either to Senator Robert M. La Follette, or Senator Ryan Duffy, U. S. Senate, Washington, D. C., or your representative in Congress, protesting against this cut.

When billions are being appropriated for many other things, it seems unjust to cut this work a few thousand. Beekeepers need more help instead of less. Write at once.

PREMIUM FOR MEMBERSHIP

THE B. B. PLIERS and HIVE TOOL COMBINED made by the California Bee and Tool Company, is offered as a premium for membership in the Wisconsin Beekeepers' Association. Regular price of tool **$1.75. We offer** one year membership and hive tool for $1.75. This tool is an excellent frame lifter and holder for quick work. Send orders to: WIS. BEEKEEPERS' ASSOC. P. O. Box 2020, University Sta., Madison, Wisconsin.

DON'T PAINT INSIDE OF HIVES

IT IS well-known that if a hive be painted or varnished inside, moisture tends to condense on the walls and there is more risk of mouldy combs and other troubles due to damp in winter. Beekeepers are therefore advised to leave their hives unpainted within. The bare wood not only absorbs water vapour, however; it is also able to give it off again when, in early spring, the bees might otherwise suffer from water shortage and be obliged to fetch water from outdoor sources. Bare wood thus serves as an equalizer of the humidity of the air in the hive. — From *December Bee World.*

Local Associations — Don't forget your 1935 contributions to American Honey Institute when you hold your annual meetings.

FOULBROOD CONTROL BEING SUPPORTED

INTEREST in the eradication of bee disease is receiving unusual support from county boards this year according to Mr. E. L. Chambers, state entomologist.

The 13 counties thus far reporting include: Brown, $200; Dane, $300; Grant, $100; Jefferson, $75; Kenosha, $200; Marathon, $50; Ozaukee, $200; Milwaukee, $500; Sheboygan, $50; Vernon, $100; Washington, $200; Waukesha, $500; Waupaca, $100.

County funds will be matched dollar for dollar by state funds as the state appropriation permits, Mr. Chambers says.

HONEY LABELS READY

The Badger Brand honey labels sold by the Wisconsin Beekeepers' Association to its members are now ready, a new supply having just been printed. Order your labels now from Arlene Weidenkopf, P. O. Box 2020, University Station, Madison. See February issue for prices.

Federal Funds for Apiary Inspection

E. L. Chambers

WITH competition in the world honey market growing keener and keener each year, there seems to be a world-wide awakening to the serious disaster to the beekeeping industry caused by the spread of the American foulbrood disease. Many European and African countries have already prohibited the importation of honey from countries in which foulbrood is now known to exist.

Reduced Budgets

Faced with reduced state and county funds as a result of necessary state budget reductions, there has been a marked curtailment in apiary inspection work everywhere. In Wisconsin the state funds for bee inspection have had to be reduced from $10,500 in 1930 to $6,100 last year and county funds have dwindled in a like manner. While the budget for the fiscal year beginning July 1935 has not been determined, we are inclined to believe from newspaper reports that there may be even greater reductions necessary.

A few years ago Dr. S. B. Fracker, former state entomologist, while acting as secretary to the American Honey Producers' League, fostered a proposal for joint Federal and State participation in a campaign to eradicate or control American foulbrood. Under this plan it was proposed that the work be undertaken on the area clean-up plan in such sections as the government might select without attempting to spread Federal funds over the entire country at one time. Because of inadequate support from the beekeepers themselves, this proposal fell through.

The Area Clean-up Plan

To Wisconsin is given the credit of initiating the area clean-up movement of today which has been taken up by a score of states following this policy within their boundaries. In some states, including Wisconsin, Wyoming and Ohio, the work is largely confined in so far as their funds will permit to the more heavily infected sections of the state while in others, like Michigan, it is concentrated in the thinly settled counties first. Several of our southern states, including Mississippi, Florida and Louisiana, are endeavoring to keep their entire state completely free of American foulbrood and are reporting good success.

Federal Projects Successful

The success of other Federal eradication and control programs in recent years have been so generally recognized that those interested in beekeeping naturally look for help from this same source. When compared with other unemployment relief measures, a bee disease control project seems to have much promise in that it lends itself to such a project very nicely. Joint state and Federal participation in such campaigns as the eradication of the cattle fever tick, tuberculosis of cattle, hoof and mouth disease and bangs disease, have demonstrated the feasibility of handling diseases of this kind as a Federal project.

The greater resources of the Federal government would assure adequate finances and guarantee an efficient, consistent and uniform policy. The question of allotment of such funds should rest with the Federal department of agriculture and be administered by the Bureau of Entomology and Plant Quarantine. Naturally they would have to take into consideration (a) the maximum value of the industry in the respective states (b) adequacy of state legislation and organization (c) probable permanent maintenance of the area in a healthy condition after eradication has been completed.

How It Would Work

A state bee disease control committee would probably be advisable in each state set-up under a plan outlined by and subject to the approval of the Secretary of Agriculture. The question of whether or not indemnity should be paid for bees destroyed, would doubtless complicate the problem and it is quite likely that the chances of securing such a Federal appropriation would be much better if no indemnities were to be considered. Most beekeepers realize that a colony of bees infected with American foulbrood is not only worthless but is a decided liability in the yard and should welcome an opportunity to get rid of it. We believe that if he knew his neighbors were all doing likewise there would be no hesitation. It should be possible through such a project to employ a considerable number of unemployed and needy beekeepers for limited periods throughout the United States to carry on this work under the direction of trained inspectors. In Wisconsin we already have a nucleus of some fifty experienced inspectors who have been doing area clean-up work or making local inspections.

Organizations Necessary

Whether adequate financial support can be secured depends, of course, upon the support received from the beekeepers themselves especially the members of county, state and national organizations. *It behooves the beekeepers of every county to organize and maintain an active association without which successful clean-up work is impossible.*

MILWAUKEE FLOWER SHOW

HERBERT G. FROEMMING
Chairman

THE flower show which will be held in connection with the Milwaukee Home Show at the Auditorium, March 16–23, will be much larger than ever before.

We are planning exhibits by amateurs to consist of shadow boxes and sun-windows. Our entire show will be located in a separate section in the basement with proper temperature.

We will have a row of flower-shop windows illuminated and landscaped from the outside. Many booths will form the background of the show and these will be in a half circle.

Rockeries and flower beds, well lighted will border the aisles. Growers will display all varieties of flowers properly labeled. We are trying to get many varieties of orchids on exhibit.

Properly set and arranged tables will be there and baskets and vases of flowers for any occasion. Blooming plant baskets around the orchestra platform will add their beauty. The entire show is in an outdoor setting among huge trees.

THE GARDEN CLUB OF THE AIR

A GARDEN club radio program to be called the Homemaker's Garden Club of the Air has been arranged over the state owned radio station WHA (940 Klc) and WLBL, Stevens Point (900 Klc). A program will be presented *each Tuesday at 10:30 a.m.* during March and April and possibly continuing for a longer period.

A different garden club will appear every Tuesday. The meeting will be opened by the president of the club, the secretary will make a brief report on what the club is planning for the year, and the program speaker will present a garden topic of from 6 to 8 minutes. The complete program will be found on the Garden Club Federation page in this issue.

PROGRAM FOR ORGANIZATION MEETING WISCONSIN IRIS SOCIETY

Milwaukee Public Museum—
Trustees' Room

Wednesday, March 20, 1935

ALL Wisconsin iris fans are invited to attend the organization meeting of the Wisconsin Iris Society. The following interesting program has been prepared.

PROGRAM

A. M.
10:30 Consideration of the proposed plan of organization.
Appointment of committees on constitution, nominations and program.
11:15 Suggestions for holding an Iris Show this spring, Mrs. A. Jaeger, Milwaukee.
Consideration of the premium list.
Iris Question Box.

M.
12:00 Luncheon. Meeting of committees.

P. M.
1:30 The new varieties of Iris and their culture. Iris questions answered, Mrs. Euclid Snow, Hinsdale, Ill.
2:30 Report of committees. Election of Officers.
3:00 Iris Hybridizing, Mr. Louis Le Mieux, Wauwatosa.

OUR COVER PICTURE

ON OUR front cover this month we have a picture of Amelanchier amabilis. The cut was loaned us through the courtesy of the Morton Arboretum. It was used in the Arboretum bulletin #11–12 which contains many beautiful illustrations of plants growing in the Arboretum. These bulletins may be obtained by writing the Morton Arboretum, Lyle, Illinois, at 10¢ a copy, or $1.00 per year.

BEEKEEPERS MEETINGS

THE Wisconsin Beekeepers' Association cooperating with the Wisconsin Horticultural Society has scheduled three district meetings for beekeepers as follows:

Southwestern district at Lancaster, Wednesday, March 27, in the Grantland Club.

Southeastern district at Waukesha, Thursday, March 28.

Central District at Appleton, Court House, Friday, March 29.

All beekeepers are invited. Meetings begin at 10:00 a.m. to 4 p.m. Four prominent speakers will appear on the program.

NURSERYMEN HAVE GOOD PROGRAM

A VERY good program was presented at the annual meeting of the Wisconsin Nurserymen's Association held at Milwaukee on February 13th. Papers were presented by Mr. Noel Thompson on the nursery inspection service, by Mr. C. L. Harrington of the Conservation Commission, on national state forestry planning, and by Mr. Chas. Hawks, Jr., of Wauwatosa, on the nursery business, past, present and future, Mr. E. H. Niles, Hartland, on roadside planning and planting, Mr. Oscar Hoefer of Kenosha on the outlook for the landscape business. H. J. Rahmlow talked during the banquet hour on new discoveries in horticulture of interest to nurserymen.

All the officers were re-elected. They are, Thomas S. Pinney, president, Sturgeon Bay; Karl Junginger, vice-president, Madison; M. C. Hepler, secretary-treasurer, Pardeeville. The directors are: L. J. Baker, Fond du Lac; Oscar Hoefer, Kenosha; and Anthony Singer, Milwaukee.

SPECIAL FINANCE COMMITTEE APPOINTED

A FINANCE committee to receive any money as an endowment fund, the income from which is to be given to the State Horticultural Society, has been appointed by the officers of the Society. The appointment is as follows:

Mr. Sam Post, Madison, chairman; Mrs. Chas. Jahr, Elkhorn, Mr. E. L. Chambers, Madison, treasurer. The president and secretary of the Society are ex-officio members.

Two donations have been received by this committee, that of Mr. D. E. Bingham, Sturgeon Bay, $10, and $9.00 from N. A. Rasmussen, Oshkosh.

About the Home and Garden

MRS. C. E. STRONG

Proud am I to have discovered, introduced and christened the Regal Lily.

Did what?
God forgive me? No, I didn't.
'Tis God's present to our gardens.
Anybody might have found it but—
His whisper came to me!—
—ERNEST H. WILSON.

PLANT HUNTERS AND PLANT TESTERS

ERNEST H. WILSON the great plant hunter, says in one of his books, "Having, after perhaps many hardships secured the seeds, roots, small plants or cuttings, many difficulties have to be overcome before they are safely transported to the home land.

The plant hunter is dealing with living things, and he must find means of properly conserving the life in his finds so that they reach their destination without undue exhaustion. And, having succeeded in this, success or failure of his labor is in the hands of those who take possession of the material in the home land. Then they must be tried out in different sections of the country—and somehow it is hard to convince the people that the plant hunter has not been wearing rose colored glasses."

We Need Plant Testers

And so we need the plant testers to carry on the work of these men. This is what every garden club, every garden club member should think about as they read the lists of plants recommended for trial. If we do this work, we are carrying on the work started in those far lands by the plant hunters. We are enriching the gardens of many because when others see them in our gardens, they too will want to grow them. Not only this, but we will be repaid

many times over in the beauty that will be given to our own gardens and the delight we will have in showing these newer plants to other flower lovers.

Testing out new plants, both indoors and out, is one of the most enjoyable hobbies anyone can have.

The Plant Testing List

Some of the plants on the list I know something about and can assure anyone that Cotoneaster racemiflora soongorica will not disappoint anyone. It is hardy, it is good in bloom, and is simply exquisite when covered with its coral pink berries. I am seeing it planted with Snowberries against a background of evergreens as a point of interest in my garden. You see I am looking forward.

Kerrie japonica pleniflora is another shrub that is too attractive not to be grown more commonly. Even in the winter time its bright green stems add a distinctive note to the garden, while its attractive habit of blooming along most of the summer adds to its value. The blooms remind me a bit of the double Trollius.

The Fragrant Viburnum

I just cannot resist saying a bit about that lovely shrub Viburnum Carlesii. Just do not know why it has been so neglected. Everything about it is so attractive, growth, foliage, habit of forming its buds in the fall, keeping you wondering if they will stand the cold weather. Then the delight of seeing them growing along so early in the spring; the rosy-pink of the buds; the waxen white of the open blossom; and then its alluring perfume, a hint of cloves and other sweet spice. You are transported to Korea, the land of morning calm, as it is so poetically called. Mr. Wilson says in one of his books, "If Korea had never given us another plant, we should still feel we had received a great gift, because she gave us Viburnum Carlesii."

Lonicera korolkowi — Blue leaved honeysuckle. It really does not seem necessary for me to say much about this shrub, for both Mr. Hottes and Mr. Rahmlow are ever singing its praises whenever and wherever possible. I have not grown it as yet.

Philadelphus bouquet blanc. Not so new, but not grown as much as it would be if more people knew that it was so good for the smaller garden, being of medium size, with a profusion of bloom. It makes fine hedges, much better for a flowering hedge than the ever prominent Spirea.

A New Barberry

Speaking of hedges, there is a new evergreen barberry that is up for trial, Berberis mentorensis, deep green all summer, in the winter bronze until April, when almost overnight it sheds its leaves and puts on the greenery again.

Another Barberry not listed for trial, but which sounds very interesting is the Truehedge Columnberry. This grows very full from the ground up and very straight. They say it looks very much like Boxwood.

An Ornamental Tree

Ginkgo biloba — Maidenhair Tree is such an unusual tree that just for that it should prove interesting. I understand it is a slow grower, so even small gardens may have the pleasure of including it.

Lilies

And you are surely going to enjoy that *Lilium Phillipinense formosanum.* Have grown it for a number of years and its stately growth and immense white trumpets are something to look at. It needs *well* drained soil, if, like mine, your garden is composed of stiff clay. Have grown it from bulbs and from seed. Like many of the lilies, after awhile they disappear, but you will be quite likely to think, if not to say, "Oh, well, I'll just buy some more. They really do not cost very much and they are so lovely I do not want to be without them." Perhaps in a sandy loamy soil they would last longer. If you find they are quite permanent after trying them out, let us know. I am trying a new way of growing them—if it works, shall pass the good news along.

Dwarf Asters

I must say a bit about those new Dwarf hybrid asters. Not in a long time has anything sounded so good for the September garden. We have needed something besides annuals for this time of the year. They are low growing too. Will they look nice along the front of the border? Perhaps if we get enough nice early blooming Chrysanthemums, we will be gay as can be in that period before frost. I'm hoping we will soon have a nice list of plants that will give us more bloom so if we do not want to fill in with annuals, the borders will not look so lonely.

Do I need to say anything about the Hemerocallis? Seems to me that's all I have talked and written about lately. Just grow some and then some more.

Another Good Plant

Another plant that is not on the list, but that is really so nice that it should be, is the *Vitex macrophylla* with unusual foliage and a long blooming period—August into September. Its large, upright panicles of lavender-blue are very attractive. It is hardy though it may freeze to the ground every year, but that will in no way affect its blooming qualities. One of my neighbors received one by mistake—she bought a Buddleia and the Vitex came. It has bloomed without fail every year for eight years. Even seedling plants come through without injury. Because of its color it is alone worthwhile.

Every club will receive a list of these trial plants. Let us hope the response will be spontaneous; every club ready to help carry on.

The conductor helped the fat lady aboard the street car and remarked, "You ought to take yeast, lady, it would help you to rise."

"Take some yourself, young man, and you'd be better bred," was the reply.

DREER'S

1935
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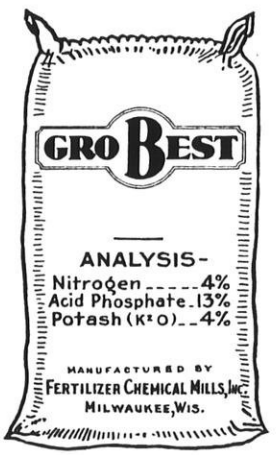

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1710 Illinois Ave., Sheboygan

Mendel's Law Helps Plant Breeders

Clark W. Brown

THERE are now so many amateurs growing Gladiolus seedlings without any definite or particular object in view, that perhaps an explanation of Mendel's Law of Heredity would give them an incentive to breed their Glads more scientifically.

Mendel was born in 1822, and gave much of his life to the study of plants. As frequently happens, his efforts were not appreciated until long after his death, which occurred in 1884. His observations on heredity in plants were published in 1865, but attracted little attention until the year 1900, when three celebrated botanists discovered them, almost simultaneously. Since that time, many breeders of plants and animals have put his principles into use.

Mendel set out to discover the nature of varieties by following the behavior of particular characters through a series of generations. He used common garden peas for his experiment. His first discovery was that of two contrasted characters, one, which he called the dominant, would, in case of a cross, apparently completely drive out the other, which he called the recessive, in the first generation. In subsequent generations, however, the recessive would reappear in a fixed proportion of individuals. Thus, in crossing a tall and a dwarf variety the result was all tall individuals, therefore the character of tallness was dominant and the character of dwarfness recessive. In the second generation these tall individuals, if inbred, produced each three tall to one dwarf. Of the three tall, one always produced tall, while the other two always produced three tall to one dwarf. The one dwarf always produced dwarfs. This could be carried on indefinitely, as long as you wished.

It should be understood that these figures are averages of many crosses, and that, though the dwarfs could be relied upon to breed true, only experiment could determine which of the talls were of pure and which of mixed strain.

Remember, also, that we have considered only one character, that of height. Mendel found that other characters behaved in the same way, each independently of the rest. For instance, yellow seeds proved to be dominant over green ones. Therefore, tall yellow-seeded plants crossed with dwarf green-seeded ones produced all tall yellows, and a tall green crossed with a dwarf yellow gave the same result, taking the dominant height from one parent, the dominant seed color from the other.

In the second generation, however, since two characters were concerned and these could be combined in different ways, four classes instead of two appeared, in the proportion of 9:3:3:1—nine tall yellows, three tall greens, three dwarf yellows and one dwarf green. If the number of characters is larger, the number of possible combinations increases in geometric ratio. It is by the use of the almost indefinite possibilities of combination that many of our fine garden varieties have been produced.

The matter is not always so simple. Pairs of characters are not always dominant and recessive. Sometimes they produce a blend unlike either of the parents and this will usually not breed true. This has been worked out with poultry in an interesting way. Mate two blue Andalusians and the offspring will be made up of two blue birds, one black and one white with black points. Mate the two blue birds and the result will be the same. But two black birds will breed true and so will two whites. A white and a black mated will produce blues and from these you can again repeat the whole experiment. In this case the whites and blacks are the pure strains and the blues the hybrids.

There are various other complications. Some characters are linked; you cannot have one without the other. Some seem to be mutually repellant. Much careful handling and observation are necessary. But, at least in the simpler cases, crossed characters are not lost by crossing, but can be separated out as pure as in the original variety.

The reason for the working out in the 1:2:1 ratio is that in the first generation cross, the "gametes" (the hypothetical carriers of inheritance) in each ovule are half dominant and half recessive and in each pollen-grain are also half dominant and half recessive. Therefore there is one chance in four that a dominant gamete in the ovule will unite with a dominant in the pollen and a recessive in the ovule with a recessive in the pollen, and two chances that a dominant will receive a recessive or vice versa.

This law can be utilized in breeding Gladiolus but in this case it is not quite so simple, for the reason that practically all of our varieties grown today are the result of several generations of miscellaneous crossing, of which there are no definite records available. If one commences back with the species which have established characteristics then there is necessarily a long period of evolution to arrive at what we term the ideal Gladiolus of today.

We must first tabulate the characteristics of the ideal that we are to work for and then by experimentation find varieties that have those dominant characteristics established and gradually draw towards the goal. It is a long process but when one succeeds in producing something that is a little nearer the goal, a little larger, a little nearer blue or a more perfect form, then the thrill of conquering pays well for the time and study that has gone into it.—From *"The Gladiolus,"* published by The New England Gladiolus Society.

A MINNESOTA GLADIOLUS SYMPOSIUM

THE following varieties received the 25 highest number of votes in a symposium conducted by the Colonial Gardens of Rushford, Minnesota. A total of 420 varieties were mentioned by the voters, but 75 varieties received 80% of the total votes. The following are the 25 receiving the highest number of votes.

1. Picardy (1931); 2. Minuet (1922); 3. Marmora (1925); 4. Betty Nuthall (1928); 5. Commander Koehl (1929); 6. Mildred Louise (1932); 7 W. H. Phipps (1921); 8. Mother Machree (1927); 9. Lotus (1929); 10. Pfitzer's Triumph (1926); 11. Bagdad (1931); 12. Margaret Fulton (1932); 13. Dr. F. E. Bennett (1921); ". Mammoth White (1922); 15. Golden Dream (1923); 16. Albatross (1927); 17. Maid of Orleans (1930); 18. Mrs. P. W. Sisson (1924); 19. Giant Nymph (1921); ". Pelegrina (1931); 21. Jonkheer van Tets (1928); 22. Aflame (1926); 23. Wasaga (1932); 24. Ave Maria (1928); 25. Mrs. Leon Douglas (1920).

The year following the variety indicates the year of the variety's introduction. Ditto marks indicate a tie vote.

25 BEST CUT FLOWER GLADIOLUS

IN ANSWER to the question —"If you were going to grow 10,000 bulbs of not more than 25 varieties for sale as cut flowers, either to florists or at roadside stands, which varieties would you recommend?"

In answer to this question the Colonial Gardens of Rushford, Minnesota list the following as their recommendation.

All Shades of Pink

1. Picardy; 2. Sweetheart; 3. Heritage; 4. Margaret Fulton; 5. Mildred Louise; 6. Debonair or Mrs. Sisson.

All Shades of Red

7. Dr. C. Hoeg; 8. Dr. Bennett; 9. Aflame; 10. Dream O' Beauty; 11. Commander Koehl.

Orange and Yellow

12. Brightside; 13. Spirit of St. Louis or La Paloma; 14. Jonquil or Golden Poppy; 15. Golden Goddess or Golden Dream; 16. Golden Chimes or Ruffled Gold.

White and Pale Colors

17. Maid of Orleans; 18. Lotus; 19. Duna; 20. Bleeding Heart.

Cool Colors and Smokies

21. Minuet; 22. Ave Maria; 23. Charles Dickens; 24. Marmora; 25. Roi Albert.

NEW BOOK ON THE GLADIOLUS

THE New England Gladiolus Society has achieved a masterpiece in its new book entitled "The Gladiolus." We have just received our copy and find it filled with valuable information. It is wonderfully well bound and attractive in appearance.

The book was advertised in the December issue of Wisconsin Horticulture on the Gladiolus page. It may be obtained by joining the New England Gladiolus Society, on payment of dues of only $1.00 per year. The book itself is sold at book stores for $1.75. It is so good that we urge every member of the Wisconsin Gladiolus Society or members of the Horticultural Society who are interested to send one dollar to C. W. Brown, Secretary, Box 245W, Ashland, Massachusetts, at once.

AMERICAN IRIS SOCIETY OFFICERS

THE officers of The American Iris Society for the coming year are as follows: President, Dr. H. H. Everett, Lincoln, Nebraska; Vice-president, Mr. W. J. McKee, Worcester, Mass.; Secretary, B. Y. Morrison, Washington, D. C.; Treasurer, Richardson Wright, New York, N. Y. The new directors are Robert Schreiner, St. Paul, Minn., and Euclid Snow, Hinsdale, Ill.

AMERICAN AMARYLLIS SOCIETY

THE officers of the American Amaryllis Society are as follows: President, E. G. Duckworth, Orlando, Fla.; Vice-presidents, Dr. H. P. Traub, James L. Gebert, New Iberia, La., Gordon Ainsley, Campbell, Calif.; Secretary, W. Hayward, Winter Park, Fla.; Treasurer, R. W. Wheeler, Orlando, Fla.

Dues of the Society are $2.00 annually. A yearbook will be published in September.

The secretary of the Society announces the receipt of Zephyranthes caerulea, from the Argentine Republic. This is a rare pale blue species of "fairy lily," not previously known to cultivation. This variety is considered as a horticultural achievement of importance, to give hybridizers the blue color so rare in the amaryllis family.—From *Horticulture Illustrated.*

Join the Plant Testers

Excellent Varieties Recommended by Committee

THE special committee on varieties for plant testing representing the State Horticultural Society and Wisconsin Garden Club Federation recommends the following varieties for trial in 1935.

The Rasmussen's Nurseries, Oshkosh, R. 4, were the low bidders on furnishing these varieties to our members. Their prices are very reasonable. Orders should be sent direct to the nursery, or a price list may be obtained by writing the State Horticultural Society, 1532 University Avenue, Madison.

Shrubs

Cotoneaster racemiflora soongorica. A tall growing shrub which has been found very ornamental when in fruit in the fall when entirely covered with red berries. Grows 8 to 10 feet tall. Of graceful spreading habit. Flowers white. Considered hardy.

Berberis mentorensis–Mentor Barberry. Its rich, glossy foliage stays green practically all year. Grows to 3½ to 4 feet. Ideal for foundation planting. Good protective hedge. Growth —upright. It is considered very hardy, has withstood 30 below zero. Will grow in all kinds of soil. A new patented variety.

Kerria japonica florepleno. Known as Globeflower Kerria or Japanese-rose. Flowers are double, resembling roses. Color, yellow. Splendid for foundation planting for masses of twiggy shrubs for winter display. Considered a shrub of great beauty. Grows 4 to 6 feet tall. May not be hardy in exposed locations.

Lonicera korolkowi — Blue leafed honeysuckle. Grows 12 feet tall. Small narrow but numerous bluish green leaves on slender arching stems. Flowers are light coral-pink, followed by bright red fruits. Most attractive. Its great beauty lies in the bluish color of its foliage.

Philadelphus bouquet blanc. Close set bunches of double flowers, each branch a bouquet. Best types for medium height hedges. Corresponding in effect with Spirea Van Houttei. Low growing, 3–4 feet. For beauty of arching shrubs, loaded with bloom, choose this variety.

Trees

Gingko biloba — Maidenhair Tree. Rare and handsome tree from Japan. Leaves are fan shaped as Maiden Hair Fern. Free growth with angular, independent branches. Excellent for lawn planting or street tree. Immune from insects.

Hardy Roses

Agnes. Yellow Rugosa having buttercup yellow buds, passing to clear yellow and opening to full, large blooms, fawn color, fruity fragrance. Very lasting. Flowers all along branches early in June. Foliage deep green. Said to be practically disease and insect proof.

Max Graf. Ideal trailing rose for retaining embankments. This lovely green ground-cover becomes decorated with large single, apple-blossom pink flowers.

Evergreens

Juniper japonica nana — Japanese Juniper-dwarf. A new juniper of extremely dense, compact growing habit. Foliage finer than usual varieties. Growth, slow. Grows in a solid mass fashion. Good for the rockery. Junipers are hardy and highly recommended. Good green color all winter.

Taxus andersoni—Anderson's Yew. The Yews are destined to become Wisconsin's leading evergreen for ornamental use. This is a many branched variety, branches tending upright. Foliage green and glossy. Will grow in shade; easily trimmed; will stand congested conditions and city smoke. Perfectly hardy in this state. An improved Yew.

Perennials

Asters — Dwarf hybrids. Dwarf growing rockery or border plants that bloom in September, 1 foot in height. Bloom profusely, have large flowers. The following varieties listed: *Countess of Dudley,* a clear pink; *Lady Henry Maddocks,* clear pale pink; *Marjorie,* bright rose-pink; *Nancy,* flesh-pink; *Ronald,* lilac-pink; *Snowsprite,* semi-double white; *Victor,* light lavender-blue.

Chrysanthemums

Aladdin. Remarkable bronze variety. Begins to bloom in mid-August, continuously into November. Flowers 2–3 inches across, full and compact.

Korean Hybrids

Apollo, bronze, red and gold; *Ceres,* old gold with copper; *Daphne,* pink with golden stamens; *Diana,* rose-pink, blended lilac; *Mars,* deep amaranth-red with wine-red sheen; *Mercury,* bronze-red changing to coppery bronze.

Azaleamum. A chrysanthemum type resembling an Azalea. Long blooming season. In late summer and fall completely covered with delicately colored, pink flowers and buds. Develops into plant 30 or more inches in diameter in one season.

Hemerocallis

These "lemon-lilies" are becoming very popular. The new varieties with their improved coloring are very beautiful. The following varieties are offered at a medium price.

Bay State, deep yellow, with wavy edge; *Dr. Regel*, pure orange-yellow; *Florham*, rich golden yellow with Indian yellow markings; *Gold Dust*, early, large golden-yellow flowers; *Lemona*, pale yellow, mid-season, tall; *Luteola*, 4 ft., golden yellow; *Mrs. W. H. Wyman*, 4 ft., blooms in August, clear yellow; *Sovereign*, mid-season, golden yellow, large blooms.

Erigeron

Double Azure Beauty, a perennial—seed only. Lovely double blue daisy, with yellow center. Plants 2½ feet high, literally cover themselves with flowers. A hardy subject for the herbaceous border.

Buddleia

Ile de France (Butterflybush). Forms a symmetrical bushy shrub, 3–4 feet tall. Blooms during July to frost. Long tapering spikes of fragrant flowers of a very beautiful rosy-violet purple color.

A New Lily

Lilium phillipinense formosanum. Refined and graceful lily with long wide-mouthed trumpet flowers of purest white. Slightly marked outside with reddish-brown. 2–3 ft. Hardy; fragrant.

EXTEND TIME FOR ORDERING NEW PLANTS

The time during which orders for the varieties of plants listed in our plant testing list may be ordered has been extended by the Rasmussen Nursery of Oshkosh to April 15th for fruit trees, and May 15th for shrubs and perennials. Write for a price list.

The Delectable June Berry

WHEN Juneberries were mentioned at a recent gathering, an exceptionally able gardener present remarked that she did not know her bushes were supposed to bear berries—she had them for early bloom. Nurserymen sell them for early bloom, and they are lovely for that; but there is no good reason why they should not yield both early bloom and Summer fruit. The finest Juneberries are as good as any berry that grows. Birds, unfortunately, have a fondness for them; but no greater than their fondness for cherries.

Juneberry is a common name for amelanchier, which is also known as shadbush, serviceberry, sarvis, Saskatoon berry, sugar pear, and bilberry—the last name, however, properly belongs to a couple of blueberries. Botanists and horticulturists alike commonly assert that some species have edible fruit and others not. The truth seems to be that individual plants of any species may bear fruit that is edible or the opposite. Edibility seems to be a matter of the individual plant.

Juneberries are ordinarily about the size of blueberries, and suggest the blueberry more than any other fruit. Some Juneberries are full-flavored while still bright pink in color; others not until they are blackish purple. The best berries have few seeds, and those few minute. The poorer are as filled with seeds as a huckleberry, and the seeds are large and thick-shelled. Good Juneberries are delicious as a dessert when served with cream, and are also excellent for eating out of hand, as gathered. Ontario residents use them for pie and jelly; but the flavor, when cooked, is often insipid.—*Maud R. Jacobs, South Carrollton, Ky. From July 1, Horticulture.*

EDITOR'S NOTE. The Juneberry is a native of Wisconsin. On a recent trip to Bayfield County the editor saw a great many of these beautiful shrubs in bloom. The fruit is probably not appreciated as much as it should be.

DELPHINIUMS

Have a limited amount of extra choice Delphinium seeds from selected plants for 50¢ per packet. Seedlings and two year plants.

Early Heavenly Blue Morning Glory seed, 15¢ per packet.

John J. Johnson
1966 Linden Avenue
Racine, Wisconsin

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Vaughan's Seed Store, founded in 1876, has specialized for 59 years in seeds, bulbs and plants for florists, private estate and market gardeners and amateur gardeners.

Gardening Illustrated, issued each spring, illustrates, describes and prices everything the garden lover needs or desires. Illustrates 240 different flowers in true color and lists 2,164 separate varieties of annuals, perennials, roses, water lilies, and gladioli. Also includes the tender, finely flavored table quality vegetables.

Famous Rainbow Garden of Gladioli, $2. Our 1935 Rainbow Garden of Gladioli includes 100 bulbs, ten each of the following varieties: Betty Nuthall, Dr. F. E. Bennett, Golden Dream, Kalamazoo, Mrs. Leon Douglas, Mrs. Von Koynenburg, Pfitzer's Triumph, W. H. Phipps, and Seafoam. Prepaid to 600 miles.

Vaughan's Gardening Illustrated, 1935, free on request.

Vaughan's Seed Store
10 W. Randolph St.
Chicago, Ill.

47 Barclay Street
New York City

Some Rock Garden Favorites

By "Bill"

ONE of the many fascinating features of Rock Gardening is the seemingly endless variety of plants that may be grown. When I first became interested in Rock Gardening not so many years ago, we thought that our climate would prevent growing over a dozen or so kinds. Our extremely hot dry summers rather than the severity of our winters is the worst climatic feature we have to contend with here.

A rock garden of artistic and natural beauty may be had with the use of a comparatively small number of varieties if proper care is used in construction and in the selection of varieties of plants used. To pass this test means that the plant considered should have an all season pleasing foliage effect, as well as showy flowers.

Varieties For Sunny Places

While special varieties must be chosen for special or difficult places, the following will give good results in sunny or partly shaded locations, using ordinary soil that is provided with good drainage: Alyssums saxatile and serpyllifolium, Aquilegia flabellata nana, Arabis alpina, Artemesia frigida, Campanula carpatica, Cerastium tomentosum, Dianthus in several low growing varieties, Gypsophila repens, Nepeta Mussini, Phlox subulata in several varieties, Sedums in several varieties, Thymus serpyllum and varieties, several Veronicas and Violas.

A selection from these will be enough to provide variety, pleasing foliage contrasts, and a restful interesting rock garden.

Looking For New Kinds

I must confess that most rock gardeners, including myself are as much hobbyists as flower lovers and are never satisfied with a finished garden. We are always looking for something new.

As we study the varying effects of soil mixtures, moisture and drainage we find we can grow even here in the middle west, an amazing variety of Alpine, sub-alpine and just plain rock garden plants.

The following are just a few kinds I have tried and like. They are not selected as the best, or the rarest, or as superlatives in any way. I just like 'em.

There is Thymus Citriodorus, with a pleasing lemon scent. I am very fond of any plant with lemon scented foliage. It is bushy in type of growth with nice green foliage, and grows 6 or 8 inches tall. It has not proved as hardy with me as the low growing serpyllum varieties. I like sedum Sieboldi for the pretty effect of the tiny pink edging on the blue green leaves. It has done specially well for me on the south side of a rock in heavy clay soil where there is fairly constant moisture, winter and summer. A most unpromising spot I would think except for the evidence of several years growth.

A New Sedum

Then there is Sedum Nevi, with tiny little tufts of pale green foliage. A little shade from midsummer sun is appreciated by this (and many another) sedum. While on the subject of Sedums, I must mention Dasyphyllum, which I like because of its compact tufts of fat little blue green leaves. It seems to thrive under widely varying conditions. There are several forms of sedum Dasyphyllum. Choose the kind that does not shed its leaves at the first touch. I have several more loves among the sedums but possibly I'd better pass on to something else.

I like Linaria Alpina or Alpine Toadflax because of the brilliant contrast of the bright orange on the lip of the flower contrasted against the violet of the main part of the bloom. Often flowers itself to death but usually self sows.

Edelweiss

I like the Edelweiss, not for any special beauty of its usually bedraggled looking flowers as grown in midwest gardens, but because it always has seemed associated with far away and inaccessible places. Not hard to grow in limy well drained soil.

Well, here I am writing this on St. Valentines Day, my paper is gone and I haven't begun to tell of even the least of my loves among rock garden plants. Shall I tell some more next time?

Trees For Planting a Windbreak

F. B. Trenk

A CAREFULLY laid out windbreak will give the farmstead protection from most severe storms, and the drifting of snow will be cut down considerably.

There are a number of trees suitable for windbreaks in Wisconsin but they are all of the evergreen type. The trees recommended are: White spruce, Norway spruce, Scotch pine, Jack pine, Balsam fir, Douglas fir and Arborvitae (white cedar). Broadleaf or hardwood trees are not recommended for permanent windbreaks in this vicinity. Most evergreens should be at least three years old. With White spruce, Douglas fir and Balsam fir four or five year old trees are recommended. If smaller seedlings or transplants are used they will need cultivation until the trees have grown beyond the severe weed and grass competition.

The type of soil that is present on the farm may determine the kind of trees that are planted. In light sandy soils plant Norway pine, Scotch pine or Jack pine; for light loam soils Douglas fir, White pine, Norway pine or Norway spruce; for heavy loams and clays, White spruce, Balsam fir and Arborvitae.

Select good nursery stock and order it just before planting time. The planting time recommended in the southern part of the state is between April 20th and May 15th; in the northern half of the state planting takes place between May 1 and May 25.

Lay out the windbreak in two straight rows and stagger the trees so that the trees are not opposite each other in rows. All trees except Arborvitae should be set 6 feet apart and 8 feet between rows. Arborvitae may be set 4 feet apart and 6 feet between rows. After 12 to 15 years every other tree may have to be removed because the windbreak will become too thick.

The development of the windbreak will depend upon the care given it the first five or six years. Cattle and poultry should be kept away from the trees until they have become established. No fertilizers will be necessary for these trees. The only requirement is a slightly acid soil. —(From *Circular by Wisconsin College of Agriculture*).

"GALVANIZED" SOIL TO STOP DAMPING OFF

THE use of zinc oxide to "galvanize" the soil to prevent damping off after the young plants have come out of the ground, has been found satisfactory by research workers at the New York Experiment Station. However, treatment after germination does not control damping off unless the seed is also treated either with copper oxide or zinc oxide.

Bulletin number 650 describes in detail the treatment. It is issued by the New York State Agricultural Experiment Station, Geneva, New York.

The Flower Market

GLADIOLUS–DAHLIAS

It will pay well to get my list of popular Gladiolus and Dahlias. Depression buyers have a garden equal to any for a small investment. Feuerpfeil Nursery, Wittenberg, Wis.

IRIS

To be sure it's too early to buy Iris but you can reserve your catalog now. Melvin Geiser, Beloit, Kansas.

TREES—SHRUBS—FLOWERS

Trees, Shrubs, Perennials and Rock Garden Plants; some new and beautiful varieties. Write for free price lists and order early for spring planting. American Forestry Company, Pembine, Wisconsin.

POSITION WANTED

Young woman, graduate of Pennsylvania School of Horticulture for Women, experienced in growing flowers, vegetables, and fruits, wishes position as gardener or caretaker. References. Address, M. R. M. care of Wisconsin Horticulture.

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STATE GARDEN CLUB FEDERATION NEWS

Federation Aims: To stimulate and help garden clubs throughout the state; to develop interest in and broaden the knowledge of gardening; to aid in the protection of trees, plants and birds, and promote civic beautifications.

NATIONAL COUNCIL OF STATE GARDEN CLUB FEDERATIONS OPENS OFFICES

MR. RALPH HANCOCK, well - known landscape architect and lecturer, has leased the entire eleventh floor of 30 Rockefeller Plaza, New York, known as "Rockefeller Center." This he plans to make the horticultural center of the United States. The terraces, which are being planted to represent the "Gardens of the Nations," will be one of the wonders of the modern world.

Through the generosity of Mr. Hancock, the National Council has been allotted at a nominal rental a space on this floor which will be a rallying point for all of our members, and a home for the Lecture Bureau, Bulletin and other departments, that naturally center here. There will be a library to which we will have access, also a large auditorium available for lectures and conferences.

The formal opening of this office took place on February 26, 1935, when the "Gardens of the Nations" were opened to the public for the first time.

Our next event will be the Annual Meeting in Los Angeles, where I hope to see many of you, face to face.—Margaret Welles Swift, President, in *National Council Bulletin*.

DELEGATES WANTED

The officers of the Wisconsin Garden Club Federation would be very glad to hear from any member of our State Federation

who might be able to attend the National Council meeting in Los Angeles. Such person could be our official delegates. No money is available to pay expenses of delegates, but it would be a very pleasant outing trip for any garden club member able to go.

NOTICE — GARDEN CLUB OFFICERS

The names of the officers of all garden clubs in Wisconsin belonging to the State Federation and State Horticultural Society will be published in our April issue. It will be the only complete list of officers published during 1935.

Be sure that the names of your officers for 1935 reach us by March 15th.

TRY SOME NEW VARIETIES THIS YEAR

ALL Wisconsin garden club members are urged to test some of the new varieties recommended by our plant testing committee this year. You will find the list of varieties and description in this issue.

Several price lists of varieties have been sent to each garden club president. Additional copies may be obtained by writing the State Horticultural Society, 1532 University Avenue, Madison. The prices are quite reasonable, and orders should be sent direct to the Nursery.

We believe that every garden club will find it of interest to organize and try out some or all of these varieties. It will offer an opportunity for a very interesting tour of gardens this summer when these varieties may be seen and studied. The information we will obtain as to their hardiness and ornamental value will be of great benefit.

SLIDES AVAILABLE ON MAKING A ROCK GARDEN

THE slide committee of the National Council of State Garden Club Federations reports that the traveling lecture with slides, "How to Make a Rock Garden," by Louise Beebe Wilder, is now ready, rental fee $10.00 plus express. The illustrations are beautiful and the lecture is eminently practical, telling how a rock garden should be constructed, planted and cared for. Orders for the slides should be sent to Mrs. Alden Vose, Westport, Connecticut, and should be made well in advance.

The Homemakers' Garden Club of the Air

Wisconsin Staton WHA (940 Klc) and WLBL Stevens Point (900 Klc)

TUESDAY, MARCH 5, 1935
10:10 a. m.

Meeting of the Wisconsin Garden Club Federation. Executive Board.

The Wisconsin Garden Club Federation by Mrs. Chas. Jahr, Elkhorn, President.

What the Federation is planning for this spring, Mrs. R. R. Hibbard, Wauwatosa, secretary.

What I learned from garden visits last summer, Mrs. E. R. Durgin, Racine, 1st vice-president.

Garden tips for central Wisconsin gardens, Mrs. E. E. Browne, 2nd vice-president, Waupaca.

Some new varieties I will grow, Mrs. Wilma Weart, Executive Board member, Oconomowoc.

TUESDAY, MARCH 12,
10:30 a. m.

Meeting of the Madison West Side Garden Club.

What our garden is doing, Mrs. Walter Dakin, president.

What our club is planning for this spring, Mrs. R. F. Quast, Secretary.

Program speaker:

Work we can soon do in the garden, H. J. Rahmlow, Madison.

Meeting adjourns.

TUESDAY, MARCH 19
10:30 a. m.

Meeting of the Fort Atkinson Garden Club.

What our garden club is doing, Mr. Geo. Hausz, Fort Atkinson, vice-pres.

What our club is planning for this spring, Mrs. A. J. Koenig, Secretary.

Program speaker: How I will improve my garden this year by Mr. E. H. Miles, Fort Atkinson.

Adjournment.

TUESDAY, MARCH 26
10:30 a. m.

Meeting of the Madison Garden Club.

What our club has accomplished, Mrs. George Harbort, president.

Civic work and plans for this spring, Mrs. C. L. Dean, Chm. Civics Committee.

Program speaker: How I start early flower and vegetable seeds indoors, Mrs. F. M. Long, Madison.

Adjournment.

TUESDAY, APRIL 2
10:30 a. m.

Meeting of the Baraboo Garden Club.

What our club has accomplished, Mrs. Geo. Carpenter, President.

What our club is planning for this spring, Mrs. H. J. Steeps, Secretary.

Program speaker: How we grow good perennials, W. A. Toole, Baraboo.

Adjournment.

TUESDAY, APRIL 9
10:30 a. m.

Meeting of the Racine Garden Club.

What our club has accomplished, Miss Margaret Teuscher, president.

What our club is planning for this spring, Miss Valerie Olson, secretary.

Program: What our junior garden clubs are doing, Mrs. Frank Quimby, Junior Club chairman, and two juniors who have made outstanding records in club work.

Adjournment.

Watch our April issue for further programs.

CLUB HAS BOOK REVIEWS

The Hillcrest Garden Club is having book reviews of Wilson's books this year. They expect to have this as part of the program for several years. Study along that line is very helpful.—Caroline E. Strong, West Allis.

DISTRICT ORGANIZATION COMMITTEES APPOINTED

THE Wis. Garden Club Federation Executive Board appointed committees in three unorganized districts for the purpose of completing the organization in these sections. These are as follows:

Waukesha District: Mrs. Sidney Welch, Oconomowoc, Chm.

North Central District: Mrs. Peter Portman, Wausau, Chm.; Mrs. Don Waters, Wisconsin Rapids; Mrs. H. A. Foeller, Green Bay; Mr. Thomas Rogers, Stevens Point.

Racine District: Mrs. R. L. Pulford, Racine, Chm.; Mrs. Florence Strangberg, Kenosha.

THE CHICAGO FLOWER SHOW

Many Wisconsin garden club members and horticulturists will again visit the Chicago flower show April 6–14 at the Navy Pier, Chicago. This is the mid-West's largest show. It comes at a season of the year when we are most anxious to see flowers and beautiful gardens as may be seen at the Navy Pier.

NATIONAL ROCK GARDEN SHOW

May 16–18

THE First National Rock Garden Show will be staged by the American Rock Garden Society in the Fleischmann Gardens, Cincinnati, Ohio, May 16-18. These gardens are slightly over three acres in size and landscaped to provide several attractive gardens.

Classes for the collections and specimens of rock and alpine plants, trough and table gardens will be set up in the exhibition hall, while rock gardens will occupy space in the adjacent court or lawn areas. Schedules may be obtained from Mrs. Dorothy Hansell, Secretary of the Society, 522 Fifth Avenue, New York City.

RIPON YARD AND GARDEN CLUB

OUR club has held eleven meetings since last February. The outstanding event of our year was the flower show held at Ripon in June, sponsored by the three Ripon garden clubs. It proved a highly successful undertaking.

Pleasant out-of-town meetings were held at the country homes, and lake cottages, of our rural members.

We visited formal, informal and rock gardens from which we derived enjoyment and inspiration.

Two joint meetings were held with the other Ripon clubs.

At the Lawsonia meeting in August our president Mrs. J. M. Johnson was chosen president of the new Fox River Valley Garden Club organization.

A zealous program committee furnished us at all times with interesting and instructive programs. A spirit of friendship, cordiality and helpfulness prevailed throughout the year, and we have felt that each meeting was a bright milestone on the road to the success of the Ripon Yard and Garden Club.

JENNIE B. HENDERSON,
Secretary.

OSHKOSH HORTICULTURAL SOCIETY

AN INTERESTING talk on "The Solar System" illustrated with slides was given at the February meeting of the Oshkosh Horticultural Society by Dr. May M. Beenken of the Teachers college.

The meeting opened with the regular 6:30 cafeteria supper, Mrs. Edward Wright being chairman.

Mrs. Elmer Johnson, unable to report sooner, reported on the Garden Club Federation meeting at Racine. Garden Clubs, she said, are specializing in junior garden club work, roadside beautification and landscaping of school grounds. Children are encouraged to destroy ragweed and stop hayfever.

Mr. Herman Christensen is spending the winter in San Diego, California. A letter from him was read.

FLORENCE WINCHESTER,
Secretary.

JEFFERSON GARDEN CLUB

The Jefferson Garden Club reports a very successful Christmas Decoration contest conducted during the holiday season.

The club will take charge of the flower show at the county fair next fall. They are also planning a gladiolus growing contest. Each member will plant ten bulbs of one named variety on a date so that they will bloom for a gladiolus show which will be held next fall.

ESTABLISH GARDEN CENTER

The Wauwatosa Garden Club will establish a civic garden center during March. The space has been donated by the Library Board. Our Wauwatosa Garden Club is to landscape and plant the entire grounds surrounding the library this spring. Some member will be in attendance from March to June.

MRS. EDWARD CORRIGAN.

PLANT PREMIUMS MUST BE IN BY MARCH 20

To facilitate the work of the recording secretary of the State Garden Club Federation, the Federation has voted not to accept plant premium selections after March 20th.

Garden Club members should therefore be sure to have all their plant premium requests in the hands of Mrs. R. R. Hibbard, by March 20th. Please do not send them late.

Here's to the chigger,
That grows no bigger
Than the point of a pin.
But the lump he raises
Itches like blazes,
And that's where the rub comes in.

LIST OF 50 POPULAR IRIS

LAST September we published a list of the 50 most popular Iris according to the vote of the American Iris Society. The following list are those given second place by that organization.

Whites

Snow White (Sturt. '26); Micheline Charraire (Den. '24); Selene (Con. '28); Easter Morn (Essig '31); Polar King (Donahue '30); Yves Lassailly (Cay. '28); True Delight (Sturt. '24); Venus de Milo (Ayres '31); Rhein Nixe (G. & K. '10); Damozel (Mor. '22); Moonlight (Dykes '23); Ambrosia (Sturt. '30).

Blue Lavender to Blue Purple

Black Wings (Kirk. '31); Meldoric (Ayres '30); Wedgwood (Dykes '23); Geo. J. Tribolet (Wmsn. '26); Swazi (Bliss '22); Corrida (Mil. '14); Ann Page (Hort '19); San Diego (Mohr-Mit. '29); Blue Hill (Sass–H. P. '30); El Capitan (Mohr–Mit. '26).

Pink Lavender to Red Purple

Seminole (Farr '20); Numa Roumestan (Cay. '28); Rose Dominion (Con. '30); Joycette (Sass–J. '31); Marquisette (Cay. '26); Dream (Sturt. '18); Romola (Bliss '24); Labor (Cay. '26); Aphrodite (Dykes '22); Morning Glory (Kirk. '29).

Blends

Bruno (Bliss '22); King Midas (Mead '28); Vesper Gold (Wmsn. '26); Opaline (Wmsn. '30); El Tovar (Sass–H. P. '29); Candlelight (And. '26); Euphony (Sass–H. P. '29); Ophelia (Cay. '25); Evolution (Cay. '29); Tuscany Gold. (Wmsn. '29); Elsinore (Hall '25); Mme. Durrand (Den. '12); Persia (Ayres '27); Coppersmith (Shull '26).

Yellows Including Bicolors

Nebraska (Sass–H. P. '28); Flammenschwert (G. & K. '20); Primrose (Sturt. '25); Beau Sabreur (Wmsn. '29); Henri Riviere (Mil. '27); Citronella (Bliss '22); Claude Aureau (Cay '28); Prairie Gold (Sass–H. P. '26).

Tips For Gardeners

PAINTING TREE WOUNDS

WHAT is the best material for painting pruning wounds. First of all, many experts insist that it is a waste of time to paint wounds. They feel that in most cases the decay organisms are already present in the wound or, that the healing processes may be retarded by the paint. Nevertheless there are other experts who advise covering a wound. The best suggestion we have heard is a coat of shellac applied not more than three or four minutes after the cut, to prevent drying of the live tissues. Later a coating of asphalt in the water emulsion form may be painted on cold. The dressing should be redressed from year to year as needed. Another suggested material is a paint made of four parts of asphaltum and one part of paraffin applied warm. Still another good mixture is made by stirring linseed oil and Bordeaux powder until a thick paint is procured.—By H. B. Tukey in *The Rural New-Yorker.*

ANOTHER GARDEN NOTEBOOK

"ANOTHER Garden Notebook" by Alfred Putz is the title of a practical new book for the small gardener. It is a handbook of home gardening for each week of the year, indoors and out.

In the chapter for April we find the following articles: Annuals that resent transplanting; Spring and summer care of sweet peas; Thinning of plants; Transplanting hints; Window boxes.

Each month has its practical garden topics. It is not expensive, only $1.50. Published by Doubleday, Doran Company, Garden City, New York, or you may order it through the Wisconsin State Horticultural Society, 1532 University Avenue, Madison, Wis., by sending $1.50.

MAKING SEEDLINGS GROW STRAIGHT

LAST spring I made a discovery which may be of help to other readers of Horticulture. Every year I start pots of seeds in a south window and despite the abundance of sunlight my plants always bend toward the light, becoming spindly even though the pots are turned from time to time.

One day the thought occurred to me that if in some manner light could be brought to all sides of the plants my troubles would be over. Accordingly I took a piece of white cardboard and fastened it half way around each pot, which caused the light to reflect from several directions. The result was perfect. The plants not only grew straight without my turning the pots but they grew sturdy and natural and not spindly. Even after I transplanted the seedlings I kept the white cardboard behind them and I had the finest plants I ever raised indoors. Any white surface that will reflect light will do the trick. Oscar M. Schulze, Canton, Ohio.—In *Horticulture* for February 1.

MANY PLANTS LIKE ACID SOILS

ACIDITY studies conducted with snapdragons, clarkia, lupine, daisies, lilies, tulips, and daffodils indicate that for these crops alkaline soils are undesirable. The best growth and satisfactory green color was obtained in all cases in pH 6 to pH 6.5. In pH 7 and pH 8 plots distinct stunting and yellowing of the foliage resulted, probably due to lack of availability of such elements as phosphorus, iron, and manganese. In the case of snapdragons, spraying the foliage in the alkaline plots with manganese sulfate resulted in restoration of color. (Laurie.)—From *"Horticulture"* at the Ohio Agricultural Experiment Station.

AGERATUMS

LILLESAND E. LEANDER
Cambridge

AMONG the blue flowers that bloom in our gardens, the Ageratum stands out as the long-flowering annual, being in bloom from early summer 'til frost. Our grandmothers called them the "Ladies' Paintbrush", a fitting name, for the little florets are indeed downy and fuzzy. The rain does not seem to spoil them and the modest little flower has a delightful fragrance. They are especially valuable for window boxes and for edging.

Blue Perfection is an old favorite. It grows about nine inches tall and is the darkest blue. Purple Perfection grows twice as tall and the shade is a reddish-purple.

Little Dorret white and *Little Dorret blue* grows only six inches high and are charming when planted alternately.

Princess is sky-blue with white center.

Little Blue Star is a popular florists' variety. It has tiny bushes four or five inches high densely covered with bright blue flowers. The latest introduction is *Blue Cap.* The flowers are larger than Little Blue Star and the color is a richer blue. The foliage is small and the plants look like miniature domes.

Sow Ageratum inside about March 1st. Prick the seedlings into flats as soon as they are large enough to handle and transplant to the open in May. Can also be sown where they are to remain for late bloom. For color contrast plant the miniature Tagetes beside the dark blue Ageratums. For a bouquet, the foliage of silver king Artemisia with rich blue Ageratums make a fine combination.

For a table centerpiece a yellow bowl arranged with dark and light Ageratums makes a pleasing picture.

TOM THUMB DAHLIAS

LILLESAND E. LEANDER
Cambridge

I HAVE grown dahlias nearly as large as a cabbage, but, frankly, in attaining large size we lose some of the grace and beauty found in the smaller varieties. There is something dainty about the dwarf dahlias, and they are very useful for table decoration and artistic effects. There are at least three strains that are noted for their profusion of bloom, the Coltness, the unwins and the orchid flowering.

In the Coltness strain brilliant reds, oranges and yellows predominate. Among the Unwins are some pretty pink, mauve and rose sorts. Both of these kinds are single, or semi-double, and have rather flat petals. The orchid flowering have petals that are attractively twisted and curled and have a great variation of color.

All are easily grown from seed. If you sow the seed in flats inside about April 1st you can have them blooming in July. Or, if you sow them outside early in May they will bloom from the last of August 'til frost.

Trim the plants back a little, and they will make wonderful sturdy bushes with dark green foliage, literally covered with blossoms.

They make splendid bedding plants, with plenty color for the later part of the summer.

NEW DWARF HYBRID ASTERS

IF YOUR nurseryman were to tell you of a Michaelmas daisy growing from 6 to 12 inches high, covered with lilac-pink or lavender-blue flowers from August to October, you surely would be interested, for all gardeners are looking for something in these colors, dwarf in habit, to take the place of the early aubrietia and summer campanula during the late summer and fall.

At least three varieties of these new dwarf hybrid asters may be obtained in this country now. They are similar in habit to that of Aster novi-belgi except for their height. They are of strong and vigorous growth and of easier culture, and are valuable for edging or grouping in front of borders as well as being charming when planted in clumps in the Alpine or rock garden.

Nancy is one of the intermediates, growing about nine inches high, and has light lavender-pink flowers. Ronald is one of the tallest, growing about 12 inches high, with flowers of a deeper shade of lavender-pink. Victor, the most dwarf of all, does not grow more than six inches high. The flowers, which are as large as those of Nancy or Ronald, are lavender-blue. Early spring planting is recommended for these hybrids.—*Fred J. Borsch, Maplewood, Oregon, in Horticulture.*

STARLINGS

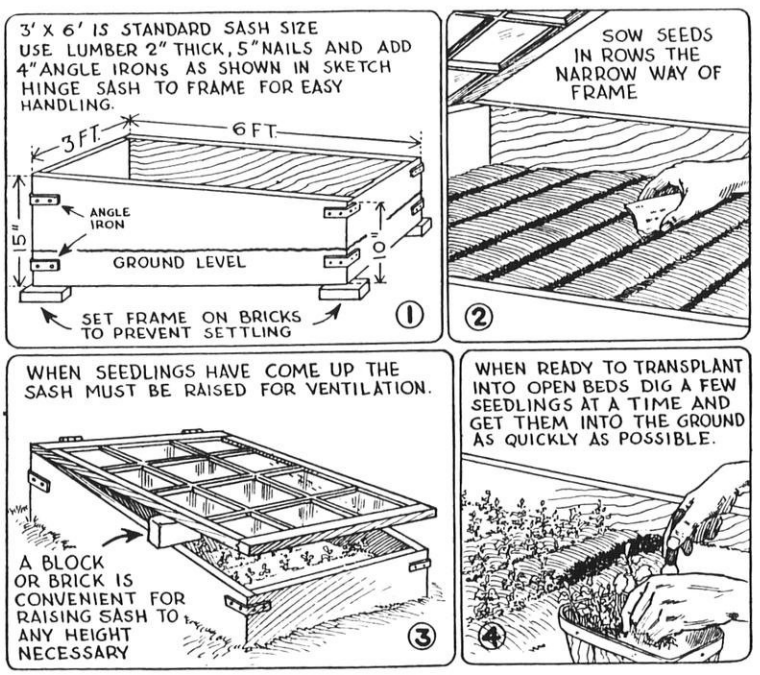
CONTROL of Starlings and Robins by a state appropriation was asked for in a recent meeting of the New York State Fruit Testing Association. It was stated that while Starlings have some good points, during the cherry and grape season the huge flock that has increased very rapidly in the past years have proved a menace to these crops. They also attack apples and pears as well as spotting grains. Moreover, they are driving out more useful native birds notably blue birds, martins, flicker and meadow lark.

A PLANT THAT LOOKS LIKE A ROCK

SUCH a plant is described in the Missouri Botanical Gardens Bulletin of December. It belongs to a group properly called Mimic Plant. The leaves of the plant in this group resemble broken rock fragments so strikingly that when the plants are on exhibition they were literally "touched" to death, as very few people could resist the temptation to convince themselves that they were truly living plants.

Probably the most striking of all the stone-like Mesembryanthema, says the bulletin, is Pleiostilos simulans, aptly named for its simulating stones among which it grows.

How to Make a Hot Bed



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The drought of 1934 does not mark a permanent change in the climate of this country. On the contrary, records indicate that present precipitation conditions in the Northwest are only what may naturally be expected to recur at intervals of 30 or 40 years. —J. B. KINCER, *Weather Bureau.*

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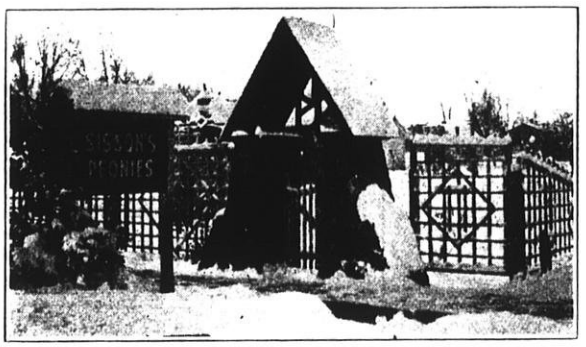

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Fig. 1 Fig. 2 Fig. 3

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The Wisconsin Garden Club Federation

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OUR PROGRAM
3. Greater publicity for Wisconsin grown fruits and vegetables.
4. A constantly improving magazine for the distribution of timely horticultural information.
5. Organization of local horticultural clubs in all sections of the state.

Do Some Grafting This Spring

IN APRIL, 1934 we sent out almost 3,000 cions of the newer varieties of apples and plums to 110 of our members for topworking. This shows that there is a tremendous interest in grafting, and also in testing new varieties of fruits.

The illustrations shown this month are from photographs received through the courtesy of the New York Experiment Station, and explain in detail how the work should be done.

How to Make Cuts

The cuts on both the cion and the stock should be made at the same angle. It should be about 1½ inches long. The cuts as shown in A and B of Figure 1 should also be made in the same position and at the same angle so they will fit tightly. It is well to experiment on waste branches of about the same diameter before making the actual cuts.

The union must be wound around tightly with twine, tape or wax cloth strips and then thoroughly waxed or paraffined. The paraffine used should be of a low melting point so that it will not crack off. High melting point wax is very brittle.

A good knife for this purpose is one made with a razor blade. The handle can be purchased. If a pocket knife is used it must be very sharp.

Electrician's rubber tape has been used successfully by quite a number of our growers, especially on small grafts where the cion is short. If the cion is large and long it is liable to be dislodged or bent by winds or storms as the rubber tape will stretch.

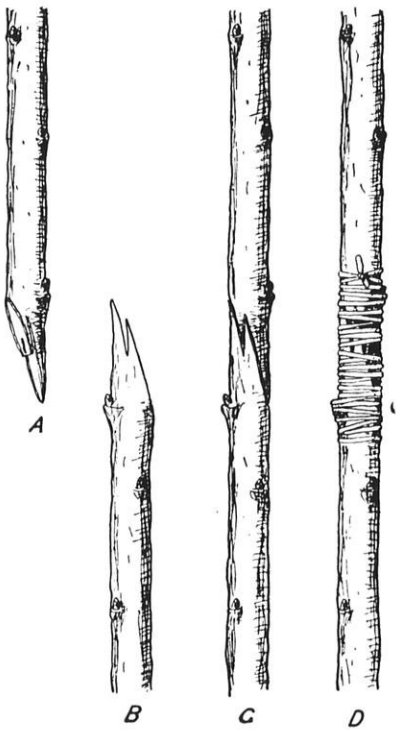

Fig. 1. Whip Grafting.

In waxing or using paraffine, wax the entire cion and an inch or two below the union.

In all cases the cions must be perfectly dormant. If growth has started, success is less certain.

Bridge Grafting

In case of injury from rabbits or mice, bridge grafting may be done as shown in Figure 2. If the injury extends to the roots the earth must be removed to the base of the tree, and the larger root until sound bark is uncovered. A slit is made in the bark both above and below the wound, and the edges of the slits loosened.

The cion should be cut two or three inches longer than the space to be bridged, and when the space to be covered is more than 12 inches, cions should be long enough to stand out an inch from the trunk when in place. It is well to drive a small brad through the end of each cion which, however, must not be split in the operation.

Cions should be inserted at intervals of about two inches around the injured surface, and care should be taken to have some cions directly under the main branches of the tree. If the tree is so small as to wave in the wind it should be tied firmly to a strong stake.

It may be well to paint the injured part of the tree with shellac to prevent drying out and infection.

Balancing the Budget

Father (to son who has returned home after finishing his college course): "Well, my son, have you any debts?"

Son: "No, father, no debts which you will not be able to pay with diligence, economy, and stern self-denial."

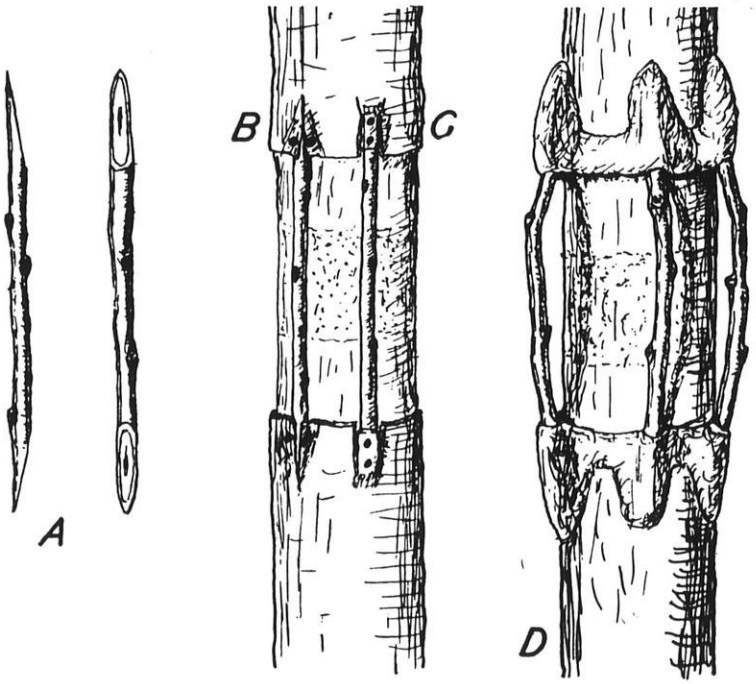

Fig. 2. Bridge Grafting will save trees and is easily done.

Results of Twenty-five Years of Orchard Fertilization

AFTER twenty-five years of experiments in Pennsylvania, Prof. F. N. Fagen has arrived at some interesting conclusions on the fertility program to be used in orchards.

Clean cultivation of the orchard during the early summer followed by a non-legume cover crop without fertilization will not maintain sufficient organic material to keep the soil in a satisfactory condition during the productive life in an orchard. In Pennsylvania it is recommended that the cover crop whether it be legume or non-legume be sown June 1. This early seeding does not have any bad effects upon the trees.

Sod rotations should be of the short type if the orchard is being fertilized with nitrate or a complete fertilizer. Permanent sod orchards which are fertilized with nitrate or complete fertilizer will become so heavy with sod in time that the plant food will not reach the tree roots and the sod will use it all. Sods which are broken occasionally increase the organic matter in the soil to a great extent and benefit the water holding capacity of the soil.

In orchards which are kept under cultivation during the early years of the orchard, it is important that cover crops be seeded early enough each year to secure heavy stands of material which may be incorporated into the soil the next spring. By seeding about June 1st the cultivation costs are cut to a minimum and it is possible to grow such legumes as sweet clover or crimson clover along with millets, buckwheat, or sudan grass. This system will keep up the organic matter in the soil.

A system of fertilization to benefit the cover crop is just as important as fertilization for the tree alone. Most cover crops will respond to a fertilization using either nitrate alone or a complete fertilizer.

It is perfectly possible to develop by the use of nitrate or a complete fertilizer in a sod orchard where blue grass is the predominating crop, a sod so vigorous that it makes it impossible for plant food to reach the roots of the tree. If such sods are broken by plowing or discing and a short period of cultivation given one season the organic matter in the soil will be increased, leading to the conclusions that short sod rotations are one way of keeping a liberal supply of organic matter in the soil.—*(Bulletin 294, Twenty-Five Years of Orchard Soil Fertility Experiments. Pennsylvania Experiment Station).*

APPLE TREES PRODUCING POOR-QUALITY FRUIT SHOULD BE ELIMINATED

THERE are thousands of trees located on sites and soils unsuited to the growing of apples. These trees have been a source of disappointment and financial worry to their owners. They have acted as a millstone around the neck of the apple industry. The poultryman doesn't hesitate to wring the necks of the old biddies that are forever clucking instead of cackling. The time has come when apple growers must eliminate the trees that are producers of poor-quality fruit and are not consistent performers.—*A. H. Teske, Extension Horticulturist, in "Virginia Fruit."*

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Shall We Spray For Apple Aphids

John H. Lilly

OBSERVATIONS made by the writer have disclosed the presence of great numbers of aphid eggs in various Door County apple orchards. They are tiny, black, shiny, elliptical bodies which are scattered about on the rougher bark of the smaller branches and twigs.

Three Species of Aphids

Three species of apple aphids are known to lay their eggs in these situations and the eggs are all so much alike that they cannot be distinguished from one another. The first of these is commonly known as the green apple aphid. Unlike the other two, it spends its entire life cycle on the apple, feeding there throughout the summer. The second and perhaps most serious of the three is the rosy apple aphid. It starts hatching in early spring and feeds on the apple until June when most of the population migrates to the narrow-leaved plantain. Feeding and reproduction are continued here until fall, when it returns to the apple for egg laying.

The third member of this group is the apple-grain aphid. It overwinters on the apple in the egg state and feeds there for a short period after hatching in the spring. Quite early in the growing season, however, it migrates to various grasses and grains where it feeds during the remainder of the summer. In the fall it also returns to the apple for depositing its eggs. It is thus not a pest of importance on apples and is usually not considered harmful enough to warrant a spray treatment. In all probability this is the species to which the great bulk of this year's crop of eggs belong. This is the logical conclusion, since very few aphids were in evidence on these trees last season. In this connection, the injury caused by leafhoppers on apples should not be confused with that done by aphids.

Spray at Green Tip Stage

In view of the above considerations, a special spray for aphids is quite evidently not warranted in any of these orchards this spring and we do not anticipate such a recommendation. However, any grower who wishes to make such a treatment will probably find nicotine sulfate at the rate of one gallon to 800 gallons of 1-40 lime sulfur spray to be the most satisfactory under Door County conditions. If this treatment is used it should be combined in the green tip spray, so as to hit the young nymphs before they are protected by the growing leaves.

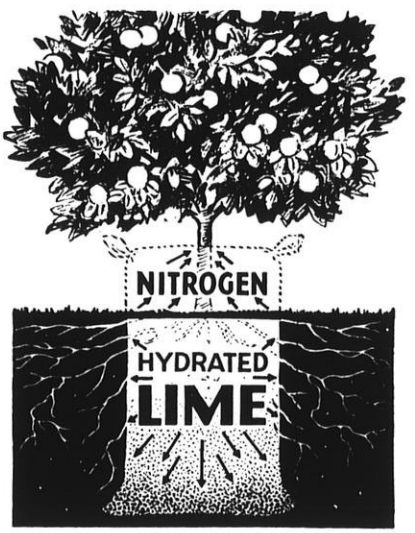
OVER A MILLION WORMS TRAPPED BY BANDS IN ONE ORCHARD

IF PROPERLY used on apple trees, treated codling-moth bands would save the Illinois fruit growers at least $25,000 to $50,000 a year in codling-moth damage and at the same time would reduce the expense of control.—Illinois Experiment Station.

Damage done by the codling-moth to Illinois' apple crop amounts to approximately a million dollars a year, and includes loss of fruit, lowered quality of fruit harvested, and the cost of control, the report states. It was found that an average of 75 to 80 percent of codling-moth worms passing the winter in an orchard can be trapped and killed under treated codling-moth bands. The bands can be made and applied at a cost of approximately 10 cents a tree, including the cost of scraping the tree, the bulletin adds. —*From American Hortigraphs and Agronomic Review.*

'AERO' CYANAMID

The Fruit Fertilizer



It FEEDS the Tree and LIMES the Soil

'AERO' CYANAMID

A non-leaching form of nitrogen
May be applied in fall, winter (in Southern States), or early spring, as one prefers

Feeds the tree throughout growing season
Produces dark green leaves and holds them on until fall (On sandy and shaly soils the supplemental use of potash is recommended)

Keeps the soil sweet and healthy
Destroys acids resulting from use of sprays and cover crops

Produces good terminal growth and fruit buds
Gives bigger yields of better-quality fruit

Write for Leaflet X-307, "Fertilizing Fruit with Granular 'Aero' Cyanamid"

AMERICAN CYANAMID COMPANY
30 ROCKEFELLER PLAZA—NEW YORK, N. Y.
779 VIRGINIA AVE., N. E.—ATLANTA, GA.

With Our Fruit Growers

CANVAS HOSE IRRIGATION USED IN OHIO ORCHARD

IRRIGATION equipment developed by C. E. Dutton, manager, was studied with special interest by more than 1,000 persons who visited the Ohio Orchard Company, Milford Center, Ohio, during the summer meeting of the Ohio State Horticultural Society, according to Professor F. H. Beach, secretary.

From a small beginning in 1930, the irrigation system is now developed to supply water to approximately 125 acres of orchard. The main irrigation plant is on the bank of Darby Creek, where a three-inch centrifugal pump is driven by a 1924 Reo Speed Wagon motor. This pump delivers about 400 gallons per minute when operated at 1900 R.P.M. A 6¼-inch pipe leaves this pump and divides into a network of about 9,000 feet of mains and laterals, varying in size down to about 2½ inches, which places the water on all high ground. Double outlets of 2-inch pipe nipples are taken off as necessary to spread the water through sprinkle hose, which is constructed of water-proof canvas 2½ inches in diameter. At intervals of 2 feet, shoe eyelets have been placed in the hose to give alternating jets of water. This places the water uniformly over a considerable lateral distance on each side of the hose. Where considerable pressure has been used, these jets have delivered water up to 20 feet on each side of the hose.

Irrigation, says Professor Beach, is responsible for the present splendid vigor of this orchard which, otherwise, would have experienced a devastating drouth this past summer.—*From American Hortigraphs and Agronomic Review.*

JEFFERSON COUNTY GROWERS MEET

C. P. KRIPPNER
Secretary

THE Jefferson County Fruit Grower's Association held its annual meeting March 8th at Fort Atkinson. It was a full day's program with a very good attendance of 150. High school students from the Agricultural courses of both Lake Mills and Fort Atkinson attended parts of the meetings.

Mr. H. J. Rahmlow, Mr. C. L. Kuehner and Mr. C. L. Fluke gave very good talks during the program. Much interest was aroused when Mr. Rahmlow told about the new English walnuts, and he went back to Madison with $14.00 worth of orders for trial lots.

Control of the codling moth was discussed by Mr. Fluke, and Mr. Kuehner told us what care should be given orchards in 1935.

An ample luncheon was served by some of the wives of the members.

The officers were re-elected for the coming year. They are: Wm. Leonard, President, Wm. Boese, Vice-president, C. P. Krippner, Secretary-Treasurer.

BEST POLLINATORS FOR MINNESOTA PLUMS

THE best pollinators for varieties like Underwood, Monitor, Red Wing and Superior are some of the old time natives like Surprise, De Soto, Wyant, and some of the others. Kaga and Hanska are also good pollinizers for these varieties but do not quite equal the native varieties. Kaga and Hanska are both better adapted for pollinators of Superior than are the natives because the Superior blooms a little too early sometimes for the native plums.

THE FRUIT GROWERS FORUM

Comments on Varieties by Minnesota Fruit Growers, in The Minnesota Fruit Grower

RASPBERRIES

A. B. Coleman of Aitkin says that the Chief raspberry is a better shipper than Latham. He finds this variety has a much better quality on light soils than on heavy soils. Chief was 10 to 12 days earlier than Latham in the Aitkin district last season. At Deerwood picking of Chief started on June 27th.

STRAWBERRIES

A. M. Harmer of Menomonie, Wisconsin, writes: "We set out last spring 200 to 300 more plants of Champion everbearing strawberries than we did of Wayzata. The Champions made a lot of plants—the Wayzata made only a few, but looking over our records we find that *we sold Wayzata for just twice the amount* that we did of the Champions. We like Wayzata —the stores like these berries—and they sell."

CURRANTS

Fred Blomberg of Deerwood, says Minn. No. 70 currant is the best currant he has ever seen. He has several plants of this new variety, and reports the fruit is very large, very sweet and has a mild flavor.

PLUMS

A. E. Lund of Hopkins says that the Red Wing plum does not sell well on roadside stands.

Fred Haralson says that Tonka and Monitor have been the most profitable plums at the Fruit Breeding Farm.

PEARS

F. M. Schwab writes "I think the Douglas pear is the coming pear for Minnesota. It is perfectly hardy, an early and heavy

bearer of good size and quality fruit which keeps long. Our Douglas have fruited for five years."

Oscar Sorby of Montevideo tells us he has a six year old tree of the Parker pear that produced 175 to 180 fruits in 1934.

FIRE BLIGHT AND BEES

ABOUT a year ago, N. R. Rosen, of Arkansas reported that cultures taken from honey and comb, brood cells and pollen cells throughout the summer, winter and even in the spring, before fire-blight appeared on trees, showed that fire blight organisms survived in bee hives, and could be carried over by bees. Naturally, such news caused comment from growers and beekeepers.

Fire blight is a bacterial disease. Its development depends upon weather conditions during the following blossom period. It is spread by insects, splashing rains and even by birds. It does not develop every year. Bees are no doubt the cause of some of its spread.

Nobody came forward to plead the case of the bee, accused of harboring blight in the bee hive, although a statement was made that bacteria could not survive on a medium like honey.

In the 1934 Proceedings of the Ohio State Horticultural Society, Dr. A. L. Pierstorff, Extension Pathologist of Ohio State University reports some interesting experiments with bees and fire blight, using various commercial orchards for the tests.

No Cause for Worry

Briefly, the results seemed to show that it is very difficult to get much infection on blossoms even where the hives were heavily inoculated with fire blight. Fire blight organisms were found on bees only 2 days after the hive was inoculated. The organism lived 5 to 11 days on honey in the laboratory. The organism could not be found in the hives, one day after inoculation. It appears, then, that growers and beekeepers have little need to worry about bees keeping fire blight around the hive, to carry to the blossoms. They will carry blight from blossom to blossom, but so will any other insect that happens to get some of the infection on its feet from a blighted blossom, or an oozing canker. We must have the bees in order to have fruit, even if blight is a part of the price to pay.—*From the Maryland Fruit Grower.*

Orchard RESULTS Prove its Killing Power

Intensified commercial use has confirmed its increased toxicity and quicker kill. Letters from hundreds of growers, everywhere, report conclusive evidence of consistently better control with

"Astringent"

ARSENATE OF LEAD

Thorough control of the first brood will be vitally important this year, to lessen the second and third brood menace and to cut down late season cover sprays. You need "Astringent" Arsenate of Lead this year. It costs no more.

Arsenate of Lead
Calcium Arsenate
Arsenite of Zinc
Zinc Arsenical (Late Covers)
Paris Green
Bordeaux Mixture
"Dritomic" Sulphur
"Apple Dritomic" Sulphur
Paradichlorobenzene
Nicotine Sulphate (40% Nicotine)
X-13 (Pyrethrum Extract)
Fungi (Sulphur) Dust
90/10, 85/15 and other Sulphur-Arsenical Dusts
Bordeaux-Arsenical Dust
Copper Lime Dusts
Rotenone Dust

ORCHARD BRAND
REG. U.S. PAT. OFF.
SPRAYS AND DUSTS
REG. U.S. PAT. OFF.

GENERAL CHEMICAL CO ...40 Rector St., New York
also: ATLANTA, BALTIMORE, BOSTON, BUFFALO, CHARLOTTE, CHICAGO, CLEVELAND, DENVER, KANSAS CITY, LOS ANGELES, MINNEAPOLIS, MONTEZUMA (GA.) PHILADELPHIA, PITTSBURGH, PROVIDENCE, SAN FRANCISCO, SEATTLE, ST. LOUIS

Please send me a copy of the new edition of "Cash Crops."

NAME and ADDRESS

1935 . . A STILL BIGGER YEAR FOR "ASTRINGENT" LEAD!

The Plum Curculio a Pest of Apples

C. L. Fluke

THIS insect, unlike its close relative the apple curculio, is quite readily kept in check by the orchardist who practices a regular spray program. The two sprays that are most effective against it are the calyx and so-called ten-day sprays. Lead arsenate at the rate of one pound to fifty gallons of spray is usually effective.

In old orchards that have been neglected for a number of years this insect will often infest every fruit with its punctures made for feeding and egg laying, causing much of the fruit to drop prematurely and so distorting that which remains that it is unfit for use.

Pick Up Drops

The first year or two that spraying is started to check it should be augmented by picking up once a week, during the early part of the season, all drops. This must be done quite regularly during June and the early part of July as the curculio grubs in these apples leave the fruit after the grubs are mature to enter the soil where pupation and change to the adult beetle takes place.

A Native

The plum curculio is a native insect whose original food was the fruit of wild plum and hawthorn. It occurs only in the more humid sections of the eastern United States and Canada. It is particularly a pest of stone fruits in the south, especially on peaches.

The insect winters in the adult stage. It is a small, rough looking snout beetle and lays its eggs just under the skin of the fruit. The egg puncture is readily recognized by the crescent shaped cut made just in front of the hole made for the reception of the egg. This cut prevents the growing tissue of the fruit from crushing the fragile egg or young grub. Often cuts are made and no eggs are laid—this causes a rough area on the fruit and if it does not drop this area develops later into an elevated rough triangular spot. The feeding punctures are more circular in outline and some of them may cause pits to form in the fruit.

One female is capable of laying as many as 100 to 400 eggs but fortunately many of these fail to hatch. Punctures on stone fruits causes a characteristic exudate of gum to appear on the fruit particularly during the latter part of the summer.

FRUIT GROWERS

We sell all the new Minnesota apples, plums and pears.

New and old varieties of strawberry plants.

Shrubbery, ornamental trees and evergreens.

Send for our free catalog

The Minnesota Fruit Growers Service Co.

J. D. Winter, Sec.

786 Eustis Street St. Paul, Minnesota

The Growers Market

STRAWBERRY PLANTS

STRAWBERRY PLANTS. Heavily mulched and state inspected. Beavers. Only a limited number. First orders will be filled first. Also a few mosaic free *Latham Raspberry plants*. John Jensen, Warrens, Wis.

STRAWBERRY PLANTS for sale: Beaver, Dunlap and Champion Everbearing. Good plants. Alfred Isaacson, Menomonie, Wis., R. 3.

BEAVER STRAWBERRY PLANTS. I expect to have the best plants I have ever had for sale this spring. Write for prices. Victor F. Orchard, Warrens, Wis.

LATHAM RASPBERRY PLANTS

20,000 Latham Red Raspberry Plants. State Inspected, free from disease. Good roots. ¼ inch diameter cane cut 18 inches long. Tennis Ostrem Nursery, Viroqua, Wisconsin.

STRAWBERRY PLANTS

STRAWBERRY PLANTS packed to arrive healthy. Beaver, (early) Aberdeen, (medium late) Reynolds, (very late) and Progressive everbearing. Mrs. C. W. Reynolds & Son, Tomah, Wis.

EVERBEARING STRAWBERRIES

WAYZATA Everbearing Strawberry. Proven to be the outstanding everbearer for market gardener and home use. A full crop first year. Write for price list. Braden Brothers, Wayzata, Minnesota.

How We Grow Strawberries

H. H. Harris

IF OUR strawberry plants were well covered with marsh hay or straw the first thing to do this spring is to go over the field before any growth starts and look for any piles of mulching which may have been piled up by the wind, and redistribute it, before the heavy cover smothers the plants.

Here at Warrens the ground has been covered so deep with snow all winter that there probably is not much frost in the ground. Growth may start soon after the snow is gone and the sun warms the ground. Watch to see whether this new growth bleaches or whitens, and if so, rake the covering from the row, into the spaces between. A little sprinkling of mulch left on the row will help keep the balance in place and the plants will grow through.

For Digging Plants

Where we intend to dig plants for our new setting we rake the entire covering off so the ground will get in shape to dig the plants, which we like to do as early as possible.

For Setting New Plants

Now as to our new setting in 1935. The ground was plowed last fall and is full of humus and was well cultivated last summer. Then this spring as early as the ground is in condition it should be thoroughly fined with disc or spring tooth harrow, smoothed with fine tooth harrow or corrugated roller. When well fined it is marked.

A Good Marker

We mark our strawberry field with a light marker with four runners. The center is like a little hand sled with a tongue to draw it by. The outside runners are attached to this sled-like center by two light strips of wood and two strap hinges for each runner. The runners are spaced four feet apart. The marker is made of light enough material so a man can easily draw it on ground that is fitted as it should be. In marking the field use three or four stakes as guides. A light ten foot pole is laid on the marker and the stakes moved in line for the return trip as they are passed.

Planting Distances

We set Premier two feet apart every alternate coming in the mark. Beavers, Dunlaps and other rank runners we plant 32 inches apart (if our plants are as good as we hope they are) as a plant comes in every alternate mark it is quite easy to keep them equally spaced.

Like Beavers

For our locality the Beaver will be planted more extensively for market than any other variety the coming season. It is not liked quite as well as the Premier or Dunlap for fresh fruit on the home table, but is a better berry for long shipment than either of the other two mentioned.

Setting Plants

Setting is done mostly by two men working together. One makes an opening with a spade at a slight angle and then pressing the handle forward. The other man places a plant in the opening with the roots well spread out, with the crown even with the surface of the ground. Then the spade is withdrawn by lifting it straight out and pressing the soil firmly against the roots of the plant with the foot.

Cultivating

As soon as the planting is done we start cultivating between the rows with a fine tooth cultivator. I like to follow this with a hand garden rake be-

(Continued on page 195)

For the Best Results Use

DOW INSECTICIDES

The money you get from your crops depends as much on the quality of insecticides used as on any other factor. No matter what you grow, you cannot afford to experiment with inferior sprays and dusting materials.

DOW LEAD ARSENATE

Most leading growers demand Dow Lead Arsenate because they know it is dependable and their best assurance against Codling Moth. Uniform coverage, superior suspension, thus better protection, are gained from using Dow Arsenate of Lead.

DOW DRY LIME SULPHUR

This fine powder mixes readily in cold water, will not burn foliage, or cause fruit to russet. Dow Dry Lime Sulphur is clean and easy to handle, conveniently packed and may be stored without deterioration.

DOW SPRAY MATERIALS ARE

Paris Green
Calcium Arsenate
Bordow
Special Potato Spray
Dowco

THE DOW CHEMICAL COMPANY
MIDLAND MICHIGAN

TRADE DOW MARK

Horticultural News

A. F. Yeager
North Dakota

After comparing them side-by-side this year, it is evident that the Winter Sweet watermelon introduced from here is different than the Northern Sweet from Minnesota Experiment Station. Winter Sweet is more nearly round and keeps better. The color and quality are much the same.

Dr. Chupp of Ithaca, New York, says that the seed of cabbage and related plants should all be treated with hot water, 122 degrees Fahrenheit for 20 to 25 minutes.

Dean Watts in the "Market Growers' Journal" says that the banana teaches a good lesson on cooperation because every time one leaves the bunch it gets skinned.

Within the past two years the mysterious vitamin C has been identified, its chemical nature determined and it has been produced synthetically in the laboratory.

In studying the hibernating habits of insects, F. B. Keen of the U. S. D. A. found that where very low temperatures occurred in winter time, one half inch below the bark on a pine tree was eight degrees warmer than air temperature. One-inch bark made a difference of 18 to 21 degrees and two inches, a difference of 29 degrees. Hence, insects are liable to live over in a tree trunk which could not do so outside.

H. P. Dorner of the Illinois University reports that tests showed large flowered chrysanthemums kept longer where the stems are broken rather than cut.

A new and perhaps better, insecticide which can be used in controlling plant lice is called Anabasin. This material was discovered in Russia and the United States at about the same time. In America it was produced synthetically whereas in Russia it was extracted from a weed.

R. C. Wright of the Bureau of Plant Industry in Department Circular 415 reports that a bushel crate of onions stored at a temperature of 22 degrees Fahrenheit or 10 degrees below freezing for 24 hours showed no injury. Even after five days of such exposure only 23 percent were injured. Whereas onions spread out at the same temperature for 24 hours showed 20 percent injury. He states that onions should not be moved or handled roughly when cooled to temperatures below their freezing point, namely, 30 degrees Fahrenheit. If they are, immediate freezing may result. Cooling below the freezing point without actually freezing a product is called under-cooling.

If you do not have a wire or glass holder for your cut flowers it is possible to use a potato which is cut so as to hold the flowers in position.

A. H. Teske of Virginia says it requires 24 to 36 pounds of food to keep a mouse a year, which means that one mouse working around your apple trees may do a great deal of damage before spring. Take a look.

Violet G. Jeffrey in "Gardening Illustrated" reports that potassium permanganate used at the rate of one teaspoon to 1½ gallons of water used in watering plants will kill slugs.

The following quick treatment for potatoes is recommended by the University of Minnesota. Add six ounces of mercuric chloride to one quart of hydrochloric acid. Pour this mixture into 25 gallons of water, in a wooden barrel or concrete tank. Dip the potatoes in the solution five minutes. Use a wooden crate or wire basket thoroughly painted with asphaltum paint for the process. This is enough to treat 40 to 50 bushels of potatoes. Do not store the treated potatoes while they are wet.

The Washington Experiment Station reports that 7 percent of the food value of potatoes is lost when they are boiled after peeling.

W. O. Ball of the California Department of Agriculture is reported in "Science" to have been able to kill plants by bending over the tops into a jar containing a weak solution of arsenic. The poison is absorbed into the plant and carried into the root system, killing not only the plant treated, but others which grow from the same root system. The solution used is one percent sodium arsenate.

Starring in Montana Bulletin 292 says that the running to seed of celery appears to be mainly due to long exposure of transplants, to temperatures below 60 degrees Fahrenheit. Translated into practice, it is much better to start celery plants a bit later and keep them growing rapidly than to start them too soon and then try to hold them back by keeping them cool.—*From February '35 North and South Dakota Horticulture.*

Strawberries PAY

50 years' experience behind our 1935 Berry-Book. It will help you. It describes Fairfax, Dorsett, Catskill, etc. New and Better Varieties and tells How to Grow Them. Valuable both to the Experienced and beginners. Your Copy is Ready. Write today.

The W. F. ALLEN CO.
349 Market St. Salisbury, Md.

NEW GARDEN HANDBOOKS

A SERIES of ten new Garden Handbooks have just arrived from Doubleday–Doran Company, Garden City, New York. They are priced at only 50¢ each or three books for $1.25. They are valuable because each covers a garden topic quite completely. The titles are:

1. Gardening for the Small Place.
2. Rock Gardening for the Small Place.
3. How to Make Garden Pools.
4. How to Plan the Home Landscape.
5. How to Grow Spring Flowers From Bulbs.
6. Trees and Shrubs for the Small Place.
7. How to Grow Annual Flowers.
8. How to Grow Lilies in the Garden.
9. How to Grow Delphinium.
10. How to Grow Vegetables and Berries.

Each book is written by an expert. The books may be purchased by writing the Wisconsin Horticultural Society, 1532 University Avenue, Madison. They will be sent postpaid. We recommend them highly for the garden library.

Caller: "And how is your dear little boy? I remember he used to be so fond of apples."

Mother: "Yes, he was, but lately he seems to be much more interested in peaches and dates."

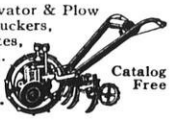
SEEDS—SEEDLINGS

Tree and shrubs seeds; seedlings and small transplants. Nurserymen write American Forestry Company, Pembine, Wisconsin.

KINKADE GARDEN TRACTOR

and Power Lawnmowing Attachments

A Practical, Proven Power Cultivator & Plow for Gardeners, Fruit Growers, Truckers, Florists, Nurserymen, Suburbanites, Country Estates and Poultrymen.



Catalog Free

Low Prices - Easy Terms

AMERICAN FARM MACHINE CO.

1085 33rd Ave. S. E. Minneapolis, Minn.

HOW WE GROW STRAWBERRIES

(Continued from page 193)

tween the plants in the row. Care should be taken not to work too deep near the plant as most of the roots are quite near the surface. It is estimated that three-fourths of the roots are in the upper three inches of soil after the plant has grown new feeder rootlets.

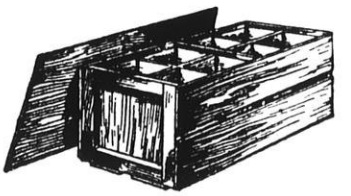
I would much rather hoe a field two or three times to keep ahead of the weeds and keep the surface of the ground mellow, than once after the weeds get rooted and the soil baked.

She: "What will men wear this spring?"

Husband: "The clothes they bought in 1928."

"Were you fooling with the stock market?"

"Not me. I was serious. The stock market did the fooling."



Berry Boxes and Crates

Either made up or in the K. D. American Quart Berry Baskets, Climax Grape and Peach Baskets, Till or Repacking Baskets, Plant Boxes and Veneer Tree Protectors. Circular and Price List mailed upon request. Special liberal discounts on early orders.

Write for special prices on carload lots.

SHEBOYGAN FRUIT BOX COMPANY

Sheboygan, Wis.

NIAGARA KOLOFOG, a non-caustic sulphur spray material developed expressly for growers who desire control without injury.

KOLOFOG plus *Niagara Arsenate of Lead* is the ideal combination for Calyx application. Kolofog sticks better and remains on fruit and foliage longer than any other Sulphur spray, therefore when combined with Lead Arsenate retains the killing dose longer, and as a result better control of chewing insects.

KOLOFOG combined with Black Leaf 40 offers a non-poisonous control program for late season applications. Better finish, greater production, and more number one apples in Kolofog sprayed orchards.

See your NIAGARA DEALER or write direct to

WHEN YOU BUY Niagara YOU BUY PROTECTION

Niagara Sprayer and Chemical Co., Inc.

J. Henry Smith, Sales Representative

Waupaca, Wisconsin

Milwaukee Distributors

Fertilizer Chemical Mills, Inc.

400 So. 7th St. Milwaukee, Wis.

EDITORIALS

HARDY ENGLISH WALNUTS AVAILABLE

THE Rev. P. C. Crath of Toronto, Canada, who made a special trip to Poland has returned with importations of hardy English walnuts from the Carpathian Mountain regions. He has selected a number of very fine quality nuts picked from old trees high up on the mountains where temperatures drop to 40 degrees below zero. Everything has been done to preserve the fertility of these nuts, according to Rev. Crath. They were picked at the end of the growing season, dried slowly in the sun and shipped to Toronto.

Have Thin Shell

The nuts were selected from over 40 different trees covering the following points—good flavor, thinness of shell, hardiness, abundance of crop, and fullness of kernel. With proper care, trees should produce nuts the sixth year after planting, according to Rev. Crath. These walnuts should be planted in the spring and are now available for distribution.

Prices

There are five sizes of nuts. Size No. 1 is larger than those commonly found on the market for the Christmas trade and called "Ornamental Xmas Nut". The price of this is 50¢ each. No. 2 is about the size of the nuts found on the market, has a thin shell and good flavor, and is 35¢ each. Size No. 3 is a commercial nut with thin shell and good flavor and sells at 25¢ each. Size No. 4 is hard shelled, an abundant bearer, price, 2 for 25¢. No. 5 is a mixture of a

number of varieties, shapes and sizes and are 3 for 25¢.

Order at Once

The Wisconsin Horticultural Society will pay 5¢ towards the price of each of these nuts for members who wish to try them out. Orders should reach us by return mail as the planting time is here. A large number of them have already been ordered by growers to whom the editor was able to bring the message at recent meetings. The nuts will be mailed to members from this office with instructions for planting. They should be soaked and then planted about 2½ inches deep in good soil and kept well watered. They should make a growth from 12 to 18 inches the first season, and thereafter should grow very rapidly, from three to four feet after the second year.

Here is an opportunity for our plant testers to try something new. The cost of the nuts is high because the friends of Rev. Crath who are handling these nuts wish to obtain funds enough to pay for his expenses in making the trip and collecting the nuts.

"I HAVE A SON—I WANT HIM TO BE A FARMER"

I HAVE a son now less than two years old, and I hope when he grows up that he will decide to be a farmer. There are five reasons why I want him to be a farmer:

A farmer has more to eat than have most people who live in cities.

He has better health and lives longer.

He accumulates more property—becomes a wealthier man.

He is more likely to enjoy his work.

He is more likely to rear a family, and do his part to promote the future welfare of the Nation and the world.—*Dr. O. E. Baker, before a group of farm boys and girls.—From American Hortigraphs and Agronomic Review.*

HONOR ROLL OF DAHLIA VARIETIES

THE following varieties won the first ten places in a recent vote of the Minnesota Dahlia Society.

Jane Cowl
Kathleen Norris
Monmouth Champion
Dwight W. Morrow
Jersey's Beacon
Jersey Beauty
Sultan of Hillcrest
Commodore
Buckeye Bride
Fort Monmouth

—*From the Minnesota Horticulturist.*

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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Vol. XI APRIL, 1935 No. 4

Care of Bees in April

A. E. Wolkow

THE month of April is in more than one way a most severe test of the vitality of cellar as well as out-door wintered bees.

Not only are the bees aged and worn at that time of year, but weather conditions are usually most treacherous. One day will be bright and warm, and the next may be cold and disagreeable, so that whatever activity was started in the brood-nest during warm days, must be discontinued, and is entirely lost during prolonged cold spells.

If the bees haven't enough vitality to recover from such setbacks they will dwindle. In other words, the old bees die off faster than young ones hatch to take their place.

Give Some Protection

There is nothing the beekeeper can do about the weather, but he can provide protection from the cold winds and also have water nearby in a sheltered place, or as some believe, inside the hive. It can hardly be doubted that many bees are being lost trying to get water when the air is too cool for them to be outside.

Hives should be opened as little as possible during cool weather. But if any are found not flying when others are flying freely, an examination should be made right then and there and the hive removed if they are found dead, so as to eliminate all chance of robbing.

Stop the Robbers

To allow bees to rob the honey from hives, when the bees have died is bad practice, not only because of danger of spreading disease, but it also upsets the entire yard. It causes robbers to pry at every entrance in the yard in search of the loot, and incidentally discovering the weak ones, which are then in danger of being overpowered and also robbed out.

In May

In May the weather usually becomes more settled, and when Dandelion and friut trees begin to bloom it is time for the beekeeper to throw off his coat and get busy.

A thorough inspection should be given, noting especially the amount of stores in each colony which should never be allowed to get below ten pounds. Queens should be clipped at this time, if that is our practice. The quality of the combs surrounding the brood nest are important. They should be of the very best, so that the queen will readily occupy them in expanding the brood nest.

If the bees have been wintered in one story, it is now time to add another story. If the added combs contain a little honey, all the better, but they should be of the very best quality.

Seasons differ, and judgment must be used in giving additional room. A mild spring will advance the bees the same as it does plants, and an extracting super may be necessary before June.

NEWS ABOUT THE AMERICAN HONEY INSTITUTE

THE dates for National Honey Week have been set for November 10–16. An annual report is being printed which will include the new program.

Ninety-seven memberships were received during February amounting to $476.15.

The Florida Beekeepers Association sent in $100 as a membership, received from the proceeds of the sale of honey exhibited at the Tampa Fair.

California leads in the number of 5-year pledges beekeepers have made. Thirty-eight such pledges have been received. Illinois is second with 25, Wisconsin third with 7.

A number of beekeepers have pledged 60-lb. cans of honey.

Have you made your pledge?

INFORMATION WANTED

THE Wisconsin Beekeepers' Association is planning a summer convention to be held the latter part of July or first part of August. Wausau has been suggested as the location for the meetings. We would like our members to express their opinion in answer to these questions:

1. Would you prefer a one-day or two-day meeting?

2. What day of the week would you prefer? For instance, a Thursday or Friday, or a Friday and Saturday?

3. Shall we devote our time to meetings and discussions of beekeeping problems, or shall we give plenty of time to recreation and a picnic?

More Factors in Bee Disease Control

C. D. Adams
Chief Apiary Inspector

LAST month I made the statement that the American foul brood is easier to eradicate from the small yard and from the "let alone" beekeeper's yard than from the commercial yard. At beekeepers meetings we have heard many times the statement that if we could eliminate these two classes of beekeepers, the disease problem would be eliminated but every experienced inspector will take issue with this statement. If this were true several of the western mountain states would have no disease problems as practically all the bees in that section are in commercial apiaries. After talking with several of these beekeepers I have the impression that they take foul brood as a matter of course and do not ever expect to be entirely free of it. The man with a few colonies takes an entirely different view of the matter and is willing to take drastic methods to eradicate it. He does not have a large investment at stake and frequently does not pretend to know all there is to be known about bees. Consequently, he tells the inspector it is up to him to get rid of the disease with as little loss as possible. He seldom loses more than half his yard and is free of disease in two years at the most.

Who is to Blame

The so called "let alone" beekeeper whose main job is having swarms and leaving them alone ever after, is usually congood beekeeper for miles around.

After many years of experience in dealing with the best and the poorest of beekeepers, I have found that the box hive, cross comb, "let alone" beekeeper is the last one in the neighborhood to get foul brood in his yard and gets rid of it with the least expense of material and labor. Swapping experiences with inspectors from other states has confirmed this paradox. To us the answer is simple. His colonies are seldom strong. It is only the strong colonies that rob. When once in the yard the energetic beekeeper scatters it much faster than the bees do. He is continually opening hives in season and out of season without taking the necessary precautions. This starts robbing and, of course, the diseased colony is the first one to be robbed out. He then equalizes both honey and brood in his colonies by taking an empty super or comb from a weak colony and giving it to another. And lastly he reads our best bee journals and finds a new treatment in every number. If he does not try more than half of them, that is enough to put him out of the bee business. I read several of the bee journals published in America and get something worth while out of all of them but I actually believe some of our up-to-date beekeepers are put out of business by the journals that attempt to publish what they call both sides of the question of the treatment of foul brood. This is usually an individual opinion not backed up by scientific experiments. Both Federal and State governments have stopped advocating the so-called treatment for the disease and most of them have come out definitely for destruction of all diseased colonies until our scientist's find a better method.

WILD BEES CHOOSE EASTERLY ENTRANCE

HOW does a "wild" colony build its combs? A correspondent of Rheinische Bienenzeitung (August) states that beekeepers who are woodmen often find that the flight-hole faces east and the combs run north and south. This is said to be so for all parts of Germany. (We can hardly believe that the scout bees have an instinctive tendency to choose an easterly entrance. Its selection must therefore be due either to the greater ease of finding such an entrance during the morning hours, when the south-east sides of the trees are illuminated; or to subsequent elimination—by wet snow and freezing-up of the hole—when a northerly or westerly aspect is selected.)—*From The Bee World.*

W a n t e d — To run bees on shares in Dane or neighboring counties by an expert bee man. Write to Wisconsin Beekeeping, 1532 University Avenue, Madison.

PREMIUM FOR MEMBERSHIP DUES

THE Wisconsin Beekeepers' Association offers the following premiums for payment of membership dues, and a portion of the cost of the premium. The total cost is $1.75 for membership, magazine and a choice of one of the three following premiums:

B.B. Frame Bar Lock-Inspection without taking frames apart.

B.B. Pliers and Hive Tool Combined.

B.B. Scraper, for a quick and clean job. 5 Sharp scraping edges. Address Wisconsin Beekeepers' Association, P. O. Box 2020, University Station, Madison.

FOR SALE. Hershiser wax press in good condition, price $20.00. Also 5000 lbs. Basswood honey packed in 60 lb. cans, 7c. 1500 lbs. light amber honey, 6½¢. Joseph B. Hesseling, Potosi, Wis.

WIRED FRAMES

Wires will not rust or sag. Packed in flat. Easily assembled. Strong and p e r f e c t l y straight combs assured. Catalog and literature on request. A. E. Wolkow Co., Hartford, Wis.

A CURE FOR ROBBING

A CURE for robbing, according to Neue Bienenzeitung, October, is to sprinkle cinnamon thickly around the entrance of the robbed colony. The robbing will soon cease. It is added that this presumably works by causing the robbers to smell like strangers on their return home, with fatal results for them. The method should be useful to owners of out-apiaries, since cinnamon is easily carried and is ready for instant use when required.

(It seems to us that this, and the similar case of methyl salicylate, is not explicable offhand. Why can a forager drift with impunity into a strange stock when she is full of nectar, if a bee of the colony full of honey is attacked on account of a strange aroma adhering to her? Is it that the smell of fresh nectar overpowers the slight difference in odour between colonies of the same apiary, while the colony odour is unable to smother the powerful aroma of a substance not met with by bees under natural conditions, and therefore regarded by them with much more suspicion?)—*From the December Bee World.*

SAFE QUEEN INTRODUCTION

A METHOD of queen introduction said to be 100% safe is the following (cited by Schweizerische Bienenzeitung from Bienenmutterchen). Take 3 or 4 combs well covered with bees out of the hive, remove the old queen, and make sure that there is not a second queen or a queen cell present. Lay the tube-cage with the new queen (one of wire gauze is presumably meant) on the floor of the hive (at the back), jar the bees off the 3 or 4 combs on to the cage, pull out the stopper and let bees and queen walk into the brood nest. Close the hive.

By jarring the bees off (not brushing them), they are caused to squirt aromatic substances. The new queen is well-sprinkled with the "colony" odour at once, and she is accepted without question in consequence.

Jarred bees (unless already cross) would presumably use their scent organs freely and not make any use of their stings or poison glands. Brushed bees, on the other hand, would protude their stings and squirt venom, and a warlike atmosphere would be created, to the serious danger of the queen.—*From The December Bee World.*

BEES NEED WATER

IN THE March issue of the American Bee Journal, A. G. Pastian of South Dakota, states: "I am convinced that more bees suffered for want of water than from starvation."

The writer gives this as his method for taking care of package bees.

"If I receive bees that are uneasy on arrival, I lay the cages on the side and sprinkle the bees with water or duck them into a boiler of lukewarm water. Then they are allowed to cluster before releasing. This avoids some of the drifting. The bees are more contented and do not rush out of the hive.

"Here is my usual way of releasing package bees: (1) Remove the retaining strips. (2) Lay cage on side. (3) Sprinkle with lukewarm water, outside if weather permits, otherwise in a building. (4) Remove feeder can holder. (5) Allow time for bees to cluster. (6) Remove feeder can and queen cage. (7) Cover the opening and look at the queen to make sure she is O.K. and remove the cover from the candy. (8) Place the queen on top of frames in hive in which package is to be installed with combs at one side and space at the other. (9) Dump wet bees into the hive with the entrance of the hive screened and some feed if the weather is cool and no nectar is coming in."

HONEY WANTED: Comb and extracted; all grades. Send samples and best price delivered Oconomowoc. C. W. Aeppler Company, Oconomowoc, Wisconsin.

RESISTANT STOCK NEEDED

MR. CHARLES MRAZ, Apiary Inspector of the state of Vermont, is an advocate of bee resistance for permanent results in American foulbrood control.

In the March issue of the American Bee Journal he makes this statement as part of his article entitled "Resistant Stock for Permanent Results."

"Bees resistant to American foulbrood are not so scarce as most beekeepers are inclined to believe, nor is there any need whatever of any long drawn-out experimenting to develop such a strain of bees. They already exist waiting to be used. In Europe, where bees have existed for centuries, American foulbrood is practically unknown. For what reason but that they are resistant to the disease?

"It must be noted I'm talking about resistant and not immune to American foulbrood. Almost all resistant bees can be made to get American foulbrood by inoculating with a heavy concentration of spores, as for instance by placing a badly diseased comb into the colony. Control of the disease needs only resistance sufficient to the amount of the spores ordinarily carried by bees in honey from diseased colonies. In most cases, honey from a diseased colony does not contain sufficient spores to cause the disease with fairly resistant strains of bees. All the different strains and races of bees vary widely in their resistance to American foulbrood. Some resist the disease far more strongly than others.

"The purpose of this article is not to expound a theory, but is based on facts gleaned from personal experience and experiments with American foulbrood resistance. These experiments have proved to me, requeening with American foulbrood resistant stock is the only practical treatment for *permanent* results, with American foulbrood as well as European foulbrood. You may not agree to this plan now, but you will later."

Bees in Good Condition This Spring

A. E. Wolkow

FROM all I have heard and seen so far, it appears as if bees have wintered fairly well, in cellars as well as out-doors.

I made a trip to my four yards the 2nd of March, for the purpose of removing snow from the entrances where it hadn't thawed away. We had had some heavy drifting, and some of the hives were under several feet of snow which I felt should be removed so the bees could take advantage of a few warm hours during the middle of the day.

I made the trip a few days later to see what evidence there was of activity at the entrances. I found that all but two of the 240 colonies had been flying and throwing out the dead. There was no evidence that a flight had been very urgent.

There were all the way from a few dozen to a pint of dead bees in front of the different hives. The snow in and around the yards was strewn with bees about at the rate one would scatter wheat to make a good seeding.

I never worry about the bees on the snow, in fact I believe that they do more good on the snow, than they could do in the hive, for they are the old and worn out ones, and would die anyway before they could be of any use to the colony.

Get Rid of Worn Out Bees

If it were possible to sort out and destroy the old bees in the fall, I believe the colony would winter better. I tried to accomplish that by interchanging hives on their stands late in the fall, then when a warm day comes so the bees fly out, all the old ones will go back to their old stand, and of course, being strangers there, will be killed, but the scheme did not always work out as I wanted it to.

When bees are broodless, like they should be after the middle of October, they do not always kill strangers, and I had the happy experience of losing several queens in the experiment.

I believe, to be one hundred percent effective, the interchanging should be done relatively early, say about the first of October.

Don't understand that I am recommending the idea; some of the bees that got killed did not look so very old, and too, it makes quite a disturbance in a yard.

March and April are anxious months for most beginners; the weather begins to get warmer, and we feel as if something ought to be done to help the bees along, but the most we can do for them is to let them alone as long as they have shelter and food.

BEEKEEPERS ORGANIZE IN MICHIGAN

THE Michigan Beekeepers have organized into county, district, and state associations. The plan is working out very successfully.

In a letter which Prof. R. H. Kelty, Secretary of the State Association, wrote to the members recently he makes these interesting statements.

"There are in Michigan approximately 30,000 beekeepers and 300,000 colonies of bees. The annual production ranges from 12,000,000 to 18,000,000 pounds of honey and from 400,000 to 600,000 pounds of beeswax. The cash value of these crops ranges from one and one-half to two million dollars annually. Of course, the value of the bees as pollinizers for orchard and field crops is many times this amount.

"Now, Michigan beekeepers are confronted with some big problems. One is foulbrood. Another is marketing. We need a more orderly plan for handling apiary inspection to insure enough funds to cover the whole state thoroughly and get rid of foulbrood. We need better marketing facilities for honey. With only 2½ pounds of honey consumed per person per year, and about 130 pounds of sugar being eaten by every person in the United States per year, it is plain that one of our biggest jobs is the proper advertising of honey. This can best be accomplished by supporting the American Honey Institute.

"In order to combine interest in all of these things this plan has been perfected:

"The whole state of Michigan has been divided into five districts, by counties.

"Each county has representation. In many counties there is a County Beekeeper's Association. A County Representative will be chosen to represent each county, in the District. The officers of the various districts will act as a Board of Directors for the Michigan Beekeeper's Association.

"Dues are $1.50 per year.

"When you join your County, District or State Association you are automatically a member of all four of these organizations.

"We meet organized effort on every hand. The farmer has been the last to benefit from organization. If we combine our efforts we can make our voices heard. We cannot afford to continue to play solitaire. Your officers will do everything they can to get the program to working, but they can do little working alone. They need your help. Are you there?"

FROG EATS BEES

THE persistence, worthy of a much better cause, with which a frog returned to its occupation of bee-eating is related. The frog was found snapping up tired foragers in front of the hives. Marked with queen-marking paint and carried to a point some 400 yards from the apiary, it was back in two days. It was thereupon taken for a bicycle ride to a pond some miles away, from which it did not return.—*From the Bee World.*

Plant Nuts This Spring

IN GROWING seedlings for stock, the seed nuts should not be allowed to dry out excessively at any time before planting. For good results, special treatment, known as stratification, is necessary. The basic reason for stratification is to provide conditions suitable for the so-called after-ripening process to take place in the seeds. The changes involved progress most rapidly at temperatures three or four degrees F. above freezing and can be brought about by keeping the seeds constantly at this temperature. For the ordinary grower this is not practicable, so the desired result is obtained by exposing the seeds to outside temperatures, where, in the course of the northern winter, there is practically always a sufficient length of time at which the seeds are within the necessary temperature range.

Soon after harvest the shucked nuts are packed between layers of sand in a box or other container covered by wire netting to prevent pilfering by rats or squirrels. The bottom of the box should be perforated to prevent the accumulation of water about the seeds. A good practice is to place wire netting over both top and bottom of the container. This should be sunk into the ground, level with the top, in some well-drained situation where the nuts will be exposed to winter temperatures, rain, etc.

How to Plant Nuts

If theft by rodents is not likely, the nuts may be planted out in nursery rows in the fall. Spacing about 8-10 inches apart and covering about 3 inches deep is satisfactory for walnuts and other large nuts. Chestnuts and filberts may be planted less deeply. Stratified nuts should be planted in nursery rows in the spring in the same way.

During the growing season, the nursery rows should be kept free from weeds. Seedlings come up the first year and with some species will make sufficient growth in one season to be grafted. Hickories take two or more years to make a tree big enough to graft.

Cut Tap Root

With walnuts and hickories a much better root system is obtained if the taproot is cut off after the first year. This is done by driving a sharp spade into the ground diagonally, so as to cut the tap root 6 or 8 inches below the crown of the seedling. With the hickory nuts that form such a long taproot as to make transplanting difficult, the stratified nuts may be planted in the spring in the place where the trees are to remain permanently. Several nuts may be planted in one spot to insure at least one tree in a place. These may be top-worked when they are large enough. Of course, only a single tree should be left at one place after they have become established.—*From Bulletin 573 "Nut Growing In New York State" by L. H. MacDaniels.*

ALL AMERICAN VEGETABLES

THE All-American Council, sponsored by the American Seed Trade Association, W. Ray Hastings, Chairman, has for several years conducted in several localities, trials to determine "All-American" selections for the year.

The list for 1935 includes as Gold Medal winners, Giant Southern Curled Longstanding mustard, Asgrow Scarlet Dawn tomato and Straight Eight cucumber. Awards of Merit were made to Colorado cucumber, Sunkist cantaloupe, Burpee Globe tomato, Viking spinach, Hybrid Bantam sweet corn. Special mention was given to Longstanding White Boston Lettuce, Just Right cabbage, Asgrow King pepper and White Pearl radish. Some of these are not new.—*From Market Growers Journal.*

WISCONSIN IRIS SOCIETY ORGANIZED

IRIS fans organized the Wisconsin Iris Society at Milwaukee on March 20th. The following officers were elected: President, Mrs. A. Jaeger of Milwaukee; vice-president, Mr. Wm. Leonard, Fort Atkinson; Rec. Secretary-treasurer, E. L. White, Jefferson, R. 2; Corresponding secretary, Mrs. P. B. Haber of Fond du Lac. Three regional vice-presidents are to be chosen at a later time.

State Iris Show Planned

The Society has planned a State Iris Show to be held Saturday and Sunday, June 8th and 9th at the Milwaukee Public Service Building Auditorium. This is a beautiful large hall and well suited for a flower show. It is also known as the Electric Light Company building, near the Milwaukee Road depot.

Several commercial growers, including Mrs. Douglas Pattison of Quality Gardens, Freeport, Illinois, have already agreed to make exhibits at the state show.

Dues for the Society were set at $1.00 per year. Iris fans should join the Society and send their dues at once to Mr. E. L. White, Jefferson, R. 2.

Mrs. Euclid Snow, Hinsdale, Illinois, gave a very instructive talk on new Iris varieties and their culture and Mr. LeMieux of Wauwatosa told very interestingly about hybridizing.

OUR COVER PICTURE

Our Cover Picture this month shows an April landscape at the Morton Arboretum at Lisle, Illinois. Bursting buds and unfolding leaves proclaim the arrival of spring. A thicket of blooming, wild plums lightens the background of the photograph. Cut loaned courtesy of the Morton Arboretum.

DOUBTFUL

Absent-minded Professor: "Waiter, half an hour ago I ordered some lamb chops. Have you forgotten them, or have I had them?"

About the Home and Garden

MRS. C. E. STRONG

MARCH 17 and Crocus are budding, even blooming in sheltered spots. Green and bronze shoots tell of Daffodils and Tulips soon to come. Tree peony buds are swelling, the frost is again trying to heave out some of the plants put in late last fall; so one needs to push them back and give a bit more mulch.

Meadow larks are singing, Killdeer are calling, while Mr. and Mrs. Robin are scolding about the thoughtlessness of some folks, never putting a crumb out—when they know a poor bird can find no worms when the ground is frozen. Add a half dozen new catalogs with a most alluring list of plants. You will scarcely wonder that the page for Horticulture was almost forgotten.

New Hemerocallis

In a list of 75 old and new Hemerocallis, the following sounded very alluring. *Sunset*, a glorious new hybrid from England, crimson copper, shading to soft coppery rose; large, 2½ feet.

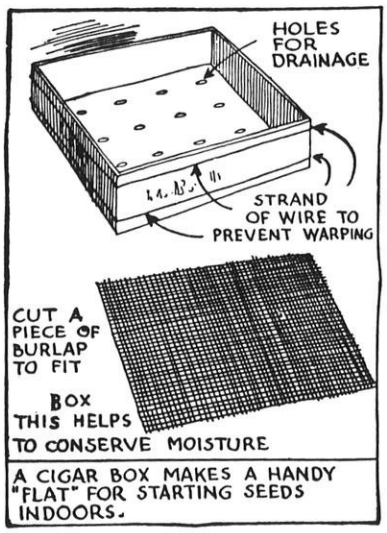
Rose Queen—exquisite color combination, pale with deeper rose and yellow. 36 to 45 inches tall.

Sunkist—perfect flower of deep soft rose, yellow line down center of petal, whole overcast with bronze; good bloomer, lovely.

Bardeley—new, a beautiful flower of the largest size, tangerine and copper, yellow throat, slightly ruffled; 3 feet, handsome foliage.

Viscountess Byng—beautiful rose copper over silver, copper reverse; flower medium size, perfect form, 2½ feet.

Queen of May—an old favorite in England, deep yellow. The true variety in established plants gives a second fall bloom, 2½ feet. Flowers 4 inches.



A CIGAR BOX MAKES A HANDY "FLAT" FOR STARTING SEEDS INDOORS.

WHEN FLOWERS TALKED

Young Bill he was an awful dub
At making love to wimmen,
He couldn't say soft, silly junk
With eyes all soft and swimmin'.
To him it was an awful job
Passin' his courting hours—
He couldn't dance, he couldn't sing,
He couldn't do a doggone thing—
Except—just fetch Her flowers.

But the flowers did his talkin',
Breathing love he couldn't tell,
And they didn't break his bank roll
Which, perhaps was just as well—
For he's married now and happy
And he never fails to stop,
Once a week at least, and bring Her
Flowers from the corner shop.

—AUTHOR UNKNOWN.

Oriental Poppies

Watteau—soft flesh coral, no black or other basal spot. Makes a delightful flower group and cuts well.

Enchantress—Wonderful soft lilac rose, opens perfectly; long lasting, large, a seedling of Masterpiece.

Cerise Beauty—Cerise pink, beautiful large flower, among the deep cherry pinks.

Bush Clematis—Clematis recta mandschurica; flowers much larger than the older variety.

Clematis Montana Rubens; Anemone flowered variety with rose colored flowers in April and early May is a vine that should be welcome to our list of Clematis.

Clematis veitchiana, Honey Bells; lovely cream white, blooms in September and October. Both Montana Rubens and Honey Bells were introduced by Dr. Wilson.

Syringia microphylla—a species lilac, most fragrant, which blooms in spring, and again in the autumn.

Lonicera tenuipes—a honeysuckle with deep rose, star-like flowers before the foliage in earliest spring.

Country Girl—a Korean Chrysanthemum attaining a height of 4 to 5 feet and an equal spread—with single flowers of a glistening pink with lilac tones, 3½ inches across. Very hardy. Too lusty for the small garden—but where there is room, blooms can be cut by the armsful.

Iris Pumila, Jean Siret—clear canary yellow with slight violet reticulation in the falls; blooms freely in the spring—and also in the fall.

Iris Pumila, Souvenir de Lieut. —Xavier de Chavagnac (I hope no one will ever ask me to pronounce that) color, violet with deeper purple shadings in the falls; also a fall bloomer. A sunny sheltered spot in the rock garden would be an ideal place for these fall bloomers.

Poterium Obtusum (Japanese Burnet) An unusual plant of recent introduction. Graceful pinnate foliage and catkin-like crimson flowers about two inches long; height 3 feet, blooms from July through September.

Begin to Think of Next Winter's House Plants

"Beautiful, interesting unusual or odd Tropical and sub

tropical plants that make splendid house plants in cold climates." This is the heading of a small folder from a Florida Nursery. Plants are offered in three sizes, all very reasonable. The small plants can be grown outdoors this summer and will make nice plants for the house by fall. Most of them grow and bloom as easily as a geranium, so if you like to garden in the winter and want something new, get some of the Tropical plants. The Air plants and Pines are easy, and attractive, just wrap in moss and wire on a bit of bark, sprinkle when you water the other plants.

NEW BOOK ON PLANT PROPAGATION

"Plant Propagation"—999 Questions Answered by Alfred C. Hottes, is just off the press. It is published by A. T. DeLaMare Co., Inc., 438 W. 37th Street, New York. ($2.00).

The book discusses very clearly plant breeding, propagation by seeds, cuttings, layers, grafting, budding, inarching. It tells how to propagate fruit stocks, herbaceous perennials, conifers and evergreens, orchids, ferns, roses and palms. It should be on the book shelf of every garden enthusiast.

HOW TO BUILD CLOTH HOUSES

INSTRUCTIONS for the construction and diagrams for erection of shade houses for growing gladiolus and dahlias may be obtained from the Kendall Mills, Walpole, Mass., makers of reinforced, treated shade cloth called Floral Protectionette. This is preferable to common tobacco cloth as it is easily erected and is strong.

Bulletin No. 111 on Aster Diseases also describes cloth houses. It may be obtained from the Wisconsin College of Agriculture, Madison.

DELPHINIUMS, CARNATIONS, EARLY MUMS

HYBRID DELPHINIUM. Last year's seedlings bloom this summer. $1.00 per dozen prepaid. From hand pollinated seeds double flowers measure 3" across or more. $2.00 per dozen prepaid. Two year plants 35¢ each; $3.00 per dozen, express collect. Selected plants, 50¢ each. $5.00 per dozen, express collect. HARDY CARNATIONS, 15¢ each. $1.50 per dozen prepaid. EARLY CHRYSANTHEMUMS, 20¢ each, prepaid. Aladdin (Bronze). Lorelei (yellow) 20¢ each, $2.00 per dozen prepaid. JOHN J. JOHNSON, 1966 Linden Ave., Racine, Wis.

WRITE FOR IRIS PRICES

NO SPRING Catalog this year but I will gladly quote you on your needs. Melvin Geiser, Iris Specialist, Beloit, Kansas.

NEW GARDEN TOOL ALL-IN-ONE

Hand-rake, trowel and Bulb planter. Depths of 7 varieties engraved on surface of trowel made of steel, will not rust. Just the thing for planting and weeding. 50¢ postpaid, with one crimson garden Amaryllis Bulb *Free*. Send for our plan "How to Make Money for Your Church or Club."

MRS. WALLACE B. COMBS.
Tinley Park, Ill.

Glads---Dahlias---Iris

BARGAINS

I must reduce the number of varieties which I grow. You get the benefit.

50 Gladiolus varieties, all named ---------- $2.00
12 Dahlias, properly labeled 1.50
20 Iris—properly labeled -- 1.00

State inspected.

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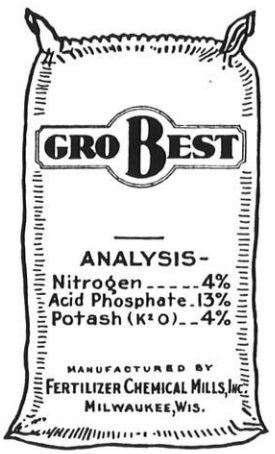

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Turf and Garden Plant Food for

Home Gardeners, Nurserymen and Florists

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Hynite Tankage
Nitrate of Soda
Sulphate of Ammonia
Super Phosphate 19%
Double Super Phosphate 32%
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Agricultural Hydrated Lime

Peat Moss Products

Imported Horticultural Peat Moss
Hy-Moss (Finely Ground Peat Moss)

Complete Plant Foods

GroBest Turf & Garden Plant Food 4–13–4 (in 25–50–100 lb. bags)
GroBest Tree Food 10–8–4 (100 lb.)

SPRAY MATERIALS

Pomo–Green with and without Nicotine. Kolodust

Arsenate of Lead
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Black Leaf 40
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Calomel
Corrosive Sublimate
Gopher Death
Lime Sulphur Solution
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Manganar Rose Dust
Sulphate of Iron
Dusting Sulphur
Sulphonol
Ant Kill
Aphis Spray
Paris Green
Nicotine Dust

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Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

W. E. MENGE, President
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H. J. RAHMLOW, Cor. Sec.
WALTER F. MILLER, Treas.
OTTO KAPSCHITZKE, Rec. Sec.
1710 Illinois Ave., Sheboygan

Do Right By Your Glads

W. E. Menge

BEFORE we begin planting it is necessary to consider what we are going to plant, what kind of bulbs, and what varieties. I believe a large No. 1 bulb is best provided it is not old and worn out. I would not consider a bulb 1½ inches in diameter as likely to produce an exhibiton spike as the large bulbs of three or more inches in diameter.

True, some varieties are so prone to increase by bulb division they cannot produce large individual bulbs. Divisions, or numerous spikes from one bulb lessens our chances of obtaining spikes of exhibition quality. This may be prevented by cutting the bulb and dusting the cut surface with powdered sulphur to prevent rot, or by taking the husk from the bulb and removing all but one eye with a pen knife.

Dry rot and scab are common bulb diseases that must be kept in control. I have planted on the same ground for nine years. If it is necessary to grow them in the same place every year I would suggest the following. Plant the bulbs from four to six inches deep and after placing them in the hole or trench cover with an inch or two of soil. By using a water can drench the ground thoroughly over the bulbs with bichloride of mercury solution using a somewhat weaker solution than in dipping the bulbs. For soaking the ground would recommend about one ounce to twelve or fifteen gallons of water, then finish covering. I had some disease in my garden but this past season there wasn't a diseased plant on my place and the growth was unusually strong.

Attend the Shows

Attend the shows; read reports of winners at the shows, and in this way become familiar with the varieties that are the most consistent winners. Some old varieties when well grown often win over the new beauties. Not because we are not progressing, but because it takes a pretty good stock of one variety to be able to cut six or more spikes of exhibition quality on the same day. When the new introductions are so plentiful that we can do this then they are no longer new.

The ideal location is sunny all day long and the soil the kind that will grow good vegetables. I have made a practice of covering the garden each spring with well rotted cow manure. This is spaded or plowed under, or may be used in trenches when planting. Cow manure is not a complete fertilizer, it is lacking in phosphate. The addition of super-phosphate or acid phosphates with the manure makes a wonderfully well balanced fertilizer and I doubt if anything more is needed.

Prepare Soil Deeply

I want to especially mention preparing the ground deeply. A foot deep is none too deep and even deeper, especially if you are unable to water them during the growing season. Water is very important, though the glads will not stand poor drainage, or "wet feet."

In cutting show spikes, be sure to cut the stems as nearly correct length as possible. It should be 1½ times the length of the spike from the first floret to the tip. If you find it necessary to sacrifice foliage to get this proper length, don't hesitate to do it, even if you have to sacrifice the bulb, you are out to win and a shortness of two inches may decide the winner.

About two years ago in *Horticulture* I came upon an article by *S. P. Wigglesworth* and would like to quote one paragraph. It contains too much truth to let it pass by. "Let us all remember that deep down in our hearts we are all poor losers, and that the only exhibitor who is really thoroughly satisfied with the judging is the winner of first prize."

HIGHEST RATED VARIETIES MINNESOTA GLADIOLUS SOCIETY, 1934

(1) Minuet, lavender
(2) Picardy, salmon pink
(3) Emile Aubrun, smoky pink
(4) Dr. F. E. Bennett, red
(5) Golden Dream, yellow
(6) Betty Nuthall, coral
Veilchenblau, violet purple
Mr. W. H. Phipps, salmon pink
(7) Commander Koehl, dark red
Peligrina, dark blue
Jonkeer Van Tets, white
(8) Salbach's Orchid, lavender
(9) King Arthur, lavender
Ramesses, purple red
Maid of Orleans, white
(10) Wasaga, buff
Star of Bethlehem, white
Blue Admiral, dark blue
Aflame, red

—*From the Minnesota Horticulturist.*

Treat Gladiolus Corms Before Planting For Thrips

Noel F. Thompson

BEFORE planting gladiolus corms in the spring the diseases and insects that may be present should be considered and appropriate treatment applied. The most serious insect pest with which the gladiolus grower must contend is the gladiolus thrips. This insect spends the winter on the corms in storage. It should have been eliminated by appropriate treatment during the winter but, if it was not, it can be controlled by soaking the corms before planting in a 1:1000 solution of bichloride of mercury for seven hours or longer. Commercial growers raising flowers for the early market may find a hot water control for thrips advisable. Twenty minutes in water at 112° F. but not over 122° F. has given good results.

There are a number of serious corm diseases that should also be considered. A careful sorting, with the elimination of badly rotted corms is the first step. If there are many rotted corms a chemical treatment is advisable. For this treatment formaldehyde, one pint to twenty gallons of bichloride of mercury 1:1000, is satisfactory. The corms should be soaked in the solution from eight to twelve hours. A dust treatment that leaves a residue on the corm after it is planted is also good. Very finely divided calomel, which can be secured under the name of Calogren, has given excellent results. This substance is mixed with water and the corms dipped in it for a few minutes. None of these treatments will eliminate all disease from the corms but they will aid materially and are well worth while.

Bichloride of Mercury Recommended

It should be noted that bichloride of mercury is recommended for both thrips and corm diseases. This substance is poisonous and should be handled with care. As it corrodes metal the solution should be put in an earthen ware or wooden vessel. It loses its strength when used, so after several lots of corms have been treated the solution should be discarded and a new one prepared.

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STATE GARDEN CLUB FEDERATION NEWS

Federation Aims: To stimulate and help garden clubs throughout the state; to develop interest in and broaden the knowledge of gardening; to aid in the protection of trees, plants and birds, and promote civic beautifications.

TWENTY-FIVE SELECTED FLOWER ARRANGEMENTS NEW COLORED LANTERN SLIDES AVAILABLE

THE Wisconsin Garden Club Federation has had made a set of colored lantern slides which have been given the title "Twenty-five Selected Flower Arrangements." The selections were made by the Board of Directors of the Federation at their meeting in March, and the pictures were considered the best the members had seen along this line.

We will not describe these arrangements because we want every garden club to see them. A complete lecture has been written by Mrs. B. W. Wells of Madison, with the approval of the Board of Directors. Mrs. Wells has consented to act as chairman of the Slide Committee and requests for the slides for your garden club meetings should be sent to her. Her address is, Mrs. B. W. Wells, 2526 Gregory Street, Madison, Wis.

A small fee of $1.00 will be charged for the use of these slides and lecture. This money will be used to pay the cost of having the slides made. The express must also be paid. Requests for the slides should be sent in early in order that a schedule can be made up. Several members have consented to act as lecturers. A list of these will be available.

THE NEW ANNUALS

We have the seeds of the "All American" annuals and others. Visit our Store.

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FEDERATION CHOOSES EMBLEM

THE emblem shown on this page was adopted by the Executive Board of the Wisconsin Federation as its official emblem.

The design was drawn by Mr. H. J. Sonn a member of the Oakfield Garden Club. We wish to congratulate Mr. Sonn for having submitted this splendid design.

Second place was awarded to the design of Mrs. J. M. Johnson a member of the Ripon Yard and Garden Club, and third place for a design submitted by Mr. E. L. White, member of the Fort Atkinson Garden Club.

FLOWER SHOW CALENDAR

Milwaukee District spring flower show, Public Service Bldg., Milwaukee, May 21–22.

Southeastern District spring flower show, Racine Gas Company Bldg., May 24–25.

Fox River Valley District spring flower show, Oakfield, June. (Date to be announced).

South Central Wis. District Flower Show, Fort Atkinson, May 31–June 1.

NEW FLOWER SHOW BULLETIN AVAILABLE

THE Wisconsin Garden Club Federation cooperating with the State Horticultural Society is having printed a very complete bulletin on how to conduct a small flower show. The bulletin will be available in April. Every garden club should order a supply for the use of flower show committees.

The bulletin will contain instructions for the formation of committees, detailed instruction as to our new plan for entering and keeping records of exhibits, and two complete premium lists, one for the spring flower show, and another for the August show.

The bulletin which consisted of 29 typewritten pages was carefully gone over by the entire Board of the Federation and the district officers, at a two-day meeting held early in March.

The price of the bulletin will be 15¢ per copy postpaid, or 4 copies for 50¢. Order your copies now. Write to the State Horticultural Society, 1532 University Avenue, Madison, Wis.

FOND DU LAC CLUB WILL HOLD FLOWER SHOW IN AUGUST

THE Fond du Lac Garden Club has already made plans for a flower show which will be held on August 17th and 18th at the Hotel Retlaw. An article was printed in the Fond du Lac paper describing the classes on which premiums will be given at the show so that members might prepare for it and grow these varieties.

SUPERIOR GARDEN CLUB ORGANIZES NEW AUXILIARIES

SINCE February 1st, we have organized two new garden club auxiliaries, so in addition to the mother club, we now have six auxiliaries. Needless to say we are happy and proud of this.

Flower Show at County Fair

Without question our flower show held in connection with the county fair last August was an outstanding success. The show was beautiful and I believe every one of the 100 thousand people the fair officials claim visited the fair, walked through the flower show. The officials themselves are more than delighted.

Our work for the coming year includes a city garden contest or home beautification contest and we have chosen a public spot which we will beautify. We are also planning on considerable junior garden club work.

—MRS. W. A. DUFFY,
Superior.

GARDENERS PILGRIMAGE TO HOLLAND

THE Horticultural Society of New York is sponsoring a pilgrimage to the land of "tulips" on the occasion of the Decennial International Flower Show at Heemstede, Holland, this coming spring.

The tour will leave New York on April 30th and return to New York on May 25th. The rate is, first class $484.00, round trip, with a special rate in Tourist Class of $301.00.

A number of other horticultural organizations are participating including the Garden Club of America, the Massachusetts Horticultural Society, the Pennsylvania Horticultural Society, and the National Council of State Garden Club Federations.

Detailed information may be obtained from the committee chairman, Mr. John T. Scheepers, 522 Fifth Avenue, New York City.

MILWAUKEE DISTRICT FLOWER SHOW

Public Service Bldg. Auditorium May 21-22

THE Milwaukee County District of the Wisconsin Garden Club Federation is planning a non-competitive spring flower show to be held during tulip season featuring tulips, spring flowers and flowering shrubs. An admission charge of 10¢ will be made.

District officers are making plans for a large show. The Executive Committee is Mrs. R. R. Hibbard, Miss Emma Schipper and Mrs. Irving Lorentz.

NOTICE TO GARDEN CLUBS

Send us all dates for flower shows to be held in late May and early June for the May issue. Information should reach us by April 15th. Not later than April 20th.

TIME FOR RADIO BROADCASTS CHANGED

Garden Club Program to Begin at 10:20 A. M. Each Tuesday

ARRANGEMENTS have been made with Station WHA to give a little more time to the garden club broadcasts each Tuesday during the coming months. Meetings will begin at 10:20 a. m. and continue until 10:45 a. m. However, there will be a break at 10:30 when the gong must be sounded and the Station announcement given according to the regulations.

COMING PROGRAMS

APRL 16, 1935

10:20 a. m.

Meeting of the La Belle Garden Club of Oconomowoc.
President, Mrs. C. C. Pink.
Secretary, Mrs. F. G. Schuehle.
Speaker, Mrs. David Weart. Topic: Gardening in Semi-Shade.

APRIL 23, 1935

10:20 a. m.

Meeting of the Elkhorn Garden Club.
President, Mrs. Lee Shaw.
Secretary, Mrs. Alfred Olson.
Speaker to be announced.

APRIL 30, 1935

10:20 a. m.

Joint meeting of the Garden Clubs of Ripon.

Speakers:

Mrs. Wm. Jaeger, president of the Ripon Garden Club of Ripon.

Mrs. Harold Banville, president of the Home Garden Club of Ripon.

Mrs. J. M. Johnson, president of the Ripon Yard and Garden Club.

GARDEN CENTER CHAIRMAN APPOINTED

MRS. EDWARD CORRIGAN, 2178 No. 71st Street, Wauwatosa, has been appointed chairman of a committee on garden centers for the Wisconsin Garden Club Federation.

The Wauwatosa Garden Club, of which Mrs. Corrigan is a member, has done some exceptional work with their garden center at the Wauwatosa Library. Those who are interested in the organization of this work should write to Mrs. Corrigan for information and help.

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Cor. Secy.: Mrs. Curtis Wilson, 2626 N. Farwell Ave.
Rec. Secy.: Miss Emma Schipper, 510 E. Homer St.

Baraboo Garden Club

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Secretary: Mrs. H. J. Steeps, 104—7th Ave.
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Secy-treas.: Miss Bessie Tainsh, 2408 E. Park Pl., Milwaukee

Blue Mound Garden Club
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Secretary: Mrs. A. M. Nehs, 6722 W. Wisconsin Ave.
Treasurer: Mrs. H. F. Kuechle, 6805 Cedar St.

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Cedarburg Garden Club

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Sec.-treas.: Mrs. A. C. Buch, 16 Jackson St.

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Secretary: Leo Tiefenthaler, 2425 W. McKinley Ave.

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Vice-pres.: Mrs. Wilfred Dopp
Sec.-treas.: Mrs. James L Dopp

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Vice-pres.: C. S. Van Gordon, 420 Garfield Ave.
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Vice-pres.: Mrs. Kennith Goodrich, 227 Winsor St.
Sec-treas.: Mrs. Alfred Olson, W. Court St.

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Secretary: Mrs. R. C. Schissler, 2148 No. 74th St., Wauwatosa.
Treasurer: Mrs. C. Foster, 2136 So. 86th St.

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(Ripon)

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Vice-pres.: Mrs. C. F. Barkow, 601 Newberry St.
Secretary: Mrs. Sam Olive, 205 Howard St.
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Secretary: Mrs. Raymond A. Sell, Eau Claire Blvd.
Treasurer: Mrs. Louis Weichmann, Granite Heights.

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Wisconsin Rapids Garden Club

President: Mrs. George W. Mead, Belle Isle.
Vice-pres.: Mrs. Edw. Hougen, 410 N. 5th St.
Sec.-treas.: Mrs. W. J. Taylor, 711 Witter St.

OSHKOSH HORTICULTURAL SOCIETY WILL HOLD FLOWER SHOW IN AUGUST

AT THE March meeting of the Oshkosh Horticultural Society it was decided to hold the annual flower show in August. Premiums will be given on fruits and vegetables as well as flowers.

D. G. Stroebel and Mrs. Edward Wright represented the Society at the meeting of the Fox River Valley district of garden clubs held early in March. At this meeting it was decided that a flower snow and flower judging school be held at Oakfield in June.

The oldest member of the Society, Christian Phillipson, who is still active in garden work and specializes in growing pansies, prepared a paper on "Seed Sowing" which was read by his daughter.

Mr. N. A. Rasmussen gave a talk on grafting and stated that if mice or rabbits have injured trees, they may be saved by bridge grafting. This season the damage from mice and rabbits has been extensive.

—FLORENCE WINCHESTER,
Secretary.

WAUSAU GARDEN CLUB HOLDS WEEKLY MEETINGS

WE HAVE been busy with a garden club meeting once each week during March in the form of a class under the direction of Mr. E. A. Hanneman of the Wausau Vocational School. Garden club members have given papers on Green Draperies, covering vines for all gardens, Iris, Dahlias, Phlox, Roses, Peonies and Hardy Lilies.

To Hold Flower Show in June

We will hold a flower show in June at which we would like to have the help of our neighboring garden clubs.

We are also planning a junior garden club.

MRS. PETER J. PORTMAN,
President.

Plans For Junior Garden Club Work

Mrs. Frank K. Quimby
Junior Chairman

FOR the past three year we have had twelve active junior groups in Racine, with an adult counselor for every ten or fifteen children. We followed the Better Homes and Gardens plan which is worked out in detail in their Scrap Book for Junior Counselors. This book can be had by sending $1.00 to Better Homes and Gardens. Each junior chairman should have access to this book, regardless of the type of club you organized, because it is full of usable ideas for junior work.

After three years of successful work in small groups we find our juniors ready to graduate. At the same time the requests for new junior memberships are so numerous that we cannot supply enough adult counselors to carry on the work as we have in the past. The school superintendent realizes the value of our work and is ready to cooperate with us in a newly organized plan. Once a month, at least during the spring and fall, we are to present a program at each school in the city. Every child who is interested in being a junior gardener will be excused from classes from 3:00 to 4:00 o'clock on "Club" days. The program will be planned by the junior committee, financed by the garden club, and presented by a garden club member. In this manner we will be able to reach all the children who are truly interested. Since this program will be accepted as a school work it does not become an extra curricular burden. Our first program will have two features, namely:—a demonstration of how to plan and plant a simple garden and a talk, illustrated with slides, on native birds and how to attract them to our yard.

These programs need not be expensive. In fact, except for rental of slides occasionally, there need be no expense connected with the programs. I believe any garden club can develop a workable junior club plan for the children in their community if an interested committee is willing to give the matter a little time and thought. If you feel that you must improve your financial status in order to carry on this work, may I suggest that you arrange with your local movie manager to sponsor "Sequoia" as a benefit movie when it is shown in your city.

If the junior committee can help you work out the details of your organization do not hesitate to write to us. Next month we will publish a list of the clubs that are cooperating in this junior movement. Will the name of your club be included? Address: Mrs. Frank K. Quimby, 934 Hayes Avenue, Racine, Wis.

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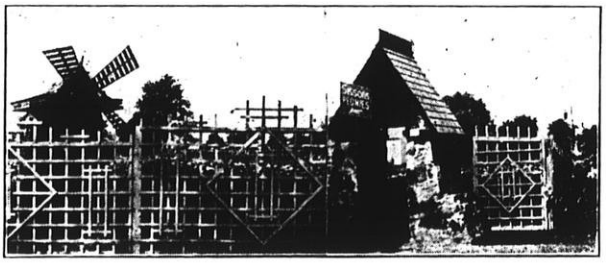

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MAY, 1935

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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
The Wisconsin Garden Club Federation

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OUR PROGRAM
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OUR PROGRAM
3. Greater publicity for Wisconsin grown fruits and vegetables.
4. A constantly improving magazine for the distribution of timely horticultural information.
5. Organization of local horticultural clubs in all sections of the state.

Pointers For Codling Moth Control

C. L. Fluke

WITH a new season approaching many of you are probably planning your season's spray schedule for control of the codling moth. The real secret of control is not so much what and how much to use as it is when and how.

Time Sprays Properly

Properly timed sprays thoroughly applied will usually give nearly perfect control of the moth. Remember to do a *good job at the calyx time* and then follow with two and possibly three sprays for the first brood of codling moth. The ten day spray is a little early for most of the codling moth worms and should therefore be followed by a *spray 30 days after the calyx* and another *10 days to two weeks later*. If this is done there will probably be little necessity of a spray for the second brood in August except in orchards with a heavy infestation. Use lead arsenate one and one-fourth pounds to each 50 gallons of spray.

Tree Bands

To assist in checking the second brood emergence, plan to use bands around the tree trunks to trap the worms which escape these sprays. We will tells more about these bands next month. They will not be needed until about the last of June or first of July.

It's spraying time. A fine mist is necessary for good coverage.

Bait Traps

The 30 day spray can be better timed by using the bait or hooch traps. The standard bait is a 5% honey, 5% molasses, and 90% water mixture placed in open pans or pails hung in the trees. If you do not know how these are made write to us for instructions.

Moth infestation is nearly always heaviest near the packing sheds, showing that a large number of the worms have escaped there and spent the winter in the sheds. Trees in this vicinity should be sprayed more thoroughly and it would be desirable in certain cases to give these trees an extra application at the beginning of the moth flight, about half way between the 10-day and 30-day applications.

LATE-CUT TIMOTHY NO GOOD

When timothy is harvested before blooming, there is sufficient digestible protein for cows producing 8 to 10 pounds of milk, whereas if the hay is not cut until the seed is formed, it is barely good enough to supply a maintenance ration.—*Professor* L. E. KIRK, *Univ. of Saskatchewan.*—*From American Hortigraphs & Agronomic Review.*

Fruit Insect Control in Door County

J. H. Lilly

THE problem of holding codling moths, bud moths, and leaf-rollers in check is still a live one for Door County apple growers.

The codling moth has normally been combatted by the addition of arsenate of lead to all sprays used after the blossom period. The calyx spray and the two following it are especially important. Thorough spraying at this time greatly reduces the number of first brood "worms." They are the ones that develop into moths and lay the eggs for the second brood, which necessitates spraying in August. Heavy applications at the later date are undesirable because of dangers of spray injury and excessive poison residues on fruit. In addition, they are not as efficient as the earlier treatments in that the first brood "worms" have already completed their damage.

The Bud Moth

Bud moths are best dealt with by special dormant or delayed dormant sprays where they are a serious pest. Ordinarily they can be satisfactorily controlled by heavy and thorough applications of arsenate of lead in the pre-blossom and calyx treatments. Such a program is also useful in reducing the numbers of leaf-rollers, although they are best controlled by dormant oil emulsions.

In view of these facts, the recommendations being supplied to the growers this year are placing even more emphases on the importance of early sprays than they have in the past.

Lead Arsenate Satisfactory

Evidence obtained during the past two years indicates that a lead arsenate-lime sulphur spray program can give adequate control without resulting in excessive poison residues on the fruit. Therefore, the use of substitutes for lead arsenate (which are often more costly and less effective) is apparently not warranted in Door County, except in the last spray. This statement assumes that most of the emphasis will be placed on the earlier treatments as described above.

Experimental Spray Program

The experimental dormant spray program being followed this season centers around three distinct groups of spray formulae. The first group is arranged to give an exact comparison under Door County conditions of some of the better grades of patented oil spray materials now on the market.

A second group is made up of various strengths and combinations of lime sulphur. The aim is to find a formula that will control leaf-rollers or bud moths or both, in addition to case bearers. The third group is a similar series in which various oil-soluble insecticides are combined in a cold-mixed oil emulsion.

This experimental program obviously has a two-fold objective. First, it presents a comparison of several of the available commercial products now on the market, so as to demonstrate their respective merits and disadvantages under local conditions. Second, it aims toward the development of a safe, cheap, and effective formula, especially adapted to meet Door County requirements.

BEES IMPORTANT FOR FRUIT

Honey bees in a fruit-producing region are considered to be worth about 50 times as much for cross pollination of fruit bloom and the bloom of certain crops as they are for value of the honey crop.—*Maryland Extension Service in American Hortigraphs and Agronomic Review.*

CHERRY LEAF SPOT REDUCES YIELD

DEFOLIATION of cherry trees from cherry leaf spot causes severe losses to cherry growers.

Careful studies of the effects of early defoliation shows that fewer blossoms are produced and that these blossoms were poorly developed and opened slowly the following year. Cherries were smaller and fewer ripened. Many fruit spurs died from the defoliated trees during the following winter. Only 42% of a crop was received from the spurs that lived as compared with trees where leaf spot had been controlled. The effect of the injury was noticeable for several years in lowered production of the trees.

Careful spraying to control cherry leaf spot is highly important.

TESTS ON COLOR STRAINS OF DELICIOUS APPLE

THERE was no significant variation between four distinct red sports of Delicious discovered at the Dominion Experiment Station, B. C., in a careful experiment on experiments using pressure tests, conductivity, tannin, and nitrogen determinations etc. Fruit ripening on comparable trees developed sugar at practically the same rate and in equal quantities irrespective of strain. Flesh color proved a reliable index to maturity, yellow flesh being correlated with higher sugar. Tree growth characteristics were similar in all the strains.—*From U. S. Dept. of Agriculture Experiment Station Record.*

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Chemically Treated

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News For Fruit Growers

H. B. Tukey
New York

In South Africa is said to be the world's largest individual orange estate. There are 600,000 trees in the planting, and during the picking season 14,000 boxes of fruit are handled a day. Two train loads of 350 tons of fruit leave the packing house daily. It is expected that a million cases will be exported annually in the next few years.

Is the apple gradually losing out in the race for America's table? The per capita consumption of apples in 1930–34 was 58 lbs., or about half the 1899 consumption of 112 lbs. per capita. Oranges, on the other hand have increased from 19 lbs. per capita in 1899 to 31 lbs. in 1930–34. Grapefruit have climbed from 0 to 9 lbs. in the same period, peaches from 10 to 20, pears from 4 to 9, and grapes from 17 to 32.

Speaking of new fruits, the *California Cultivator* carries a half page commercial advertisement for the Whaley Cherimoya. This is not only a "new variety" but a really "new fruit" to most Americans, and it is interesting as perhaps prefacing the rise of another new industry such as the date and the grapefruit industry of but a few years back. The cherimoya is a tropical or subtropical fruit acknowledged as one of the most exquisite grown, described by Mark Twain as "deliciousness itself," and by another as "flavor delicate, suggestive of the pineapple and the banana," and "its taste, surpasses that of every other fruit." The fruits are heart-shaped, conical, or oval, weighing from a few ounces to 5 lbs., light green in color, with tender skin. The flesh is white, melting, with numerous brown bean-like seeds, embedded. The advertisement says, "Its smooth, white flesh, the consistency of ice cream, makes the finest breakfast or dessert fruit. Ripens in Winter when other fruits are scarce.

There were 217,000,000 apple trees in the United States in 1910. This figure has dropped to 95,000,000 in 1935, of which 76,000,000 are bearing. Between 1920 and 1935 there was a reduction of over one-third in total number of trees, yet production in bushels has remained about the same. How account for it? Possibly by the fact that apple production has been passing more and more into the hands of commercial growers, with resulting better orchard situations and higher yields.—*From the March Rural New-Yorker.*

LATHAM RASPBERRY PLANTS

20,000 Latham Red Raspberry Plants. State Inspected, free from disease. Good roots. ¼ inch diameter cane cut 18 inches long. Tennis Ostrem Nursery, Viroqua, Wisconsin.

GOOD IRRIGATION REQUIRES 113 TONS OF WATER PER ACRE EVERY WEEK

WATER equivalent to an inch of rainfall must be applied once a week to do a good job of irrigating, says Professor A. M. Goodman, agricultural engineer, Cornell University. On one acre, this means about 27,152 gallons of water, or a little more than 113 tons.

If this amount of water is applied to an acre of land in 10 hours, it must go at 45½ gallons a minute. The power required to do this work may range from one to two or three horsepower, depending on conditions, he adds.

"These facts are not given to show that irrigation is undesirable, but merely to give a rough idea of the problem, and to indicate the importance of having an adequate water supply close to the field and not too far below it."—*From American Horticulturist and Agronomic Review.*

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Kolofog sticks better and remains on foliage longer than other Sulphur sprays.

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Early Rooted Strawberry Plants Best

PLANTS rooted in June and July produced the largest yield according to an Ohio Experiment.

The results of this experiment are of value because they disprove several beliefs some growers have had. The parent plants produced better than runners set in July and later. June set runners produced the best.

The results are shown in the table. The variety was Premier.

YIELD FROM RUNNERS ROOTED IN DIFFERENT MONTHS THE PREVIOUS SEASON

Month Runnes rooted, 1928	No.	Total Yield qts.	Yield per 100 plants qts.
Parent plant	375	48	13
June	162	21	14
July	1,989	79	6
August	3,884	131	4
September-October 15	1,127	13	1
October 16-November	3,375	23	009

How Can Early Runners Be Produced

If the early set runners produce the most berries, how can we produce them? First, set plants with healthy roots and crowns so they will start growing early. That means covering well before the first heavy frost in the fall. Favorable conditions such as we had last fall seem to come only about one year in six.

Pick First Blossoms

If the first blossoms are picked off the mother plants they will set runners more quickly. However it will probably not pay to pick them more than once in the season, although while hoeing more can be cut. Frequent cultivation and hoeing will help.

Try This Out

Mr. H. H. Harris of Warrens suggests it may be a good thing to try the following. Set the plants closer than usual—about 16 to 18 inches in between plants. Let the first runners set between the rows. Then about September 1st cut off the runners which set after that, because they do not produce much anyhow. A disc cultivator may work well in cutting the runners.

STRAWBERRY GROWERS HOLD MEETINGS

THREE successful strawberry growers meetings were held at Alma Center, Warrens and Tomah in April. Prof. George Briggs of the College of Agriculture gave valuable talks on hay crops and rotation for strawberries. He recommended Reeds Canary Grass for marsh or low soils, and alfalfa and sweet clover for the better soils.

H. J. Rahmlow discussed, with charts, recent experiments in various states, showing the importance of early rooted runners, effect of cultivation and hoeing on yield, and the temperature of berries in the sun as compared to air temperatures during the day.

Mr. M. R. Shuler, County Agricultural Adjustment Agent of Black River Falls told growers at Alma Center some interesting things about soils. Mr. Rex Eberdt of Warrens talked on the marketing situation at Warrens.

Crop Looks Good

Wherever growers were able to get a stand of plants last spring the chances for a good crop are very good. Very favorable growing weather last fall enabled plants that did set to produce runners and good fruit crowns. Old beds are in very good condition, many which were narowed down to one foot wide after picking produced unusually wide rows by fall.

With good weather from now on Wisconsin should have a fair crop. It will not be a large one because many growers failed to get stands of plants in the spring, but there should be good yields from good fields. Prices should be good this year.

Remove Strawberry Blossoms

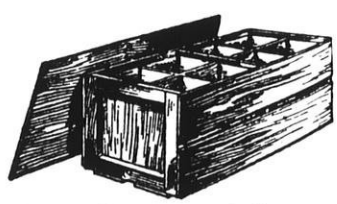
A test in Kentucky with Premier showed that 98 per cent of the plants grew when the blossoms were removed at planting, in contrast to 83 per cent of those with blossoms left intact. The plants which grew with blossoms intact produced less than half as many runners as those with the blossoms removed.

NEW RASPBERRY PATENTED

A NEW raspberry, plant patent #113, has been granted to Asaph B. Curtis of Sarona, Wisconsin. It is reported as a hardy, light colored raspberry plant, characterized by strong, light green canes free from briars, with light green leaves, able to stand drought well. It produces heavily of a cream colored, slightly pink berry borne at the ends of the stem. The berries have a good flavor and ripen early in the season.

WHAT'S IN A NAME

The English word "strawberry" is derived from the Anglo-Saxon "streowberie," and apparently relates to the spreading nature of the runners which are "strewed" around the plant. The name apparently has no connection with the straw which is sometimes used for mulching the plant.—PROFESSOR JAMES G. MOORE *in Wisconsin Extension Circular 268.*



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Orchard Tillage Overdone

IT IS evident that tillage practices in orchard management are changing. There are good reasons for the change. Some years ago many orchards were put under cultivation. Tillage speeded liberation of plant food and the trees grew (at first) and produced with great vigor. The marked improvement in clean cultivated orchards in many cases was short-lived. Tillage had been overdone.

The result was depleted soils —the humus was "burned" out, the soil structure destroyed and the moisture-holding capacity reduced. Trees became unthrifty and poorly nourished; yields dropped. Many turned to fertilizers and some to cover crops for green manure. The bad condition was partially corrected.

So important is humus in orchard soils that some growers are adopting a semipermanent sod. Experiment stations in the East recommend a sod (preferably a legume) that is cultivated periodically, sometimes yearly, or at least once in four to six years. The infrequent tillage liberates nutrients (nitrate, sulphate, phosphate, potash, lime, etc.) for tree growth without removing the source of humus renewal and without unnecessary waste of humus.

Organic matter must not be destroyed (by excessive tillage or otherwise) without provision for adequate renewal. Fertilizers supplement but do not supersede soil humus. Like tillage, fertilizers alone hasten the decay of organic matter. Fertilizers may become most helpful indirectly (used to grow a cover crop) by increasing the soil humus. Anthony (Pa. Sta. Bul. 271) states that the grower may confidently fertilize the cover crop as needed to grow more green manure. In the end the trees will respond also because of the significance of humus in tree nutrition. Anthony further states that any system of orchard management eventually influences yield mainly to the extent that it modifies the organic content of the soil.—From *Annual Report Oregon State Horticultural Society* — Summary of paper by R. E. Stephenson.

STRAWBERRY PLANTS

STRAWBERRY PLANTS. Sturdy northern grown Dorsett, Fairfax, Beaver, Dunlap, Blakemore, Premier, Postpaid. 50 @ 75c; 100 @ $1.25; 1,000 @ $8.00. Leo Nelson, Bayfield, Wis.

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NAME and ADDRESS

1935 . . . A STILL BIGGER YEAR FOR "ASTRINGENT" LEAD!

Horticultural News

A. F. Yeager
North Dakota

Girasol is merely another name for Jerusalem artichoke. It grows here, but has not proven valuable enough to win a permanent place in our plantings, though it might be worth growing for any one with a tendency toward diabetes as it is especially useful as a food for such people.

It is possible to raise good late cabbage by sowing the seed directly in the field about the middle of May and then thinning out the plants so there is one every 18 inches. Certainly, there is no reason why one should buy late cabbage plants because field seed ones will make a better crop.

The Banana squash is a variety ripening about the same season as Hubbard. When well matured it is of very good quality. One objection to it is its rather large size. I do not believe anyone would find it superior to Buttercup. I hestitate to mention Buttercup because everyone should be acquainted with it. Nevertheless, I find rather frequently some person who has not heard of it, or someone who has just discovered it. There is not nearly enough seed available anywhere to supply the demand. Hence, if you find it listed in your seed catalog I suggest that you order early so as to avoid disappointment.

Bulletin No. 308 of the Iowa Agricultural Experiment Station, Ames, Iowa, entitled "Irrigation For Vegetable Crops in Iowa." If you want a copy write the Iowa Station and enclose ten cents for cost of publication.

The University of Illinois has been able to see molecules under a microscope. A molecule is the smallest subdivision of a chemical compound and this is the first time one has actually been seen although scientists have been able in other ways to tell exactly how they were made and constructed.

The Massachusetts Experiment Station finds that the root systems of plants in non-porous containers penetrate the entire soil mass, whereas with a porous pot the roots are largely located between the soil and the pot. This is the reason why porous pots are not as good as the non-porous kind for plants grown in the home where they are likely to dry out, because if neglected most of the root system may be killed.

In Pennsylvania growers who made an average of 600 bushels of potatoes per acre or above sprayed an average of over 13 times during the season. The Ohio Experiment Station reports that the small potatoes from certified fields are as good or better seed than the large potatoes from the same fields. Bushnell says that whole seed insures good stems and saves the labor of cutting. In the future this may raise the price for small potatoes above that of Number 1 grade.

"Clipped Hedges And Their Uses" is the title of Bulletin 311 of Cornell University, Ithaca, N. Y.

Plant breeders are making some progress in the development of gladiolus varieties which are sweet scented. One such variety offered this season is Sweet and Lovely.

According to J. R. Magness with apples where 10 well developed leaves are present for each fruit, the fruit is smaller than the best commercial size. They are generally poorly colored, and are likely to be poor in flavor. With 20 large leaves per fruit, a fair product will be forthcoming. With 30 to 40 leaves per fruit, better size and better quality is obtained. Moreover, such trees will be in better condition the following year. He states that factors affecting leaf area are: Rate of growth, insects and diseases, damage of foliage or defoliation due to hail. Factors which effect the functions of the leaf area: The amount of light, drought, the fertility of the soil, particularly nitrogen which results in green color.—*From North and South Dakota Horticulture.*

LILIUM PHILIPPINENSE FORMOSANUM

LILLESAND E. LEANDER

THIS interesting lily seems to be growing in favor and will soon rival the Regale in popularity. It is a magnificent lily with long trumpet shaped umbels like an Easter lily except it has a pink shading on the outside. It has two great advantages which will insure its increased use among florists as well as amateurs.

It will bloom in a shorter time than any other from seed. One seedsman says from six to eight months, but I believe ten months comes closer to being correct, and this is ahead of any other lily. Then it has the fine trait of throwing up more than one spike from each bulb, and the later ones are usually stronger than the first. There seems to be two strains of this lily—early and late. The Wilson type, which is the last to bloom, is the tallest and strongest. Reports seem to indicate that this lily is about as hardy as the Regale.

If you have a greenhouse you can start the seed early in flats and transplant outside in spring. I prefer to wait til spring opens and sow the seed in cold frames. I prepare a soil of leaf mold, sand and loam, sowing the seed in drills and covering with burlap bags for two or three weeks to insure germination. If I can grow a nice plump bulb by fall, that will bloom in my garden next season, I am well repaid for my work. If this lily proves to be hardy in Wisconsin gardens, it will be valuable as a late bloomer.

NEW MELON DEVELOPED BY WISCONSIN GROWER

MR. T. J. Wood of Twin Bluffs, Wisconsin, discovered a new melon in a field of Craig's Honey Dew and Golden Oval which he called "Wood's Golden Marvel," according to the Market Growers Journal.

The melon is described as a heavy yielding early solid, netted, honey-sweet cantaloupe of large size. It does not split, crack or check at the blossom end and produces the least culls of any melon Mr. Wood has ever grown in 50 years of experience. It appears to be drought resistant, producing an unusually fine crop last year. It is early, ripening ten days ahead of Oregon Delicious. The flavor is claimed to be equal to that of Honey Dew.

Mr. Wood describes his operations in the Journal in part as follows.

One of the First to Buy a Truck

"Our 146 acre farm, in connection with which I also rent up to 60 acres per year for garden purposes, is located in South Central Wisconsin, overlooking the Wisconsin River Valley. Any type of soil from blow sand to black lime-stone ridge land is available in this section. Forty years ago I planted an orchard of 3,500 trees, besides growing nursery stock and small fruit, and at one time had an Apiary of 200 colonies of bees, and have always grown melons, some years exceeding 20 acres. We sell our produce by trucking it to dealers and tourists in northern Wisconsin. I think I bought one of the first trucks that was put in the market."

ASPARAGUS YIELDS AFFECTED BY EARLY CUTTING

ASPARAGUS should not be cut the first year after setting, according to results of an experiment conducted by the Illinois Experiment Station. The variety used was Mary Washington, and the test showed that severe early cutting is injurious to both yield and quality of the spears. A cutting of two weeks the first year after setting the plants decreased subsequent yields as compared with plants not cut until the second or third year. Cutting for four weeks the second year after setting also reduced subsequent yields, but when cut for only two weeks, did not prove harmful.

COLUMBINE AND IRIS BORERS

ANY information that will assist in the control of the columbine and iris borers will be welcomed by amateur gardeners, I am sure. Studies of the egg-laying habits of the moths of both borers have been made by Grace H. Griswold of Cornell University, Ithaca, N. Y., and have just been published. Her observations dispel any doubt of the virility of the species.

The columbine borer moth was found to lay its eggs singly and scattered on the ground to a total of as many as 850, the egg-laying period for the species being August 21 to September 21. This iris borer moth lays its eggs in clusters, the maximum egg number being 1,432, the egg-laying period being September 20 to November 8. In the latter case, the eggs were rarely laid on green leaves, the moth preferring dried leaves, debris, and any rough surface.

Thus, in the control of the iris borer, at least, the common practice of burning over the clumps in early Spring must destroy most of the eggs, but a thorough clean-up of all debris and old foliage certainly is advisable.—*The Roving Gardener in Horticulture.*

Professor: "Too bad! One of my pupils to whom I have given two courses of instruction in the cultivation of the memory has forgotten to pay me, and the worst of it is, I can't think of his name.

TULIPS I LIKE BEST

RUTH HODGSON
Waukesha

THE new tulip Fantasy which has only been on the market a few years is the most beautiful tulip I have ever seen. It is large for a tulip and holds its petals a long time.

Another tulip I am very fond of is Inglescomb Yellow, a midseason variety. I think it is the best yellow tulip on the market. I am also very fond of Mrs. Moon, a pointed petaled tulip of a clear yellow color. The darkest tulip I know of is La Tulipe Noire. It is especially attractive if planted near yellow tulips.

Clara Butt is a pretty pink and I also like Bartegan Red. Nora Ware is a delicate lavender. We have two different Parrot tulips that I love. One is a vivid yellow with green and red markings and the other is red with black markings. They are very odd as well as beautiful. I think they look like huge spiders when fully open.

Year before last we planted about 12,000 tulips, not counting small ones that would not bloom. We always try to plant colors together that will harmonize and emphasize each others beauty.

We usually plant a double row of tulips along each side of one of our rows of iris. The early iris and the late tulips bloom at the same time and make a gorgeous spot of color.

The very tiny tulip bulbs we keep separate and plant here and there in odd corners, and when they grow and in a few years bloom, they make pleasing spots of color. They will grow under small fir trees, small shrubs, and among other perennials. When they bloom they are not as large as those planted by themselves and cultivated and watered, but they are pretty just the same.

Mrs.: Statistics show that six out of every ten college men get married within two years after graduation."

Mr.: "And the other four live happily ever after."

Flower Arrangement

INTRODUCTION

PROF. J. G. MOORE

DURING Farm and Home week held by the University the Department of Horticulture put on a special program on flower arrangement. The purpose was to consider some of the fundamentals of good arrangement as they relate to the use of flowers in the home. Some of the points brought out follow:

The search for variety in flower shows has led to the introduction of features poorly or not at all adapted to use in many homes. While period arrangements are of interest historically, they have a very limited use in the modern home and contribute little if anything of use in the meeting of our present day problems.

We quite generally agree that there are certain fundamentals of flower arrangement, although we may not all agree on just what they are or on their limitations. A flower arrangement is an artistic creation and as such a good arrangement must conform to those limitations accepted as distinguishing good art.

An arrangement of Newport Wonder Dahlias. By Mrs. Albert Humble, Courtesy American Dahlia Society Bulletin.

ELEMENTS OF BEAUTY IN FLOWER ARRANGEMENT

FRANZ A. AUST

THE popular notion that "there are no basic principles underlying the arts; that beauty is beyond definition; that art is free, unhampered by principles and laws" if followed would of necessity lead one to some very curious flower arrangements. If we approach the problem of flower arrangement from the thought that the creation of anything which is to please the eye must also satisfy our reason, and that "order is Heaven's first law", we may discuss the elements of beauty in flower arrangement and arrive at a common understanding of the problem.

The natural-born artist responds to basic principles and laws so intuitively, so naturally, that for him even an understanding of the laws may not be essential. But a great number of people who are not natural-born artists are interested in the arrangement of flowers. These often reason their way as they go, step by step in the placing of each spray or flower. Feeling must of necessity be a test for the reasons they may have for doing as they do. But if their reasoning is not sound and their taste is poor, the bouquet will likely be ugly. A thorough understanding of the subject of design and arrangement will prove helpful and a knowledge of the elements, factors, and principles of flower arrangement is essential.

Elements of Beauty

In the art world, it is generally agreed that the elements of beauty are line, form, color, tone and texture. These are called the natural elements of art structure. In flower arrangement, they are determined by the length of stems, the form of the flowers, the colors which are used, the general tonal value, as well as the relative size of the petals to the flowers themselves. All of these come under the consideration of elements of art structure. Under "line" we would include such terms as "outline", and these give rise to contour and form, area, shape, mass, and volume. By "color" we mean hue, color qualities, color value, tint, shade, and intensity. By "tone values" we mean the relative degree of light or dark values independent of color. "Texture", on the other hand, gives rise to surface qual-

ity. It may be coarse or fine, smooth or rough, hard or soft. Just as the texture of velvet depends upon the character and the weave of the thread, so the texture of a bouquet depends upon the character and disposition of the leaves in relation to the flowers and the stems.

After considering the elements of art structure, we should also consider the purpose for which a bouquet is created. Purpose, function, content, and use are all terms that are important in the creation of a pleasing bouquet. An effective floral arrangement must have some definite purpose for existing or it must have a definite use for which it was created. In other words, it must have meaning. Consequently, we may say that utility is an all important factor in the creation of a pleasing composition or a work of art.

Principles or Laws of Design

It is becoming universally accepted that there can be no real enjoyment of an object of beauty or a work of art without its giving a feeling of oneness, a center of interest, or a dominant idea being prevalent in the composition. This feeling of unity or oneness applies not only to the composition as a whole, but it also applies to the individual and subordinated parts of which the entire object is composed. When there is dominance in the entire composition, as well as dominance in the individual parts, we say that the "principle of unity is satisfied".

Unity demands that some one idea predominate throughout the whole; that all details are subordinate. Unity of composition in floral arrangement is secured by selecting one dominant hue, or one style, and adhering to it. It consists of excluding all discordant features without regard to their individual value. Unity is secured by uniting details such as line, form, color, tone, and texture. Unity considers the whole, while variety deals with details. Variety carried to excess must of necessity violate the principle of unity. Someone has said that "100% unity gives us monotony; but 100% variety gives us chaos".

Rhythm

Rhythm is that sense of completed movement without beginning and without end, a fusion of line and form and color into one pleasing entity. Rhythm leads the eye from flower to flower or line to line about the bouquet, leaving us either pleased or curious, excited or soothed. This pleasing motion is called harmony or harmony of motion.

The third basic principle for consideration is that of "pleasing space relationship". It includes such considerations as proportion, measure, ratio, scale, size, balance, repose, equilibrium, and certain aspects of symmetry. Harmonious motion may be present and still there may be ugly space relationships expressed through proportion or ratio.

Character

To complete the analysis of the elements of beauty and composition, especially as they are related to the principle of design, one must also consider the resulting attributes. These attributes are not ends in themselves, but qualities that are essential to good composition and which necessarily result if the elements of art structure are combined according to the principles or laws of design. In naming the attributes, one usually considers the following: Congruity or fitness; order, simplicity, and character. All of these together might well be summed up under the common heading which one so often finds on score cards, namely "Distinction". Distinction is the result of character and, knowingly or unknowingly, everyone who arranges a bouquet of flowers leaves the impress of their character upon the composition. By character in a work of art we mean those more delicate distinctions in the general method of treatment such as will mark one composition or one arrangement from another even if both are done in the same style. Character is the result of the natural conformity to all the basic laws of design; the use of the different elements of art structure in a manner which expresses the designer's individuality in a beautiful way.

Everyone, if he will, may achieve order and, while achieving order, may always hope for beauty. When order, beauty, simplicity, and character are perfectly intermingled in the expression of a great universal idea, then we have great art.

MADISON CLUB HAS FLOWER PICTURE CONTEST

THE Madison Garden Club on April 9th celebrated its ninth birthday with a pot-luck supper and a delicious birthday cake.

Besides our program a feature of the evening, sponsored by the Civic Committee designed to help financially, developed into quite a contest. Flower pictures were made from printed floral materials such as prints, percales or broadcloth. These were cut out and laid on white outing flannel or colored backgrounds, such as tan, green or black. The pictures were divided into six groups: Japanese arrangements, nosegays, garden scenes, black backgrounds, tall arrangements and low arrangements. Mr. H. J. Rahmlow, Mrs. S. Post and Dr. W. T. Lindsay were the judges. We plan to have more on sale at our card party, also at our flower show.

Plant Lilacs in Arboretum

There was a big thrill for the members with the report that our long planned for Lilac Arboretum was an actual accomplishment at last. Our first planting, 63 kinds of the French and Persian varieties or 194 shrubs in all, have been arranged in a color scheme.

We hope many garden club groups will make an annual pilgrimage to this knoll when the lilacs are in bloom.

—MRS. GEORGE F. HARBORT,
President.

EDITORIALS

NEWS ABOUT THE SOCIETY

APRIL was a very busy time in the offices of the State Horticultural Society. Over 2,000 new and renewal memberships were handled, and almost 2,000 plant premium requests listed.

The membership of the Society at this time is about the same as it was a few months ago, the total being 4,100. While there were several hundred new members joining, there has also been a slight dropping off in membership of local organizations so that the total is about the same. There will, however, be some increase during the next few months.

English Walnut Orders Large

We have been very much surprised at the great interest in the new Carpathian English walnuts selected by Rev. Crath of Ontario, mentioned in the last magazine. Orders are still coming in and at this time orders for $100.00 worth of nuts have been received.

Over 50 members requested cions of the new apple varieties. These were sent out April 18th.

Orders for new varieties of fruits and ornamentals for testing have been coming in well, better than in the past few years. A report of this was given in an early issue.

During the past few months the secretary conducted three strawberry growers' institutes, three district beekeepers association meetings, and spoke at nine garden club meetings. We have arranged a series of garden club broadcasts over Radio Station WHA, Madison, every Tuesday at 10:15 a. m. These will continue until July 1st. Be sure to listen in.

The secretary has written a new bulletin on Wisconsin Flower Shows, their organization and premium lists, approved by the Federation Executive Committee.

WHO IS OUR OLDEST MEMBER?

Mrs. A. C. Holister, Mukwonago, Wisconsin, writes on March 26th. "I am sending in my membership dues for another year. I have enjoyed Wisconsin Horticulture for so many years that even if I can't hope to do so much longer (I am 84) I feel I must have it as long as I can."

Are any of our other members older than Mrs. Hollister?

CHICAGO FLOWER SHOW BETTER THAN EVER

THE Chicago Flower Show opens the gardening season each spring. The show this year was most beautiful and educational. New classes, new varieties of flowers, and improvement in quality had its effect in bringing increased attendance. On Sunday, the second day of the show it was necessary to close the doors for a short time to avoid congestion.

Judges from Wisconsin were Mrs. W. A. Bowers, Milwaukee, Mrs. M. VanderHoogt, Wauwatosa, and Mr. H. J. Rahmlow, Madison.

The Wisconsin Garden Club Federation extends congratulations to Mrs. O. W. Dynes, manager of the show, and her assistants.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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Vol. XI | MAY, 1935 | No. 5

We Must Clean Up Foul Brood

EVERY beekeeper will admit that American foul brood must be cleaned up before beekeeping will be safe in Wisconsin—or any other state.

The big question therefore is, how can we go about it? We believe it can be done if every beekeeper will become concerned enough about it and fight for a program to eradicate it from the state within from five to ten years.

Obviously the present method of county area cleanup will not do it. Bees have the habit of flying across the county line and even the state line.

A Plan

We believe that the only plan which will work is for the state of Wisconsin to take hold of this problem the same as it did with T. B. and Bangs Disease in cattle and clean up every county in the state. That means a large sum of money to be spent over a comparatively few years of time, but in the end will no doubt be cheaper than the present plan because once we get rid of it, it won't cost so much to keep it under control.

The present plan which requires a county to make an appropriation, simply means that where beekeepers have enough political influence to get their county board to make an appropriation, the work is done. The fact that beekeepers in some counties are unable to get such an appropriation should not deprive them of this help.

We should begin now plans for a campaign to have the Legislature in 1937 appropriate a sufficient sum of money to eradicate the disease from the state.

By that time we hope the occupational tax will be operating so that the state will have a revenue from the tax on bees to help pay the cost. For that reason we should not object to the state receiving 80% of the tax money collected on bees.

Organize

This program will require organization. We must have county and district associations. The beekeepers must convince their own senators and assemblymen of the necessity of this program. We must remember that laws are not passed because someone at Madison wants them passed. They are passed because of pressure brought to bear upon assemblymen and senators by the voters in their district.

Talk this matter over with your neighboring beekeepers.

NATIONAL CONVENTION AT DETROIT

The National Convention of the American Honey Producer's League and the American Honey Institute will be held at Detroit, Michigan on October 7–10. A good program is being prepared.

NATIONAL HONEY WEEK

National Honey Week will be November 10–16 this year. All beekeepers should organize local programs. Write the American Honey Institute, Madison, for suggestions.

DISTRICT BEEKEEPERS ASSOCIATIONS ORGANIZED

THREE very successful beekeepers meetings were conducted by the State Beekeepers' Association, March 26–27–28. As a result of these meetings, permanent district associations were organized—the Southwestern Wisconsin Association organized at Lancaster, the Southeastern Wisconsin Association at Waukesha, and the Fox River Valley Association at Appleton.

Temporary Officers Elected

At each of these meetings temporary officers were elected. Those present voted unanimously to organize a district association.

The Lancaster meeting was attended by over 30 beekeepers. A larger attendance was anticipated and would have been present, but during the forenoon there was a heavy snow storm and the roads in this section were quite bad. The meeting was enjoyed by those present however, especially the splendid luncheon provided by Mr. and Mrs. Ralph Irwin of Lancaster. This included even apple pie made with honey. Plenty of comb and extracted honey was on the table.

The following officers were elected. Chairman, Mr. Newton Boggs of Viroqua; Vice-Chairman, Chas. Zilmer, Steuben; Secretary-treasurer, Mr. Ralph Irwin, of Lancaster.

It was voted to hold the next district meeting at Lancaster, Schreiner's Park, Sunday, July 28th.

The Waukesha Meeting

Over 40 beekeepers were present at the Waukesha meeting. Unfortunately the Milwaukee County members find it difficult to attend a day-time meeting as many of them have jobs. The meeting, however, was very successful, with a good program presented.

The following temporary officers were elected: Chairman, O. P. Craig, Mukwonago; Vice-chairman, F. J. Paepke, Burlington; Secretary-treasurer, Arno Kraetsch, Rockford, R. 1.

It was voted to hold a district meeting sometime in September, details to be left to the officers.

Large Crowd at Appleton

About 50 beekeepers and their wives attended the Fox Rixer Valley District meeting at Appleton. A great deal of enthusiasm was shown for the program. Forty beekeepers signed their names and reported 2,745 colonies of bees, an average of 69 colonies for the 40 beekeepers. One reported 500 colonies, two reported 400 colonies each, two 150 colonies each. One had 181 colonies and another 100 colonies. Five counties were represented.

The following officers were elected: Chairman, Mr. Ed. Hassinger, Jr., Greenville; Vice-chairman, Wm. Sass, Fond du Lac; Secretary-treasurer, Leonard Otto, Forest Junction. The members voted to hold a summer meeting the latter part of August.

Speakers at these meetings were Mr. A. E. Wolkow, President of the State Association, Hartford, Prof. H. F. Wilson, Madison, Mr. E. L. Chambers, Madison, and Mr. H. J. Rahmlow, Madison. Local beekeepers took part in the program.

Mott's Northern Bred Italians

Non-swarmers. Eliminates that swarm nuisance. Purely mated, or will exchange. See list.

April, May, $1.00; 3, $2.85; 6, $5.25. June, July, $1.00. 2 or more, 75c ea. 50, $35.00. 100, $65.00. Virgins, 40c. Fair to good breeders, $2, $3, $5.

Satisfaction guaranteed.

E. E. MOTT & SON

Glenwood, Michigan

Why Have District Organizations?

THE success of our first effort at district organization in Wisconsin has led to the question—"Why promote a district association?"

There are a number of reasons why this will be an advantage to the beekeepers. First of all, it will enable the State Association to put on one-day conventions in each district several times each year, and to provide at these meetings the best program possible. We do not have a beekeeping extension man and it is difficult for the speakers available to attend all the county meetings, especially when more counties are organized as we anticipate there will be. It will be possible however for the speakers available to attend several district meetings during the year.

Secondly it gives beekeepers in adjoining counties an opportunity to meet each other and get better acquainted and exchange beekeeping experiences. Perhaps it will help the problem of marketing because beekeepers sell honey in adjoining counties.

In counties where it is impossible to have a successful county organization it will give the beekeepers an opportunity to join an association by joining the district organization direct.

The Plan

The following plan has been suggested. That the district organization elect officers to consist of a chairman, vice-chairman and secretary-treasurer, and a board of Directors composed of the president of each organized county association.

That all members of county associations who have paid their state association dues, automatically become members of the district association as well. The plan is for the county association to affiliate with the state, and charge not less than $1.00 in dues, 75c of which goes to the State Association and includes Wisconsin Beekeeping and Wisconsin Horticulture. Members who cannot join the county association may join the district association direct by paying $1.00 to the district secretary and have the same privileges.

It is suggested that at least two meetings be held each year, one in early spring to discuss spring problems, and beekeeping management, another in the fall for a program on honey packing, honey marketing, fall and winter care of bees.

Setting Prices

It was brought out by the editor at the Appleton meeting in answer to a question "What has become of our price fixing committee?" that we are all quite independent and do not like to be dictated to, especially by a small committee. Therefore, recommendations on prices made by a small committee representing the State Association usually meets with favor by only a few. Many beekeepers resent the suggestion that a committee be allowed to dictate the prices they are to charge. It will be much more successful if the beekeepers in attendance at a district meeting discuss among themselves the prices they will charge and then vote on the price. While the plan will probably not be perfect, at least a better understanding will result.

Talks and demonstrations on the proper heating, clarification, bottling and labeling of honey are needed.

WIRED FRAMES

Wires will not rust or sag. Packed in flat. Easily assembled. Strong and perfectly straight combs assured. Catalog and literature on request. A. E. Wolkow Co., Hartford, Wis.

Swarm Control

H. Hodgson
Waukesha

THE problem of swarm control is only incidental in my method of handling bees. I do nothing to eliminate swarming per se.

In this section there should be no swarming in extracted honey production if the bees are handled properly, at least not more than one or two percent. In comb honey production, regardless of everything I can do, I have a certain amount of swarming. In some years this runs up to 25%, but is generally less.

The conditions necessary for the production of fancy sections, and lots of them, i.e., very strong colonies, crowded, also are the conditions that promote swarming, but we can reduce it by seeing that the queen does not lack room to lay during the honey flow, and being very careful not to put on the section supers until there is a honey flow.

For best results every colony should be requeened some time in August each year. Each colony should be wintered in two hive bodies if wintered outside, and the yard should be protected from strong winds, if possible on all sides. The upper of the two hive bodies should be full of early honey. A certain amount of packing is advisable but packing should not be done until November.

In the spring the bees should not be unpacked until about the 1st of June. They would winter without any packing in a well protected location, but if you are going to have the maximum of brood raised in the spring, packing is essential, for expansion of the brood nest is dependent on the space the bees can maintain at the proper temperature for brood rearing. The cold nights we often have in May makes packing more necessary then than in January.

Possibly exceptional queens may need a third hive body in the latter part of May for brood rearing, though two are usually sufficient.

When the honey flow starts and the colonies are showing a consistent gain of 3 or more pounds per day, put on supers. Before doing this locate the queen, and put her in the bottom hive body, with ten frames of sealed brood, emerging brood. Put a queen excluder on this hive body, a super above and on top put the rest of the frames of eggs and brood, where it will be filled with early honey as the bees emerge. Then add supers as needed. I get greater yields by putting the added supers next to the hive body.

In the fall after requeening and after the crop has been taken off, drop the top super down on the bottom hive body after removing the excluder.

When producing section honey, of course the second hive body used as a brood nest is given, with its unsealed brood and eggs, to another colony after all the bees have been brushed into the hive to be run for sections or used to make increase.

One assumes that only perfect combs be used, made from foundation wired at the factory, or, if one has time, wired and imbedded by hand. Either way one can have perfect brood combs. No one thing causes swarming. No one thing will prevent it. By doing a few things at the right time the conditions that cause swarming are eliminated, and by doing these same things we are making possible maximum honey crops.

EQUIPMENT

FOR SALE OR TRADE for honey. 50—3 story 8 frame Lewis hives with empty frames, excluders; like new. Electric bench saw. ½ H. P. motor. H. Reim, Watertown, Wis.

HONEY WANTED: Comb and extracted; all grades. Send samples and best price delivered Oconomowoc. C. W. Aeppler Company, Oconomowoc, Wisconsin.

MEMBERSHIP INCREASING

THE membership of the Wisconsin State Beekeepers Association has increased by 61 members over that of one year ago.

While this is not large, at least it is encouraging. The dropping off of membership has stopped and we are on the upgrade.

The next step is to organize more and stronger county and district associations. These local associations should then affiliate with the state association at the reduced membership rate of 75c. In that way we will have a closely knit organization that can accomplish things.

N. E. FRANCE GIVES BEEKEEPING COURSE

AN INTERESTING course in beekeeping was recently given by Mr. N. E. France at Platteville, Wisconsin.

Authorities in the city started a night school for adults and there was interest in a course in beekeeping. Mr. France was selected to give the course.

Since Mr. France was a national leader in beekeeping a generation ago, many people will be pleased to know that he is still in the harness, and still an active state deputy inspector. You will recall that he was the first official bee inspector in the United States.

C. D. ADAMS,
Chief Apiary Inspector.

PAPER CUPS FOR HONEY

Much of the honey in Central Europe is retailed in paper cups. They bear print on the outside and are very inexpensive, much more so than the glass container, besides being unbreakable. The only disadvantage of the cup is that the buyer can not see the product he is buying. Even this difficulty appears solved. In recent time a firm put transparent paper cup on the market, slightly higher than the former non-transparent cup, but still much lower priced than glass.

THE DISTRICT MEETING AT LANCASTER

RALPH IRWIN

THE District Beekeepers' meeting held at Lancaster on March 27th was a profitable and enjoyable affair for those able to attend. Bad weather and roads kept many away.

Dinner was served free to all, by local beekeepers.

Mr. Chambers complimented the president of the County Association and bee inspector for Grant County, Mr. N. E. France of Platteville as the youngest bee inspector. It developed that Mr. France was the first officially appointed bee inspector in the United States.

The County Association voted to again put on an exhibit at the State Fair.

The meeting as a whole voted to form a district association and a temporary organization was effected, with N. Boggs of Viroqua, Chairman, Chas. Zilmer of Steuben, vice-chairman, and Ralph A. Irwin, Lancaster, Secretary-treasurer.

The first regular meeting is to be held in connection with the Grant County Association's annual picnic at Schreiner's Park, Lancaster, on Sunday, July 28, 1935.

On Sunday, April 7, Mr. France, bee inspector, met with local beekeepers at the home of Joseph B. Hessling near Potosi to discuss the bee disease situation. An outbreak of American Foul Brood in that community late last fall has made the beekeepers uneasy. There was a good attendance and a fine spirit of cooperation among the beekeepers was indicated.

NOT TO BE KIDDED

Mechanics Prof.: "Describe the mechanism of a steam shovel."

Frosh Engineer: "Don't kid me. You can't carry steam on a shovel."

—WIS. ENGINEER.

Can We Develop Bees Resistant to American Foulbrood?

A NUMBER of scientists and beekeepers have advanced the opinion that it will be possible to find strains of bees resistant to American Foulbrood and that therein lies the final hope for beekeepers.

Practically all beekeepers are convinced that something further should be done in addition to what we are now doing to control this disease.

In the September issue of the American Bee Journal we find an interesting article along this line. The following portion of the article is especially interesting.

"Some very interesting comments come from Charles Mraz, Vermont Apiary Inspector, who expresses the opinion that in resistant bees will be found the only real cure of American foulbrood. Mr. Mraz has had wide experience with disease in his own and other yards and tells of some striking results.

"By requeening with stock which has developed a degree of resistance. Mr. Mraz has already found encouragement. The results obtained have been sufficient to justify the hope of ultimate success if the matter can be followed up properly.

On this point we quote Mr. Mraz further:

" 'I always believed that some bees must be resistant. How else could they have survived through the ages before humans acquired the intelligence to bungle nature's law of the survival of the fittest?

" 'I believed that most of the bees in this country are not resistant because all are descendants of a comparatively few colonies. These descendants instead of decreasing through the law of the survival of the fittest were increased much faster and were bred artificially for color, gentleness or honey gathering qualities.

" 'In Europe, where bees have existed for centuries, would be the best chance of obtaining resistant stock. It seems to me the best way to find out more about it would be to start importing queens again, especially queens from isolated places where they have not been subjected to artificial breeding. Among these, resistant strains of almost every race could be found.'

"Mr. Mraz has raised some questions worthy of very serious consideration. Considering the enormous losses from disease, the industry cannot afford to drift along without effort to find the remedy. If the Bee Culture staff will take hold of this matter in the way suggested there can be little doubt of the final outcome. Under their supervision we may rest assured that the matter will be handled in a way to protect the industry and to offer no interference with the state programs of inspection." —From *September, '34 American Bee Journal.*

QUEER BELIEFS

Deutsche Illustrierte Bienenzeitung (December) quotes some old views from bee books of 130 years ago. One of the most delightfully far-fetched attributed foul brood to the loss of one of the queen's antennae! The idea was, that the grub (laid by the workers, presumably) had to be fertilized by the "king bee" (Weiser), who first put "his" head into the cell in order to lay the grub flat before putting in his tail and fertilizing it. Lack of an antenna—the tools for the purpose—meant that reversed or decayed brood resulted. Loss of a foot similarly caused the king-bee to fail to fertilize the egg; whence superfluous drone brood (in worder cells). Ordinary drone brood, however, was believed to be fertilized; so that this lucky guess was not as good as it at first looks!—*From the April Bee World.*

A MANUAL OF HEDGES

A Home Owner's Manual of Hedges, by Marian Burcky, L.A. is a very interesting new booklet available free by gardeners from Skilsaw Inc., 3310 Elston Avenue, Chicago. The manual describes not only the cultivation of different kinds of hedges, but how to shape and prune them. It is illustrated with a number of interesting photographs of various types of hedges.

LUPINES NEED ACID SOIL

Lupines, which are used in Germany for soil improvement, are so sensitive to alkali that an excess of lime in the soil may prevent their growth. This may explain some of the failures with this plant in America.—*From April Farm Research, N. Y. Station.*

EFFICIENCY

There is a popular misconception that efficiency in farming is at odds with the interests of the people. As a matter of fact, there is more need than ever now for growing crops at low cost. Cut out waste; grow what the market demands; produce as cheaply as possible keeping up quality; and the result will be advantageous to both farmer and consumer.—DR. DONALD F. JONES, *Connecticut Experiment Station.*

NEW BULLETIN

Pasteurizing Soil Electrically to Control Damping-off, is the title of a bulletin of the New York Experiment Station, Geneva, New York. It is stated that pasteurization of greenhouse soil with electric heat has given satisfactory control of damping-off. Most weed seeds are also killed, as well as nematodes and insects.

NEW FRUITS FOUND BY DR. HANSEN

DR. N. E. HANSEN of the South Dakota Agricultural College has returned from his eighth tour of plant hunting. This trip was made at the invitation of the Lenin Academy of Agricultural Sciences at Leningrad and extended East to Shilka at the headwater of the Amur River.

Plants collected included a hardy Siberian apricot, and a Chinese Elm immune to Dutch Elm disease.

Potatoes were brought which will be used to breed a new type resistant to frost and immune to late blight.

Native rubber plants were found in Central Asia.

HICKORY NUTS PROPAGATED BY TURNING UP SIDE ROOTS

ONE of the best methods successfully employed in shad bark hickory propagation was suggested by Fuller in his "Nut Culturist." It consists of "turning up or exposing at the surface of the ground of side roots severed from the parent tree."

The method as suggested by Fuller is described in Bailey's encyclopedia of Horticulture as follows:

"The severed side roots are straightened up and tied to sticks to hold them in position with their cut ends about level with the surface of the ground to stimulate the formation of shoots from adventitious buds, one of which is eventually made the trunk of the new tree. The lower end of the roots is not severed until the top has formed when the new tree should be transplanted to its permanent location in rich and mellow soil and kept well mulched until thoroughly established." The method is slow and sharply limited in application but it is perhaps the surest in the hands of the amateur grower.

NATIONAL ROCK GARDEN EXHIBITION

The National Rock Garden Society is planning an extensive show and program at Cincinnati, Ohio, May 16–18.

Rock gardens will be visited and two illustrated lectures given on construction and planting the rock garden.

GINGKO TREE SUCCEEDS AT MILWAUKEE

Mr. Phelps Wyman, landscape architect of Milwaukee writes: "I have found the *Gingko biloba* to be successful in Milwaukee. There are large trees here."

HERB SOCIETY ORGANIZED

THE Herb Society of America held its first annual meeting in Horticultural Hall, Boston, March 26. Dr. Edgar Anderson of the Arnold Arboretum, was elected president.

The announcement of the award of the gold medal to the exhibit of the Society at the flower show in Mechanics Building, Boston, was received with applause.

Committees were appointed and details and plans were laid for the growth and development of the Society along horticultural, botanical and scientific lines. —*From Horticulture.*

BEES REQUIRE INSPECTION BEFORE MOVING

AUCTIONEERS preparing for spring sales were reminded of the state law requiring that a permit be obtained before used bee equipment, comb or bees can be moved or offered for sale.

Permits can be obtained or inspection arranged for by writing E. L. Chambers, State Entomologist, State Capitol, Madison, who states that no fees are charged for the inspection, but that the state law is being enforced and several violators have already been prosecuted and fined. The state law provides a penalty of a fine of not less than five dollars nor more than $100.

About the Home and Garden

MRS. C. E. STRONG

APRIL 15th, a cold northwest wind blowing the snow so one can scarcely see the road. Yesterday the sun shone and Crocus, Scillias and Violets bloomed, the buds on the Phlox Subulata were showing color, birds were singing; we really thought spring was here. We had that urge to dig up the ground and plant something—but the ground was not quite dry enough. The cold frame is filled with perennial seeds tucked in last fall, so they would be ready to pop up with the first warm sunshine. There is still time for many annuals as they are usually left too long in the frame. Small plants are much safer to set out than the leggy kind. Salpiglossis less than two inches tall will transplant nicely—while if allowed to get leggy, will nearly always wither away.

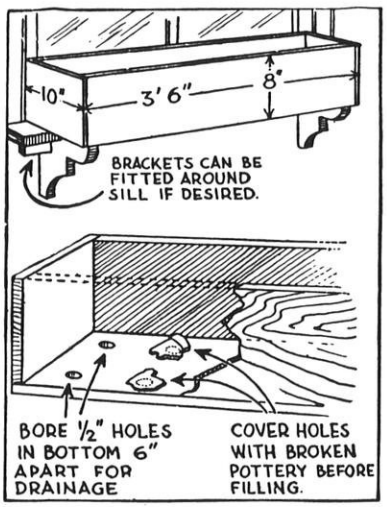
I like to sow seeds in the frame, because weather conditions can be controlled—and the plants put in well stirred up ground among the bulbs, just as I want them.

The Tulips

The results of last May's hailstorm are shown in the Tulips. There will be but few blossoms as the result of losing their foliage just as they were in bud. Daffodils and Narcissus where the foliage was not completely cut off, are budded fairly well. Although Lilacs were stripped of both blossoms and leaves, there is every prospect of a wealth of bloom.

Trial Shrubs Prove Good

So far all trial shrubs and plants came through the winter in good condition. Viburnum Carlessi is covered with fat buds as is the Redbud. Koelreuteria or Golden Rain Tree is all right as is the Chinese Dogwood.



"Bring hether the Pinke and Purple Cullambine
With gelliflowers,
Bring Corronations and Sops in wine
Worn of Paramoures;
Strew me the ground with Daffadowndillies
And Cowslips and Kingcups and loved Lillies,
The pretty Pawnce
And the Chevisaunce
Shall match with the fayre flower Delice."

—*The Old World Pleasance.*

New Rose Good

The new rose Blaze, tho killed back considerably, came through the twenty below zero weather in good shape, *with no covering.* It was very hard to treat it so unkindly, but, we want to know whether these things are hardy —so they must not be covered and coddled. Blaze came through in better shape than Paul's Scarlet Climber. Given some protection, should think it would be classed as a reliable rose for this section.

Try Aladdin Again

Chrysanthemums came through generally in good shape, with the exception of Aladdin. This lovely Mum either does not like my garden or the places in which I have planted it, or is not hardy in this section. Neither the covered nor uncovered plants survived the winter, tho all were in a sheltered spot where other plants came through nicely. Shall try again tho, for they are well worth growing even as an annual.

Plants in general look much better than last year at this time, plentiful rains and the snow covering helped to strengthen root growth. We are looking forward to a bountiful show of bloom.

Azalea Hardy

Azalea Mollis came through the winter in fine shape, are alive clear to the tips, but a busy rabbit bit off nearly all buds. A taller wire fence will have to be provided for the winters when we have snow. A good sprinkling of alum was given the ground around the Azaleas early last fall. That was well for their health during the winter—but the alum should have been given in early summer, there would have been more buds for the rabbits. Small seedling Azaleas also lived over with no protection. The soil should have plenty of peat moss mixed with sand and gravel—the root growth is much better when the coarse gravel is added. Do not forget to water plentifully early in the season—but sparingly later, else there will be few buds. Use only well rotted cow manure for fertilizer, mixing with peat and spreading on top of the ground, the roots of Azaleas are quite close to the surface and do not like to be disturbed.

Like Acid Soil

Reading that Azaleas disliked commecrial fertilizers I experimented with a well known brand on some seedlings, giving a very little and that very carefully. They did not like it, proving

their dislike by curling up and dying. But they do like alum—several little plants stood for a long time without making any growth whatever. After adding a level teaspoon of alum once a week for several weeks, they started to grow, putting out healthy glossy green leaves. Experimenting with seedling Azaleas is very interesting—but rather hard on the Azaleas. However I hope to be able to grow them better because of what I have learned.

Left a seedling Laburnum outside for two years. It came through this last winter nicely, until a rabbit spied it.

LOVELY PANSY PLANTS

I specialize in hardy field grown Pansies. Fully acclimated, of the World's finest and largest flowering varieties. Best rainbow colors and shades of 90 varieties. Strong well rooted plants @ 4 dozen for $1.00, postpaid.

To my knowledge I am the largest Pansy grower in Wisconsin and ship every day up to June 10th.

Order Early! Satisfaction guaranteed. Flower lovers and visitors are welcome to visit us at any time. Member Green Bay Garden Club.

WM. F. LANGE
1286 Shawano Avenue
Green Bay, R. R. No. 5, Dept. F., Wis.

"A Primrose by the River's Brim"

By BILL

EVER since my mother told me of the yellow English Cowslips growing in damp meadows and wild Primroses in the spinney near her childhood home, Primroses have had a fascination for me. It is only in the last few years that I have realized the vast variety of these plants, and I must confess to more failures than success in their culture.

Last spring, in early May, it was my good fortune to stop for a too brief visit at the garden of Mrs. Percy Armstrong in Glencoe, Ill., while driving to Chicago. The Polyanthus tribe were flowering by the hundreds, in all their show of gold and silver lace, bronze and yellow and odd colors and shades I know no name for. All around the yard were primroses, tiny brilliant flowers of Mrs. Armstrong's own Juliae Lodge Hybrid, crowns just starting into growth of the great Asiatic bog primroses and all the varieties between. Mrs. Armstrong told of many losses due to the preceding winter and the hot dry summer before, but still there were thousands left.

A Native Primrose

Did you know we have a little Primrose native here in Wisconsin? It's a dainty little thing, at home in Arctic regions but coming south in cool shady damp spots at the Dells of the Wisconsin where one may find its tiny mauve flowers in clusters on slender 3 or 4 inch stems in mid-May.

It's a shy little thing, not at all showy. One may grow it in a protected spot, with eastern exposure, well drained soil and constant moisture. It is quite common along Lake Superior and in places near Sturgeon Bay on Lake Michigan.

Yes, it has a name, it's Primula Mistassinica or Arctic Primrose.

Here's Wishing You Luck

Some several tens of years ago when the world and I were young and full of joy, we had a little patch of clover in one corner of our garden that helped to make the world joyous to me. Each three parted leaf was a dark beautiful bronze where the fairies had smudged the green with soot, with just a line of green around the edge. And best of all, one could always find some lucky four leaves among the little patch of "Black Clover" as we knew it.

Some good flower loving neighbor gave it to us I suppose, but what happened to it I do not know now. It had been an almost forgotten childhood friend when I again received it from a correspondent in the state of Washington.

I find this friend returned to me is the same one I knew long ago. It seems to be simply a form of our common white clover, easy to grow and sure to color richly in full sun. Like the common form it is invading and must be held in check if used in the rock garden where it is effective. Perhaps a good place would be a corner of the lawn.

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Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

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H. J. RAHMLOW, Cor. Sec.
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OTTO KAPSCHITZKE, Rec. Sec.
1710 Illinois Ave., Sheboygan

WISCONSIN GLADIOLUS SHOW
University Field House
Madison
August, 1935
Growers in neighboring states invited to exhibit.

TIMING BLOOMS FOR THE SHOW

DR. D. L. FLOORE
Columbus

MOST amateur gladiolus growers plant bulbs when the garden is first spaded. They are just "rarin to go" and all sizes and varieties go into the ground in two or three days.

When attending the state or local glad show we often hear "I had some two or three weeks ago that would beat anything in here, but nothing at all now." This may be no mere idle boast as no doubt they had excellent flowers, which emphasizes the importance of "Timing the bloom."

The time from planting to flowering ranges from 65 days for the earlies to 115 or more days for the late varieties.

Varieties are classed:

Early 65 to 70 days
Early mid-season 70 to 80 days
Mid-season 80 to 90 days
Mid-season-late 90 to 100 days
Late over 100

Supposing we want to show at an exhibition dated August 10–12. Late varieties should be planted April 25 to May 1.

Mid-season late—May 5 to May 10
Mid-season—May 14 to May 20
Early mid-season—May 25 to May 30
Early—June 5 to June 8

Medium bulbs should be planted 8 to 10 days earlier than the large ones. A good catalog should give the blooming time of each variety listed, and yet plant 25 bulbs of the same variety and there will be from 10 days to two weeks difference in their time of bloom.

Good Varieties In the Trial Garden

C. D. Adams

IT WAS my privilege last summer to make several visits to the trial gladiolus garden at the University after office hours and always carried a note book. As our glads started blooming last year during the unprecedented heat wave, it was a very severe test. Some of those from which we expected great things were sad disappointments. I cannot believe we shall have another like the last one.

Some Resist Heat

At the end of the hottest day last year, we had just two varieties in bloom which did not wilt. One was Ajax, which I did not particularly like and the other was Margaret Fulton. It is described as a coral pink shading to a lighter throat. While that describes the color, it does not even suggest the charm of the flower itself. In my own garden it did equally well. Most visitors were equally enthusiastic about it. In the succeeding days, which were only slightly cooler, a large number of beautiful spikes withstood the sun. Some of them did not wilt nor crook but did have short spikes and poor placement.

One of the loveliest blooms in the whole patch was Duna. It stood the sun but when cut and placed in water, it wilted altogether too soon. Nevertheless I have bought some bulbs for my own garden this year. Most of Palmer's introductions came through with flying colors but the placement on some were not good and a few crooked. Rapture cooked in the heat wave but was good later. For some unknown reason Picardy was not as good as three or four of its sisters. To me Lindestra seemed to be about the best, but Debonaire was a close second.

Of the Colonial Garden's introductions I do not find any notes of cooking in the sun nor crooking. My notes on Sweetheart, Golden Poppy, Brightsides and Lotus are quite flattering. They were quite outstanding in my own garden. Dr. Hoeg did not impress me. Of the Australian and New Zealand varieties, Mrs. Errey was fair while Lucifer and Silversheen were good. Our Selection was not up to standard.

Of Pfitzer's introductions most were good as usual but Maid of Orleans captured my heart. About the most conspicuous flower in the patch was Wurtembergia—an imminent scarlet with a white throat. The spike seems to be short for an exhibition gladiolus.

Another one we could not help seeing was Brown's Bleeding Heart. It is a large white with scarlet throat, but it did not stand up well after cutting. Some report that it is a good cut flower. We shall watch it this year.

Of the several smokies in the garden, only two impressed me. Bagdad was good wherever I saw it. We had two spikes of the new Chippewa by Burtner. The one from a large bulb was one of the best spikes in the entire planting. Every one seemed to like it. It is described as a smoky old rose shading lighter

to a yellow throat sprinkled with ruby. There were six or seven good-sized blooms at once.

There were a number of good seedlings, as yet unnamed, besides a dozen or more spikes of Ristow's Winged Beauty which received many favorable comments.

A Vote of Thanks

We owe Prof J. G. Moore and the College of Agriculture a vote of thanks for donating the use of the ground on which these wonderful flowers were grown. We are to have even a better plot this year. It should be added that in addition to furnishing the plot of ground, the College also furnished an overhead sprinkling system and turned the water on almost every evening during the heat wave.

Perhaps only a few members realize what we owe our last year's officers and the gladiolus growers who donated the bulbs for the garden. W. E. Menge not only secured the bulbs but planted them in the spring and dug them in the fall.

CONTROL OF GLADIOLUS SCAB

Bacterial scab was satisfactorily controlled in 1933 by soaking corms of three varieties in a suspension of one pound of powdered calomel in two and one-half gallons of water for from three to five minutes. Discarding of badly diseased planting stock and soil rotation was advised. These results were published in a bulletin of the New Jersey Station, the work done by R. P. White.

NEW GARDEN TOOL ALL-IN-ONE

Hand-rake, trowel and Bulb planter. Depths of 7 varieties engraved on surface of trowel made of steel, will not rust. Just the thing for planting and weeding. 50¢ postpaid, with one crimson garden Amaryllis Bulb *Free*. Send for our plan "How to Make Money for Your Church or Club."

MRS. WALLACE B. COMBS.
Tinley Park, Ill.

POMO GREEN WITH NICOTINE FOR ROSES

Dust or spray this material on your Roses every week or ten days throughout the season and control Black Spot, Mildew, leaf-eating Insects, and Aphis with the same application.

Because of its leaf-green color, it eliminates that unsightly appearance on foliage which results from the use of many spray materials.

For other flowers, too

Can be kept healthy and vigorous with this complete material. No diagnosis is necessary—just spray or dust at regular intervals and your plants will have complete protection. Dusting Pomo-Green with a Niagara Duster is just as effective as a wet application. A Niagara hand duster suitable for the home yard and garden are only $1.25 delivered.

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Plants Ready Now

Aladdin	15¢
Azaleamum	15¢
Glory of Seven Oaks	15¢
Firelight-red	15¢
Petonite Louise-pink	15¢
Yellow Button	25¢
Vesuve (Mark red)	25¢
Alice Howell (single bronze)	25¢
Jean Treadway (pinkrose center)	25¢
Peggy Ann Hoover	25¢
Francis Wittsley	25¢
Normandy (white)	15¢
Ruth Hatton (white)	25¢
Crimson Splendor (scarlet)	25¢
Philadelphia (early rose)	15¢
Gold Coin (yellow)	15¢
L. Argentallis (bronze)	15¢

40 varieties

Prices Postpaid

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Hi-way 20—4 miles West of Racine

STATE GARDEN CLUB FEDERATION NEWS

Federation Aims: To stimulate and help garden clubs throughout the state; to develop interest in and broaden the knowledge of gardening; to aid in the protection of trees, plants and birds, and promote civic beautifications.

THE PRESIDENT WRITES

Dear Garden Club Members:

The Chicago Flower Show was greatly enjoyed by the many Wisconsin garden club members who attended.

As we entered we were thrilled to find ourselves in a Southern garden of large trees most realistically covered with Spanish moss. A soft moon shone down upon a little rill of water rippling down a hillside amidst a mass of blooming rhododendrons.

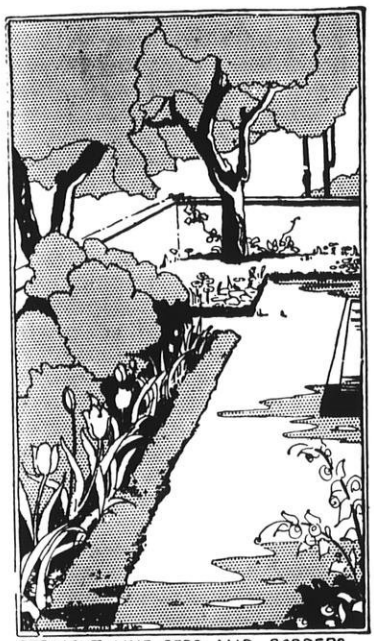
The exhibit judged the most outstanding was a small section of one of Cook County's forest preserves as we might find it, in all its glory in early spring.

The show was not only more beautiful than any previous show, but contained many educational features. In the class "Period House and Garden" we found replicas of the Stenton Mansion, Germantown, Pa., where the Garden Club of America was founded; the Sloyd house, Rensselaerville, N. Y. built in 1825; the Bacon House, Kent, Conn., built in 1810.

There was a formal table and shadow picture for each of the twelve months. The appropriate flower of the month was used on both the table and in the shadow picture.

The Illinois State Nurserymen's Association displayed a fine collection of evergreens all labeled.

Then we enjoyed the potted, bulbous and foliage plants, the cut flowers, the paved garden in the shade, the outdoor fireplaces, the summer cottages, one of which might have been picked up out of our North woods, the flower rooms, the bottle terrariums, the plant stands, the buffet tables and many other exhibits.



STRAIGHT LINE BEDS AND BORDERS ARE THE EASIEST TO HANDLE IN MAKING FORMAL GARDENS

DISTRICT FLOWER SHOWS

Milwaukee District, Milwaukee Public Service Building Auditorium (On 3rd Street near Milwaukee Road Depot) May 21–22.

Southeastern District, Racine Gas Company Bldg., May 24–25.

South Central Wisconsin District, Fort Atkinson, June 4–5.

Fox River Valley District, Oakfield. Home of Mrs. E. J. Wells, June 13.

Waukesha County District Show, Oconomowoc High School Gymnasium, June 8–9.

In the junior exhibit we saw posters, pictures, essays, bird note books, garden note books and various flower arrangements.

Again as so many times in the past, Mr. W. A. Toole of Baraboo did something nice for us. He sent an exhibit of native Wisconsin flowers for Wisconsin's exhibit in the Court of States at the National Council meeting in Los Angeles. It was also at this meeting that we made the first use of our state emblem.

Our state committees have been functioning exceptionally well, and now have many suggestions to offer you.

The next National Council quarterly Bulletin to which every club president is entitled will be of exceptional interest as it will contain the report of the National meeting in California.

To our new clubs and new members, welcome to membership in our Garden Club family. I hope you will enjoy your association with us all.

Faithfully yours,
MABEL JAHR.

NOTICE TO GARDEN CLUB OFFICERS

THE new set of slides, 27 selected flower arrangements in full color, is now available for garden club programs. Book the slides for your meetings as far ahead as possible. Write Mrs. B. W. Wells, 2526 Gregory Street, Madison. The fee is $1.00, plus transportation. We highly recommend the slides and the lecture which goes with it.

Flower Show Bulletin Ready

All clubs should order at least four copies of the new bulletin "Wisconsin Flower Shows"—

Their Organization and Premium Lists, prepared by the State Federation. The price is 50c for four copies, or 15c for single copies. Send order to the Horticultural Society, 1532 University Avenue, Madison.

RADIO PROGRAMS VERY SUCCESSFUL

THE radio programs given by Wisconsin garden clubs over the Homemakers' Garden Club of the Air, WHA, Madison, have been highly successful. Not only have listeners been interested, but the garden club members putting on the broadcast have been thrilled by the experience.

In order to find out who is listening, the Horticultural Society gave small packets of flower seeds of the new All-American varieties to the first 50 listeners who requested them. The first day following the announcement requests were received from 58 towns in 29 Wisconsin counties in all parts of the state.

The object of asking garden clubs to put on a program over the Air is two-fold. First, to popularize the garden club movement and inform the public of our work. Second, to give gardening information not only to club members, *but to all homemakers who may listen in.*

Those in charge of Station WHA have greatly appreciated the cooperation of the garden club members who have taken their time and paid their own expenses to come to Madison to give this service.

Shall We Continue?

The broadcasts will be continued throughout June, but will close for the warm summer months. If there is enough interest, and the garden clubs are willing, we would like to start them again this fall.

This spring the cooperating garden clubs were selected at random, usually those who were closest to Madison being chosen first. We would like to ask for volunteers for the fall broadcast which will probably start the first Tuesday in September. Is your club willing to send a carload of speakers and officers to put on a program? If so, send us the date you prefer, either in September or October. Send it to the State Horticultural Society, Madison, 1532 University Avenue.

RADIO PROGRAM

The Homemakers' Garden Club of the Air, Station WHA, Madison

These broadcasts begin at 10:15 a. m. and continue to 10:45 a. m.

Tuesday, May 14
Art Institute Garden Club, Milwaukee.

Tuesday, May 21
Sum-Mer-Del Garden Club, Waukesha County.

Tuesday, May 28
Menasha Garden Club

Tuesday, June 4
Whitewater Garden Club

Tuesday, June 11
Wisconsin Rapids Garden Club

GARDEN CLUB FLOWER SHOWS

Madison West Side Garden Club Flower Show, at home of Mrs. Oscar Jensen, 1121 Waban Hill, Nakoma, May 25.

Madison Garden Club Annual Peony and Garden Flower Show, Crystal Ball Room, Loraine Hotel, Madison, June 8–9.

Baraboo Garden Club Flower Show, Legion Hall, Baraboo, June 14–15.

Chequamegon Garden Club, Ashland, August 15–16.

Oshkosh Horticultural Society Flower Show, Oshkosh, August 24–25.

Send in the dates for your flower show before the 15th of the month.

The Menasha Garden Club sent in $5.00 for the speaker's fund in May. This is greatly appreciated.

IRIS

It won't be long now. Reserve your copy of my MASTER LIST of Irises including fall-bloomers. Melvin Geiser, Beloit, Kansas.

MANY JUNIOR CLUBS BEING ORGANIZED

MRS. FRANK QUIMBY

THE increase in the interest of Junior Garden Clubs among the Senior Garden Clubs in the state is very encouraging. I am sure those who are actively engaged in junior work feel more than repaid for the effort they are putting into it. Following is a list of the garden clubs sponsoring this work and the names of the junior chairmen where available. I was pleased to note that two of the chairmen are men and I hope that more men will find time to help carry on the junior work.

Here is the list as follows: Waukesha Garden Club, Mrs. A. G. Haynes, Chm.; La Belle Garden Club, Oconomowoc, Mrs. Sydney Welch, Chm.; Sum-Mer-Del Garden Club, Miss Mary A. Lowerre, Chm.; Fond du Lac Garden Club, Mrs. Thomas Mullen, Chm.; Madison Garden Club, Mrs. Samuel Post, Chm.; Juneau Heights Garden Club, Gordon Chromasta, Chm.; Green Bay Garden Club, Miss Ann Luby, Chm.; Wauwatosa Garden Club, Mrs. J. E. Iverson, Chm.; Kohler Garden Club, Mrs. Arthur Schoof, Chm.; Fort Atkinson Garden Club, Ray Beach, Chm.; Elkhorn Garden Club; Sheboygan Garden Club, Mrs. F. X. Schmidmeyer, Chm.; Lodi Garden Club, Mrs. Raymond J. Groves, Chm.; Racine Garden Club; Kenosha Garden Club; Art Institute Garden Club.

The following are the clubs beginning organization of junior clubs:

Hawthorne Garden Club, Hales Corners, Mrs. Oscar Conrad, Chm.; Pewaukee Garden Club; Baraboo Garden Club, Mrs. Geo. Carpenter, Chm.; Whitewater Garden Club; Blue Mound Garden Club.

I hope you will all continue to wait patiently for "Junior Helps." I am still waiting to hear the results and developments of the junior work at the National Meeting and the pamphlet will be completed as soon as the material is received.

News From the National Garden Club Convention

WISCONSIN was represented at the National meeting of State Garden Club Federations at Los Angeles in April by our former vice-president, Mrs. Amanda Henze, and also by Mrs. Peter J. Yerly and Mrs. A. W. Langenbach of La Crosse. Interesting reports have been received from them.

Each of the four days April 10–13 was packed with events of interest. Gardeners of Los Angeles and adjoining cities opened their homes and gardens to the 185 delegates from 28 states. It was a full program of entertainment including garden visits, lectures and lantern slides on California wild flowers.

Beautiful Gardens

Many types of gardens were visited, the Italian styles, natural woodland gardens, informal gardens with charming flower borders, small formal gardens, hillside gardens, and intimate gardens that could be adapted to any climate.

The largest and best garden visited was that of Harold Lloyd. It is 17 acres in extent and includes seven garden units perfectly carried out.

Reports of junior garden club work and garden centers indicate extensive growth along these lines. The State Federations were urged to increase the number of garden centers.

New National Officers

The new National president is Mrs. Gross Scruggs of Dallas, Texas; Vice-president, Mrs. Frederick A. Wallis of Paris, Ky.; Recording Secretary, Mrs. Forest Huttenlocher of Des Moines, Iowa; Corresponding Secretary, Mrs. H. H. Buxton, Peabody, Mass.; Treasurer, Mrs. Warren W. Shoemaker, Illinois.

The Regional vice-president for this district is Mrs. Joseph H. Brewer of Grand Rapids, Michigan.

The three delegates from Wisconsin were greatly thrilled with their experiences in visiting gardens and in attending the business sessions and program.

Governor Blood of Utah stated, "God made the world. Then he planted a garden and called it the Garden of Eden. Ever since then man has been digging in the earth trying to improve it."

GARDEN CLUB PROGRAMS

MRS. H. B. HITZ
Nashotah

YOUR Federation president appointed a garden club program committee with the idea that it might be especially helpful to new garden clubs. The committee met and decided to write this notice, telling you of our readiness to help you through correspondence as well as giving a few suggestions in print.

A new club needs some printed material on program making. There is a valuable pamphlet, price 50c, published by Better Homes and Gardens, Des Moines, Iowa, "The Garden Club Hand Book" by Fae Huttenlocher. Then there is "The Garden Club Manual" by Mrs. Edith F. Fisher published by the MacMillan Company that is well worth the two dollars, to any garden club. Besides many useful hints on program planning, Mrs. Fisher lists 202 subjects for program topics.

Quantities of material can be procured in pamphlets published by our University and by several magazines. Also splendid articles in garden and horticultural magazines will be found useful to the program committee. The more advanced clubs will find "Horticulture" published by the Massachusetts Horticulture Society, Boston, price $1 per year, and the bi-monthly bulletin of the Garden Club of America, 598 Madison Ave., New York, price $2.50 per year, of much value.

The committee suggests that you start with a plant project this spring, several members trying the same plant so as to be able to compare notes on condition of planting as to soil, location, etc. The Korean Chrysanthemums and Hemerocallis on the plant testing list will be excellent subjects, or try some of the novelty annuals.

Have a program committee of three members or more and have programs planned ahead for four or six months. The program chairman should preside over the program part of each meeting.

Programs should be of such interest and value that each member will want a note book. A small lose-leaf one with programs typewritten on sheets that can be inserted, has been found excellent. Printed constitution and membership list can be added and makes the whole a complete year book.

Drop a postal, as the radio announcer would say, to the chairman if you think hints of this kind from this committee will be useful to you.

FEDERATION WELCOMES NEW GARDEN CLUBS

NEW garden clubs joining the Wisconsin Garden Club Federation and the State Horticultural Society for the first time in 1935 are as follows: Chequamegon Garden Club, Ashland; Dopp Community Garden Club, Wild Rose; Fox Point Garden Club, Milwaukee; Friendly Garden Club, Roberts; Juneau Heights Garden Club, Milwaukee County; Lake Geneva Town and Country Garden Club; Shopiere Garden Club, Clinton; Shorewood Garden Club, Milwaukee; Washington Island Garden Club.

The Federation is pleased to welcome these clubs and hopes that they will find their membership of value.

FEDERATION TREASURER'S REPORT

April 1, 1935

GENERAL FUND

Balance on hand Jan. 1, 1935		$ 9.94
Receipts:		
Membership dues, 1384 @ 15¢		207.60
Overpayment on dues		1.45
Total Receipts		218.99
Disbursements:		
Stationery	$ 8.50	
Secretary's supplies	9.08	
Traveling Expenses of Board members to 3 meetings	9.72	
Refunds on overpayment of dues	1.45	
December tax on checks	.26	
Total Disbursements		29.01
Balance on hand April 1, 1935		189.98
Affiliation with Horticultural Society:		
1369 memberships	$479.15	
Plant premium postage—1073 @ 15¢	160.95	
Total Paid Society		640.10

FLOWER SHOW FUND

Balance on hand Jan. 1, 1935	323.30
Receipts: None.	
Disbursements: None.	

SPEAKER'S FUND

Balance on hand Jan. 1, 1935	47.34
Receipts: Waupaca Garden Club	1.00
Total	$ 48.34
Disbursements: None.	

OFFICERS OF NEW GARDEN CLUBS NOT LISTED IN APRIL

Chequamegon Garden Club
(Ashland)

President: Pearce Tomkins, 509 Beaser Ave.
Vice-pres.: Geo. Bassford, 723–8th Ave. West
Sec.-treas.: Albin C. Johnson, 823–9th Ave.

Friendly Garden Club

President: Mrs. Helen Kees
Vice-pres.: Mrs. Wm. McCaustland
Sec.-treas.. Mrs. C. C. Moore

Lake Geneva Garden Club

President: Mrs. Hiram Smith
Vice-pres.: Mrs. Richard Halsey
Secretary: Mrs. Herbert Krueger
Rec. Sec.: Mrs. Chas. Kaye, 1103 Geneva St.
Treasurer: Mrs. Allan Peacock

MENASHA CLUB PLANS EXCELLENT PROGRAM

A PROGRAM of practical garden topics to be presented by members has been adopted by the Menasha Garden Club. We recommend this type of seasonal program. There is something of value at each meeting. Such a program should help solve the attendance problem.

March 26

Roll Call—Garden News (Repeated each month).
1. Possibilities of a Backyard and Garden.
2. Insects, Pests—Diseases and Control.
3. Shrubs—Planting and Care.

April 23

1. Berried Shrubs in the Garden.
2. Six Tests of Garden Design.
3. Plant Breeding.

May 28

1. The Herb Garden.
2. Fungous Diseases of Roses.
3. Color Harmony in the Garden.

June 25

1. Flower Arrangement and Judging a Flower Show.
2. Plant Propagation.
3. Practical Landscaping.

July 23

1. Joys of a Night Garden.
2. Birds and How They Help Our Gardens.
3. Trees.

August 27

1. Roadside Beautification and Conservation.
2. Report on Flower Show.
3. House Plants.

September 24

1. Lilacs.
2. Hardy Asters.
3. Romance of Weeds.

October 22

1. Preparing for the Spring Garden Review.
2. Slipping and Propagation of Plants.
3. Exchange of Plants Between Members.

November 26

1. Putting the Garden To Sleep.
2. Garden Memories.
3. Sun Room Gardens.

January 7

(December meeting)
1. Women Who Have Influenced Gardening in America.
2. Chinese Wilson.
3. Holly, Mistletoe—Its Growth and Ancient Uses.

VISIT THESE GARDENS AND BEAUTY SPOTS THIS SEASON

THE following gardens and beauty spots may be visited by Wisconsin Garden club members. The list was compiled by the visiting garden committee, Mrs. Chester Thomas, Chm.

We suggest showing membership cards when visiting private gardens.

BARABOO

Frank Schoeninger, Wisconsin Dells. Formal gardens, waterfalls and rock garden. Located on banks of Lower Dells. Not open Sundays.

Mrs. H. A. J. Upham, Waubeek, Wisconsin Dells. Rock Garden, pool, bent grass lawn. Perennial garden.

Mrs. A. R. Reinking, 10th Avenue, Baraboo. Growers of fine dahlias, iris, peonies and delphinium. June 1 to freezing.

Mr. and Mrs. W. A. Toole, Garrynee-Dule, Baraboo. Rock gardens and pools, perennial garden, herb garden, wild flowers.

SCENIC

Devil's Lake State Park, 3 miles south of Baraboo. A beautiful lake set between high quartzite cliffs.

Wisconsin Dells, 14 miles north of Baraboo, many miles of beautiful scenery where the Wisconsin River has cut through sandstone rock.

Skillet Falls. 2½ miles southwest of Baraboo. Falls cut in sandstone rock.

Pewits Nest. 3½ miles southwest of Baraboo. A lovely little gorge cut out by the same stream that cut out Skillet Falls.

Pine Hollow. Another lovely spot where the west branch of Skillet Creek, known as Pine Creek comes tumbling out of the bluffs over the rocky stream bed.

Mirror Lake and Lake Delton. 10 miles northwest of Baraboo. Scenic Lake and stream.

Durward's Glen. Stream, small scenic gorge, shrine, fountain, 8 miles east of Baraboo.

Parfrey's Glen. 10 miles southeast of Baraboo. Another beautiful stream running through a narrow gorge. Many rare and unusual wild flowers.

Otter Creek. 10 miles southwest of Baraboo. Another little stream which comes tumbling down a rock cleft in the south bluffs.

CEDARBURG

Cedar Hedge Farm. Mr. Albert Boerner, owner. After June 20 and all summer. Perennials, shrubs and trees.

Columbia Gardens. Mr. Fred Plagemann, 138 Columbia Ave. After June 20 and all summer. Perennials and bulbs.

Mr. Ernest Eberhardt, 260 N. Washington Ave. After June 20. Many varieties of flowers. Rock garden.

New Park at Cedarburg, on Portland Avenue.

FOND DU LAC

Beautiful drive through the Fox River Valley. Highway 55, limestone ledges. Scenic beauty along Lake Winnebago.

Lake Side Park. Zoo and lighthouse.

Winnebago Park.

Columbia Park.

High Cliff, proposed State park.

Garden of Mrs. Aug. Rook.

WISCONSIN RAPIDS

Mr. Isaac P. Wetter; Perennials and annuals.

Mrs. George Hill. Summer garden.

Mrs. G. M. Alexander of Port Edwards. Summer.

Dr. and Mrs. Mahrs. Roses and perennials.

GREEN BAY

Potawatami Park in Door County. Beautiful natural Park of the state.

Maribel Caves on Route 141—midway between Green Bay and Manitowoc. Well worth a visit.

Emil Bellei, 1441 S. Oakland Ave., rock garden.

PORT WASHINGTON

Dr. W. H. Drissen, Larabee St. Spring bulbs, shrubs, roses and a large variety of annuals. May be visited any day of week in the afternoon.

Mrs. Joe Ubbink, Highway 33 between Port Washington and Saukville. Spring garden with quaint stone fence and interesting old house. Best seen in May or early June. Wednesday and Friday afternoons preferred.

The Frank Maechtle woods on the Mooré road. Wild flowers and ferns. Spring and summer months.

The Audier Terraces on the George Kendall farm on the Moore Road. Wild flowers, vines, wild grapes and wild plum trees.

Waubedonia Park on Highway 84, between Fredonia and Waubeka. Has many wild flowers and plants, also picnic and bathing facilities. June.

John M. Jentges, 801 Michigan St., has a home garden of annuals and perennials. June and July. Monday afternoon preferred.

The J. E. Gilson summer home on Lake Michigan. Beautiful peony garden in bloom the first week of July. This is a charming place on a terraced hill, with winding creek and woods below, and the lake beyond. Can be seen Tuesday, Wednesday and Thursday, in the afternoon.

Emil Biever, 922 Wisconsin St. Home garden, annuals. Middle of July to middle of August. Any afternoon.

MILWAUKEE

George Wepfer, 2525 No. Grant Blvd. June.

L. R. Smith, 2020 No. Terrace Ave. June.

Chas. E. Hammersly, 4071 No. Farwell. Iris and Peonies. June.

Harry Ellis, 2317 E. Wyoming. June.

North of Lake Park. Paul Uihlein, 3319 N. Lake Drive. Call for appointment.

Jos. Uihlein, 3318 No. Lake Drive. Summer.

D. Eisendrath, 3266 No. Lake Drive. June.

Albert Trostel, 3200 N. Lake Drive. June–July.

Nathanael Greene, 4673 No. Lake Drive.

Kellogg Patton, 4684 N. Wilshire Rd. May and June.

Mrs. John LeFeber, 3900 No. Lake Drive. Spring until frost.

RIVER HILLS—MILWAUKEE

Rudolf Hokanson, River Road. Spring–summer.

Harold Seaman. June–July.

Irving Seaman. June to October.

WASHINGTON HIGHLANDS—MILWAUKEE

Bonnie Brown, 6536 Hillcrest. June–July.

Dr. Rock, 1605 Alta Vista. June–July.

WAUWATOSA

Mrs. Martinus VanderHoogt, 7909 Stickney Ave. May until frost.

Aug. Peter, 1621 Church St. Roses. June–July.

FOX POINT

(north of Milwaukee)

Chester Thomas, East end of Dean Rd. June to freezing.

Alfred James, Thorn Lane.

Frank Giloth. Door-yard garden. June–July.

PEWAUKEE LAKE

John Moss. Rock garden. Summer.

OKAUCHEE LAKE

Steinmetyer—Ott. June to freezing.

Wm. Delaport, South 124th & Forest Drive. Iris, peonies and dahlias.

LOMBARD, ILLINOIS

Plum Park, June—Lilac time.

LISLE, ILLINOIS

Morton Arboretum.

STATE PARKS

Write the Conservation Commission, State Capitol, Madison, for descriptive bulletins of State Parks in Wisconsin.

Belgian investigators are now attempting to control red spiders by introducing an insect which eats them. Here's hoping the red spider eater proves to be hardy in North Dakota, for this pest is one of our worst difficulties with red raspberries.

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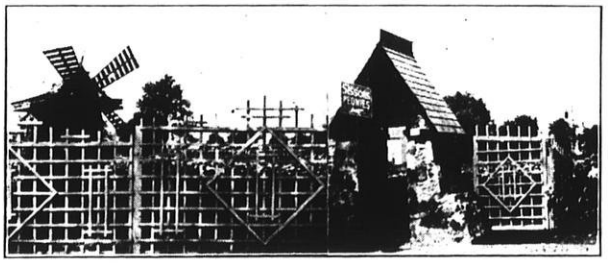

Peonies will begin to bloom the last of this month and under normal conditions will be at their best around June 10th.

We invite the general public and flower lovers to visit us. Bring your lunch and spend the day. You may find acres of peonies elsewhere but there is no garden in this country which shows as many varieties. We therefore especially invite the student.

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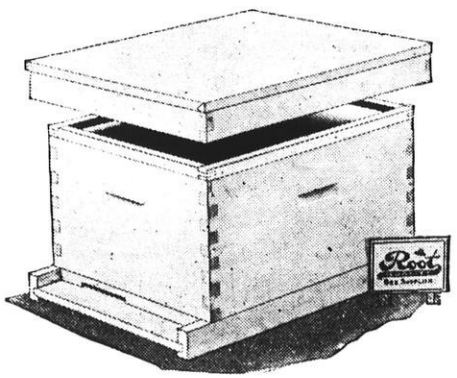

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Fig. 1 Fig. 2 Fig. 3

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society
The Wisconsin Garden Club Federation

Established 1910

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Subscription to Wisconsin Horticulture is obtained by membership in the Wisconsin State Horticultural Society for which 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.

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2. Improvement of Wisconsin's fruits and ornamentals. Establishment of plant breeding and testing work. An active group of plant and fruit testers within the society.

OUR PROGRAM
3. Greater publicity for Wisconsin grown fruits and vegetables.
4. A constantly improving magazine for the distribution of timely horticultural information.
5. Organization of local horticultural clubs in all sections of the state.

Codling Moth Bands and Hooch Traps

C. L. Fluke

MANY years ago fruit growers placed bands of burlap about the trunks of apple trees to trap the larvae of the codling moth. The trees were first scraped carefully to remove all loose pieces of bark and then a four or six inch width of burlap was wrapped around the trunk a couple of times and the end fastened with a small nail, the head of which was nipped off and the end turned up so as to form a hook. These were placed on the trees just before the larvae of the first brood were mature. The aim was to catch the larvae as they crawled down the tree looking for a suitable place to pupate. Thus it was necessary to "run" these bands every ten days or so; to take them off, look for the larvae, killing all that were found, and then replacing. In orchards of five or ten acres it meant continuous work the latter part of the summer for one person and in orchards with low hanging branches it was quite a chore.

This method, however, is still available to those who have the time and do not wish to go to the expense of using chemically treated bands.

Treated Bands Best

The treated bands have been used now for a number of years and are coming into quite general use among growers who wish to improve their control of the moth. Every worm of the first generation that is destroyed will reduce the crop of the second generation and in addition will check the number of larvae over-wintering. The larvae of the first brood that do not change to moths for a second brood are the ones that most successfully winter over to produce next year's crop. This is particularly true under Wisconsin conditions and emphasizes the importance of killing as many as possible of the first brood. The effects of banding will therefore be felt, not so much the first year, but in the years that follow.

Use bait traps for timing the codling moth sprays.

The small grower should use either the commercially prepared bands which need no more attention the rest of the season, or home-made untreated bands which must be examined every ten days from July first on. The large grower may be able to reduce the expense of purchasing treated bands by making them up himself. In general this is not recommended since the home preparations of chemically treated bands is very mussy and somewhat dangerous. They are made by soaking single faced corrugated paper in a mixture of beta naphthol and lubricating oil.

We strongly recommend the purchase of commercially prepared beta-naphthol bands for all growers, and particularly for the fruit grower with a small number of trees.

Scrape The Trees

In using the bands be sure to scrape the trees first and see that the bands are so placed that they fit the irregularities of the tree trunk.

The bands do not need to be placed until the first of July and probably in most sections of Wisconsin not until the 15th of July.

All bark scrapings should be burned to kill any larvae removed. The bands that are not used must be kept in a tight container or they will lose their effectiveness before the next season.

Treated bands sometimes injure young trees so they should not be used on trees that are less than 8 or 10 years old.

Hooch Traps Help Determine Spray Dates

Spraying dates for the first brood of codling moth are best determined by using the "hooch traps" or bait pails. These are made by suspending near the top of the trees open "stew" pans containing a pint or so of a solution made up of 5% honey, 5% molasses, and 90% water. These should be made up and hung in the trees about the last of May or first of June. They must be looked at daily, the moths counted and removed. About once a week or after each heavy rain the bait must be renewed. During hot dry weather water should be added every day or two to keep the solution up to the original level. At least six traps should be used by each grower. Ten days after a "heavy" or peak flight the spray should be put on.

The traps will also aid in determining second brood sprays but the peaks of emergence will usually not be as pronounced as for the first brood.

PROTECT YOUR APPLES WITH CODLING MOTH TREE BANDS

Chemically Treated

Price—Mail or express prepaid. 2 inches wide—250 ft. Roll, $2.85. 4 inches wide—125 ft. roll, $2.65. With full particulars how to use. Order now for June Delivery.

EDWIN H. HOUSE, MFG.
Saugatuck, Michigan

Covering the inside of a large apple tree for better scab and worm control.

Spray Center of Trees Carefully

Why Some Growers Fail to Secure Good Control

THERE is each year much complaint on the part of fruit growers about the failure of their spray applications to afford satisfactory control of insect and fungus pests, according to the Michigan Experiment Station. Sometimes criticism is directed against the insecticides or fungicides that are used, the thought being that they are not of standard strength; sometimes it is directed against the spraying schedule that is recommended by the Experiment Station. A study has been made to determine why there is often so much difference between the results obtained by Experiment Station investigators and those obtained by growers attempting to follow their recommendations.

It has been found that, in most orchards where standard materials and the recommended schedules have been employed and satisfactory control has not been obtained, most of the blemished fruit comes from the center tops of the trees or that entrance to the fruit is obtained by insect or fungus through the side facing the tree's trunk. This is evidence that there has not been thorough coverage with spray material, though perhaps adequate quantities have been applied. What is required, principally, is more care in making the spray applications. Many producers who have acted on the results of these findings have obtained marked improvement in their insect and disease control. A full report on the findings of this investigation is presented in Special Bulletin No. 230—"Success and Failure in Spraying for Scab and Codling Moth," Michigan State College, East Lansing, Michigan.—*From Michigan Experiment Station Report.*

TESTING APPLES IN MASSACHUSETTS

ABOUT 75 Massachusetts fruit growers are cooperating in testing new varieties of apples, much the same as is being done by the Wisconsin Horticultural Society. Cions of new varieties have been grafted onto older apple trees in order to obtain fruit in a short time. Varieties related to McIntosh are the most popular. Macoun, Kendall, Early McIntosh and Milton are being tested. Others are Lodi, Red Grabenstein and Red Spy.

Fruit Tree Bark Beetles in Door County

John H. Lilly

THE fruit-tree bark-beetle or shot hole borer is perhaps the most consistently troublesome minor orchard insect pest found in Door County. Each year the writer receives from six to a dozen calls from growers wishing to combat it.

Its most noticeable injury is the drying up of all the leaves on many of the shorter cherry spurs sometime in July or August. A second symptom is the presence of small holes in the bark of both trunks and branches. These openings closely resemble shot holes and they have given the insect one of its common names. If the bark around these holes is peeled away the wood underneath is found to be grooved with small burrows or tunnels running in various directions.

The spur injury is caused by feeding of the adult beetles in the smaller crotches, so as to produce large cavities at these vital points. The tunnels are the chambers where the eggs are laid and where the young develop. The holes in the bark are the points of escape of the beetles when they become adults.

Prefer Weak Trees

These insects prefer weak trees for feeding and egg laying. They do not thrive on fast-growing, healthy trees. The cherry trees attacked at first give off a gummy substance which tends to repel the beetles and even destroys some of them. When trees are heavily infested, less gum is given off and an ideal breeding place becomes available.

This pest lives over winter in the "worm" or larval stage in the burrows and emerges as an adult in late spring. Its development is not interrupted by cutting the trees or by pruning off infested branches unless this wood is burned. It is not unusual in the spring to see large piles of prunings in which much of the bark has been stripped off by birds searching for the larvae underneath as food. A similar "stripping" has also been observed by the writer on weak branches in some of the older orchards. It gives an indication of the numbers of developing insects that are sometimes present.

Control

This bring us to the problem of control. Invariably this injury in Door County has been severe only in or near old and weakened orchards or near piles of prunings which have not been burned. The farther one goes away from one of these points of infection, the less injury he will find. A distance of only a few rods often shows a change from excessive injury to practically none.

Thus the first and most important step in a control program is the elimination by burning of all prunings and also dead and useless trees. This should be a community measure and not merely an individual clean-up. If properly conducted such a program would satisfactorily hold this pest in check under Door County conditions.

A second precaution is to keep all fruit trees in good condition by proper fertilization, pruning, and cultivation. Ordinary spray treatments are of no use in the control of this pest, except in the improved tree condition maintained by protecting them from other insects and plant diseases. Certain bark treatments are known but none are commonly recommended.

Swap

"Joe, you carry the baby and let me have the eggs. You might drop them."

NIAGARA KOLOFOG

A Non-Caustic Sulphur spray material developed expressly for growers who desire control without injury.

Kolofog plus Niagara Arsenate of Lead is the ideal combination for Calyx application.

Kolofog sticks better and remains on foliage longer than other Sulphur sprays.

See your Niagara Dealer or write direct to

NIAGARA SPRAYER & CHEMICAL CO.
J. Henry Smith, Sales Rep.
WAUPACA, WISCONSIN

Thinning a Profitable Operation

Monroe McCown
Purdue University

OVER a period of years, apple growers have profited by a judicious thinning of the crop on overloaded trees. This has resulted from the effect of thinning upon size, color and total marketable yield of fruit, reduced limb breakage and maintenance of tree vigor.

Thinning Increases Size

In a four- year survey covering the crops of 24 Michigan apple growers it was shown that lack of size was the most important cause of low grade fruit in these crops. Thirty-four per cent of the apples which were culled out of these crops were eliminated because of lack of size.

That thinning of the fruit on overloaded trees will materially increase the size of the individual fruits has been the result of tests and grower experiences in Indiana as well as in other apple producing states.

Color and Flavor Are Improved By Thinning

The flavor of fruit is, to a great extent, correlated with color. This is true not only of the red varieties, but of at least some of the yellow fruits, especially of Grimes. Among the red varieties, Rome and Delicious are outstanding in that if the trees are seriously overloaded the fruit of these two varieties fail to attain either the characteristic bright red over-color or the yellow ground color, the result being unattractive, insipid fruits. Under the same conditions, Grimes remain green and have a poor flavor.

Marketable Yield is Increased By Thinning

Although total tree yields are usually decreased, since thinning of overloaded trees improves both size and color of fruits the marketable yield is, as a rule, increased. This has been particularly true of the earlier maturing varieties and especially of Transparent. Indiana growers have learned that in most seasons, Transparents which are below 2¼ inches in size are practically unsalable. In a southern Ohio orchard the marketable yield of Transparent was 9¾ bushels from a thinned tree and only 2 bushels from an unthinned tree.

Limb Breakage is Reduced

Overloaded trees which are not thinned usually suffer severely from limb breakage. Proping is frequently resorted to, to prevent this loss but the cost of propping is frequently about as great as the cost of thinning and propping exerts no influence upon the quality of the crop.

Thin Early

The earlier the thinning is done the greater is the effect upon size of fruit and tree vigor. Thinning should begin immediately after the June drop and be completed as early as possible. Usually it is necessary to go over the orchard at least twice since an insufficient amount of fruit will be removed, as a rule, on the first trip.

Amount of Thinning and Spacing Varies With Variety

Ellenwood and Howlett call attention to the effect of differences in fruit setting habit upon the amount of thinning which is necessary. Varieties are divided into two groups according to fruit setting habit. In the first group are those which show a very heavy drop shortly after blossoming and have, on the average, only one fruit per cluster at thinning time. Included in this class are Delicious, Richared, Starking, Stayman and Stamared. In the second group are included those which have, usually, several fruits per cluster at thinning time and includes Wagener, Wealthy, Grimes, Oldenburg, Banana and Transparent. The second group usually requires much more thinning than the first group.

The response of varieties to various spacing differs also. The following spacings are suggested for several commercial varieties: Transparent, Oldenburg, Wealthy, McIntosh, Jonathan, Stayman, Rome and Winesap—7 to 8 inches; Grimes and Golden Delicious—9 to 10 inches, and Delicious—10 to 12 inches.

If the fruit is clustered the number of fruits per cluster are reduced to one, wherever possible without materially reducing the crop. If the branch still carries an overload of fruit, some of these singles are removed. Entire branches are to be treated as individuals since the food manufactured by the leaves on the branch is distributed to the individual fruits. In thinning, blemished and small fruits are removed first.

Hand thinning is the usual procedure. Records show hand thinning to be approximately 50 per cent faster than shear thinning.

Thinning Costs

The actual expenditure per tree for thinning will vary. The cost will average, however, approximately three cents per harvested bushel.

Thinning is an operation which any orchardist can well consider. If judiciously done, thinning will increase the orchard income.

It has been well said that the only apple growers who do not thin overloaded trees are those who have never tried thinning.—*From May Issue of Hoosier Horticulture.*

APPLE GROWING IN NEW YORK

The above is the title of a new bulletin by the New York Station which will be of interest to apple growers.

Spray Program for Cherry Leaf Spot

Earl C. Blodgett

THE fungus, *Coccomyces hiemalis*, which causes cherry leaf spot, overwinters on the fallen leaves and produces spores that spread the disease early in the season. Considerable late development of leaf spot last fall, together with favorable conditions since, have produced abundant ascospore material that was mature about May 20. The disease is favored by warm, moist weather and may develop very rapidly under suitable conditions.

Extensive trials have been made with various spray and dust materials but the two which have given the best results are Bordeaux mixture and lime-sulphur. The Bordeau has a longer duration of effectiveness per treatment and is recommended as the safest fungicide for leaf spot control.

When to Spray

The program used is as follows: (1) just after petal fall, beginning when about ¾ of the petals are off, (2) ten days to two weeks later, and (3) just after harvest. If lime-sulphur is used an additional treatment is needed about two weeks before harvest. The 3-4-50 Bordeaux made with high-calcium hydrated lime, and lime-sulphur, 1-40, are concentrations most commonly used. Arsenate of lead should be added for an insecticide. Considerable injury may follow if a mixed Bordeaux and lime-sulphur program is used.

Emphasis should be placed on the importance of thorough, timely treatments in control of cherry leaf spot. Delay of the first treatment is usually very risky and may lead to unsuccessful control. In some orchards, with very little infection, delay of the second treatment may be helpful but there is danger of severe development if suitable rainy periods occur.

Experience has shown that two treatments of Bordeaux before harvest have, with few exceptions, given adequate control. Under extreme conditions of development of the disease, however, an emergency treatment before harvest may be necessary. Since young trees grow faster and their foliage is harder to keep covered, three pre-harvest sprays are recommended.

Orchard RESULTS Prove its Killing Power

Intensified commercial use has confirmed its increased toxicity and quicker kill. Letters from hundreds of growers, everywhere, report conclusive evidence of consistently better control with

"Astringent"

ARSENATE OF LEAD

Thorough control of the first brood will be vitally important this year, to lessen the second and third brood menace and to cut down late season cover sprays. You need "Astringent" Arsenate of Lead this year. It costs no more.

Arsenate of Lead
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Paris Green
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"Dritomic" Sulphur
"Apple Dritomic" Sulphur
Paradichlorobenzene
Nicotine Sulphate (40% Nicotine)
X-13 (Pyrethrum Extract)
Fungi (Sulphur) Dust
90/10, 85/15 and other Sulphur-Arsenical Dusts
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Please send me a copy of the new edition of "Cash Crops."

NAME and ADDRESS

1935 .. A STILL BIGGER YEAR FOR "ASTRINGENT" LEAD!

After Harvest Spray

There is a general tendency to omit the after harvest treatment if good control has been secured up to that time. In some seasons this has proved to be desirable. However, it should be remembered that leaf spot can develop very quickly and cause excessive premature defoliation under favorable conditions. Such omissions also provide better chance for the fungus to overwinter and may make control more difficult the following year.

Because so much depends on local conditions, for even in adjacent orchards the amount of infection varies widely exceptions to the general program must be admitted. However, thorough and timely spraying will give satisfactory control of cherry leaf spot. Prevention of the early infection is the most important factor in successful control.

APPLE VARIETIES

STATE and national marketing specialists are finding that more and more consumers are asking for apple varieties of high quality and appearance, such as McIntosh, Northern Spy and Delicious. Less demand is noted for apples that do not look well and are poor in quality. The result is that planters everywhere are not only growing the varieties which are best adapted to the climate of their region, but those varieties of superior appearance and quality. Even color is of less importance than the other factors which make for an attractive appearance.—*From the American Fruit Grower.*

Father Said No More

"Jimmy, I wish you'd learn better table manners; you're a regular little pig at the table."

Deep silence on Jimmy's part. So father, in order to impress him more, added, "I say, Jimmy, do you know what a pig is?"

"Yes, sir," replied Jimmy meekly. "It's a hog's little boy."

Spraying for Apple Scab

Earl C. Blodgett

THE following remarks refer particularly to the Door County area but may be of general interest to growers elsewhere in Wisconsin.

The fungus, *Venturia inaequalis*, which causes apple scab, produced mature ascospores by April 18, 1935, and have overwintered in fair abundance. The weather, however, has been favorable (up to May 18) for good control of scab if spraying was done properly.

It is assumed that growers understand in a general way the life history of the fungus and that wet, cool weather favors its development. They should realize, too, that scab, during favorable weather will continue to develop throughout the summer if the trees are not protected by spray. Since the early season spraying is now past we are concerned with the summer applications: Calyx, ten-day (ten days after the calyx) and thirty-day (thirty days after the calyx spray). Experience has shown quite conclusively that in a full program liquid lime-sulphur, 1-40 with arsenate of lead has given the best control of apple scab in this section. Dusts and other materials tried have not held up in severe seasons. However it is known by wide experience that lime-sulphur may cause injury by burning the foliage or fruit if applied during hot weather (roughly 85° F.) or if the application is followed in a week or ten days by extremely hot weather.

What to Use

Therefore, there arises the question of what material to use in the ten-day and thirty-day sprays.

1. In orchards where scab is abundant, where early control is unsatisfactory and there is danger of spread, use lime-sulphur 1-50 and attempt to time the application to avoid burning. There are marked differences in susceptibility of the different varieties and this should be considered.

2. In orchards where scab is well controlled the substitution of some of the proprietary sulphur sprays may be wise. It should be remembered that these in general are not so effective per application as lime-sulphur and if favorable, wet weather spreads the disease, emergency treatments may become necessary. All of the sulphur sprays tested may also cause injury to the fruit under suitable conditions.

For those growers who hesitate to use lime-sulphur because it may burn, and proprietary compounds because they are generally much more expensive, the following suggestion is made. If the scab is under control, Bordeaux mixture 1½-3-50 will likely keep it in check and cause little if any injury. Some russeting may result but the finish of the fruit has been satisfactory in experimental trials on Wealthy.

Several materials as supplements to lime-sulphur are being tested but as yet no conclusive data are available. In some seasons under conditions of very good scab control the omission of the thirty-day treatment has been a suitable modification of the program.

What spray a grower should use can not be predicted. Much depends on his method of spraying, on his control early in the season and on the weather. However, the writer can offer a suggestion that the spraying be done *thoroughly* and as *timely* as possible to prevent scab from getting established and spreading during wet periods in the summer.

(Mr. Blodgett is Assistant in Plant Pathology stationed at Sturgeon Bay.)

Copper sulfate is now being used as a fertilizer for onions to give them a better skin quality and appearance.

In the Strawberry Patch

PICK STRAWBERRIES EARLY IN THE MORNING

EXPERIMENTS carried on in Missouri indicated that the temperature of strawberries in the sun was much higher than that of the surrounding air. The difference was greatest at noon and the figures shown in the table would indicate that the poorest time to pick strawberries would be during the warmest period in the middle of the day.

TEMPERATURE OF STRAWBERRIES COMPARED TO TEMPERATURE OF THE AIR

Time	6.00	8.00	10.00	12.00	2.00	4.00	6.00
Berries	45	53	68	77	79	79	63
Air	45	50	54	60	63	64	61
Difference	0	3	14	17	16	15	2

Fruit Must Be Kept Cool

The length of time that strawberries will keep after picking depends upon the variety, the degree of ripeness, the temperature of the berries when they are picked and the temperature in which they are held after picking.

Careful experiments have shown that strawberries which kept for 8 days in good condition at a temperature of 40° F., kept only four days at 85° F.

Therefore if the berries are picked early in the morning and immediately placed in a cool, shady place, they will keep much better and have a better appearance on the market than if they are picked during the middle of the day.

Strawberries should never be left standing in the sun after picking.

It Pays To Cultivate the Strawberry Crop

It has been said that the best fertilizer for strawberries is a liberal application of sweat.

An acre of strawberries producing four thousand quarts of berries will remove from the soil nearly three tons of water in the berries alone. This is in addition to what will be used by the plants and evaporated from the soil.

Cultivate Frequently

An experiment conducted in Indiana indicated that horse cultivation and hoeing is very important. In this experiment the fields cultivated with a horse fourteen times and hoed seven times produced 299 twenty-four quart crates of berries.

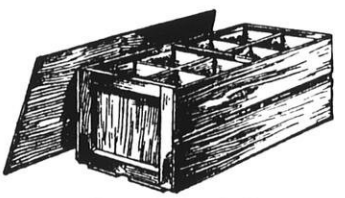
Plots cultivated eleven times and hoed eight times produced 219 quarts of fruit.

A plot cultivated eight times and hoed only four times produced but 60 crates of fruit. Weeds of course robbed the moisture from the soil, cutting down the yield of fruit.

SUMMER MULCHING OF STRAWBERRIES

TESTS of various materials as a summer mulch for strawberries were carried on by Prof. R. E. Loree of Michigan Station, and reported in a new bulletin entitled "Summer Mulching the Strawberry."

Tests of paper, straw, peat, and other materials as summer mulches for Mastodon and Premier strawberries growing in a sandy loam soil failed to show any significant differences in favor of any material, nor were there striking differences in total yields between the mulched and unmulched plants. The chief benefit of mulching was in cleanliness of the fruit and the control of weeds. Straw, because of its low cost, was found the best material for both home and commercial plantings.



Berry Boxes and Crates

Either made up or in the K. D. American Quart Berry Baskets, Climax Grape and Peach Baskets, Till or Repacking Baskets, Plant Boxes and Veneer Tree Protectors. Circular and Price List mailed upon request. Special liberal discounts on early orders.

Write for special prices on carload lots.

SHEBOYGAN FRUIT BOX COMPANY

Sheboygan, Wis.

STRAWBERRIES AT WARRENS

ON APRIL 15th the temperature fell to 16° F. and froze the leaves of the strawberry plants that were uncovered and made them look rather bad.

However, the foliage on the plants was so heavy and the buds barely started that very few were injured.

On May 3rd we had a heavy snowfall which stayed on for three or four days, but the buds on strawberries and apples were still dormant enough so that they were not injured.

The buds on Dorsett and Fairfax did not open until about May 25th, but Beaver and Cleremont were a little earlier. It looks as if the berries will not be ripe this year until June 15th or 20th, unless we have considerably better weather.

H. H. HARRIS,
Warrens.

PLANT RASPBERRIES ON WELL DRAINED SOIL

OBSERVATIONS at the Michigan Experiment Station on the yield and root distribution of plants as correlated with water levels showed the importance of good drainage for raspberries, according to Prof. E. R. Loree in a new circular, "Raspberry Growing in Michigan."

Horticultural News

A. F. Yeager
North Dakota

Chinese and Siberian elms have been found to be resistant to Dutch elm disease.

Minnesota University has found that it is possible to read by much less intense light without eye strain than we have been accustomed to believe. As light is measured, 10 to 15 foot-candles are plenty for normal eyes.

Dr. Hughes, of the Kansas Agricultural College, states that the richest source of vitamin C known at present is parsnip greens. Perhaps we may all be eating parsnip greens in the future instead of listing them among the "deadly poisons." At any rate, this would seem to settle the argument as to whether parsnips which have started to grow in the spring are fit for food or not.

The hot water treatment is recommended by the United States Department of Agriculture as a method of killing insects on house plants. Plants should be submerged in a water held at a temperature of 110° F. for 15 minutes. Of course, this means that one must watch the temperature so as not to cook the plants, and also to be sure it does not get below 108° F. otherwise insects may not be killed.

Recent work with the Dutch elm disease shows that it may live on a tree for years without having any visible effect on the tree's growth. Small borers are the means of transferring the disease to other trees. To my mind, this information indicates that the prospect of eradicating Dutch elm disease from the country is not very good. We can only hope that here again nature will provide a remedy. If she does not, the elm may go the way of the chestnut, namely, completely destroy the species.

According to the Minnesota Fruit Grower, a Minnesota strawberry grower found the following poison bran mash to be effective in the control of crickets. Ten pounds of crude arsenic, 2 gallons cheap molasses, 1 pound salt, 100 pounds bran. Sometimes we have serious damage to tomatoes from these pests.

G. L. Slate of the Geneva Experiment Station reports that Premier strawberry is one of the best varieties for breeding work. A large percentage of its seedlings are of good quality.

Dr. Cory of Maryland recommends the following as a treatment for iris borers: Dissolve one part, by volume, of resin fish oil soap in three parts of water. Then churn this into ten parts, by volume, of carbon bisulfide. Add one quart of this mixture to fifty gallons of water and apply to the iris bed at the rate of three pints per square foot.

I do not believe it ever pays to move an old apple tree. It may live, but is never likely to be much good. It is much more satisfactory to plant a new tree and leave the old one stand.

While American varieties of potatoes have all been white fleshed until very recently, yellow fleshed varieties have been very popular in parts of Europe for a long time. It remains to be seen whether yellow fleshed sorts can be popularized in this country. The fact that the yellow potatoes contain more vitamins may help to put them over, just as the vitamin content of spinach, which was widely advertised, resulted in its great spread and use in recent years. —*From North and South Dakota Horticulture.*

SAWDUST NOT GOOD FOR MULCHING

SAWDUST or shavings should not be used as a mulch for fruit trees or small fruits unless the material has been thoroughly rotted and decomposed previous to using. Sawdust and shavings are composed chiefly of cellulose, which is a source of energy or food to molds and other fungi. Molds,—in fact fungi in general —,are very heavy feeders on nitrogen. Sawdust and shavings contain practically no nitrogen. By stimulating the growth of these molds or fungi we increase the demands for soil nitrogen. Where sawdust or shavings are used as a mulch for fruit trees or small fruits there is very definitely a temporary tie-up of nitrogen.

Injures Strawberry Plants

I once saw a strawberry patch which had been mulched in the fall with shavings for winter protection. The following year the foliage of the strawberry plants turned yellow and the crop of strawberries was very poor. It was very apparent that the strawberries were suffering from a lack of nitrogen. What had actually happened was this: —As soon as the strawberry vines had started to make growth in the spring the foliage produced a shaded condition. The shavings started to decompose. The molds, making use of this energy material, sent down their feeding threads, which competed with the roots of the strawberry plants for soil nitrogen. These molds, and other fungi, can feed on forms of nitrogen which are not available to growing plants.

If the shavings or sawdust has been rotted or decomposed first, they can be used.—*C. J. Chapman, Dept. of Soils, Wisconsin College of Agriculture.*

A beauty expert informs us that a mud bath makes the skin soft, smooth and silky. We must go down to the zoo again and have another good look at the hippopotami.

THE USE OF LIME IN THE GARDEN

C. J. CHAPMAN

MOST garden soils are well supplied with lime. In our laboratories we test thousands of samples taken from lawns and gardens, and find 99% of them abundantly supplied with lime. Moss growing in a lawn is not an indication of soil acidity, as many people believe. It is usually an indication of a shaded, rather moist condition, and most frequently found on the north side of buildings, or may be an indication of low fertility.

The city water supply in most localities in Wisconsin contains lime. The sprinkling of our lawns and gardens tends to build up the lime supply of our soils.

Before applying lime to any garden or lawn it is by all means essential that samples of soil be tested to determine first of all whether they need lime.

There are a few vegetables and a number of cultivated flowers that prefer an acid reaction in the soil. Among garden crops prefering an acid reaction are strawberries, potatoes, watermelons, and possibly black raspberries.

Prefer Acid Soil

Among the cultivated flowers showing a preference for an acid soil we find the rhododendron, the Alpine azalea, most varieties of fern, most lilies, most varieties of iris, most varieties of phlox, and most of the wild flowers native to shaded woodlands are acid-tolerant and do best in an acid soil.

The native leaf mold in woodlands is invariably acid.

Therefore, it is important that you determine first of all what the preference may be of the type of plant or vegetable you are growing, so far as acidity is concerned. Soils can be made acid through the application of certain chemicals. Tannin or tannic acid is one of the best materials although aluminum sulfate can be used. Tannin is a safe material to use to create an acid soil, and may be applied at rates up to 10 pounds per 100 square feet. It should be thoroughly mixed with the soil.

Shall We Prune and Stake Tomatoes

J. G. Moore

THE reasons given for pruning and staking tomatoes are earlier ripening, larger yields, less disease, cleaner fruit, greater convenience in harvesting and spraying, larger fruits, and greater economy of space in gardens of limited area. Experimental data is conflicting on some of these points. The following can be conceded: cleaner fruit, greater convenience in harvesting and spraying. It is doubtful if the average size of fruits produced is larger when pruning is practiced.

Earliness of ripening is one of the chief reasons for staking tomatoes. In some cases earlier ripening of the first fruits was secured from staked plants, but in general staking does not increase the earliness of ripening of the crop as a whole.

Total yield and economy of space should be considered together. In commercial culture, when plants are properly spaced, unpruned plants give as large yields as staked plants. In the home garden, where intensive culture is practiced, staking may conserve space as compared to not staking unless the garden is so planned as to utilize the space between rows and in some cases between plants prior to the time the plants require all the space allotted. I believe the total return from the area may be as great if this is done as when staking is practiced.

The question as to amount of disease depends greatly upon seasonal conditions and the presence of disease organisms. In wet years there is likely to be less disease if the plants are staked and it is easier to combat diseases if they appear. In years where there are periods of deficient soil moisture, blossom end rot is the most serious trouble. It is likely to be more abundant in staked tomatoes than unstaked ones. Sunscald and cracking is also more prevalent in staked tomatoes.

What about the disadvantages of staking as compared with not staking. The two principle objections are expense and amount of labor required. Equipment needed is a sufficient number of stakes 1 x 1 or 1¼ x 1¼ inches and 6 to 8 feet long, and a quantity of tying material. The stakes are usually good for a number of years so the seasonal cost is not great. Raffia makes a good and inexpensive tying material. There is also about double the cost in supplying the plants necessary to produce the same yield as when staking is not practiced. The real objection however, is the labor item. Pruning and tying-up has to be done about every 7 to 10 days during good growing weather. The amount of time required is influenced greatly by the number of stems left per plant. Even a one stem system requires quite a bit of time during the season.

I tried pruning and staking in my garden for a number of years. I have quit the practice in favor of untrained tomatoes with a system of intercropping. I shall not return to pruning and staking because I am convinced that the total advantages gained, if any, do not compensate for the additional labor and cost of plants and materials involved when a pruning and staking system is used.

No Fooling

If a fellow tries to kiss a woman and gets away with it he's a man; if he tries and doesn't get away with it he's a brute; if he doesn't try but would get away with it if he tried he's a coward; but if he doesn't try and wouldn't have gotten away with it if he tried he's wise.

EDITORIALS

JULY—AUGUST ISSUES WILL BE COMBINED

As has been our custom during the past few years, there will not be an issue of Wisconsin Horticulture in July. Instead, the July and August issue will be combined and should reach our members about August first.

TREE PLANTING RECORDS BROKEN

ALL tree planting records in the United States were broken last year with the setting out of 163,000,000 trees on national and state forest lands, according to the American Tree Association. New York was first by states, Wisconsin second, Michigan third.—*From the Garden Digest.*

STERILIZING SOIL PROMOTES GROWTH OF SEEDLINGS

A VERY interesting demonstration of the value of sterilizing soil was presented by the Milwaukee Public Service Company in connection with the Milwaukee District Flower Show held in May.

A flat of two-thirds river bottom soil, and one-third sand was prepared and divided into two parts by a board through the center. One-half of the flat was sterilized by the new method of heating with electricity. This kills weed seeds and plant diseases in the soil. Tomato seeds were planted on both sections of the flat.

The plants were about two inches tall when exhibited at the

show. The plants in the sterilized soil were much more vigorous—about one-half inch taller, and of greater diameter than the plants in the unsterilized soil, which looked somewhat yellowish and spindly.

In taking this matter up with the Plant Pathology Department and the Soils Department of the College of Agriculture we were informed that rhizoctonia and phytium fungus are present in river bottom soil, and will attack the seedling roots which might cause part of the stunting of the plants.

The Soils Department stated that heating the soil liberates certain plant foods, making them more available to the plants, which would also increase growth.

All in all, it would seem that this new method of sterilizing soil by electricity will become a very valuable aid to plant growers in ensuring good plants.

BAYFIELD STRAWBERRY FESTIVAL

Bayfield, June 26

THE second annual Bayfield Strawberry Festival staged by the citizens of Bayfield, Wisconsin, will be held this year on Wednesday, June 26th. This event attracts people from all over northern Wisconsin. Last year there were over 5,000 present, and 102 crates of Bayfield strawberries were served.

The event is held to show the people of the country the high quality of Bayfield strawberries. The program is a full day of entertainment and instruction. Several prominent speakers will be heard.

LIKES NEW ENGLISH WALNUT SEED

MR. FRED KETTLER of Platteville, who won several first prizes at our convention nut shows, on his fine thin shelled black walnuts, writes. "I am greatly interested in the new English walnuts you sent me, and handle mine as if they were worth a million dollars. I think you made a master stroke when you got those hardy nuts for Wisconsin.

"I have quite a few of my thin shelled Kettler walnuts started by top-working, and have a new seedling plum and a giant Jonathan apple started."

The bill to regulate billboards along the highways was killed in the Assembly with only two votes supporting it. Obviously there was something wrong with the bill.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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BEE TAX LAW CHANGED

THE 1935 Legislature has changed the law taxing bees. The provision that all undisinfected bee equipment be taxed has been removed from the bill so that in the future only each live colony will be taxed, the tax on the first colony of 25¢ and on each additional colony, 10¢, the same as before.

Another change in the law which does not meet with the approval of all beekeepers has been made. The old law provided that 20% of the money remain in the county and 80% be sent to the state, to take care of foul brood eradication. The Legislature changed this so that 50% will remain in the county and 50% be sent to the state. It seems that this was done at the request of the League of Wisconsin Municipalities who protested that the state should not tax property without giving the locality some of the money because they need it so badly.

This may be true, but it will not help the beekeepers in their plan to get foul brood eradicated from the state. As we stated in our last issue, we will never clean up foul brood unless it is done on a state-wide basis, the same as was done with tuberculosis in dairy cattle.

At the present time the state appropriation for foul brood eradication is only $6,000 per year. This of course is not enough to eradicate the disease from over 70 counties. Therefore the counties have been asked to appropriate additional funds. This means that no work is being done in counties that have not appropriated additional money.

SUMMER CONVENTION WISCONSIN BEEKEEPERS' ASSOCIATION

Wausau, Wisconsin

July 25–26

SOUTHWESTERN WISCONSIN DISTRICT BEEKEEPERS' MEETING

Lancaster, Wisconsin

Schreiner's Park

Sunday, July 28

BIG SUMMER CONVENTION PLANNED

PLANS for a big summer convention of the Wisconsin Beekeepers' Association are going forward. The Marathon County Beekeepers are cooperating with the Wausau Chamber of Commerce, the County Agent and the County Agricultural Society in making the plans.

The meeting will be held at Marathon Park, Wausau, July 25–26. There will be demonstrations, lectures, trips to nearby apiaries, picnic meals and entertainment.

Plan now to take your vacation on July 25th and 26th. Those who have attended the district meetings know that there will be many things of value presented, making it well worth the cost of the trip.

A complete program will be sent to all members of the State Association about the middle of July.

How Can We Clean up the State?

In discussing the matter of a large state appropriation to clean up the entire state, with a member of the Legislature, we were assured that it is entirely possible to have this done, providing the folks back home get behind such a bill in the 1937 Legislature. This man stated: "You can come down here to the Capitol and talk all you like with but little results. But let the folks back home write to their Assemblymen and Senators and it is surprising what happens."

In other words, if the beekeepers back home let *their own Assemblyman or Senator know what they want* and it is done by enough of them, we will probably get an appropriation. It can't be done however by coming down to the Capitol and talking to a few of them.

What We Must Do

Within the next two years therefore we must organize strong county and district associations. The members must be informed of the plan and convinced that it is what we must have. This will take about two years. Then when the next Legislature meets we can probably get what we need.

A Job For Every Beekeeper

The members of the Wisconsin Beekeepers' Association have one difficult task before them. That is to convince hundreds of small beekeepers throughout the state that we need a foul brood eradication program. We know, of course, that many small beekeepers uninformed of the facts will protest against the eradication program.

SWARM CONTROL BY DIVIDING COLONIES

IN AN article entitled "Comparison of Methods and Time of Making Increase Among Bees," in the American Bee Journal for May, Erdman Braun of the Dominion Experimental Farm at Brandon, emphasizes the value of making increase from strong colonies as a method of swarm control. He states.

"The majority of strong overwintered colonies build up rapidly in the spring and obtain their maximum field force by the first week in June. The honeyflow at this time is small so the effort of the colony is expended fruitlessly without increasing the yield and swarming tendencies become evident. The dividing of a strong colony in May will act as a check on the swarming tendency and provide an extra producing colony so the parent colony is prevented from reaching its maximum strength before the main honeyflow and the efforts of the early surplus of bees are turned into profitable channels by placing them in another hive at the right time."

Several successful methods of making increase were used in the experiment. The two most successful were:

1. "As soon as the colonies became strong in the spring, all *capped* brood and adhering bees were placed in a new hive on a new stand and a young queen was introduced.

2. "As soon as colonies became strong in the spring, all the *uncapped* brood and adhering bees were put in another hive on a new stand and a young queen introduced immediately."

Mott's Northern Bred Italians

Non-swarmers. Eliminates that swarm nuisance. Purely mated, or will exchange. See list.

April, May, $1.00; 3, $2.85; 6, $5.25. June, July, $1.00. 2 or more, 75¢ ea. 50, $35.00. 100, $65.00. Virgins, 40¢. Fair to good breeders, $2, $3, $5.

Satisfaction guaranteed.

E. E. MOTT & SON

Glenwood, Michigan

Good Brood Combs Control Swarming

A. E. Wolkow

IF THE bees have developed normally during May, there will be a certain percentage preparing to swarm, at least some will be starting queen cells about the first or second week of June.

If two standard hive bodies are used for brood, as should be after the middle of May, there will be plenty of clustering room inside the hive, and we should expect no cell building. But we have seen large clusters hanging out for lack of room inside and yet there was no cell building.

A Common Cause For Swarming

On the other hand the hive may be only half full of bees and cell building is persistent. One or both of two causes are to blame for the latter condition; either the queen is failing, or the brood combs are of poor quality, so that egg laying is restricted on account of lack of the proper kind of cells surrounding the established brood nest.

The latter is by far the most common cause of swarming. Our observation convinces us that a failing queen is superseded long before her failing condition becomes evident to the beekeeper, if she is occupying good combs.

The writer has a check colony in his honey house on scales. This colony has gone through nine seasons without swarming. Nothing was done to prevent swarming, except to provide them with perfect brood combs. They are always strong and have always stored a big crop; how often they have superseded during nine seasons we don't know, but their queen always looks young.

There seems to us to be but one explanation for the behavior of this scale colony, and that is the quality of their brood combs. There certainly is a lot of room for discussion on this question.

New Interest In Bees

There seems to be a decided awakening of interest in beekeeping just now, and that is as it should be. The public is becoming honey conscious, as we call it, and we need to produce more.

We have sold more honey from the door this year than any two previous years. Who is the salesman? The American Honey Institute; don't forget to support them.

CARBOLIC ACID FOR REMOVING SUPERS

ENOS H. HESS

BEES do not like the odor of carbolic acid and try to get away from it. A fifty per cent solution of the fine crystalized acid should be used. Zonite, a chlorine preparation is said to give the same results.

The way to use the repellent is to make a light frame the size of the hives, or use an inner cover, tacking two or three thicknesses of cheese cloth or cotton flannel on one side of the frame or cover. The liquid is sprinkled on the cloth and placed on the super or hive body to be rid of bees. It is best to place one-fourth or one-half inch blocks between main hive body and super or hive body to be rid of bees or the super may be taken off the hive and placed on

(Continued on page 24)

FOR SALE—50 colonies bees and 18x22 honey house with all equipment. Herman F. Schultz, Route 1, Random Lake, Wis.

WIRED FRAMES

Wires will not rust or sag. Packed in flat. Easily assembled. Strong and perfectly straight combs assured. Catalog and literature on request. A. E. Wolkow Co., Hartford, Wis.

WHAT TO DO WITH THE BEES

H. F. WILSON

THE honey crop for the entire United States, as well as for Wisconsin, is practically disposed of, which means better honey sales when this season's crop is ready for market.

One of the State Relief Case Workers was in our office recently, and said that in his travels he had not met with a single beekeeper who was on relief. Whether this is the effect of good beekeeping, good citizenship, or just good luck, we do not know, but it is a good record, and we know that a good many farmers in the State have had some additional income from bees that has made it possible for them to bear the burden of the depression without going on relief.

Give Supers Early

With the rain that we have had during the past spring, honey plants should be in very fine condition, and beekeepers who have provided the bees with plenty of stores this spring should reap a good harvest. The one important thing that every beekeeper should do is to provide his bees with an abundance of storage room. Do not wait until the honey flow to add supers. Have them ready and on the hives shortly before the honey flow begins. Many pounds of honey are lost each year because of a lack of storage space. At least two unfilled supers should be on each colony all the time. At the beginning of the honey flow, follow the Demaree plan of supering. Force the queen into the lower brood chamber with a queen excluder on top and shift the extra brood to the top of the hive.

If the weather remains rainy and cloudy there is likely to be more swarming than usual, so all queens should have one wing clipped. Honey from the early season's crop should be excellent for winter stores, so be sure to save a super of honey for fall, winter and spring feeding.

Why Can't a Beekeeper Do as He Pleases

E. L. Chambers

THE enforcement of any law results in more or less opposition and those to whom the lot falls to carry out the provision of the law, receive plenty of adverse comments and even abuse. While the administrator of the law could not have made it, this duty being vested only in our state legislators and national congress, yet sometimes he gets all of the credit for it and is advised by individuals affected by the law of his opinion of both the law and its administrator.

Who Backs New Laws

Practically every law results from a bill submitted by a group or individuals or an industry that has, through desperation, decided that the only way out is to protect itself against those who threaten their very existence by resorting to law. In drafting their bill, they lay down certain rules that the administrator of the law must follow and regulations restricting the activities of their fellow citizens. Many individuals affected by the law immediately decide that they are the victims of some neighbor or competitor who wants to eliminate them. They fail to realize also that the task of enforcing the regulation, however unpleasant, is mandatory by the same law and the enforcing officer gets no "kick" out of it. How much easier it would be to say "Oh, let the poor fellow alone. He is having a hard enough struggle trying to make a living." The law, however, says he must enforce its provisions.

There Ought to be a Law

Yes, we probably have too many laws and there are probably some that are unreasonable and some that have no value because of lack of teeth for enforcement but with all these laws on our books, one seldom attends a meeting where, after much time has been taken up lamenting the fact that we are "Regulated and licensed from birth to death," that some one does not get up and call attention to a condition which exists and threatens to become a serious menace and says "there ought to be a law against this." A committee is appointed to draft a bill and one more law is in the making.

Our grandfathers tell us that they used to raise just as good or, in many cases, even better crops including honey and children before we "had to have a license everytime we turned around." No one doubts these statements of our grandfathers but is there anyone who, after careful study, will say that we could repeat the trick to-day? Whoever heard of scores of children being burned in school house fires a hundred years ago, or of hundreds of children being killed or permanently maimed annually by automobiles.

Bee Diseases

The same evolution has taken place in practically all lines, and beekeeping is no exception. Sixty-five years ago no bee disease law would have been necessary in Wisconsin because neither American foul brood nor European had yet been brought into the state. Today one needs only to look around and see what has happened where the law has been violated or where disease has become established before the law restricting the movement of bees and used bee equipment was passed.

Some beekeepers are careful and, having learned to recognize the bee diseases, destroy the infected colonies as soon as they are discovered, others, finding one, try to hide the fact and get rid of it. The law provides, under penalty that a beekeeper report disease when he finds it.

The beekeeper sometimes reads information in a bee journal to the effect that the disease can be treated by shaking, a method no longer recommended today by authorities on bee disease control. While the particular colony he shook seems free from disease, it shows up in many colonies throughout the yard and he tries the method again and again, determined to save the bees and honey. His neighbor within a mile or so, who destroys the colonies as he finds them, is puzzled as to the source of his infection. The inspector is called and when the diseased yard is located, the owner is indignant because the law says the diseased colonies must be destroyed as well as a few immovable framed hives also discovered and condemned.

Penalties

According to law the beekeeper who keeps his bees in immovable framed hives is committing one offense, and in not reporting the disease is another while exposing honey by spilling it or exposing it in the shaking treatment, is a third. The penalty for each offense is not less than $5.00 nor more than $100.00. We frequently receive inquiries about indemnity for bees destroyed however, we have yet to find anyone who is in the market for a diseased colony of bees. The law specifically states that no damage shall be paid to beekeepers having their bees destroyed in area clean-up work.

THE AMERICAN HONEY INSTITUTE NEEDS FUNDS

A LETTER has gone out from the chairman of the Finance Committee of the American Honey Institute to the Board of Directors of the Institute that the finances are very low, and that there is danger of the Institute closing up this summer. This will be necessary if the beekeepers do not support the Institute and pay the salary and expenses. It would be very unfortunate if this happens. Let's do something about it.

Wisconsin Honey Prospects

BEES have wintered better than average in Wisconsin according to the market news service by the U. S. Department of Agriculture. The May service of the department gives the following report for Wisconsin.

"Recent rains have given plants a good start. The clover prospects vary but in some sections they are the best in years. Wisconsin beekeepers are buying more package bees than for some years past, and crop prospects generally are said to be better than for four years. Extracted honey has sold at 6½¢ per lb. in large lots, 6½–8¢ in small lots; small pails 7½–10¢; Mixed Flowers, 60s, 7¢, small pails 7½–8½¢. Sales of comb honey reported at $3.85 per case for No. 1, $4.35 for fancy. Beeswax, 20¢ per lb."

General Summary for the United States

"It has been colder than usual in the Mountain States; in the upper Plains States rain and snow have been frequent; and in the lower Plains dust storms have restricted the activities of bees. In spite of this colonies generally seem in better shape than a year ago. As cool weather has restricted bee activities during part of the spring, however, it has been difficult for them to secure enough pollen and nectar, and in many cases feeding will be necessary to keep colonies from starving. Clover plants in the Plains area are scarce, even where precipitation has been heavy this spring, because of last year's drouth, but elsewhere plant conditions generally appear better than a year ago. Cool weather has retarded colony development in Louisiana, handicapping the activities of package bee shippers, but shippers of bees in Alabama are said to be keeping up with their orders. Queens are also moving out rapidly.

"Stocks of honey are rapidly growing less. The number of beekeepers who are completely sold out is increasing, and orders in many sections are being refused because of lack of supplies. The tone of the market does not strengthen, however, and in some areas shows a slight weakness. New crop honey from the South and from California is already being sold."

CARBOLIC ACID FOR REMOVING SUPERS

(Continued from page 22)

an inverted hive cover, into which the bees will go as they are driven out of the super by the odor of the carbolic acid. The cover can be jarred in front of hive to rid it of bees.

The carbolized cloth frame should be removed from the super as soon as most of the bees are driven out, as the honey will absorb some of the odor if left too long in contact with it.

The method is servicable when supers are to be removed from hives in an out apiary on one trip. The bee escape board method of ridding supers of bees is, in my judgment, to be preferred in most cases.

Discussion

Zonite was used by one of the members of the Pennsylvania Association with great success, in spite of the fact that it is a chlorine solution, and not a carbolic solution. He moistened wadding with water, and sprinkled with zonite, full strength. It never leaves a taste.

One member claimed that any time he had tasted honey which had been treated with carbolic acid, he had noticed a decidedly unpleasant taste. Yet Mr. Hess and others have never been trouble with tainted honey after using carbolic acid.—*From The Pennsylvania Beekeeper.*

HONEY WANTED: Comb and extracted; all grades. Send samples and best price delivered Oconomowoc. C. W. Aeppler Company, Oconomowoc, Wisconsin.

STATE FLORISTS' CONVENTION

Escanaba, Michigan
July 15-16

THE annual summer convention of the Wisconsin Upper-Michigan Florists' Association will be held at Escanaba, Michigan on July 15th and 16th.

The florists of Escanaba and vicinity are arranging an outing in connection with the convention guaranteed to please everyone. All florists are urged to attend.

ZINNIA LEADS IN POPULARITY

EARLY in May it was announced over Radio Station WHA during the Homemakers' Garden Club of the Air that the Wisconsin Horticultural Society had donated seed of the new Zinnia Fantasy which would be given free to the first 50 persons requesting them, the request to be made on a postcard and must give the three favorite varieties of garden flowers of each gardener.

The first day after the broadcast requests were received from 59 cities and 29 different Wisconsin counties.

The zinnia was mentioned as a favorite garden flower by the largest number of people.

The petunia came second, snapdragon, third, and gladiolus, fourth.

Other flowers receiving a large number of popularity votes ranked in the following order: asters, cosmos, delphinium, marigolds, peonies, dahlias, calendulas.

CHRYSANTHEMUM AMELIA IS CORRECT NAME

THE name "Azaleamum" and "Pink-Cushion" have been given by certain nurserymen to the Chrysanthemum variety Amelia.

The nurseryman who originated the name "Azaleamum" has objected to one of our Wisconsin nurserymen using the word as it is his trade name.

Chrysanthemum Amelia is therefore the name to use.

NEW FORMS OF YEW

THE Yew has many fine qualities and it we believe will eventually become Wisconsin's most popular and most reliable ornamental evergeen. The Yew will grow well in shade. It will stand congested conditions and city smoke, it is perfectly hardy and remains the same color winter and summer, and is free from insects and disease. What more can we ask from an evergreen?

New Horticultural Varieties

A number of new horticultural varieties of the Japanese Yew have been introduced: *Anderson Yew*, a many branched variety with branches tending upright. Foliage bright green and glossy. Grows rapidly.

Brown's Yew, a vase shaped form, very graceful, color deep green. Grows rapidly.

Hatfield Yew, a vertical branching variety, narrow and upright.

Intermedia Yew, a spreading form, dense foliage, compact grower, very deep waxy green. The best spreading varieties for both color and form.

Hicks Yew, vertically growing branches, making a narrow outline of rich, deep green foliage. A very ornamental variety.

Pictures and descriptions of these new forms may be found in the D. Hill Nursery Company catalog, Dundee, Illinois.

The Yews should be studied by all horticulturists.

GROWERS INVITED TO VISIT CYNAMID PLANT

THE American Cynamid Company invites all growers and members to visit their plant at Niagara Falls should they pass that way. Mr. Gus M. Oehm, Agricultural Editor, writes us to be sure to let him know so he can make arrangements to have visitors shown through the plant and see how the nitrogen-plus-lime-fertilizer is made.

DAY LILY DISPLAY GARDEN ESTABLISHED

THROUGH the courtesy and cooperation of Dr. A. B. Stout and the New York Botanical Garden, the Wisconsin Horticultural Society has been able to establish a display garden of the newer varieties of Hemerocallis or Day Lilies, cooperating with the Department of Horticulture of the Wisconsin College of Agriculture.

Dr. Stout has sent the following varieties of Day Lilies to establish this display garden: Fulva maculata; Achroleuca; Citronella; Radiant; Gold Dust; Parthenope; Luteola pallens; Orange; George Yeld; Luteola Major; Nocerensis; Gold Standard; Lemon Queen; Goldcana; Orange Man; Thelma Perry; Thurnbergi; Flava Major; The Gem; Fulva rosea; Estmere; Shirley; Apricot; Margaret Perry; Auriole.

Most of these varieties should bloom this year and will be planted near the Gladiolus display garden, adjoining the Horticulture Building.

The Wisconsin Horticultural Society greatly appreciates the cooperation of Dr. Stout and the New York Botanical Garden.

WISCONSIN IRIS SHOW TO FEATURE NEW VARIETIES

THE first Wisconsin Iris Show staged by the Wisconsin Iris Society at the Milwaukee Public Service Building, Milwaukee, on June 8-9, promises to be an outstanding show. Several prominent growers, including Mrs. Douglas Pattison of Quality Gardens, Freeport, Illinois, have promised to exhibit. These exhibits will show all the newer and better varieties of Iris and will give Wisconsin Iris fans and gardeners an opportunity to see and study the best in Iris.

Regional vice-presidents of the Wisconsin Iris Society have just been apopinted by the Executive Board as follows: Mrs. L. P. C. Smith, West Allis, Mr. C. G. Young, Oshkosh, and Mr. Geo. C. Morris, Madison.

About the Home and Garden

MRS. C. E. STRONG

CHOOSING IRIS AND PEONIES FOR THE NEW GARDEN

"IF YOU did not know very much about Iris and Peonies, just admired them in general—and really had a garden where you could plant several dozen of each, what varieties would you buy, and where?"

These questions were asked mose earnestly a few weeks ago by a rather new gardener who was anxious not to make mistakes. I am going to tell you just what I told the person who asked the question.

First I would provide myself with a thick note book and several sharp pencils. Then I would attend every flower show and visit every good Iris and Peony garden and nursery possible. Whenever I saw a Peony or Iris that appealed to me I would write down the name, color, height, habit of growth, fragrance, time of bloom, etc. If in the nursery, would ask about prices and size of plants sold.

Iris In The Morning

Seeing the flowers both in the show room as well as in the garden will give you a better idea of their worth. Some flowers do not cut well. If you see Iris in bloom—and please go to see them in the morning when you visit outdoor displays, for Iris are so sad to look at when the wind has whipped their dainty frail petals and the sun has wilted them—but in the morning—how they will glow and shimmer when you go to see them. You will want so many of the new ones that you will wonder what else you will have room for. If you have not kept up on Iris in the last few years, you will be amazed at the wonderful blooms and colors shown.

It will be the same with Peonies. A careful noting of the

varieties that please you will be of more real benefit than a dozen lists picked by some one else. There are single, anemone, Japanese, bomb and rose types—you do not see why any one would want single peonies? There you are—to me there is nothing more beautiful than a single peony for cutting and in some cases for landscape effect. You will understand now why I say, —go to the flower shows and the nurseries and make your own selection. It is your garden you know, it should express your likes, not someone else's likes and your dislikes. After you have made up your mind which ones you like best, give your order to the nurseryman early. The Iris need to be planted early, so that they may become firmly rooted before freezing. Oh they will grow even if planted late, but they like the early planting.

You will be quite sure to get nice roots of peonies if ordered early, the nurserymen will appreciate it. Do not expect that either Iris or Peonies will look just as they did in the show room or nursery the first year after planting, give them time to get settled.

Do not neglect to see that you have early, medium and late peonies, also Iris, else you will be like a gardener who said—"Peonies are lovely—but they are all out and all gone in such a short time." He had ordered pink, white and red Peonies, six each of the three kinds, all early.

If you are thinking of trying the new fall blooming Iris—give them a sheltered sunny well drained spot, or else give them protection on cool days and nights if you want blossoms.

Drifts of Iris Pumila in the rock garden are lovely, so are Violas in the separate colors, especially if near the lovely double Arabis This is not such a rank grower as the single.

I discovered that my Cypripedium Acaule was coming up beautifully. Am building a fence around it for fear a rabbit will take two bites. At last have succeeded in growing this lovely Orchid, never before have they deigned to lift their heads in my garden.

NEW TULIPS

THE new Triumph Tulips, in combinations of colors never before seen in tulips, were displayed in Horticultural Hall, in Rockefeller Center, New York. The Triumph Tulips show such combinations of color as flame and blue, blue and yellow, and rose and green. The result of crosses between early and late tulips, they bloom after the early tulips have faded and before the late tulips have blossomed.

Among the outstanding specimens of this new race are Lord Carnavon, a rose-pink flower with a white base; Mayflower, a flame colored tulip with a deep blue base; Silver Wing, entirely white even to white stamens; Souvenir, yellow flushed with cherry, and Avis Campbell, deep peach rose with a green base.

TO THE MEMORY OF JENNIE HODGES ESTABROOK

THE many friends of Jennie Hodges Estabrook, paid silent tribute when they read that her body would be laid quietly to rest at Madison. She is entitled to rest—for her life has been worth while, always there was something she could do—and did do to make the place where she lived a better place.

Mrs. Estabrook was a real horticulturist, she loved her garden, she had a real enthusiasm in passing along this love of growing things to others. Her own garden on a city lot was a marvel of what one can do. Twenty-five years ago, Mrs. Estabrook believed that the system of housing in the cities was wrong, people should have a chance to grow some of their living—and teach the children the joys of planting a garden—perhaps for a while they may seem to forget—but later in life they will remember—and a garden be a solace or a real joy.

Both Mrs. Estabrook and her husband Col. Charles Estabrook were keenly interested in the setting aside portions of land for a State wide Park system, were among the first to urge the securing the land along the river that is now a part of the Milwaukee County Parks. Mrs. Estabrook was one of the first women in Milwaukee to urge the planning of playgrounds for children, also the using of vacant city lots for supervised city gardens, especially for children. As a Garden Club member she was always an inspiration, always ready to do her share and just a little more than her share.

I am sure all her friends will feel as I do—no tribute would please her as will the knowing that her life has been an inspiration to us. Her heartfelt appreciation of any good work done by her friends, was something to be remembered. She used to say "Sometimes we need to know that some one "knows" we are trying to do things." We, her friends, are sure that Wisconsin is a better State because Mrs. Estabrook lived here.

Come and See the Peonies

W. A. Sisson

JUNE is the month of peonies as well as roses. The village of Rosendale at the intersection of Hi-ways 23 and 26 is known far and wide for its peonies.

The past winter was ideal for peonies, and the long cool spring is giving promise of one of the finest blooming seasons ever experienced. Unless unusual hot weather comes on, the most blooms should be out the middle of June. A card sent to the village clerk will receive attention from any prospective visitor as to exact dates, hotel and restaurant service. If you bring your own luncheon you will find a lovely spot to eat at the Vista Vale Gardens where you will be made welcome.

If you want to get acquainted with peony varieties you will find in Rosendale more varieties than in any other garden in the world, so bring your note book.

Look for these Varieties

If you desire the best white look at LeCygne. It's been with us for a quarter of a century and is yet to be beaten. The same may be said of Therese in the pinks and for a red perhaps Felix Crousse. These are standard sorts and within the reach of every purse. If you have time look over hundreds of other varieties in these colors and form your own opinion.

There are no yellow peonies but in the near yellows are Golden Wedding, (Golden Dawn) Fanny Crosby, Luella Shaylor, Philomele, Primevere and a few others.

The Japs are very popular and the good standard is Mikado for a red, but the best new red is Nippon Beauty we believe. Look for Pink Lady, Nippon Princess, Large and Tamate-Boku in the pink Japs and for a white Jap, Isani Gidui (a poor grower), Water Lily, White Cloud, and Sunburst.

In the singles for a white, White Perfection, Pure Love, and The Bride.

Pink singles—Helen, May Oleson and Treasure Cup.

Red singles—Peter Oleson, Darkness, Toreador, President Lincoln, Flanders Field, and Black Prince.

The earliest to bloom of any peony is Anomala a red single with cut leaf foliage, one of the very finest for landscape work. Makes a beautiful hedge through the entire growing season.

SOME FLOWERS NEED PLENTY OF WATER

TESTS on sweet peas, snapdragons and chrysanthemums in the greenhouse at the Ohio Experiment Station by Laurie and Mann indicated that heavy watering is desirable. Using plats of 84 sq. ft. to which were applied 10, 20, 30, and 40 gal. of water per week, respectively, showed the longest stems and longest vines on the 40-gal. plat. Yields were not greatly different in the several areas, and since stem length largely determined sale price the results favored heavy watering, 1 gal. to 2 sq. ft. Comparable results were secured with snapdragons and chrysanthemums.

DWARF FRUIT TREES BECOMING POPULAR

PICTURESQUE, dwarf fruit trees are beginning to make their appearance in Wisconsin. They have been popular in the Old World for generations because they unite beauty and utility. The fruit trees are trained against the walls of buildings or trellises in a picturesque way, apples, pears and plums being used.

Mrs. Delphene Biebler, 2027 E. Olive Street, Shorewood, Wisconsin, has been having some excellent results with these trees.

Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

W. E. MENGE, President
C. D. ADAMS, Vice-Pres.
H. J. RAHMLOW, Cor. Sec.
WALTER F. MILLER, Treas.
OTTO KAPSCHITZKE, Rec. Sec.
1710 Illinois Ave., Sheboygan

WISCONSIN GLADIOLUS SOCIETY MEETING

Rosendale, June 23

THE Wisconsin Gladiolus Society has accepted the invitation of Mr. W. A. Sisson, Rosendale to hold the first summer meeting of the year in Rosendale on Sunday, June 23, beginning at 9 a. m.

The forenoon will be spent in seeing the hundreds of varieties of peonies which are expected to be in full bloom at that time and for which Mr. Sisson is widely known. All the best varieties of peonies may be seen in the Sisson gardens and this alone will be well worth the trip.

There will be a basket picnic luncheon at noon, each one to bring their own luncheon.

Then at 1:30 there will be a short meeting for members of the Wisconsin Gladiolus Society; also a short program on gladiolus and peonies.

Everyone is invited to attend. Bring the family and spend a day among the season's most beautiful flower, and in Wisconsin's largest and best peony garden.

The noon luncheon and afternoon meeting will be held in the Vista Vale Gardens, just West of Rosendale. This is a beautiful place and a spot that will be enjoyed by all.

Girl Scouts will have charge of eats and refreshments.

Double Duty

The chief of police of Dinksville was also Dinksville's veterinary surgeon. An agitated woman called up his home.

"Do you want my husband in his capacity of veterinary or chief of police?" asked the chief's wife.

"Both!" came the reply. "We can't get a bulldog to open his mouth; there's a burglar in it!"

WISCONSIN GLADIOLUS SHOW
University Field House, Madison
August 10–11

NATIONAL GLADIOLUS SHOW
South Bend, Indiana
August 16–17–18

STUDIES IN THE CONTROL OF GLADIOLUS THRIPS

STUDIES of derris, nicotine, paris green and other poisons in combination with molasses in the control of gladiolus thrips were made by the Bureau of Entomology of the U. S. Department of Agriculture during the past season. A summary of the results as outlined in the Journal of Agricultural Research of this work is as follows.

The deposit left by the *nicotine sulphate-molasses* spray killed many hatching thrips larvae over a 7-day period after the application and was the most effective of 8 nicotine spray residues tried. It was quite toxic to older larvae and adults shortly after application, but soon lost its effectiveness and was not very promising in greenhouse control tests.

Paris green was more toxic with molasses, either blackstrap or higher grades, than with brown sugar. Chemical analyses of these mixtures corroborated these results, indicating that paris green is much more soluble in molasses solution than in brown sugar solution. Its solubility in tap water alone was much less than in either of these solutions. Both the brown sugar-paris green deposit and the molasses-paris green deposit retained toxicity for some time, even after exposure to rain, and both were very effective in greenhouse control tests, though some foliage injury resulted, especially on plants with considerable thrips feeding. Molasses did not appear to act as a bait.

Derris extract with molasses solution left a very toxic deposit and was very effective in greenhouse control tests. The residues of derris extract, alone or in combination with soap or sulphonated castor oil, were quite toxic shortly after the application, but lost toxicity much faster (especially the soap spray) than derris-molasses residue when exposed to direct or to glass-filtered sunlight. The derris-molasses deposit was easily washed off by rain and under field conditions it was attached by a fungus.

Hellebore powder with molasses solution left a toxic and fairly stable deposit and showed considerable effectiveness against the gladiolus thrips. On addition of sulphonated castor oil, it gave promising results against the onion thrips.

Pyrethrum extract spray with molasses or waste sulphite liquor left a deposit of slight immediate toxicity, which disappeared quickly. Results with tartar emetic, borax, calcium arsenate, lead arsenate, and copper sulphate are also reported. (None as effective as the paris green spray.)

Unless you're Scotch don't request my catalog listing over 500 varieties of hardy IRISES. Melvin Geiser, Iris Specialist, Beloit, Kansas.

The 1935 Prize Schedule

Walter C. Krueger

AS AN invitation and incentive to out of state members of the American Gladiolus Society or the Wisconsin Gladiolus Society to participate in the 1935 state show at Madison August 10-11, the following sections, some of which are new to the prize schedule, are made open to out of state exhibitors, as well as to Wisconsin residents, namely: competitive artistic commercial displays of not less than 150 square feet; non-competitive commercial displays; the 20 spike table, with the artistic arrangement; the 25 spike table; seedling classes; educational entries of 10 to 50 spikes which may carry a commercial placard; the color classes of the exhibition section (minimum requirements 5½ florets, to 7 open); the color classes of 1931 or later introduction; the three spike color classes for large varieties; and the natural garden class.

New Classes For Favorite Varieties

Five new classes have been created for single spikes of Picardy, Minuet, Mrs. Leon Douglas, Commander Koehl and Pfitzer's Triumph. The classes are also open to out of state members.

These five classes carry ribbon awards and the classes referred to above have suitable cash or trophy prizes.

The exhibition, new introduction, and 3 spike classes listed last year as sections B, C large and small. and D will be the same as last year except for a few new requirements.

New Rules

No longer will it be possible for the shrewd showman to use an average spike of a large variety, by accident or design, to win in a small spike class. The requirements of each section are to be observed. Judges will carry out the idea of the present schedule which was to recognize the large, medium and small varieties as well as the exhibition type, by penalizing, with no award, specimen blooms that do no meet the requirements of that section.

Recognizing the fact that few varieties throw florets of 6-inch diameter, that specification has been reduced to 5½ inches in the exhibition section, but the number open has been increased to 7 fully opened florets. Failure of entry to meet these requirements will result in no award for that entry.

The decorative section is reserved for Wisconsin resident members only. The only change in this section from that of last year is in the color classes of the small decoratives which have been converted into a 3 spike division of seven classes.

The amateur or novice class specifications and color classes remain the same. This section is open to non-members.

The fan who plans on exhibiting gladiolus at the State Show at Madison on August 10-11, will find a group of major awards that will reward not only the highest point winner and the owner of the champion spike, but also the second and third highest point winners as well.

The sectional champion spikes will carry a point award over and above its quota for a first place.

GARDEN CLUB OF THE AIR TO CONTINUE DURING JUNE

THE Homemakers' Garden Club of the Air has become a very popular program. Broadcasts will continue each Tuesday during the month of June and will begin at 10:15 a.m. and continue to 10:45 a.m.

Tuesday, June 11, Wisconsin Rapids Garden Club

Tuesday, June 18, Jefferson Garden Club

Tuesday, June 25, Cambridge Garden Club

The programs have been very interesting. There is some possibility that they will be continued beginning either in September or October.

THE 1935 DISPLAY GARDEN PLANTED AT MADISON

ON MAY 16th president W. E. Menge of Fond du Lac came to Madison and with the cooperation of H. J. Rahmlow and the University Horticulture Department, planted the 1935 gladiolus display garden.

Over 325 varieties were planted in this year's garden. Many of the varieties are the newest introductions; others are the best of the older varieties and of course in such a large list there are many varieties which are not yet well known.

We hope that the garden will be in full bloom during the State Gladiolus Show on August 10-11. The garden adjoins the Horticulture Building and the Horticultural flower gardens of the College of Agriculture, and will be a very interesting spot to visit this summer. The University Field House in which the show will be held is only two blocks away.

Reports of some of the varieties and contributors will be made in an early issue.

PEONIES IN RACINE WILL BE IN BLOOM ABOUT JUNE 16

MR. W. E. FANCHER of Fancher's Nursery, Sturtevant, Wisconsin, writes that the peonies will probably be in bloom the week of June 16th.

All our members are invited to see this huge peony display. The Fancher Nursery is located on Highway 20, four miles West of Racine.

In addition to peonies there are many acres of perennials and nursery stock which may be studied by visitors.

Before marriage she says: "when do we eat?"

After marriage, he says it.

STATE GARDEN CLUB FEDERATION NEWS

Federation Aims: To stimulate and help garden clubs throughout the state; to develop interest in and broaden the knowledge of gardening; to aid in the protection of trees, plants and birds, and promote civic beautifications.

FEDERATION SUMMER MEETING

Madison, August 10

THE annual summer meeting of the Wisconsin Garden Club Federation will be held in Madison on August 10th, which is the opening day of the Wisconsin Gladiolus Show to be held at the University Field House, Madison.

The date chosen by the Board of Directors of the Federation because it offered an opportunity ity for garden club members to spend a very profitable day as well as to transact the business of the organization.

The Program

10 a.m. Assemble at Agricultural Hall. Registration and business meeting in Auditorium.

Consideration of proposed changes in Federation Constitution.

12 M. Picnic Luncheon on Observatory Hill.

1 p.m. Tour of University Campus in organized groups to study trees, shrubs and flowers.

Tour of Gladiolus and Hemerocallis trial gardens.

2:30 p.m. Visit the Wisconsin Gladiolus Show.

Garden clubs are urged to arrive at the College of Agriculture grounds as early as possible in the morning in order to spend more time in the Horticultural flower gardens adjoining the Horticultural Building where many varieties of perennials and annuals will be in full bloom. Members of the staff of the Horticulture Department will be on hand to give information.

GARDEN CLUB FLOWER SHOWS

Jefferson Garden Club Flower Show, Jefferson, June 13-14.

Madison Garden Club Annual Peony and Garden Flower Show, Crystal Ball Room, Loraine Hotel, Madison, June 8-9.

Baraboo Garden Club Flower Show, Legion Hall, Baraboo, June 14-15.

Menasha Garden Club Flower Show, Menasha, August 10-11.

Wausau Garden Club Iris and Peony Show, Wausau, June 15-16.

Waupaca Garden Club Flower Show, Waupaca, August 7-8.

Chequamegon Garden Club Flower Show, Ashland, August 15-16.

Fond du Lac Community Garden Club Flower Show, Hotel Retlaw, Fond du Lac, August 17-18,

Oshkosh Horticultural Society Flower Show, Oshkosh, August 24-25.

NEW DISTRICT ORGANIZED

AT A meeting of representatives of six garden clubs in Waukesha County at the home of Mrs. Sydney Welch, Oconomowoc, on April 30th, a new district of the State Garden Club Federation was organized.

The following temporary officers were elected: Mrs. Sydney Welch, Oconomowoc, Chairman; Mrs. J. C. Hassall, Oconomowoc, Vice-chairman; Mrs. C. C. Pink, Oconomowoc, Secretary-treasurer.

Arrangements were made for the district flower show to be held at Oconomowoc in the High School Gymnasium on June 8-9. A district meeting will be held later on to adopt the constitution and elect permanent officers.

NEW GARDEN CLUB

The Federation welcomes the Elm Grove Garden Club to membership.

The officers are: President, Mrs. P. Erik Andersen, Elm Grove; Vice-president, Mrs. Alex Riebs, Milwaukee; Secretary-treasurer, Mr. Arthur Kron, Elm Grove.

A NEW SYSTEM FOR JUDGING AT FLOWER SHOWS

A NEW circular has been prepared by the State Horticultural Society "A New Method for Judging Major Flower Show Exhibits." It is available free of charge.

This system provides for a method of scoring and giving awards based on a standard of perfection. Exhibits are placed in division 1, 2, 3 or 4, but all those scoring, for example between 95—100 are placed in Division 1 and given a blue tag. Those scoring between 90—94 are given a red tag and placed in division 2.

The system is based on the method used in placing the awards in the state band and orchestra contest. It has been used at several of the district flower shows this spring with success. It will eliminate some of the unfortunate experiences encountered at shows through competitive judging. At the same time it will enable judges to place exhibits in different divisions which will help the educational value of the show.

CLUBS LIKE FLOWER ARRANGEMENT SLIDES

THE lantern slides "27 Selected Flower Arrangements" and lecture available through the Wisconsin Garden Club Federation are proving very popular with garden clubs. The slides are beautifully colored and show many perfect arrangements. Two sets of the slides are now available. The Bureau of Visual Instruction of the University Extension Department cooperated with us in making another set, which may be used in case of conflict. The rental fee for the slides is only $1.00 plus transportation. Write Mrs. B. W. Wells, 2526 Gregory Street, Madison, for reservation.

ROCK GARDEN

Mrs. L. R. Clausen, 1121 Lake Ave., Racine, Wis. has almost every known rock plant in her garden.

HIGHLIGHTS AND LOWLIGHTS OF THE CONVENTION AT LOS ANGELES

MRS. ALFRED LANGENBACH
La Crosse

"I have always plucked a thistle and planted a flower where I thought a flower would grow."—*Abraham Lincoln.*

Did you know that California has no lilacs?

We were told that Harold Lloyd's garden cost one million dollars.

Two of our party were lost in one of the large estates we were perusing. Our guide suggested that we wear bells on our future trips.

They say that the trees about the pool at the flower show in Chicago came from dear old Wisconsin.

At the Ambassador Cocoanut Grove luncheon a lovely bell was in the center of the table. The person who made the first remark about this bell received it as a momentum. (How did I miss that?)

A sand storm in Colorado was one of the "lowlights" we experienced.

Something new in flowerdom arrangement — miniature replicas of larger models.

Seldom used—silver containers for floral arrangements.

Mrs. McKean of Maryland, an enthusiast of "Billboards must go," sold small books containing parodies of favorite songs with

(Continued on page 254)

POMO GREEN WITH NICOTINE FOR ROSES

Dust or spray this material on your Roses every week or ten days throughout the season and control Black Spot, Mildew, leaf-eating Insects, and Aphis with the same application.

Because of its leaf-green color, it eliminates that unsightly appearance on foliage which results from the use of many spray materials.

For other flowers, too

Can be kept healthy and vigorous with this complete material. No diagnosis is necessary—just spray or dust at regular intervals and your plants will have complete protection. Dusting Pomo-Green with a Niagara Duster is just as effective as a wet application. A Niagara hand duster suitable for the home yard and garden are only $1.25 delivered.

See your Niagara dealer, or write direct to

WHEN YOU BUY Niagara YOU BUY PROTECTION

Niagara Sprayer and Chemical Co., Inc.
J. Henry Smith, Sales Representative
Waupaca, Wisconsin

Milwaukee Distributor:
Fertilizer Chemical Mills, Inc.
400 So. 7th St. Milwaukee, Wis.

Every Child A Gardener

Mary A. Lowerre
Delafield

AFTER four years of intensive Junior Garden Club work, under the system of the small group sponsored by an adult club, I still feel the inadequacy of this plan of the Junior Garden Club Movement to reach the great masses of children who should, and must have, the healthful, helpful training embodied in a full and comprehensive garden program. After much thought, many conferences, and the staunch support of our County Superintendent of Schools, we have worked out a program thru which we hope to to reach every child with this teaching, and in a most practical, usable and enjoyable manner.

We believe this plan will teach the rudiments of gardening and of conservation and awaken the consciousness of the child to the Nature World about him. Will teach him to co-operate with the elements; to see, hear, smell and enjoy the world in which he lives. It will teach him that "All the world is a garden" and that it behooves him to protect and promote this Garden if he would have his race persist and progress.

A Credit Project

The Garden Project is now a credit project in our schools. It is with the full approval, cooperation and assistance of the County Superintendent of Schools that the first unit of The Teacher's Garden Club of Waukesha County has been organized. We hope, in the Fall, to organize the four sections of the county. Each member of the Club is pledged to foster garden work in the school; to organize the pupils under the title "The Junior Garden Club of the —— School."

Besides the staff of officers of each Teacher's Club there are four General Councilors. These are, the County Superintendent, chairman; the County Agent, supervisor of school grounds; the Supervising Teacher, credits; Garden Councilor, garden instruction and conservation. The Councilors, with the chairman of each Teacher's Group, compose an Executive Board.

Lesson sheets carrying material for a seasonable monthly program will go out from the county superintendent's office each month and will be entered in the Teacher's Garden Book for reference. This material, usable in language, spelling, drawing, etc., is readily recognized and appreciated by the teacher.

Each Junior Gardener has a Garden Book also—loose leaf. In this is filed all corrected garden work, plus drawings, neatly pasted clippings, etc. This book is inspected for credit.

Each child shall make a home garden with a bird house and a bath.

Each school will hold a Junior Flower Show during September. Here will be exhibited flowers grown by the junior gardeners themselves. Thus we tie up the school work with the home and carry the interest over. These shows will be judged by members of Federated Clubs chosen by the Garden Councilor. They will be judged for credit.

Future Aims

Our aim—1. A blueprint plan of each school grounds in the county. This to be drawn by a reputable landscape architect. This plan to be on file so that it may be consulted for all future planting on school grounds. In a few years each child may point with pride to the result of his training. Instead of barren, unsightly school grounds, we may have a series of small parks throughout the county. A demonstration garden or a border, suitably located on the grounds, will create interest and prove a boon to teachers.

2. A circulating school library of garden books for the teacher's use as well as the pupil. Most teachers are not gardeners but are greatly interested to learn, providing the material is made available.

How May The Garden Clubs Assist in This Work?

1. By responding when they are called upon to speak on any garden topic before one of the Teacher's Groups, or in the local school.

2. By gathering quantities of seed from their own gardens in the fall and mailing it to the Garden Councilor for distribution in the schools.

3. By holding a garden tea, a card party, a pageant, or any outdoor function, fete or fancy, during the summer, with their own garden as a setting, for the purpose of helping to finance the blueprint or the library. There is no fund from which to draw excepting through the nature-loving groups who KNOW the value of this garden project in the lives of all children.

We hope to have one grand "Roundup" each year when all groups will meet together for a well planned program of authoritative speakers on garden and conservation subjects.

Work Done

1. Each organized school has been visited this spring by the Supervising Teacher and the Garden Councilor. 2. Work inspected and credits given. 3. Hollyhocks and Iris have been planted at each school. We have received 2000 "Glad" bulbs from the Walter Miller gardens which will be planted in home gardens, with an eye to future shows. Contributions of plants have been distributed by the chairman of the Teacher's Group—a tireless and a faithful worker, without whose unceasing effort the Teacher's Garden Club would not have been born.—MARY A. LOWERRE, *Councilor, Teacher's Garden Club of Waukesha County.*

Color In Flower Arrangement

Ruth Randolph

This article on color is a resume of a talk on the subject given to the Horticultural group during Farm and Home Week at the College of Agriculture.

Color harmony is one of the most important points on the flower arrangement judging score card. The ability to create pleasing color harmony will greatly enhance the beauty of an arrangement.

THERE may be personal likes and dislikes in color just as there are individual differences in the choice of clothes, food, cars or friends. Some like strong viril colors, others prefer dainty subtle ones. However, in judging flower arrangements for their color harmony there are certain fundamental principles which form a basis for separating the good from the poor, irrespective of personal likes or dislikes.

A color scheme which is fine shows consideration for many factors other than the choice of hue. When only one variety of flower is used in an arrangement, interest is increased by selecting variety in value or intensity. For example, in choosing calendulas, the horticulturist will probably prefer the perfect blooms alike in size and color, while the artist will instinctively select those which vary in size, or in color from light to darker richer tones. In bouquets of two or more varieties which are very different in hue, one color or the other is used in a larger amount because equal amounts of brilliant and contrasting color used together are distressing to the sensitive colorist. The composition lacks what is known as dominance.

The most pleasing arrangements show a rhythmic repetition of each color throughout the bouquet. For example, a few bachelor buttons placed with calendulas should be so arranged that these spots of color lead the eye throughout the bouquet often from the lower part around and upward in a spiral movement. At the same time these dark blue spots of color should be so arranged against the orange of the other flowers that they give a pleasing sense of balance. Too many dark or brilliant spots grouped together on one side of a vase may give an uneasy feeling due to lack of stability in color arrangement.

Since cut flowers must be kept in water, the color of the container becomes a part of the color study inseparable from the flowers as far as color harmony is concerned. When considering the two elements of flowers and vase, the former is usually given predominance by choosing a color for the vase which is not as brilliant as the bouquet and in amount is considerably less than the area occupied by the mass of flowers.

While no exact rules can be given for color arrangement, these few suggestions may help to point out possible experiments in color study with actual flowers.

Revel in color to your heart's content but study it to see what gives it this power to move you. Ability to create pleasing harmony as well as to appreciate them will increase in proportion to the thought and joy put into it.

NEW FLOWER SHOW BULLETIN FOUND HELPFUL

REPORTS from several of the newer garden clubs of Wisconsin indicate that flower show committees are finding the new bulletin Wisconsin Flower Shows very helpful. The bulletin contains schedules, suggestions for organization and a simplified entry system. The bulletins sell at 15¢ each, or four for 50¢. Send orders to the State Horticultural Society, 1532 University Avenue, Madison.

UNITY IN FLOWER ARRANGEMENT

J. G. MOORE

A GOOD flower arrangement must possess unity. Writers on flower arrangement frequently ignore unity in their discussions. The lack of emphasis on unity and the stressing of other factors, particularly grouping, has led to the making of many arrangements lacking unity. Grouping is recognized as desirable in arrangements where two or more colors or kinds of flowers are used, but when it is carried to the extent that it results in a composition of two or more practically distinct groups, marked by very definite lines, then it has been carried to excess and has destroyed unity. The emphasis on grouping probably comes largely from the effort to correct the old method of equal distribution called by some writers "spottiness"; but in an effort to escape one undesirable condition many have unconsciously run into another quite as bad.

The matter of distinction has been unduly stressed in arrangements in flower shows. Distinction is highly desirable, but there is a distinct tendency to secure it at too high a price. There have been shows in which an arrangement has been awarded first place because of distinction when the distinction was merely a gross violation of fundamentals.

The desire for freedom in arrangement, the fretting at the restraint of rules, so-timed desire to express our personality, to be original, are all possibly worthy emotions, but one should not overlook these facts, that there is a vast difference in freedom and license; in the restraint of fundamentals and mere lavishness to detail; that every composition expresses personality; that often the strained effort to express personality or to be original results only in being odd or grotesque.

What we should strive for is not unlimited and rampant freedom, which would only lead us to confusion and mediocrity,

but freedom tempered and rationalized by observance of those attributes which require conformity, but which at the same time give adequate liberty for the expression of self and exercise of one's greatest skill.

OSHKOSH SOCIETY STUDIES BIRDS

PROF. A. E. Clemans spoke on the subject of birds at the May meeting of the Oshkosh Horticultural Society. He stated that almost the entire bird population of North America shifts twice a year. A few birds such as bluejays, English sparrows and starlings remain in one place. The reason for the migration is lack of food as birds eat their own weight in food practically every day.

There are two classes of birds, those that eat seeds and those that eat insects. The insect eaters go farther south than the frost line, and usually migrate into South America, while the seed eaters migrate to the southern part of the United States. In migration, they follow a regular route.

Mr. William Blake stated that birds like the seeds of barberry, honeysuckle, huckelberry, sumac, American beech, larch, chokecherry and the mountain ash.

FLORENCE WINCHESTER,
Secretary.

CEDARBURG GARDEN CLUB CHOOSES PETUNIA

IN MARCH the Cedarburg Garden Club decided to vote on a city flower. Many civic organizations voted and the petunia was chosen.

The club will beautify several unsightly spots in the city and help improve the city park by planting flowers as one of our civic projects.

Our mid-summer meetings last year were held in gardens of club members and these were so successful that we expect to do the same this year.

MRS. ARNOLD C. BUCH,
Secretary.

ASHLAND CLUB PROMOTES JUNIOR WORK

THE Chequamegon Garden Club, Ashland, is sponsoring a flower planting project in the 6th, 7th and 8th grades in the city schools. Seeds have been given free to the children and a junior section will be part of the August flower show, where they will have the opportunity of displaying the results of their plantings.

Our club is also planning on beautifying a plot near the Northwestern Depot here in the city which belongs to the railroad company.

We expect to hold our midsummer flower show on August 15th and 16th, this year. People are still commenting on our last year's flower show, and we hope to make it a bigger and better show this year.

ALBIN C. JOHNSON,
Secretary.

GOOD GARDENS TO VISIT

BARABOO

Mrs. A. R. Reinking, 10th Avenue, Baraboo. Dahlias.

CEDARBURG

Eberhardt Sons, R. 1, Cedarburg. Dahlias and fall flowers. August and September.

PORT WASHINGTON

Benjamin F. Klein, 1100 Wisconsin St. Grounds beautifully landscaped. July and August. Tuesday, Wednesday and Thursday afternoons. Mrs. Arthur Vahldieck is the hostess.

Paul Marquardt, 823 Chestnut St. Perennials, roses and annuals. August and September. Thursday afternoons preferred.

Wm. F. Wilke, 730 Grand Ave. has a home garden, largely annuals, with a quaint old gabled house for background. August. Tuesday, Wednesday and Thursday afternoons preferred.

The Olaf Elton Dahlia Gardens in bloom after September 15. May be seen at any time by getting in touch with gardener, George F. Ballbach, 800 Michigan St.

BROWN DEER

Herman Hunkel, Brown Deer Road. July, August, September.

FAIRY CHASM—MILWAUKEE

L. R. Taylor. July-August.
Armin Jaeger—July-August.
Lena Usinger. Fall.

PINE LAKE—MILWAUKEE

Hugh Randall, Dahlias. August-September.

OCONOMOWOC

Harry Jahn, July-August.

RACINE

Mrs. L. R. Clausen, 1121 Lake Avenue. Beautiful rock wall.

John Wiechers, Highway 38, about 2 miles West of Racine. Rock garden.

Fancher Nursery, Sturtevant. Peonies.

John Johnson, 1966 Linden Ave. Delphinium.

John Stransky, 1801 Blake Ave. Roses.

Harold Voelzke, 818 English St. Roses.

Mrs. E. C. Pfeiffer, 370 Kinzie Ave. Climbing roses.

Mrs. J. B. Simmons, 1013 Lake Avenue. General. Plants in season.

HIGHLIGHTS OF CONVENTION

(Continued from page 251)

the word billboard inserted everywhere possible.

The outstanding report at the business session seemed to be of the Junior clubs. Iowa state was leading.

Illinois brought us a lovely little book inviting us to the Lincoln Memorial Garden dedication. A picture of the great Emancipator was on the outer leaflet.

NOW

is the time to get ready for the coming season. Send us your wax to be worked into foundation. Every sheet is perfect. Let the bees test it for you, and then abide by their verdict. We handle the finest sections made. Let us quote you prices on any supplies you may need. We carry a full line of bee equipment.

Price list on request.

Gus Dittmer Company
Augusta, Wisconsin

HOMEMAKERS PLANT MANY FLOWER SEEDS

HOMEMAKERS' clubs of Portage County are carrying on an extensive flower growing project this year under the supervision of county agent Harry Noble of Stevens Point. Four homemakers' groups in Portage County representing 650 families took part in the project. A total of $50 worth of seeds in bulk was purchased and distributed. The following varieties were used: Nasturtium—Glorious Gleam Hybrids; Marigold, Yellow Supreme; Aster, Giant Crego, Wilt Resistant; Delphinium, Belladonna Improved; Hollyhock, Double Flowered; Snapdragon, Rust Proof; Larkspur, Rosemond; Zinnia, Fantasy; Calendula, Orange Shaggy; Calendula, Sunshine.

Homemakers have been asked to exhibit at the Fairs. We wish to compliment the County Agent for his efforts in promoting this project.

ARE YOU INTERESTED

In SMOOTH SURFACES
In RIGID CORNERS
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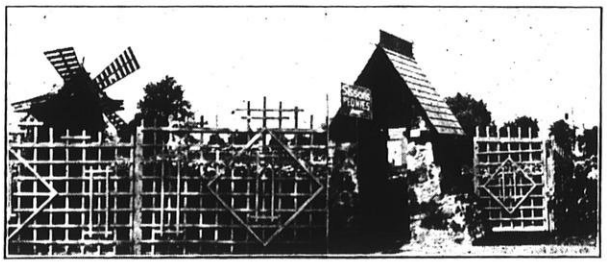

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JULY—AUGUST, 1935

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society
The Wisconsin Garden Club Federation

Established 1910

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OUR PROGRAM
1. A more beautiful Wisconsin, secured by cooperation with all existing agencies.
2. Improvement of Wisconsin's fruits and ornamentals. Establishment of plant breeding and testing work. An active group of plant and fruit testers within the society.

OUR PROGRAM
3. Greater publicity for Wisconsin grown fruits and vegetables.
4. A constantly improving magazine for the distribution of timely horticultural information.
5. Organization of local horticultural clubs in all sections of the state.

The 1935 Insect Situation

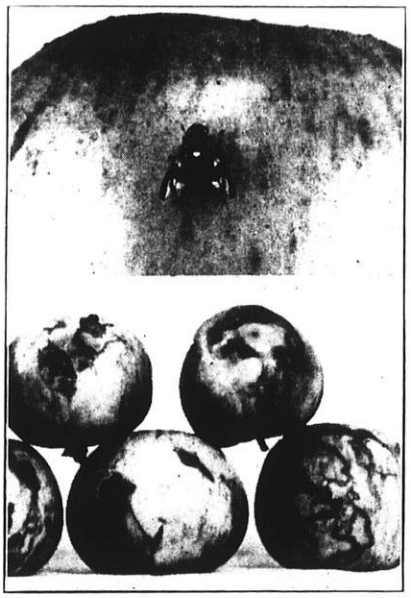
C. L. Fluke

Aphids

THE summer of 1935 will long be remembered as a season of plant lice, sometimes called aphids. Very few plants are free from their attacks and the difficult part of the entire situation is that there is little that can be done after the lice once gain a good foothold. If we could always tell ahead when these seasons are coming we could very easily plan our control early enough to get good results. Most plant lice spend the winter in the egg stage and hatch early in the spring into stem mothers which give birth to living young and it isn't long until there are large colonies of lice everywhere. The secret of control on shrubs and trees therefore, is to kill the stem mothers with a good contact spray, which means spraying early in the spring just as the buds are swelling. On annual plants of course it is necessary to keep a sharp lookout for infestations and treat them whenever they appear.

Codling Moth

Fortunately for the fruit grower the codling moth doesn't seem to do as well in cool years as it does in hot, dry, seasons. The first brood of moths was very much delayed and reduced this year but it is surprising how this insect can pick up when conditions become favorable. Growers putting on a late spray for second brood codling moth (August 10 to 25) can aid the natural weathering of the residue by adding a strongly alkaline sodium silicate to the lead arsenate solution. Use one pound to 40 gallons of spray. (The use of sodium silicate was explained in the November, 1934 issue of Wis. Hort.)



Above: The mother of the apple maggot. Below: The work of the maggot, showing why it is sometimes called the Railroad worm.

Apple Maggot

At this writing it is a little early to state what the apple maggot situation will be but we expect it to appear later this year than usual due to the cooler weather. Thus the spray for the maggot (Lead arsenate 1 pound to 50 gallons of water) should probably be put on about the time you receive this magazine (August 1st). Those spraying for the maggot about the first of August usually omit the 2nd brood moth spray.

May Emerge Next Year

The apple maggot emergence is usually influenced by the amount of moisture occurring during July. A very dry July will cause a large number of the flies to wait until next year before they emerge. This condition happened two years ago and as a result the flight last year was larger than usual and perhaps larger than will occur this year. A well timed spray is very effective in controlling the maggot.

Be sure to attend the Wisconsin Gladiolus Show, University Field House, Madison, August 17–18. Wisconsin's greatest flower show.

Dirge

The barber takes the red hot towel,
As though he were just learning,
And drops it quickly on your face
To keep his hands from burning.

Promising Results In Removing Spray Residues

SPRAYING has routed the apple worm. Consumers can now buy apples with confidence and "eat 'em in the dark" without fear.

But in solving one problem, modern methods have created another. Stomach poisons like lead arsenate must be used to kill the codling moth that is responsible for wormy apples. This material is poisonous to human beings as well as to insects, and unfortunately a small amount is usually left on the fruit at picking time.

Federal health regulations limit the amount of spray residue that may be left on apples shipped in interstate commerce. The tolerance has now been set at 0.010 grains of arsenic trioxide and 0.018 grains of lead per pound of fruit.

Many Wash Apples

In many apple growing regions it has been found necessary to wash the fruit in weak solutions of acid or alkali to remove the poisonous residue. This of course is an added expense to the grower and injures his chance of making a profit.

Fortunately, the spray programs now used in Wisconsin do not ordinarily leave enough residue to make washing necessary. Tests on apples from 45 orchards in various parts of the state, made last year by a representative of the University of Wisconsin Experiment Station, disclosed no apples having more lead or arsenic than the regulations permit.

Several orchards however were found to be marketing fruit which was very close to the limit allowed by law. And since the government is following a policy of lowering the legal tolerance, it seems possible that Wisconsin orchardists may soon have to find some way to reduce the amount of spray residue on their apples.

New Way Easier

In seeking cheaper methods of removing spray residue than any now used, promising results were achieved at the Wisconsin Station during the past year by incorporating silicate of soda in the last regular spray of lead arsenate. This method involves no extra labor on the part of the grower, and very little extra expense. At the same time it was found to eliminate about 50 per cent of the spray residue, which would enable the fruit to meet government regulations by a safe margin.

The procedure in using this method is as follows:

Add one pound of sodium silicate to each 40 gallons of lead arsenate spray mixture. Apply at the time of the regular "maggot spray," which is usually about July 17–20 in the Crawford county apple growing region.

Sodium Silicate Removes Residue

Sodium silicate may also be used in removing residue by washing the apples after picking. The apples are dipped in a solution containing one pound of sodium silicate to 40 gallons of water, and then rinsed by dipping them in cold water. Naturally this method involves much more work than the other.

The results reported above were secured in 1934. Further trials are being made this year, and if the same favorable effects are secured, the Wisconsin Station will be able to advocate adoption of the practice by apple growers throughout the state.

A college boy recently established a record by eating 48 eggs in 48 minutes. And still some people wonder if a college education is worth while.

FRUIT GROWERS TO RECEIVE AWARDS

TWO plaques will be awarded by the Milwaukee County Fruits Growers Association this fall for the best individual orchard in the county, and the best spray ring, judged according to the score card given below. Judging will be done by a committee of two outside fruit growers and Mr. L. C. Kuehner, Madison.

The following is the score card to be used.

	Perfect Score
1. Thorough orchard clean-up	60
2. Prune bearing orchard	100
3. Eliminate or graft poor varieties	30
4. Fertilize with manure and nitrogen	150
5. Maintain heavy grass mulch	60
6. Keep livestock out of orchard	40
7. Carry out complete spray program	100
8. Keep record of spray dates and costs	50
9. Thin apples in early July	60
10. Grade of apples produced	350
Total	1000

Letters have been sent out by Mr. Ray Pallett, County Agent, to all fruit growers, members of the Association, inviting them to take part in the contest.

He also reports that the Association has an increase in membership this year. In fact, it has increased each year since it started. There are now about 160 members in the Association.

The score card is so designed as to give credit to fruit growers who have carried on correct orchard practices. While the judges will no doubt have difficulty in making the decisions, the plan will nevertheless recognize excellent work.

CRANBERRY GROWERS TO MEET AUGUST 13TH

THE Wisconsin Cranberry Growers Association will hold their annual summer meeting at Realty Hall, Wisconsin Rapids, on Tuesday, August 13, according to Miss Clare S. Smith of Wisconsin Rapids, Secretary of the Association.

The showing for Wisconsin cranberries is very good during July. There is a plentiful water supply.

Apple Scab and Cherry Leaf Spot Report

E. C. Blodgett

THE development of apple scab in Door County this season has varied widely. In some orchards both the foliage and fruit are surprisingly clean while in others, scab is extremely severe and is causing a heavy drop. Fortunately there was little primary infection early in the season. Practically all scab has developed from infection which took place during the favorable weather of the latter part of June and early July. The season has provided an excellent opportunity to test the effectiveness of the spray program and spray materials. There are three main causes of failure:

(1) POOR COVERAGE. This is considered the most important reason for failure to control scab. It is believed that very thorough spraying will give fair protection even when delay of the next treatment is unavoidable.

(2) POOR TIMING. In some orchards scab is severe because the applications were not made at the proper time or were omitted. Heavy, frequent rains which sometimes occur at critical periods complicate the spray program but when the treatments are thorough there will be no serious failures.

(3) POOR FUNGICIDE. Some fungicides will not control apple scab even under moderate conditions. Liquid lime-sulphur, used 1–40 is the most efficient scab spray tested in this district.

It is suggested that where scab is present, spraying should be continued on the late varieties. Even where leaf infection is severe the fruit can be kept fairly free of scab if it is kept covered by spray. Lime-sulphur will check somewhat, development of scab already on the fruit.

In 1934 considerable late infection occurred on McIntosh fruit and resulted in serious losses in some cases through rots and reduction in grade. It is highly recommended that a thorough August spray for scab control be applied on McIntosh and Snow varieties in particular.

CHERRY LEAF SPOT

THE development of leaf spot has been as irregular as that of apple scab. Some orchards have been severely defoliated while others close by have been kept clean of disease. The difference this year is considered due almost entirely to improper coverage. There are cases, however, where it is partly a matter of poor timing of the spray—especially where the first treatment was delayed. Nearly every grower found it necessary to delay the second treatment, because of the weather, but where the first treatment was thorough and timely, control was very good.

The experimental programs on apple and cherry have yielded considerable information on spray matters and it is hoped that growers may join in a discussion of these problems at a meeting in Sturgeon Bay sometime in August.

FRUIT GROWERS MEETING AT GAYS MILLS

AN IMPORTANT meeting of fruit growers will be held at Gays Mills on Saturday, September 7. The program will consist of an inspection of apple packing methods in some of the large orchards, and a tour to various orchards to study experimental work being carried on.

For complete details and program, growers should write to Mr. C. L. Kuehner, College of Agriculture, Madison. Only a limited attendance can be handled and it is desired to make arrangements, especially for luncheon, for everyone who can come.

Lead Arsenate Substitutes In Door County

J. H. Lilly and C. L. Fluke

THE desirability of using a substitute for arsenate of lead in the codling moth spray program is a subject that is still unsettled in the minds of many Door County apple growers.

This interest persists in spite of our previous comments in Wisconsin Horticulture (May issue) and at various meetings of fruit growers. Apparently it is prompted largely by two outside sources of information. The first of these is the influence of commercial agencies engaged in the manufacture and sale of some of these materials. The second is the prominence given the subject of spray residues in the press.

The necessity or desirability of using a lead arsenate substitute in the codling moth control program must logically be determined on the basis of previous results. Both the control secured and the residues accumulated must be considered, as well as the cost. Of all the materials that have been tried against this pest in place of lead arsenate, not one has given control consistently superior to the latter, and many of them are decidedly inferior. In addition, almost all of them are considerably more expensive.

In the fall of 1933 about 10 samples of Door County apples were collected by the writer and analyzed in the State Chemist's laboratory. Their poison residues were found to be within the regulations set by law. Since the problem was a vital one, 30 additional samples were collected and analyzed in the fall of 1934. They were selected so as to represent standard varieties from the better commercial orchards.

Above the Tolerance

Not one of these samples exceeded legal tolerance of either lead or arsenical residues. Only nine of them exceeded one-half the limit set for arsenic and ten one-half the limit set for lead. Ten of them failed to show even a trace of arsenic and no lead was found on eight of them. It should be recalled that both 1933 and 1934 were dry seasons and not conducive to natural spray weathering. Most, but not all, of these orchards showed satisfactory control of the codling moth.

On the basis of these results, wherein lies the advantage of using a substitute for arsenate of lead in Door County? At present it appears wholly unwarranted to make such a substitution in the sprays on Wealthy and later varieties applied previous to July 15. After this date the substitution of another arsenical (calcium arsenate or manganese arsenate) is desirable. Unexpected circumstances may alter these recommendations in the future but they seem sound for the present.

As a matter of fact, the last spray is of much less importance than the calyx and the two following it. If they are adequate and the first brood is well controlled, the second brood will be of minor importance, regardless of the late spray. If the first brood is not checked considerable injury is sure to follow, even with a thorough August application.

These remarks apply especially to Door County and probably will not hold for all Wisconsin apple orchards. The reason why the codling moth problem and consequently the spray residue situation are somewhat unique in this area is perhaps not fully understood. Very likely it is mainly due to the low evening and night temperatures, since the adult codling moth is quite inactive at temperatures below 60 degrees F.

It is not our purpose to condemn any of the lead arsenate substitutes now on the market. On the contrary, some of them fill very important roles in certain apple-growing sections, and perhaps all of them are particularly well adapted to one situation or another. The point we do wish to emphasize, is, that so far, none of them appear necessary under our particular conditions, except in the last treatment. That is the point which is unintentionally overlooked by salesmen and in commercial literature entering this section.

APPLE SCAB IN THE GAYS MILLS DISTRICT

G. W. KEITT

THE conditions for scab development and control in the Gays Mills district this year have been very unusual. The dry, hot weather of last season so reduced scab that the amount of overwintering fungus was the least in many years. The early infection this year was sparse, but the cool and rainy season has provided unusually favorable conditions for secondary infection. The vigorous vegetative growth of the trees under these favorable conditions for scab infection has made it very important to keep up an efficient coverage of spray.

The disease has in general been well controlled in this district by use of the lime-sulphur and lead arsenate spray, and under the conditions of this season no considerable amount of injury has been caused by these materials.

We Agree

"Say, Pop, the early birds don't get all the worms, do they?"

"That's my impression," replied Pop.

"The early apples get some of 'em, too."

MINNESOTA TO HOLD NEW FRUIT MEETING

Summer Meeting at Minnesota Fruit Breeding Farm August 19

A SUMMER meeting will be held on visitor's day at the Minnesota Fruit Breeding Farm, 5 miles West of Excelsior, Minnesota out of Minneapolis on Highway 5. Wisconsin fruit growers are invited to attend this meeting.

There will be a fruit show in connection with the meeting. There will be a tour of the grounds at 2 p. m. on which many new and improved varieties of fruits may be seen. Bring your picnic lunch.

THE APPLE CROP

THE July 1st forecast of the nation's apple crop by the U. S. Department of Agriculture is 170 million bushels which is about 5% above the 5-year average '28–'32 production of 161 million bushels, and over 40% above the extremely low production of 1934 of 120 million bushels.

The condition of the apple crop in New York on July 1 was very uneven. Scab and insects are very prevalent since the frequent rains have made it almost impossible to control them.

Cherries

The combined crop of Michigan and Wisconsin is forecast for 1935 at 31,430 tons. In 1934 it was 30,960 tons. In 1933, 34,340 tons. The National crop is estimated at 115,960 tons compared with 114 tons last year and 117,000 tons in 1933. This includes both sweet and sour cherries.

New York will have about one thousand tons more this year than last year.

Peaches

The peach crop is estimated at 53 million bushels compared with 45 million last year, and a 5-year average of 56 million.

THE GORHAM PEAR

THE Gorham pear is being recommended for limited commercial planting in Iowa, according to the Iowa Experiment Station. This pear was originated by the New York Experiment Station as a cross of Bartlett. It ripens about two weeks later than Bartlett and it is especially recommended as a pollinizer for Bartlett. The two work well together. Neither of them are self-pollinating to a profitable standpoint, according to experiments.

The Ohio Station states that the quality of Gorham is equal to that of Bartlett, and shows the most promise of any new pear from New York, grown at the Ohio Station.

It might be well for Wisconsin growers to give Gorham a trial, and especially to top-work Gorham in solid blocks of Bartlett trees for cross pollination.

Moth Amazing

Teacher: "What insect requires the least nourishment?"

Peter: "The moth, for it eats holes."

FERTILIZE YOUR FRUIT TREES .. THIS FALL

with Granular 'Aero' Cyanamid

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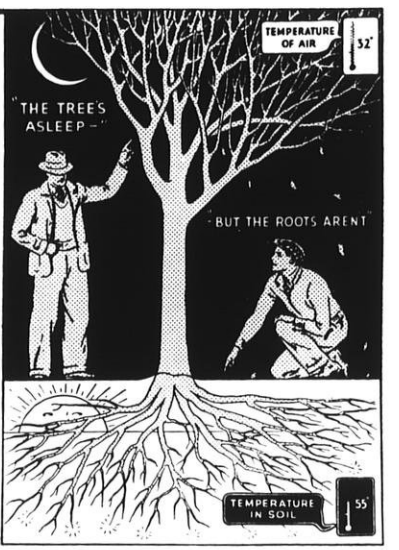

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'Aero' Cyanamid is Nitrogen plus Lime

With the Berry Grower

THE DORSETT AND FAIRFAX STRAWBERRIES

THE Dorsett strawberry promises to become a leading Wisconsin market variety.

At Bayfield where several growers are trying it in cooperation with the Wisconsin Horticultural Society, it looks to be a most vigorous, productive and good market appearing variety. The Beavers did not seem to be doing so well on all farms in the Bayfield area. On soils where the Beaver does well, it is hard to beat, but some growers do not seem to be able to grow it at all.

The Dorsett, however, is such a vigorous plant, evidently due to a good root system, and the berries are of such large size that no doubt it will do well on all types of soil. The color is light enough so that it will no doubt hold up in shipping and the quality is good.

Fairfax Dark in Color

Opinions of those who saw the Fairfax variety were that the color is so dark that it will probably not be a good market variety. Quality however is of the very best. In fact, no variety grown in the Bayfield section equals the Fairfax. It is a vigorous grower and a good producer. However, when berries are shown in boxes in a retail store, and they are dark in color the consumer is apt to feel that the berries are old. This is one reason why the Beaver is so popular as a market berry. It is light colored and looks well after several days of shipping.

The Fairfax is probably not quite as productive as the Dorsett. This observation was also made by Mr. H. H. Harris of Warrens who comments on both varieties in his article in this issue.

Be sure to attend the Wisconsin Gladiolus Show, University Field House, Madison, August 17–18. Wisconsin's greatest flower show.

STRAWBERRIES AT WARRENS

H. H. HARRIS

WE BEGAN picking strawberries this year on June 15th. Until July our pickings graded strongly 'fancy'. In all this year we picked 922 cases for sale from two acres.

New Varieties

The new varieties Dorsett, Fairfax and Catskill were all later in beginning to ripen, and for two or three pickings were remarkably large and beautiful berries, the Dorsett the more productive of the three, and that gave more and larger berries on the second year vines.

The Dorsett and Fairfax are both quite firm to handle. The Catskill is fairly firm for so large a berry. They need plenty of mulch as they nearly all bend the cluster to the ground. The vines were more open on these than either Dorsett or Fairfax and the cat birds seemed to choose them.

The Clermont and Culver are both inclined to be soft and tender to handle.

All who have seen our small trial bed were interested in both Dorsett and Fairfax. I think they are both "GRAND" berries, but they need further trial before I would set heavily of them in place of either Beaver or Premier. If either ever does become standard, I think it will be the Dorsett.

CULTIVATING THE HIGHBUSH BLUEBERRY

A NEW bulletin has just been issued by the Michigan Experiment Station on the Cultivation of the Highbush blueberry by Stanley Johnston (Michigan Sta. Special Bulletin 252, East Lansing, Michigan).

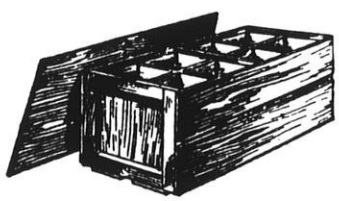
In tests on soil reaction it was found that blueberries did best on very acid soils testing pH 4.4. At pH 3.4 growth in muck was almost as good as at pH 4.4.

Blueberry flowers in full bloom were found resistant to temperatures as low as 23° F., but serious damage was reported from freezing when the fruits were about one-third developed.

WHEN TO REMOVE OLD RASPBERRY CANES

IF YOU remove old canes which have finished fruiting there will be increased growth in the young canes of Latham raspberry, is the experience of W. G. Brierley of the University of Minnesota. Whether this is a beneficial practice depends upon the season. A season with mild months of September and October will allow the young canes to mature and this practice is beneficial. Adverse conditions late in the season may catch the plants with poorly matured canes and cause a reduced crop the next year. Removal of old canes after harvest may be desirable as a means of pest control or moisture conservation.

A long-legged sheep in the Himalayas is able to run forty miles an hour. That's the kind of little lamb to follow Mary nowadays.



Berry Boxes and Crates

Either made up or in the K. D. American Quart Berry Baskets, Climax Grape and Peach Baskets, Till or Repacking Baskets, Plant Boxes and Veneer Tree Protectors. Circular and Price List mailed upon request. Special liberal discounts on early orders.

Write for special prices on carload lots.

SHEBOYGAN FRUIT BOX COMPANY

Sheboygan, Wis.

In the Orchard

APPLE VARIETIES FOR BEST USES

APPLES should not be judged by looks according to the Home Economics Department of Purdue University. Nutritionists give the following varieties as especially suited for the purpose stated. It may be surprising to many that McIntosh is listed as a baking apple as well as good for pie in the Purdue list. Most lists have not given McIntosh as suitable for baking or pie. Wisconsin Horticulture, however, has stated several times that as a baking apple, McIntosh has no superior for flavor and quality, though it may be soft unless baked in a slow oven and taken out before the skin breaks. The Purdue list follows:

For eating
Jonathan, Delicious, Grimes Golden, McIntosh, Winesap.

For baking
Northern Spy, Wolf River, McIntosh.

For apple pie
Maiden Blush, Jonathan, Northern Spy, McIntosh, Stayman.

For apple sauce
Maiden Blush, Jonathan, McIntosh, Northern Spy, Stayman, Grimes Golden.

For jelly
Northern Spy, Maiden Blush, Jonathan, Salome, Grimes Golden, Stayman, Winesap.

HOW TO SELL APPLES

A SIGNIFICANT increase of over 200 per cent in the sales and consumption of apples is reported by Karl F. Reiniger, local grocer of Cedar Rapids, Iowa, as the result of a well planned local advertising campaign. The sales plan embodies the use of specially made paper sacks of various sizes enabling purchasers to easily take home any convenient amount of bulk apples.—*From the American Fruit Grower.*

FRUIT THINNING

FRUIT thinning has moved into a stage of development where growers are speaking of the number of fruits per tree and the number of leaves per fruit. This is a long step from the old method of spacing fruits so many inches apart. It recognizes that a tree with poor foliage cannot be expected to mature as many fruits as a tree the same size but with better foliage. The Illinois State Horticultural Society news letter advises apple growers to estimate the average number of bushels a given tree should carry and then multiply the bushel estimate by 150 or 200 to arrive at the total number of fruits. The tree should then be thinned to this number. Mature peach trees in Illinois under usual cultural conditions are estimated to be capable of maturing 1,000 to 2,000 fruits. The exact figures may not be transferable to other sections, but they are suggestive of similar appraisals by individual growers to meet their set of conditions.—*H. B. Tukey in Rural New-Yorker.*

MANURE AROUND APPLE TREES

APPLE trees, when mulched with manure, will not produce a bright (vermilion color) attractive fruit. All fruit trees so mulched will have a severe battle to stand and live at 24 degrees below zero. Thirty-six years of actual orchard experience has taught me that nitrate of soda is a fruit tree's best fertilizer where 24 degrees below zero takes place. Where the temperature does not drop so low manure will produce quality fruit. Fruit-growing these days demands quality. Manure mulched apple trees will second grade 50 per cent of all your red apples for color.—*American Fruit Grower in the Rural New-Yorker.*

NEW BULLETIN ON APPLE STORAGE TROUBLES

"Functional Diseases of the Apple in Storage" is the title of a new bulletin just published by the Iowa State College of Agriculture, Ames, Iowa. The authors are Plagge, Maney and Pickett.

The bulletin describes such well known troubles as apple scald, Jonathan spot, breakdown, brown heart, internal browning, water core, bitter pit, and several others. The bulletin is well illustrated and a valuable addition to the fruit growers library.

BEES POISONED BY FRUIT SPRAY

A REPORT from Mr. James C. Hilbert of Traverse City, Michigan, well known fruit grower and beekeeper, states that many colonies of bees both of his own and of neighbors were rendered worthless by orchard sprays. The spraying was done at the wrong time. In one case the late pink spray containing arsenate of lead was delayed too long until many of the blossoms were open, poisoning about thirty colonies in this orchard.

In another case a fruit grower sprayed with lime sulphur only, leaving out the poison, spraying during the blooming period and found that they were killing bees outright as the high pressure spray hit the bees, burning them, and ruining about forty colonies in one apiary.

It is a well known fact that orchardists, especially apple growers, need bees for pollination but there will have to be better cooperation between the fruit grower and the beekeeper or the beekeepers will move their bees out of the orchard region during fruit bloom.

Horticultural News

A. F. Yeager
Secretary

According to Horticulture, the idea that pumpkins can be fed milk to make them grow larger is a fallacy.

MacLeod in March, 1934, Potato Journal says that wire worms multiply in hay or sod fields as the eggs are laid mostly during the period from May to the middle of June, and if land is kept free from cover during the period two years preceding potato planting the amount of wire worms will be greatly reduced. While the potatoes which have been damaged from wire worms may be all right for planting stock, they are certainly not pleasing to housewives.

One of Yosemite's big trees has fallen. It was called the "stable tree" because a burned out hole in its base was used as a stable years ago. It was 29½ feet in diameter and 269 feet high. It is estimated to be about 2,000 years old.

In moving wild ferns from the woods it is advisable to take with this a good lump of the leaf mold in which they are growing.

An experiment of the Georgia Experiment Station resulted in the following conclusions as the best way to store asparagus. After cutting, wrap each bunch in a moisture-proof wrapper and store at a temperature of 32 to 34 degrees. Asparagus handled in this way was kept 34 hours with a loss of only 11 percent moisture.

Late blight in potatoes, which is a serious disease in eastern United States, may be eliminated by plant breeders who are using blight-immune close relatives of the potatoes for breeding work.

Maryland Fruit Grower reports that while a small percentage of the apple varieties set fruit with their own pollen, even these never produce a full crop.

Why does not an apple tree which is 8 years old bear? Unless it is one of the varieties which begins to bear early, one need hardly expect much of a crop from a tree of that age or less. Apple trees normally do not begin to bear when they are very young. One simply must have patience. Even such a variety as Hibernal rarely produces much before it is ten years old or more.

Several inquiries have been received about the desirability of using hot caps or plant forcers. We have found these difficult to use. In bright sunlight there is considerable danger of scalding the plants, and if there is a frost the amount of protection is not very great. If any of our members have tried these and have observations to report I will be very glad to get them, whether they are favorable or unfavorable.

Michigan State College has found it is possible to propagate dahlias by use of leaf bud cuttings. These are made by planting a leaf with a small amount of the stem at its base, including its axillary bud, in sand or a sand peat mixture.

The Minnesota fruit breeding farm had 5,800 apple seedlings in bearing in 1933, from which to make a selection of superior varieties for propagation. New, hardy, early maturing varieties are in constant demand by northern planters.

IRIS SOCIETY HOLDS SUCCESSFUL SHOW

E. L. WHITE

THE first annual Iris Show of the Wisconsin Iris Society was a success, both financially and in the quality and quantity of bloom. Being our first show we are proud of the results so far. We would have liked to see a larger attendance, but as time goes on and more shows are held, the knowledge of an interest in the shows will grow.

The show was held in the Auditorium of the Public Service Building, Milwaukee.

Fine displays of the latest and best iris were sent by Mrs. Douglas Pattison of Freeport, Illinois, and Mr. Leo J. Egelberg of La Crosse, Wisconsin, and Mr. Alton J. Ogle, Milwaukee, brought in a large display from his gardens.

At the business meeting held during the show, Mrs. Walter Rintelmann, 5002 W. Wells Street, Milwaukee, was elected corresponding secretary. We also voted to hold a meeting in Milwaukee in September and to affiliate with the State Federation.

Our membership is now twenty-nine. Dues are $1.00 per year, payable to E. L. White, Secretary, Route 2, Jefferson, Wisconsin.

WISCONSIN NURSERYMEN TO HOLD SUMMER MEETING

The Wisconsin Nurserymen's Association will hold its annual midsummer meeting and picnic at Grant Park in South Milwaukee on Wednesday, August 7, 1935. All nurserymen are invited.

A full and detailed report of the meeting of the American Association of Nurserymen will be given at this meeting as well as a discussion of other vital matters pertaining to the welfare of the nursery industry.

This is to be a basket picnic and everyone attending is expected to bring a basket lunch.

Iris Varieties For Every Garden

Mrs. Euclid Snow
Hinsdale, Illinois

I HAVE been asked to suggest the names of tall bearded irises that grow well in our section, bloom generously and in every way give good account of themselves, yet are inexpensive in price. It is always a matter of great grief to me to see space in an otherwise fine garden devoted to irises that are so poor in quality as to detract from the general scheme.

Here is a list as I know them and grow them year after year and find pleasure in sharing with the many friends who like to visit our garden to enjoy them with us. This is not a general list, it represents those I know to be good of their types and the ones in their classes that appeal to me personally.

Do let me stress the fact that a high price does not always indicate the fact that an iris is the finest in the world, prices are based on the amount of stock in existence at the time the plant is listed. A fast propagator decreases in price very quickly, witness Depute Nomblot, one of the very best bronze crimsons yet introduced, just a few years ago it commanded a very high price, it is just as good today—in fact, one might say better, since it has proven a good "doer"—yet its cost is so low that every iris lover can afford to have its beauty in his garden.

Some famous irises do not grow well in my garden, do not like our soil and simply have to stand there until they grow to assimulate the new food elements that I have to offer. Only recently I have been able to assist one fine iris of which I am very fond, by adding sand to the rather rich black peaty loam that composes my planting space.

The Whites

So far as white irises are concerned the newer, more expensive types are the best, naturally, else they would not have been introduced, but there are still some older ones that will serve until Snow King and Gudrun are more abundant. *Venus de Milo* is lovely, though creamy white, it has beauty of texture which glistens in the sun, it has good form and good carriage. *Purissima* is the whitest and oh, so lovely, it is worth the coddling northern gardeners need to give it. *Los Angeles* should by all means, replace the old Fairy which is familiar to every gardener. There are many other older ones, but we are looking for the best within our price limit.

Plicatas

In plicatas (stitched with color on edges, sanded, dotted, etc.,) by all means have *San Francisco,* stately, tall, and in every way fine. *King Karl,* Jubilee, True Charm and True Delight, are all listed, but newer ones so far surpass them in the blue lines that it may be as well to wait for them. King Karl has its place in any company, however, it has its own peculiar peach tone.

The Blues

Among blues, the old and reliable *Princess Beatrice* has her place, keep it until some of the newest prove the Princess outmoded in color as in low cost. *Summer Cloud* is adorable, true to its name and as lovely. For those who like pale tones there is *Mary Barnett.* But *Sensation* and *El Capitan* are both leaders, and if one must limit the number of irises grown, then choose these two. New ones are coming, but these are all worth growing for many years to come.

Darker, or medium-blues within our price limit are *Blue Banner, Wedgewood* and *Fortunio,* but I must acknowledge that the newer *Blue Monarch, Missouri,* and *Indigo Bunting* show up better. *Realm, Gleam, Blue Hill,* are all good in this class, but can scarcely be called "best." Blue is a difficult garden color unless it is grayed or yellowed to fit into the garden scheme. When a clear blue iris is a good blue, it does not always agree with its neighbor plants.

Deep blues call to my mind first of all *Swazi,* a Dominion seedling of great dignity and stateliness. Year after year Swazi has stood in one spot in my garden, straight and tall with three blooms to a stalk, each placed well to show its beauty. With us, its reliability is proven, differing in this respect from *Blue Velvet,* though the color of the latter is just as fine as Swazi. *Sir Michael* is in this class, though it has blue standards and violet falls, for many years it has been a great favorite. Then there are *Duke*

(Continued on page 274)

EDITORIALS

ENGLISH WALNUT SEED GERMINATED WELL

REPORTS are that the hardy English walnut seeds sent out by the Society this spring have germinated satisfactorily.

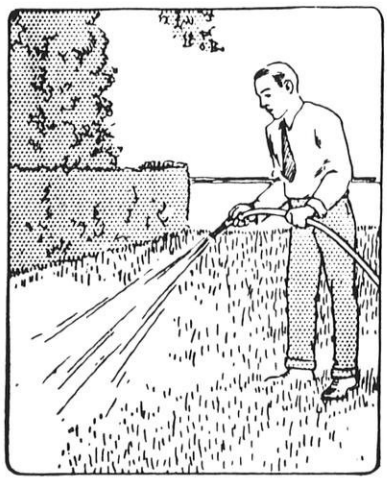
About two weeks after all orders had been mailed to our members we received a large package of these hardy English walnuts from the Nut Growers' Association of Ontario with the request that we try to dispose of them to the best advantage. It being rather late, we asked Prof. J. G. Moore, chief of the Horticulture Department of the College of Agriculture, if these nuts could be planted in the Horticultural small fruit garden. Prof. Moore was glad to cooperate and about six hundred nuts were planted in this field A large percentage of them are growing nicely.

The nuts were purchased by the Society and arrangements for the distribution of the trees which winter satisfactorily will be made next spring.

AMERICAN POMOLOGICAL SOCIETY ANNUAL CONVENTION

Hartford, Conn., Nov. 20–22

Extensive plans have been made by the officers of the American Pomological Society to hold a great gathering of fruit growers at Hartford, Connecticut on November 20–22. The list of speakers will include leading Pomological authorities of the country. All fruit growers are invited.



DON'T MISS THE GLADIOLUS SHOW

MEMBERS of the Wisconsin Horticultural Society are urged to attend the Wisconsin Gladiolus Show staged cooperatively this year by the Wisconsin Gladiolus Society, the Wisconsin College of Agriculture and the Wisconsin Horticultural Society.

The show will be held in the large University Field House near Camp Randall. This is one of the largest buildings in the state.

At the same time the Gladiolus display garden which has been planted cooperatively by the above organizations should be in full bloom. Over 340 varieties have been planted and will be open for inspection at this time. The University gardens will also be beautiful.

Come early and spend August 17–18 in Madison.

FRUIT GROWERS' PICNIC

Swartz Bros. Farms, Waukesha
Thursday, September 19

PICNIC, fruit growers round up, demonstrations, exhibits and talks. Put on by the Southeastern Fruit Growers' Co-operative, the Wisconsin Horticultural Society, County Agents, and Horticultural Extension workers co-operating.

Exhibits

There will be exhibits of new varieties of apples by the Horticultural Society, new machinery and fruit growers' supplies by the Southeastern Association, and educational material by county agents and extension workers.

There will be inspection of the Swartz Bros. orchard, one of the largest in the state.

For the afternoon program we have invited one of the most successful fruit growers in Illinois to tell us how he manages his orchard. There will be snappy 15-minute talks on the most important phases of fruit growing.

The Southeastern Association will serve refreshments. Bring your luncheon, and your family. Games for the children.

Full details in our September issue.

Wisconsin Dahlia Show

September 7-8

Auspices Wisconsin Dahlia Society

Milwaukee Public Service Bldg. Auditorium

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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BEEKEEPERS DEMAND ACTION

AT A MEETING of the Outagamie County Beekeeper's Association the beekeepers went on record demanding action in regard to the collection of the Beekeeper's Tax.

It has been found that the tax collected on bees is not being forwarded to the State Treasurer. It is claimed that the town treasurers still have this money in their general town fund and the reason they have not paid the money to the County Treasurer and the County Treasurer in turn sent the money to the State Treasurer is because the County Treasurers do not have the occupational bee tax listed on the tax roll and therefore do not expect the money.

The Outagamie County Beekeepers Association went on record demanding an adequate inspection of bees by the state for the purpose of eradicating bee diseases with state money paid in part or in full by the beekeepers of the state through an occupational tax.

The beekeepers demanded that the law be properly administrated and that a record be kept of the money received by the State Treasurer from tax on bees.

CAN WE CONTROL SWARMING?

JUST about the time a beekeeper decides that he knows just what the bees are going to do under certain conditions, something happens and he is forced to decide one never can tell what the bees will do.

That was the case with swarming this spring. Many of our best beekeepers had about decided that swarming was not much of a problem when suddenly they found the yard in an uproar. Swarms came out by the dozen just when they shouldn't have come, which is before the honey flow.

Is there any beekeeper in Wisconsin who can truthfully say that he controlled swarming satisfactorily or that he had no swarms issue this spring?

And so we know that at coming meetings of beekeepers, swarming will again be a topic for discussion. A conference was held some time ago in England at which several days were spent discussing the causes and control of swarming. Such conferences would do a great deal of good here.

If any beekeeper controlled swarming satisfactorily this spring we would like to hear from him and publish how it was done.

DISEASE RESISTANT BEE EXPERIMENTS

A COOPERATIVE experiment has been set up between the Iowa Experiment Station and the American Bee Journal to learn how much difference there may be in the degree of resistance to American foul brood in different strains of bees.

The experiment has been set up at Pellett Gardens, at Atlantic, Iowa. It is proposed to expose all stock to the same amount of contagion and note results. Much time has been spent in a wide search for promising stock.

Beekeepers will watch with considerable interest the results of this experiment. As is always the case with anything of this kind, opinions have differed widely as to the possibility of obtaining disease resistant stock, leading experts taking exactly opposite views on the situation. Both cannot be right so this experiment will be quite valuable even though a difficult one to carry on.

NEWS ABOUT THE STATE ASSOCIATION

A GOOD program and large attendance seems assured for the summer meeting at Wausau. Since we go to press before the meeting, we cannot give a report until next month.

Invitations to hold our annual convention in their city this fall were received from the Wisconsin Rapids Chamber of Commerce and the Waukesha County Beekeepers' Association.

The Southwestern District Beekeepers' Association held their annual meeting at Lancaster, Sunday, July 28 in conjunction with the meeting of the Grant County Association. The meeting of the Fox River Valley District Association will be held at Appleton in September. The Southeastern District will also meet in September. Full announcements of the meetings will be sent to members in the districts.

These meetings are important. They bring beekeepers together to talk over their problems, establish friendships and understanding, enable us to discuss prices and selling methods. In fact, good meetings are essential for the future prosperity of the industry.

CARBOLIC ACID FOR DRIVING OUT BEES

SEVERAL articles have been published in bee journals recently on the use of carbolic acid cloths for removing new bees from supers. The American Bee Journal suggests fastening a layer of cloth inside of a tin cover. Sprinkle the cloth with carbolic acid and place it over the super. If this is done in hot weather, especially when the sun can shine on the tin, the bees will be driven out in a few minutes.

The acid may be applied by using a small bottle fitted to a clothes sprinkler.

An Indiana beekeeper states that bees may sometimes swarm if queen cells are present when the carbolic acid cloth is used.

An Indiana inspector says that the use of carbolized cloth is far better for repelling the bees than the shaking method, though the shaking method is not recommended for foul brood treatment.

Physicians call attention to the danger of using carbolic acid. It should never be handled unless there is a supply of alcohol solution on hand. Wherever carbolic acid touches the skin it produces a burn, but the burn is not felt at once because the acid acts as a local anaesthetic.

The destruction process of the flesh continues so long as the acid remains in contact with the flesh. Doctors have had to amputate fingers and toes because of carbolic acid burns.

Mott's Northern Bred Italians

Will eliminate 1936 swarm nuisance. Guaranteed purely mated or replace free. See list. 75c each; 25 for $17.50; 50 for $32.50; 100 for $60.00. Fair to good breeders, $2.00, $3.00, $5.00.

Satisfaction Guaranteed

E. E. Mott & Son

Glenwood, Mich.

The Use and Abuse of Second-Hand Containers

H. F. Wilson

DURING the past few years, there has been an unusual number of second hand cans used for shipping honey. We have received a number of complaints at our office from honey buyers; we appreciate that our beekeepers have been hard pressed during the depression period, but the buyers of honey are gradually taking on the attitude that they cannot pay full price for honey in second hand containers, and we wonder if our beekeepers can afford to use them.

Nothing spoils good honey so quickly as placing it in an old, rusty dirty can. Even though the can may be clean on the inside, the outside appearance is such that it makes the buyer wonder whether or not the honey inside is clean. A great deal of attention is being paid these days to packages and labels, and our beekeepers should be particularly careful just at this time when honey prices are low and they are attempting to secure a better price for their honey. As a matter of fact, there is some possibility that such shipments are in violation of the Pure Food laws, and in the future some beekeeper may find his shipment held up or refused because of what appeared to be unsanitary containers.

There has been considerable agitation in Wisconsin for honey house inspection, and unless our beekeepers are more careful they are certain to face such regulations within the next few years.

A strong effort is being made in Wisconsin to eliminate American Foul Brood, and our beekeepers are gradually becoming accustomed to the destruction of complete colonies by this disease. We have found that we cannot afford to permit American Foul Brood to exist in our yards, and considerable money is being spent every year for its eradication. Why, then, should we not take the next step, and that is to put our honey up in such shape that no one can question its purity or contamination when sold in old rusty tin cans?

FOR SALE. One 4-frame reversible extractor in good condition. F. E. Matzke, Juda, Wis.

Corrugated SHIPPING CONTAINERS

For One 5-gallon 60-lb. can of Extracted Honey

Weight only 2 lbs. per carton. Come knocked down. Tied in bundles.

Positively Meet All Shipping Requirements

Up to 250	$9.50 per C
500 to 1000	8.50 per C
1000 to 2000	7.75 per C
2000 to 5000	7.50 per C

F.O.B. Columbus.

Check with order.

Beekeepers' Associations and pool buyers, write for details of our special offer.

We also manufacture a complete line of shipping cases for comb and extracted honey.

—Save Money—Buy Direct—

The Corrugated Container Co.

Columbus, Ohio

The Ventilation of the Bee-Hive in Relation to the Ripening of the Honey

Joseph F. Reinhardt
Ames, Iowa

THE first person who made any extensive study of ventilation was Francis Huber, and he is credited with having discovered the phenomenon of ventilation in the bee-hive. With a series of very simple yet thorough experiments Huber proved that bees fan a continuous current of fresh air into the hive, and that this fresh air is absolutely necessary to the existence of the bees within, since it constantly supplies oxygen and removed carbon dioxide.

To study the effect of ventilation of this ripening process, the author placed four washed combs in a hive to permit the deposition of nectar in them. After the four combs were removed, the bees brushed off, sample of the nectar were analyzed, and the combs were caged. Each comb was placed in a different hive with a different degree of ventilation. Four different types of ventilation were employed. The first had the entrance reduced to a one-fourth inch crack with no other ventilation; the second had the normal entrance 1 inch high and no other ventilation; the third in addition to the normal entrance had the top super slid forward leaving a one-half inch crack at the back of the hive, the fourth colony in addition to the normal entrance had the usual inner cover replaced by a wire screen, the outer cover being supported on 1 inch blocks. The screen cover had almost the same effect on ventilation as no cover at all.

The rate of ripening of each comb subjected to a different degree of ventilation was followed by daily analyses. In the first series the comb with the normal ventilation ripened in a little over 10 days, while those with increased ventilation ripened in 5 days. On the other hand, the comb subjected to reduced ventilation was not ripe after 20 days and had apparently ceased to ripen under the prevailing conditions. The weather conditions during this period were quite ideal for a good honey flow. Colonies on scales were gaining an average of 3 to 8 pounds per day, and the average daily humidity was high.

In the second series all the combs reached ripeness in 3 days except the one subjected to reduced ventilation. That one took 7 days to ripen. Conditions were quite the reverse to those of the first series; the weather was hot and dry and the honey flow was gradually ceasing.

In the third series, run a year later, all combs ripened in three days. Only three combs were used in this series. The conditions of this set were characterized by extremely dry weather and the shortest honey flow in years.

From these results it seems that the conditions which are most favorable for the production of honey are very unfavorable for the ripening of the honey. When such conditions occur special provision for ventilation is of great benefit in speeding up the ripening process. This special ventilation need not be more than just sliding the top super forward allowing a one-half inch crack at the back. More ventilation than that is not accompanied by any marked increase in the rate of ripening, and may be just unnecessary exposure of the colony. During seasons when there is little honey special ventilation is of little benefit to the ripening process and may also encourage robbing in the apiary. —*From the Report of the State Apiarist, Ames, Iowa.*

HEAT YOUR HONEY AND AVOID SPOILAGE BY FERMENTATION

H. F. WILSON

THE season of 1935 has been just right for the production of honey with a high moisture content, and, unless our beekeepers are careful to note this and heat all honey that appears to be thin, there is liable to be a great deal of fermentation. This applies not only to honey after it has been placed in storage, but also to pails sold to the public, if the honey is allowed to stand for any period of time.

It will pay every beekeeper to heat his honey to 160° F. and put it into the containers while still hot. All honey put in 60# cans should also be heated and poured direct into the containers while still about that temperature, if trouble with wholesale dealers is to be avoided. It is well known that every lot of honey contains yeasts capable of fermenting the honey when the proper conditions are present, and with a high moisture content, this is almost sure to happen if the yeasts are not destroyed by heating.

NATIONAL HONEY COOKERY CONTEST

THE second National Honey Cookery Contest will be held in connection with the annual convention of the Honey Institute at Detroit, October 7–10. One hundred and twenty-five dollars in prizes are being offered. All entries will be on display at the Statler Hotel, Detroit, and judging will be done on October 8–9.

The American Honey Institute suggests that all beekeepers interest the ladies in baking a cake from their favorite recipe and sending it to the American Honey Institute, Detroit, Michigan, Statler Hotel, attention Cookery Contest. If not a cake, then cookies or candy. Write the American Honey Institute for a supply of rules and list of prizes.

THE HONEY CROP AND THE MARKET

AS WE go to press the honey flow is on. Many beekeepers are expecting a big crop. This however will depend upon weather conditions. If the heavy rains continue the crop will not be as large as it is expected to be.

The U. S. Department of Agriculture reports that hundreds of colonies and much honey has been lost by floods in the Plains area.

There has been much swarming. If anyone thinks that swarming is not a problem in beekeeping, he is badly mistaken.

It is too early for an established market. The Chicago market on July 1st on Wisconsin honey was 7–8¢ per lb. for white honey.

SOME QUEER IDEAS

In Indiana Beekeepers' Bulletin

A Knox County beekeeper says: "Put your bees in the chicken lot high enough so the chickens can get under the hives and the chickens will catch all the disease germs and you won't be bothered with A. F. B."—All who believe this turn handsprings, please.

ORIGIN OF A. F. B.

A man in Elkhart County maintains that A. F. B. originated in spray poisoning. I don't believe it, of course, but I have heard that one before. It's about as bad as this one reported from Greensburg: "Never take honey off during "Dog Days" or it will spoil." Sure it will if it isn't properly capped or cured even when it is not *dog days*.

Be sure to attend the Wisconsin Gladiolus Show, University Field House, Madison, August 17–18. Wisconsin's greatest flower show.

MARATHON COUNTY BEEKEEPERS ELECT OFFICERS

THE Marathon County Beekeepers' Association held their annual meeting on Friday, June 14. The following officers were elected for the coming year:

Joseph Garre, Wausau, President

Jas. Jacobson, Ringle, Vice President

Fred Pruim, Birnamwood, Secretary-Treasurer

The association voted to affiliate with the Wisconsin Beekeepers Association. Plans for the State convention were made. Mr. H. J. Rahmlow, Madison, was present to discuss plans for the state meeting and talked on beekeeping problems.

SPRAY POISONING

THE June Imkerfreund has a discussion of the question: Is arsenic spraying harmful to bees? between a Dr. K. and Dr. Jegen. Dr. K. maintains that bees often visit apple trees before they are in bloom (his observations were made in southern Sweden, Germany and Switzerland), and states that the attraction is honeydew produced by aphids. As soon as insecticides were sprayed on the trees, the aphids were killed and the visits of the bees ceased. He thinks that trees sprayed in winter and thus freed from insects will have no aphids and attract no bees, which will therefore be protected from any risk of spray poisoning. Dr. Jegen disputes this view. He states that the trees he observed (which the bees visited and from which they were fetching water in the form of dew) had been properly treated in winter and that aphids were not the reason of their visits. He further states that bees avoid aphis-infested trees, on account of the ants in attendance on the aphids. —From *The Bee World.*

A TABLESPOON OF HONEY EQUALS—

THE following statement from Prof. Geo. A. Rea, of Cornell University, summarizes some interesting information which all beekeepers should have:

"From work done in the department of nutrition, Teachers College, Columbia University, we quote the following: 'One tablespoon of honey, based on caloric value, is equal to 1¾ tablespoons of corn syrup, four tablespoons of maple sugar and 1½ tablespoons of molasses. Honey has about 50 per cent more sweetening value than the best cane molasses. The best grade cane syrup contains about 30 per cent water, while honey contains 17 per cent water.' A chart prepared by the U. S. Department of Agriculture some time ago gives the following contents of honey: water about 17.7 per cent, dextrose (grape sugar) 34 per cent, levulose (fruit sugar) 40.5 per cent, sucrose (cane sugar) 11.9 per cent and dextrins and gums 1.5 per cent. The above is the average contents of the various materials for a large number of American honeys. Another very important fact about honey is that is contains small quantities of the following minerals many of which are valuable in the diet: silica, iron, copper, chlorine, calcium, potassium, sodium phosphorus, aluminum and magnesium. Undoubtedly honey is a sweet food very high in energy and minerals which will appeal to every one who becomes acquainted with the facts. It seems to be especially desirable for children and athletes or those who do manual labor."—*From The Minnesota Horticulturist.*

HONEY WANTED: Comb and extracted; all grades. Send samples and best price delivered Oconomowoc. C. W. Aeppler Company, Oconomowoc, Wisconsin.

My Wife is a Gardener

By Friend Husband

IT IS high time one of us men tells the truth about this gardening business.

My wife belongs to two garden clubs and is in demand as a speaker on "How To Create a Flower Picture." Her garden teas are popular in the "best circles." When she leads an admiring group of ladies around the freshly cultivated border and newly clipped lawn (I got up at 5 a. m. to cultivate and clip it) they exclaim—"It's just too marvelous, I don't see how you do it." Then my wife smiles that charming smile she used on me so effectively a few years ago, (and still does, on occasion) and says, "It is a lot of work. Of course Henry helped some."

Now it may be that we men folks aren't up on this "artistic" stuff I have heard the garden club ladies murmuring about at their meetings. "Isn't that little arrangement of Linaria Fairy Bouquet just breath-taking?" I heard one of them say last summer.

Well, I looked at it (had to grow it you know because it was an "All American Annual") and while it was pretty, perhaps cute would describe it better, I still have my breath.

As I started to say, we may not be up on the artistic, but we are up on growing real garden flowers. We have a gladiolus club, a dahlia club, and a peony club. My special hobby happens to be gladiolus. Let me tell you an experience that will make every real gladiolus fan boil.

Last August, after I had waited patiently for almost three months, my choice new varieties began to bloom. There was Picardy, that sensational pink; Pelegrina, a wonderful blue; H. W. Taft, a fine scarlet, and such other leading varieties as Minuet, Marmora, W. H. Phipps and Margaret Fulton. It was on about the second Saturday of the month that I called three of the boys—real he-men gardeners who know a good glad when they see one—to come over and see my favorites at their best. I picked them up at their offices at noon and drove out to the house.

"My Picardy," I told them, "is about the best I've seen grow anywhere. It's over four feet tall and has ten florets open today."

Well, there were a lot of good natured comments on that of course. What real gardener likes to admit the other fellow grows better flowers than he. Frank hinted I had probably tied on a few extra florets, and Milton said they would examine the plant pretty closely so if there was anything irregular I'd better confess now. Well you know how it is when honest-to-goodness fans get together.

I stopped at the curb and we started for the backyard. To have the last word I made the proposition—"If my spike of Picardy isn't the best you've ever seen I'll treat the crowd."

With that we entered the flower garden. Did I say *flower* garden? I looked in horror. Every one of my beautiful spikes was gone. I gave a yell which brought our twelve year old on the run. "What happened to my glads?" I shouted.

"Oh mama picked them for her talk on making bouquets to the Art Club."

There was a look of understanding in her eyes—I have faith she will be a *real* gardener.

Well the boys didn't josh me as much as I expected—they are all married.

Now my wife has many admirable qualities and believes in fair play. So when I was taken in last summer I can only charge it up to experience. It came about in this way.

Along in May I hinted I would like to see the National Peony show to be held in St. Paul in June. Some of the new peony introductions would be well worth the trip, I vowed.

I was a little surprised at the readiness with which she consented, but thought nothing of it.

"You go to the Peony Show and I will go to the State Convention of our Garden Club Federation," she said. "That will be fair for us both, won't it?"

I could not deny that it seemed fair. So after having my suit cleaned and pressed, and buying a new tooth brush, I picked out my best peony catalogs and went up to St. Paul to meet the boys and see the world's best peonies. I had a good time of course.

When I returned home the wife was busy preparing for her trip to the State convention. "There will be a banquet," she confided, "so I will have to have a summer formal. You want me to look as well as the others, don't you?"

Of course I want her to look well at all times. I was getting a little apprehensive.

"Then there will be a tour of gardens and a trip through the new Arboretum," she continued. "I really haven't a thing to wear you know, and they won't let you walk on the lawns without low-heeled shoes."

I was going to suggest she had just bought a gardening outfit but thought better of it.

"And then I'm to give a report as chairman of the committee on Civic Beautification, and I really can't get up in front of all those people in my old rags. Just think," she hurried on, "they have reduced the registration fee to $10.00 this year. That includes bus fare on the garden tour."

But I've got to go now, my wife is calling. I am to help her take a lot of vases and flowers to a neighboring garden club meeting where she says she is to talk on "The Importance of the Hogarthian Curve in Flower Arrangement"—or something!

About the Home and Garden

MRS. C. E. STRONG

I'll seek a four leaved shamrock in
all the fairy dells,
And if I find the charmed leaves, oh,
how I'll weave my spells.
But I would play the enchanters part
in casting bliss around,
Oh: not a tear or aching heart should
in the world be found.

SAMUEL LOVER,
in Four Leafed Shamrock.

VISIT THE SHOW GARDENS OF THE NURSERIES

AREN'T the show gardens of most nurseries the most fascinating things! One would scarcely believe that only a few years ago we could see only rows of plants and shrubs, either in or out of bloom. When we visited the nursery to find something different, the attendant, polite, but bored, seldom took any notice of this wish. No Ma'am, we do not carry novelties, we handle only standard varieties." And that was that.

But the up to date nurseryman does not act like that nowdays. He is well aware that folks are garden minded. He sends out notices that his nursery is beautiful at such and such a time, and he would be most pleased if you would come and see it. There are still rows and rows of shrubs and plants . . . . naturally there would have to be . . . . but, there are also artistic show gardens . . . . borders that fairly beg you to buy plants and make one like it. Rock gardens that before you know it have you down on your knees admiring the lovely little plants that show to advantage among the rocks. Plants for sun and shade, for the dry spots and the wet places. A bog garden and a desert garden . . . . sand, rocks and cactus . . . . you can even find a delightful sweet scented herb garden in one nursery . . . . where all the herbs that your grandmother had tucked in all the out of the way corners . . . . are here gathered in one spot. You immediately think of things to eat . . . . rose geranium jelly, sage and summer savory in chicken dressing or sprinkled lightly on lamb chops, chives for salad, mint, tarragon, thyme. You grow hungry just thinking about them. There is lavender to put with your linens, lemon thyme and sweet woodruff to add to the jar of roseleaves, they give such a spicy tang when the jar is opened.

Mrs. C. E. Strong Among Her Delphiniums

Try New Things

Nurserymen now tell us about the frames full of small plants of many of the varieties, they tell us proudly of the many new things they are trying out; what sort of soil some of these little gems need; what a little shade will do for another variety. In other words they have become garden minded along with the rest of us and are anxious to help us have finer flowers and better gardens. They are interested in the beginners, they know that gardeners never forget the person who has helped them smooth out some of the rough places, they usually come back—and they also tell their friends.

I can think of no pleasanter way to spend a day than for a group of gardeners getting together and leisurely visiting one or more nurseries as we did. The day was all too short; we could not see everything. The small boy of the party—who will no doubt be a real gardener—because he spent the dollar he had for plants,—sighed as he reluctantly made his choice "Oh, well, I might as well take some, I can't have them all nohow, and I do want these, next time I hope I have more money."

GARDEN QUESTIONS

What can I grow in a semi-shady garden? I will not give up the trees—but would like some color.

By semi-shady, I am supposing that you have some sunshine. If so—you may have peonies, shasta daisies, aconitum, Hemerocallis, Funkias, Dicentra, many of the Lilies; under the Plum trees a drift of white violets with the phlox Divaricata just beyond will be lovely in the spring; Daffodils will do well also, as will early tulips, even the later ones. You will have a colorful garden if you simply try out a few things every season.

If you had room for just twelve peonies—would you include any of the single varieties? Please tell me exactly what you think—I like them—but have been told I would be foolish to waste money on single peopies.

If I could only have twelve peonies—I would put considerable thought on those twelve—but of this I am sure, at least three of the twelve would be single, for I am a great admirer of single peonies, they are lovely to cut and for landscape effect are unsurpassed, standing erect and flowers uninjured after even

the hard rains. If you like single peonies—never mind what anyone else thinks, have them.

Why do you object to the planting of annuals in the rock garden? I feel that annuals give a wonderful show of color.

Why go to the trouble of making a rock garden for a class of flowers that can be grown elsewhere so easily? We put rocks in the garden so there will be either a cool place for the roots of some plants, or the rock will give shelter for others. A rock garden is attractive to me, only when it is a setting for groups of flowers that otherwise would be entirely over-shadowed by the ranker growing varieties in the borders. There are some annuals that do fit in a rock garden—but they are not zinnias, marigolds, petunias or nasturtiums.

This is just my opinion and you are privileged to differ with me at your pleasure.

I am a beginner in gardening and would like a suggestion for a grouping of plants, for a conspicuous spot in my garden. I do not want red flowers in this group.

Clematis Recta, Epilobium Augustifolium, pale blue Delphinium, lavender blue Campanula, pink Peonies, Yellow Lysimachia.

The double mock orange, Virginalis, Shasta daisies, blue Anchusa, rose colored Heuchera and a few plants of Siberian Wall flower.

Dorothy Perkins Rose with a good sized clump of Lilium Candidum.

A Beauty bush, a clump of Clematis Recta, a large clump of Pallida Dalmatica. Iris with rose colored Heuchera near the Clematis.

I am waiting patiently for the August Magazine where I hope to see the address of the man who grows early blooming Chrysanthemums. Please do not dissappoint me.

George H. Sheer, 707 North 8th Street, Sheboygan, Wisconsin, is the address promised, I hope you all understand that no plants are offered for sale. Dr. Sheer writes, "I will be very glad to show these plants to any one calling here from mid-August to early November. I think I will be able to show you something that will feast your eyes."

POISON FOR ANTS

A SAFE and very effective poison for ants has been recently developed consisting of brown sugar and Paris green. An ounce of Paris green is mixed in the dry form, with a pound of brown sugar (not granulated) and this dry mixture is *thinly sprinkled* about the lawn and garden where the ants are troublesome. Used as recommended this poison can be safely employed and the ants will collect the small poisoned particles of sugar and carry them back to their nest where the young brood as well as the adult ants will be poisoned by feeding upon it. For small amounts ½ teaspoonful of Paris green can be mixed with 8 teaspoonfuls on a sheet of paper. The poison should be mixed as needed, or stored out of reach of children and irresponsible persons.

E. L. CHAMBERS.

THE GARDENER'S HOW BOOK

WHAT causes Asters to turn yellow? When should dahlias be planted? How can a lily pond be kept fresh? The answers to hundreds of such questions are given in convenient reference form in "The Gardener's How Book" by Chesla C. Sherlock just off the press. It is published by the Macmillan Company, 65th Avenue, New York, and sells at $3.50.

The book contains chapters on rock gardens, pools, care of plants in the house, instruction and use of greenhouse cold frames, planting and care of trees and shrubs, vines, hedges and lawns, and the principles of landscaping.

It is one of the most practical books on the "How" of gardening we have yet seen. The chapter on insects and diseases is especially complete.

Applause to the Echo

"Be kind to insects," says a writer.

We never lose an opportunity of patting a mosquito on the back.

FREE IRIS — Fall-bloomers and others given for flower-lovers' names. Write for details. Catalog FREE. Melvin Geiser, Iris Specialist, Beloit, Kansas.

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Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

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DATES CHANGED FOR WISCONSIN GLADIOLUS SHOW

AT A MEETING of the officers and members of the Wisconsin Gladiolus Society held at Rosendale on June 23rd, it was unanimously voted to change the dates of the show from August 10–11 as previously announced to August 17–18.

This action was deemed necessary by the growers on account of the lateness of the season. Most growers stated that they would have very little, if anything, on the earlier date. This was especially true along the lake shore and in the central section of the state.

We are all sorry that this action was necessary because it conflicts with the dates for the National Show to be held in South Bend, Indiana on August 16–17–18. However, exhibitors may still attend the National by setting up their exhibits in Madison on Saturday forenoon, August 17, and attending the National Show on Sunday, August 18.

Gigantic Show Assured

Weather conditions have been favorable for a splendid crop of gladiolus. This, together with the increased number of gladiolus fans and the increased interest in growing new varieties, assures our 1935 show of success.

We know that the Field House, one of the largest buildings in Wisconsin, will be filled with all the newest and finest varieties.

The Madison Garden Club and the West Side Garden Club will cooperate in staging the show and putting on exhibits.

A number of our out-of-state growers have promised to ship in large exhibits.

Wisconsin Gladiolus Show

University Field House

Madison

August 17-18, 1935

Wisconsin's Greatest Flower Show

GLADIOLUS DISPLAY GARDEN LOOKS VERY PROMISING

ONE of the features which will be seen in Madison during the State Gladiolus Show will be the gladiolus display garden on the University grounds planted cooperatively between the Wisconsin Gladiolus Society, the Wisconsin College of Agriculture, and the Wisconsin Horticultural Society. It is now in splendid condition. There are 340 varieties, all of them of the newest and best. Seventy-five varieties were discarded in planting as being of inferior quality.

This garden should be in full bloom on August 17–18.

This garden is located only two blocks from the University Field House where the show will be held. It adjoins the Horticulture Building of the College of Agriculture.

In addition to the gladiolus garden there are large gardens of perennials and annuals. Hundreds of the best varieties will be blooming.

Plan to come early and visit both of these attractions. There are plenty of places in Madison for a picnic luncheon.

ATTENTION GLADIOLUS EXHIBITORS

ALL exhibitors at the gladiolus show are urged to prepare their entry tags in advance, as this will save a great deal of time during the show. Entry tags will be sent free of charge by writing the Wisconsin Horticultural Society, 1532 University Avenue, Madison. Just drop us a postcard and state how many entry tags you will need and they will be mailed at once. They may then be filled out in full or in part which will save a great deal of time during the rush of setting up the show.

Premium lists may also be obtained on request from the same address.

SYMPTOMS OF DEFICIENCY OF ELEMENTS

A SERIES of tests conducted during the past 3 years indicates that visible symptoms of plant food element deficiency in soils may be used as a guide for correcting soil troubles. The plants used were chrysanthemums, hydranges, poinsettias, snapdragons, calendulas, roses, and others. In general, the symptoms are:

Yellowing of foliage—nitrogen deficiency.

Yellowing of margins of leaves and dropping of lower foliage—phosphorus deficiency.

Browning of edges—potassium deficiency.

Chlorosis—iron and manganese deficiency.—From *"Horticulture"* at the Ohio Agricultural Experiment Station.

Don't be misled by expensive catalogs. Buy hardy, acclimated, non-irrigated rhizomes. Catalog FREE. Melvin Geiser, Fair Chance Farm, Beloit, Kansas.

Gladiolus Thrip Control

E. L. Chambers

SO FAR as injury sustained is concerned, the gladiolus thrips are the Denizen of the gladiolus and frequently seem destined to be their Waterloo.

Unfortunately, from the standpoint of control, all feeding in the immature stages is done while this insect is protected by the leaf sheaths or by flower buds. Where these young thrips attack the unopened buds the flowers are usually blasted or at least so distorted that they are worthless. The edges of the petals are withered and much of the coloring matter is removed which is especially noticeable on the deeper shades and darker varieties.

Generally speaking, we recognize two types of insects, the chewing type that actually devours portions of the foliage, and those with sucking mouth parts which feed only upon the sap. We reason that if we can cover the foliage with an arsenical, we will poison the former while the latter must be killed by a strong contact spray material that will clog the insect's breathing spiracles or burn its body. The thrips happens to be an exception to both of these types, deriving its food by rasping the foliage and lapping up the sap oozing out of the wounds thus made. We find, therefore, that either a contact spray or an arsenical covering on the foliage is effective in handling a heavy infestation.

Cut All Flowers First

It is important before applying any spray that all flowers in the patch be cut, removed and burned. Not only will the spray injure the open flowers but many adult thrips secrete themselves in the heart of the open flowers.

Serious epidemics of this pest cannot be checked *without three or four applications of spray at intervals of 48 hours* and for best results, the spray should be applied in a fog mist, requiring a very small opening in the spray nozzle and from forty to fifty pounds pressure. Some of our more successful growers are using the following formulae:

Lead arsenate	3½	oz.
Derrisol	4	oz.
Glue	1	lb.
Water	10	gal.

The spray was most effective when applied about 4 p. m. owing to the peculiarity in the life history of the thrips making it necessary that the spray be repeated on alternate days for at least three or four times after which one application a week will be sufficient to hold the thrips in check. Other growers report adequate protection by using the following formulae.

2 tablespoonfuls	Paris green
2 lbs.	Brown sugar
3 gallons	Water

There are many commercial products on the market containing pyrethrum and derrisol which are equally as effective but usually slightly more expensive.

Recent tests indicate that Paris Green is much more soluble in molasses than in brown sugar solution and can be used.

CRAB GRASS CAN BE SUCCESSFULLY CONTROLLED WITH SODIUM CHLORATE

It has been shown that a single crab-grass plant may produce as high as 200,000 seeds, and that as many as 400 crab-grass plants may exist in one square foot of soil.—FRED V. GRAU.

CRAB grass can be quite successfully controlled with sodium chlorate, an ordinary-looking, coarse, white, granular salt having very much the appearance of course barrel salt, says Fred V. Grau, in Golfdom, Vol. 8, No. 4.

The first application should be made on or about the first to the middle of May in the vicinity of Washington, D. C., and somewhat later in more northerly and westerly climates. At this time, the crab-grass plants being small, an application of a half to a pound to 1,000 square feet is adequate.

About the middle of June, a second application from 1 to 1½ pounds to 1,000 square feet may be made. A third application of 2 pounds will most likely be necessary about the middle of August.—*From American Hortigraphs & Agronomic Review.*

RED SPIDER ON EVERGREENS

COMPLAINT is often made by garden makers that their evergreen trees or shrubs, especially their junipers and spruces, are turning rusty from a cause which can not be explained. This trouble is usually due to an infestation of red spider, an almost invisible mite which spins a web at the base of the needles. Red spider can often be checked or eradicated by spraying the branches with a strong stream of water from the hose. This plan should always be tried first if water is available. The only other remedy is to spray with an oil solution such as is recommended by reliable dealers. This usually is effective. When the red spider becomes well established on some evergreens, however, particularly the popular Picea obconica glauca (Picea albertiana), its eradication is very difficult. A strong stream of water can also be used successfully to drive plant lice from the foliage of ornamental trees and shrubs, or for that matter, of climbing roses, if the under side of the leaves can be reached.—*from June 1 Horticulture.*

DELPHINIUM ARISTOCRATS

Plants grown from hand pollinated seed. 2¾" to 3¼" florets. In all the shades of blue and purple, also white. $8.00 per doz. Special selection for size of florets—$10.00 per doz. Rev. Ph. Henry Hartwig, 511 W. Capitol Drive, Hartland, Wis.

Iris Varieties For Every Garden

(Continued from page 276)

of Bedford, Meldoric slightly marred as it is by the marked venation on the haft—*Thuratus, Moa*, which must be allowed to stand in one place for several seasons to develop full blooming qualities, and *Zulu* for late blooming. *Black Wings* is the darkest of all, its flaring falls giving it great character.

The mauve and yellow blends which show up so nicely with blues beside them in the garden are fine beyond compare. There is *Rameses*, a Dykes medal iris, fine in every way; *President Pilkington; Dolly Madison; Evolution; Anne Marie Cayeaux; Baldwin* and *Violet Crown*, each a marvel of color and beauty in the garden, it would be difficult to make a choice. And there will always be a place in my planting for *Ophelia*. *Lux* is somewhat pinker, *Noweta* and *Opaline* are good, and do not forget the older *Midgard*, pinker still, a "guinea pig multiplier" fine for cutting. *Tuscany Gold* and *Zaharoon* are more tan in tone, lovely. Much brighter and needing some study as to placing are *Mary Geddes* and *Clara Noyes*, put *Tuscany Gold* and Depute Nomblot with them and you will have a gorgeous planting.

The Yellows

And now for the really yellow irises. They have been long in coming, older types were so small and short in stem, with a hard tone in their colorings that was far from lovely, now we have *Alta California*, with its wonderful branching stem; *Chromylla, Phebus, Nebraska* and *Helios*, much paler with the blue striping developing on the falls as the flower ages. *Desert Gold* comes early and is all the more welcome.

Red Purples

The deep red purples and bronze tones always intrigue me. They add tone and depth of color to a planting, bringing out beauty in the paler irises. Let us consider *Dauntless, Indian Chief, Numa Rumestan, Waconda, Depute Nomblot*, all FINE. Then the browner tones of *Mrs. Valerie West, Grace Sturtevant, Grand Monarch*, to mention only a few of the older ones — and there are some of the greatest beauty among the newer of this class. I suppose *King Tut* belongs in this class though it is so gay and cheerful it has always seemed to stand alone.

Frieda Mohr is still the best bi-color "pink" in our list. *Mary Senni* has a charm all her own, but we must wait for a real rose pink. The wait should not be tedious, there is no persistence like that of an iris hybridizer, that good rose pink will not be long in coming to take its place in our gardens!

A GOOD ASTER

ASTER FRIKARTI, also known as Wonder of Stafa or Wonder of Staepf, is particularly showy. This species was developed in Switzerland and has proved a good grower and free bloomer in our climate. The plants form a neat upright bush about thirty inches high. Beginning with the middle of August and lasting until late October they are covered with large well-formed single daisy-like blooms with long slender lavender-blue ray petals surrounding the small yellow cushion in the center. They much resemble the single-flowered forms of our annual China Asters in the graceful formation of the large blooms.—*From Another Garden Notebook by Alfred Putz.*

SHIRLEY TEMPLE IS A REAL GARDENER

Our cover picture shows Shirley Temple as a gardener. The cut was loaned to us through the courtesy of the Minnesota Horticultural Society.

ARRANGING FLOWERS FOR THE DINNER TABLE

Mrs. B. W. WELLS
Madison

LET'S do a dining table arrangement. Here there are certain rules that cannot be ignored. The form must be fairly symmetrical, for it is to be viewed from all sides. It may not be so high as to obstruct the view of the diners, and it must be airy looking rather than dense.

The coreopsis, bachelor buttons, and annual mums are all rather round in shape, some light and some dark. If we attempt to scatter them about in the composition, our bouquet will look spotty, so will avoid that difficulty by arranging each variety in a group by itself. Better balance in a mixed bouquet is usually achieved when the smaller and lighter colored flowers are placed near the top of the arrangement. In this case, our smallest flowers are the dark blue bachelor buttons, so a grouped arrangement will solve this problem too.

It is also possible to have a more natural placing of stems when varieties are grouped by themselves. As we place a group of each kind with the center ones 1½ times the diameter of this eight inch bowl, we see how few flowers are needed in each group. Where one group joins the next, we place a few stems, perhaps two or three, beyond the line of division to make it less abrupt. For example, bachelor buttons extending into the coreopsis group. We seem to be doing considerable snipping to get the stems the right length. A few of the coreopsis leaves hide the holder and fill awkward spaces near the base of the arrangement. Do you like it? You'll really have to eat at my table to know how altogether lovely and suitable it is. —*From a paper on Flower Arrangement over Station WHA.*

A Selection of Phlox Varieties

PERSONAL taste naturally enters into the choosing of flowers for any garden. An interesting selection of varieties of summer-flowering phloxes has been made, however, by A. M. S. Pridham in a Cornell University bulletin that covers the history, culture and varieties.

In spite of its age, Crepuscule is one of the 14 selected kinds. It was introduced in 1853 and is often referred to as the mother of modern phloxes, according to Mr. Pridham. The florets are of a peculiar lilac color which lightens toward the edges of the petals. The clusters of blooms are borne freely during late summer and early fall. One of the oldest American varieties to still retain its popularity is Albion, colored white with a small light lavender eye. The selected list continues with Annie Cook, colored light lilac-pink with a deeper amaranth-pink eye. The dense panicles of bloom open late in the season. Anton Mercier is a semi-dwarf kind, the florets being phlox-purple marked with a white eye. An early flowering delicate pink kind is Cameron. It makes small clumps.

One of the best new phloxes of American origin, according to the writer, is Mrs. W. G. Harding, which has exceptionally large florets colored deep rose pink with a deeper eye. Flowers are borne continuously throughout the season. Graf Zeppelin has only recently found its way into American gardens. The flowers are creamy white with a delicate rose-pink eye. One of the deepest of the purple varieties is Le Mahdi. The largest flowered of the phlox-purple kinds is Mrs. Ethel Pritchard.

Reichgraf von Hochberg is selected as being one of the best of the deep red-purple varieties. In the scarlet group Saladin is called the deepest and most brilliant. The writer claims that the color does not fade in the sun. Selma is a tall growing variety having mallow-pink blossoms with a deeper eye.

A change in name is found in the phlox Tapis Blanc, which was later called Mia Ruys. The color is pure rich white and blossoms keep coming throughout the entire season. The very dwarf habit of growth makes this kind especially desirable for planting in rock gardens.—From *July 15 Horticulture.*

AKEBIA A GRACEFUL CLIMBER

THE Akebia is a twining woody climber introduced from Japan. It is hardy, and while it has been listed in nursery catalogs for some years, does not seem to be commonly grown. This vine prefers a sunny location in fertile well-drained soil. It will climb to a distance of twelve feet or more and does not make a heavy shade. The leaves which are 5 parted give a very graceful and airy effect to the vine. It produces purplish-brown flowers in early spring; these flowers have a fragrant cinnamon odor and in Japan the fruit is eaten. This handsome vine which is not attacked by insects or fungi might very well be added to the plantings on the home grounds.

PROPOSED CHANGES IN THE FEDERATION CONSTITUTION

The committee on revision of the constitution of the Wisconsin Garden Club Federation met at Milwaukee early in May to discuss proposed changes in the Federation constitution as ordered at the annual convention last November.

The following changes will be recommended by the committee at the annual summer meeting of the Federation to be held at Madison on August 10th.

ARTICLE IV, SECTION 2, relating to the term of office to read as follows: No person shall hold the same office for more than one year, excepting the recording secretary-treasurer and the corresponding secretary.

ARTICLE V, relating to the appointment of a nominating committee to read as follows: The president shall appoint a nominating committee of at least three members for the election of officers. Such appointment shall be announced at the annual summer meeting of the Federation.

This committee shall nominate not more than three persons for each office wherever desirable. Such nominations shall be published in the official magazine at least one month prior to the annual convention.

Voting shall be by ballot. Ballots shall contain a blank line for each office for nominations from the floor.

Districts of the Federation

A new Article relating to the organization of garden club districts was recommended to read as follows:

The garden clubs of the state shall be divided into districts by the Federation Executive Committee.

Such districts shall elect a chairman, vice-chairman and secretary-treasurer.

The president of each garden club in the district shall, together with the elected officers, constitute the District Executive Committee.

Change in Officers

A change in the membership of the Federation Executive Committee will also be recommended to read as follows: The officers shall be; President, First Vice-president, Second Vice-president, Recording Secretary-Treasurer, and Corresponding Secretary. These officers, *together with the chairman of each organized district* shall constitute the Board of Directors. The retiring president shall become a member of the Executive Committee and act as such until succeeded.

STATE GARDEN CLUB FEDERATION NEWS

Federation Aims: To stimulate and help garden clubs throughout the state; to develop interest in and broaden the knowledge of gardening; to aid in the protection of trees, plants and birds, and promote civic beautifications.

DATE CHANGED FOR SUMMER MEETING

Madison, August 17

THE date for the annual summer meeting of the Wisconsin Garden Club Federation as announced in our June issue has been changed to August 17. The reason for this change was because of the change of dates for the Wisconsin Gladiolus Show to August 17–18. This change was made necessary by the lateness of the season, most growers feeling that there would be very few gladiolus in bloom a week earlier.

Come Early

Such a big program is planned that we urge all members to come as early as possible in order to see the Gladiolus Display garden, the University Perennial and Annual garden, and the great Wisconsin Gladiolus Show.

Assemble at Agricultural Hall at 10 A. M.

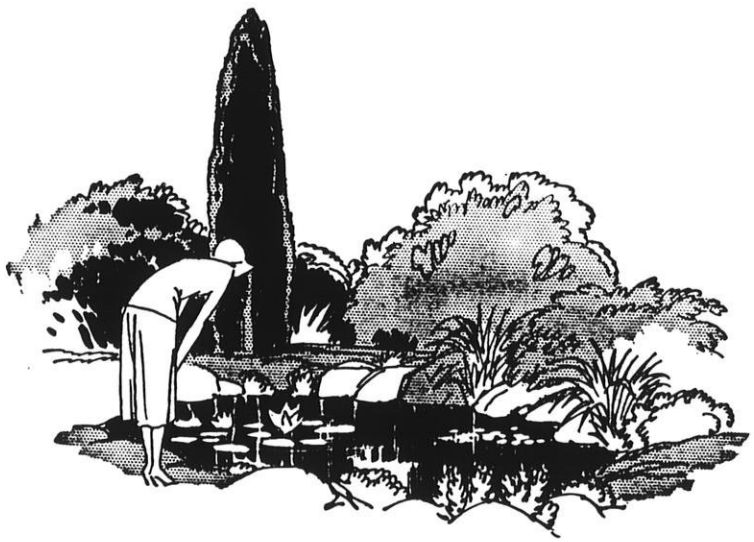
The business meeting of the Federation will be held in Agricultural Hall Auditorium at 10 A. M. Some very important changes in the Federation constitution will be presented by the special committee who have been working on this problem for some time.

There will be a picnic luncheon on Observatory Hill at noon, with which the Madison Garden Club and the West Side Garden Club of Madison will help.

DISTRICT MEETING AT FOND DU LAC

THE Fox River Valley District of the State Garden Club Federation will hold its annual meeting at Fond du Lac on Friday, August 2. The meeting will be held at The Wistaria, summer home of Mrs. Thomas Mullen, 311 E. Johnson Street. The meeting will begin at 10:30 a. m. and the forenoon will be spent in visiting the gardens.

After the business meeting and election of officers there will be a short program of garden talks followed by a garden clinic, and visits to beautiful gardens in the neighborhood.



VOTE ON CHANGES IN CONSTITUTION AT SUMMER MEETING

THE committee on the revision of the constitution will report several recommended changes at the summer meeting of the Federation to be held at Madison, August 17th.

One of the important changes will relate to the formation of a Board of Directors. It is suggested that the elected officers consisting of president, first and second vice-presidents, recording and corresponding secretaries constitute the Executive Committee for the transaction of routine matters of business. The proposed Board of Directors would consist of the elected officers plus the chairman of each organized district of the Federation. This Board would act on all matters of major importance including those involving the districts.

Several minor changes have been suggested, one of them being that the president shall appoint a nominating committee to consist of three members, such appointments to be announced at the summer meeting. The formation of garden club districts with the election of their officers is also provided for.

"A LITTLE WESTERN FLOWER"

"Yet marked I where the bolt of Cupid fell:
It fell upon a little western flower,
Before milk white, now purple with loves wound,
And maidens call it "Love in Idleness".
---------The juice of it on sleeping eyelids laid
Will make a man or woman madly dote
Upon the next live creature that it sees."

—*Midsummer Night's Dream.*

GARDEN CLUB FLOWER SHOWS

Waupaca Garden Club Flower Show, Waupaca, August 7–8.

Port Washington Garden Club Flower Show, Wisconsin Street School, Port Washington, August 9.

Menasha Garden Club Flower Show, Menasha, August 10–11.

Fond du Lac Community Garden Club Flower Show, Hotel Retlaw, Fond du Lac, August 17–18.

Green Bay Garden Club Flower Show, Bay Beach Pavilion, Green Bay, August 17–18.

Ripon Flower Show, four clubs cooperating, Ripon Auditorium, August 20.

Chequamegon Garden Club Flower Show, Ashland Co. Court House, Ashland, August 22–23.

Kenosha County Flower Show, Kenosha, August 22–23.

Elm Grove Garden Club Flower Show, Leland School on the Sunny Slope Road, Elm Grove, near Milwaukee, August 23–24.

Sheboygan Garden Club Flower Show, Guild Hall, Sheboygan, August 23–24.

Oshkosh Horticultural Society Flower Show, Raulf Hotel, Oshkosh, August 24–25.

Plymouth Garden Club Flower Show, Women's Building, County Fair Grounds, Plymouth, August 24–25.

Racine Garden Club Flower Show, Memorial Hall, August 24–25.

Art Institute Garden Club Flower Show, Milwaukee Art Institute Building, Milwaukee, September 7–8.

Oakfield Garden Club Flower Show, Liberty Hall, Oakfield, August 24–25.

Wisconsin Rapids Garden Club Flower Show, Field House, Wisconsin Rapids, August 17–18.

Kaukauna Garden Club Flower Show, New High School Gymnasium, Kaukauna, August 10–11.

DISTRICT FLOWER SHOWS AND MEETINGS PROVE SUCCESSFUL

THE four district flower shows and meetings held by the four organized districts of the Wisconsin Garden Club Federation proved a real innovation.

The Milwaukee district held a very fine tulip and early flower show in the Milwaukee Public Service Building in May. This was followed closely by the Central Wisconsin District meeting and show at Fort Atkinson featuring Iris and early perennials. Then the newly organized district in Waukesha County staged a very artistic show in the High School Auditorium at Oconomowoc early in June. The show with the largest attendance at the meeting was held by the Fox River Valley District at Oakfield June 13th. Beautiful weather enabled the club to have an outdoor luncheon at the home of Mrs. Erwin J. Wells, Oakfield, and well over 200 people crowded into the hall for the lectures. Every club in the district was well represented.

These shows and meetings are bringing the garden clubs closer together. Many friendships are being made. Opinions and ideas are exchanged. The experience of these shows enables the clubs to stage much better local shows of their own.

LAKE MILLS ORGANIZES GARDEN CLUB

THE officers and members of the Wisconsin Garden Club Federation are pleased to welcome the newly organized Lake Mills Garden Club to membership in the Federation. Lake Mills is a beautiful little city and has many beautiful gardens.

The club meets the second Friday evening of each month. The officers of the club are as follows:

President: Ora Wodke.

Vice-president: Crist Berkholz.

Sec.-treas.: Mrs. Frances Kypke.

FEDERATION MEMBERSHIP GROWING

There are now 60 garden clubs composing the Wisconsin Garden Club Federation. This is a substantial and satisfactory increase. A number of new clubs are in the process of formation. Can we increase our membership to 100 clubs during the next two years?

Control Blights and Mildews with

Pomo-Green with Nicotine

●

Pomo-Green with Nicotine is a material which can either be dusted or sprayed on the plants. It is, therefore, an ALL PURPOSE material which may be applied with any available equipment.

Pomo-Green with Nicotine because of its leaf-green color, eliminates that unsightly appearance on foliage which results from the use of many spray materials.

Pomo-Green with Nicotine carries the highest endorsement of the American Rose Society and is used by the leading amateur and professional floral hybridizers and nurserymen.

●

Niagara Sprayer and Chemical Co., Inc.

J. Henry Smith Sales Representative
Waupaca, Wisconsin

OSHKOSH SOCIETY HAS STRAWBERRY FESTIVAL

ABOUT 250 people attended the annual strawberry festival of the Oshkosh Horticultural Society at the N. A. Rasmussen Fruit Farm and Nursery in June.

Mr. D. E. Bingham of Sturgeon Bay, one of the largest apple and cherry growers in the state, spoke on fruit growing in Door County. He said that while European plums were first grown, it was found that apples and cherries would grow better in Door County. Insects and diseases are hard to control, but with modern equipment this is being done successfully. He stated that the cherry crop each season averages about six million cases.

A committee reported that Society members received four first prizes, five seconds and two third prizes at the district flower show held at Oakfield. Eighteen entries were made by the Society.

FLORENCE WINCHESTER,
Secretary.

SHALL WE CONTINUE GARDEN CLUB REPORTS?

WE HAVE asked a number of members recently whether they would like to have the garden club reports continued in Wisconsin Horticulture. The answers appeared unanimous in this respect, that garden club reports are valuable only inasfar as they give information of value to other garden club members. Space in this magazine is limited and valuable and while it would be nice to publish detailed reports of the activities of each club meeting, this of course is impossible. However, if some important matter was brought up at a club meeting, or valuable information given, such information could well be published.

We should not, however, use space to tell who sang a solo, whether the secretary read the minutes of the last meeting, or a routine discussion of a program held a month previous.

OMRO GARDEN CLUB JOINS FEDERATION

A NEW garden club has been organized at Omro, Wisconsin, and the members immediately voted to join the Wisconsin Garden Club Federation and the Wisconsin Horticultural Society. We wish to welcome the Omro club to membership and assure them of our cooperation and help.

Officers of the club are:
President: Miss Elizabeth King.
Vice-pres.: Mrs. H. B. Winslow.
Sec.-treas.: Miss Grace Carter.

GARDENS TO VISIT

LA CROSSE

Grand-Dad Bluff,—a noble height overlooking the city, and the valley of the Mississippi in both directions. Good road to observation point and picnic grounds.

Pettibone Park, on Pettibone Island, across the first bridge. Tourist camp south of the bridge. A natural park with beautiful drives to the north of the bridge. A very restful place.

Beautiful homes on the River at Eagle Bluff, on the Minnesota side to the north. Other fine estates on the same route, between La Crosse and Winona. Picturesque orchards at La Crescent, just across the Mississippi. Many fine drives in any direction, through the "Coulee Region." If interested in visiting the pretty gardens of La Crosse, get in touch with Miss Florence Shuman, secretary of the Garden Club.

RACINE

A beautiful walled-in home garden. Mr. F. A. Firks, 1614 St. Clair Street, Racine.

FOX POINT
(North of Milwaukee)

Mr. Hampton Thomas, North Beach Road. Lovely garden until frost.

IT'S DELIGHTFUL TO VISIT GARDENS

MRS. C. SHEPARD
Menasha

THE friendly and delightful custom of garden viewing originated in the Old World and was continued by the colonists in the new land of America as early as 1750, when friends and neighbors were welcomed each Sabbath to view the garden. Settlers from far and near, hungry for the well remembered, childhood gardens and for the sight of the dear familiar plants, shrubs and flowers of the homeland which grew there and which had been transferred on a sailing vessel after weeks of perilous journeying to bring comfort and heartease to the homesick colonists.

There are challenges to wander in our gardens every month during the blooming season. The early spring bulbs passing in May, the month of June brings gardens billowy with peonies, iris, annuals and perennials. Then in September the very air is crisp with invitation. The reds and golds and browns of autumn are a challenge to wander and gardens are brilliant with berries, shrubs, chrysanthemums and hardy asters, dahlias and dozens of other attractions.

The friendly custom of garden viewing is becoming more popular every year and garden clubs from one end of the country to another consider it an important part of the season's activities, and the majority of garden viewers return from the tour inspired and stimulated to greater efforts and with the seeds of fine new friendships sprouting. — *From broadcast, WHA, by Menasha Garden Club.*

Be sure to attend the Wisconsin Gladiolus Show, University Field House, Madison, August 17–18. Wisconsin's greatest flower show.

NOW

is the time to get ready for the coming season. Send us your wax to be worked into foundation. Every sheet is perfect. Let the bees test it for you, and then abide by their verdict. We handle the finest sections made. Let us quote you prices on any supplies you may need. We carry a full line of bee equipment.

Price list on request.

Gus Dittmer Company
Augusta, Wisconsin

AN ILLUSTRATED FLOWER BOOK

"My Story Book of Flowers" by Fae Huttenlocher (The Merrill Publishing Company, 10 cents), has just been published. It is a colorful, enchanting, and authentic garden book.

Simple garden plans, using harmoniously the flowers most easily grown, the ten commandments of gardening, the history, legend, and culture of nine flowers in each of the seasons—spring, summer, fall and winter.

Each flower is beautifully illustrated in color, with legendary sketches around them. It may be ordered through your 10-cent stores or department stores.

AMATEUR GARDENER

This actually happened. A Madison woman recently made this statement.

"I sprayed my roses last year, but it doesn't seem to have done a bit of good, because they have bugs on them again this year."

DID YOU KNOW

That honey is at its best when put in neat, attractive packages? If your sales have not been so good—if you feel the need for an improvement in the appearance of your honey containers, make your selection from our list of honey packages that we have on hand here at all times:

2½ lb. Cans 5 lb. Pails
60 lb. Cans 10 lb. Pails

Plain Round Glass Jars
Bee-Hive Style Glass Jars
Cellophane Wrappers and Shipping Cases for your Comb Honey.

Prices submitted on request.

August Lotz Company
Boyd, Wisconsin

SAVE ON FREIGHT

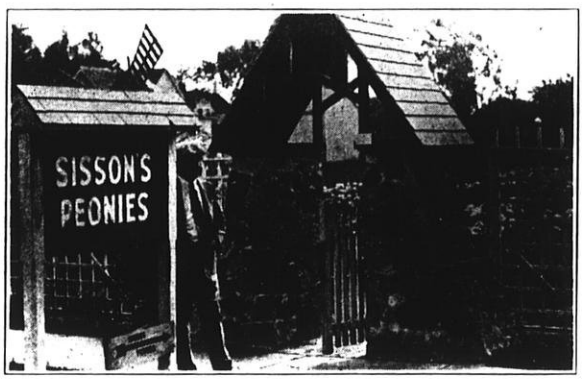
Buy your tin and glass honey containers from Lewis and save on freight. All shipments made from stock at Watertown. Large stocks kept on hand at all times. We guarantee every item.

Following retail container prices, subject to change without notice Sept. 30, 1935, are F.O.B. shipping point shown. If your order amounts to $50 we allow 5% off, $100 we allow 10% off. Terms, cash with the order. Continental tin containers, Hart Modernistic glass jars, except 3 lb. size, plain round.

2½	lb. cans 100/c, wt. 31 lbs.	$3.85
5	lb. pails 50/c, wt. 27 lbs.	3.45
10	lb. pails 50/c, wt. 45 lbs.	4.95
5	gal. cans 2/c, wt. 15 lbs.	1.00
5	gal. cans 50/c, wt. 175 lbs.	16.00
½	lb. jars 24/c, wt. 12 lbs.	.67
1	lb. jars 24/c, wt. 22 lbs.	.88
2	lb. jars 12/c, wt. 17 lbs.	.60
3	lb. jars 12/c, wt. 21 lbs.	.73

F.O.B. Watertown, Wis.

Send all orders to G. B. Lewis Co., Watertown, Wisconsin.



Peony Roots Now Ready for Fall Planting

Plant any time from August 15th to freeze up.

If you follow our directions in planting, we will guarantee results.

Customers—if you have lost any plantings, please advise us now and we will replace them free.

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SISSON'S PEONIES
ROSENDALE, WISCONSIN
Hi-ways 23-26 intersection

SEE OUR PHLOX

The Flower for August

●

Drive through our nursery and see many new and beautiful varieties of Phlox.

Any time during August or September is a good time to select the variety you like best.

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On Highway 20, four miles West of Racine

Root Quality Sections

I finished folding the sections this afternoon. I folded 500 Root sections without breaking a corner, and the dovetail locked without coming apart. I never saw more perfect dovetailed corners. They are just right.
L. H. L. Penn.

Save Your Money—Buy Root Sections

Thin Super Airco Foundation
True to Nature Base
Accepted at Once by the Bees
The Finest Foundation for Section Honey

5 lbs. $3.25
Sh. Wt. 7 lbs. Not Postpaid
1 lb. 70 cents
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Write for our new 1935 honey container price list

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