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Wisconsin *Horticulture*



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September, 1939

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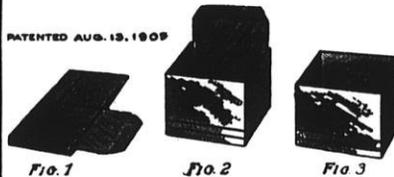
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"Yes, but have you ever noticed how she raises it if she doesn't get it?"



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Wisconsin Horticulture

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PLEASE DO NOT SEND STAMPS

Wisconsin *Horticulture*

How To Control Field Mice

Begin Early This Fall

G. C. Oderkirk

THE infestation of field mice reached a high point in many orchards during the past year. They seemed to be more abundant in the southeastern part of Wisconsin than in other areas. In addition to orchard damage, it is notable that ornamental shrubs and deciduous trees were severely damaged in some localities. The injury was inflicted almost entirely to the base of the trees or shrubs above the surface of the ground, thus indicating that meadow mice were responsible for the damage.

Watch For Mice

A large part of the injury and loss of shade trees as well as fruit trees could be avoided each year by making periodical inspections of the areas in which the trees are planted to determine the abundance of mice. If they appear numerous it does not require much time or expense to apply control methods. However, it is advisable to plan and follow a yearly program of field mice control and thus avoid losses. So many growers overlook the presence of mice until damage has been done. It would pay to give the mouse problem attention as a regular orchard practice and not depend on applying control methods, particularly poisoned baits,

only when the infestation is at a high point. Until this is observed the loss of fruit trees will continue from year to year.

Clear Away Grass

Meadow mice are prevalent in most Wisconsin orchards. As stated, they are active and feed largely beneath matted grass or other cover on the surface of the ground. They carefully avoid bare or relatively bare surfaces that offer little or no protective cover. This being true, it would be well to rake or otherwise clear away a space from the vicinity of the shrubs or trees that need protection. The cleared space near a tree need not be over 18 inches in diameter to be of considerable help.

Snow Protects Mice

Late in winter the cleared space near trees may be of no value due to the heavy fall of snow through which mice will burrow to the tree or shrub. During winter the snow serves as protective cover and it frequently happens that trees are girdled to the snow line. Also, leaves may blow into the cleared space and form a natural mulch that gives the necessary cover for mice.

Thus, the removal of grass serves to protect a tree from injury largely during the late fall and the early spring months.

Traps

The latter conditions point to the necessity of applying methods other than natural controls. In the small home orchard or grounds planted to ornamental shrubs and shade trees, it is possible to remove mice with traps and thus prevent winter damage. Traps should be used late in October or the fore part of November before cold weather sets in. The common wood snap trap is very effective. The use of a few dozen snap traps set in active runways for a short period of time will greatly reduce the infestation and prevent winter injury in the small home orchard. Traps may be baited by placing pinches of rolled oats on the triggers of the traps. The addition of peanut butter to rolled oats makes a good attractive bait for use in trapping house mice as well as field mice.

Bait Best in Large Orchards

The poisoned bait method of field mice control is preferred in the commercial orchard or other

large area requiring protection. The results obtained with poisoned baits will depend upon the variety of food used as bait and the thoroughness with which the bait is applied. Individual field mice, like other animals, have varying tastes. Thus, it is desirable to apply more than one type of food to realize the most from the time and effort expended in the exposure of bait. In recent years the Bureau of Biological Survey has furnished a ready-mixed whole oats bait to fruit growers and others at cost. The fact that this effective bait could be obtained on short notice has greatly reduced the loss of fruit trees where there was an immediate need for poisoned bait to control mice. However, in this connection it is notable that orchardists are prone to rely on one bait either because it is easier to mix a single type or to purchase one that is ready mixed. Thus, a thorough baiting program should include the use of a grain and a vegetable or fruit bait. Sweet potatoes or carrots, preferably the former, dusted with strychnine is accepted quite readily by meadow mice and should be used as a supplement to a grain bait such as whole oats, or a mixture of common breakfast food rolled oats and wheat.

Where to Put Bait

The placement of poisoned bait has not received the attention in the past that it deserves. Baits must be located where mice will come upon them in the course of their normal activities. If the baits are placed in runways that are well traveled it is likely that mice will find and feed upon them within a short time after exposure. Thus, look for runways that show by the presence of fresh droppings and the absence of green growth, that mice are using the runway. Part the grass, place a teaspoonful of bait or a piece of cut bait, or

both, in the runway and replace the grass so that the covering over the runway will be much the same as it was originally. Place bait at two to four different points in runways near a tree. If this is done it is likely that most of the mice, if not all of them, in the area, will be destroyed by the bait.

Paper Tubes for Stations

Poison stations in which bait is placed, largely for protection from weather, may be used with good effect although the placement of bait directly in the mouse runways will produce far better results. If bait stations are desired, they may be made from light weight asphalt paper. The paper should be cut into pieces 9x13 inches and these strips are then rolled into tubes about 2 inches in diameter. The tubes should be baited with a tablespoonful of poisoned grain, placed in runways and lightly covered with grass. One station per tree should suffice.

Field mice produce their young largely during the warm seasons of the year. This being true it will be helpful to bait the orchard, or at least the heavily infested areas, during the late summer months to prevent the increase in young. However, it is most important to make a thorough coverage of the orchard with bait late in October. At that time it is advisable to go over the orchard with a complete baiting and repeat the application a week later in areas where mice seem most abundant. It is vitally important to give the orchard this attention in the late fall. If the treatment is thorough it should keep mouse injury at a very low point if it does not entirely eliminate it during the cold winter months.

How to Prepare Bait

Fruit growers desiring the prepared oats bait mentioned above

may obtain it from the Wisconsin Horticultural Society, 1532 University Avenue, in 10 pound at \$1.25 and 25 pound bags at \$2.50. Formulas for the preparation of rolled oats and vegetable baits follow:

Roller-oat bait—

Mix together, dry, $\frac{1}{8}$ ounce of powdered strychnine and $\frac{1}{8}$ ounce of baking soda. Sift the strychnine-soda mixture over 1 quart of rolled oats, stirring constantly to insure an even distribution of the poison through the grain. Thoroughly warm the poisoned rolled oats in an oven and sprinkle over them 6 tablespoonfuls of a mixture of 3 parts of melted beef fat and 1 part of melted paraffin, mixing until the oats are evenly coated. When the grain is cool it is ready for use.

If a larger quantity of bait is needed, use in the proportion of 1 ounce of strychnine, 1 ounce of soda, 8 quarts of rolled oats, and $1\frac{1}{4}$ pints of the beef-fat paraffin mixture. In applying the coating it is very important that the beef-fat paraffin mixture be hot and the poisoned rolled oats thoroughly warm, otherwise it will not be possible to obtain an even coating.

Starch-coated grain bait—

Poisoned grain prepared by the following formula is adapted for treating forage-crop or cereal-crop areas where mice are abundant.

Mix 1 tablespoonful of gloss starch in $\frac{1}{2}$ teacup of cold water and stir into $\frac{3}{4}$ pint of boiling water to make a thin clear paste. Mix 1 ounce of powdered strychnine with 1 ounce baking soda and stir into the starch to a smooth creamy mass free of lumps. Stir in $\frac{1}{4}$ pint of heavy corn sirup and 1 tablespoonful of glycerine. Apply to 12 quarts of wheat.

Good Fruit Crop Forecast

THE apple crop of Wisconsin will be slightly larger than normal this year according to the estimates of the Federal and State Crop Reporting Service. The estimate is that Wisconsin will have 102,630,000 bushels as compared with 82,395,000 last year and a ten-year average of 96,469,000 bushel.

The Wisconsin crop is estimated at 450,000 bushels compared with 310,000 last year and a ten-year average of 423,000. This is the commercial crop sold as fresh fruit and does not include the farm orchard crop.

Cherries

The national cherry crop is very large this year. The estimate is 184,580 tons as compared to 140,870 tons last year and a ten-year average of 124,646.

The Wisconsin crop is estimated at 8,350 tons this year as compared to 8,600 last year and a ten-year average of 8,699 tons.

Peaches

The peach crop of the nation is estimated as being 18 per cent higher than last year and 13 per cent higher than the ten-year average.

Pears

The national pear crop is estimated at 31,000,000 bushels which is slightly less than last year but above the ten-year average.

Grapes

The grape crop of the nation is estimated to be a near record crop—one of the largest in history.

The demand for fruit in the fresh market appears to be improved over that of the summer of 1938. The prospect is for a further slight upward trend during the remainder of the year. Market prices of early peaches,

eastern apples and early grapes average somewhat higher than a year ago while prices of midwestern apples and cherries are slightly lower.

Incomes Higher

General business conditions have been improving in recent weeks and the prospect is for further slight improvement the remainder of the year. In recent months the level of income of industrial workers, a common measure of demand for fruit crops, averaged about 10 per cent higher than in 1938 and indications are that it will continue somewhat above 1938 during the remainder of this year.

Although supplies of apples for the entire 1939-40 marketing season probably will be larger than last year there are two other factors in the price situation that appear to be more favorable than

last season. The first is the income of industrial workers which in recent months averaged 10% higher than last year. Second, is the supply of oranges available during the apple marketing season which this year will be somewhat smaller than last year.

Trouble-Shooter Needed

Mrs. Senger at the Telephone: "Oh, Frank, do come home. I've mixed the plugs in some way. The raido is covered with frost and the ice box is singing 'Way Out West In Kansas'."

FOR SALE

Bean orchard sprayer on steel truck. Complete 3 H.P. Cushman engine, also refiller. Nearly new. Bargain for cash. Stanley Swigum, Barneveld, Wisconsin.

ORCHARDISTS' SUPPLIES

FERTILIZERS

Sulphate of Ammonia—Aero Cyanamide

FOR THE APPLE HARVEST

Bushel baskets. Basket liners, fringes;

Picking ladders. Picking bags.

For your harvesting supplies and orchard equipment,

—write for prices to—

SOUTHEASTERN FRUIT GROWERS CO-OP, Inc.

WAUKESHA, WIS.

Lester Tans, Sec.

Route 3

Telephone Big Bend 2821

How To Avoid Cull Fruit

WHEN an industry learns to change some of its waste material into salable products, it usually turns a profit. Many fruit growers, however, turn a large part of their salable fruit on the trees into waste products in the process of picking, hauling and packing.

A Michigan study revealed that 15% of the cull pile was due to bruises. A West Virginia grower found that 53% of the Golden Delicious apples were bruised by the pickers—40% of them seriously!

Take the 15% figure—one apple in the cull pile out of every seven, a man-made cull! Most of these are due to careless picking, bumping on the ladder, dumping into field crates or baskets, overloading of containers and hauling equipment, rough handling and fast driving. Lack of harmony between the owner and labor may be responsible in a large measure for the high toll in man-made culls.

Added to these factors is the fact that there has been a great increase in the percentage of tender-fleshed, high-quality varieties, which require more careful harvesting. Juice-filled, tender-fleshed fruit is favored by the consumer, but is the most difficult to harvest without bruising.

Mature fruit "pulls" easier and is less easily bruised than immature fruit. When to start picking is an important decision.

How to Avoid Culls

Side-hung picking bags, fitted with comfortable, adjustable shoulder straps and rigid but flexible opening support, add to the picker's comfort and encourage careful handling of the picked fruit. The bags should have wide opening bottoms with strong, full-length, free-running draw-

strings and easy snaps. Avoid over-filling.

First pick from the ground to avoid injury in placing ladders. Work downward from the highest fruits within convenient reach.

Light, rigid ladders of suitable length help save fruit from bruising by discouraging long reaches and by giving the picker confidence which lessens the "hugging" tendency.

Use sound, rigid baskets or orchard crates. Flimsy containers with broken rims or bands "squeeze" when lifted. Old baskets often have sprung staples which result in cut and pricked fruit.

From July 15 *Tennessee Horticulture*.

SOUTHEASTERN FRUIT GROWERS ASSOCIATION HOLDS SUMMER MEETING

THE Southeastern Wisconsin Fruit Growers Association held their annual summer meeting and picnic on the farm of Dawson Brothers, in Racine County, on August 15th. There was an excellent attendance and a very enjoyable time.

The forenoon was spent visiting the orchard of Charles Patterson and Dawson Brothers, who are neighbors. Luncheon was eaten under the beautiful trees on the Dawson lawn. Here the growers also saw a wonderfully landscaped farm home grounds. There was a beautiful rock garden, excellent evergreens and shrubbery plantings, beautiful large trees well placed, and plenty of flowers. Dawson Brothers operate a well balanced dairy farm, with a large herd of Guernsey cattle, a large flock of chickens, a good orchard, and garden.

During the afternoon program several county agents spoke on fruit conditions in their county.

Mr. Lester Birmingham of Sturgeon Bay told of fruit growing conditions in that section. Mr. Charles Patterson told of his experience with codling moth bait traps, while H. J. Rahmlow and C. L. Kuehner finished the program with discussions on orcharding problems.

PRICES ON POISONED OATS BAIT

Prices on Government prepared poisoned oats bait for control of rabbits and mice in the orchard will be as follows during the coming season to members of the Wis. Horticultural Society.

10 lb. bag-----	\$1.25
25 lb. bag-----	2.50

The above is the cost price and does not allow any handling charges which will be furnished by the Society. Send check or money order direct to the Wisconsin State Horticultural Society, 424 University Farm Place, Madison, for your bait.

HORTICULTURAL NOTES

By H. B. Tukey

YOU have heard that the best apples are in the tops of the trees and that the brightest red apples are the best? Now it seems that science agrees and says that the sunny side of an apple contains more vitamin C than the shady side. Further, the periphery or outer portion of the fruit has a greater vitamin content than the central portion. Perhaps there is something to this idea of being "sun-kissed" after all!

To Dr. Frank App, of Seabrook Farms, in New Jersey, is credited the statement that one-third of the nation's vegetables will in the near future be marketed fresh, one-third canned and one-third frozen.

From *The Rural New-Yorker*.

BAIT TRAPS NECESSARY FOR CODLING MOTH CONTROL

MR. Charles Patterson of Franksville, Racine County, believes that it is impossible to accurately time sprays for codling moth without the use of bait traps. He writes: "The reason I use bait traps is to time my summer sprays for codling moth control.

"When looking over my record for the past seven years, it can easily be seen that it would be almost impossible to determine when to spray for the second brood unless I had bait traps.

"I think there should be four sets of traps in each county, about six to ten miles apart. Near Lake Michigan last year there was ten days difference in the second brood flight between my orchard and that of Mr. R. L. Marken of Kenosha, which is about 15 miles southeast of here. In his orchard, being nearer Lake Michigan, the codling moth started to fly that much later. So you see it would be almost impossible to determine when to spray in different localities without bait traps.

"I think we should get on a spray from 10 to 12 days after the second brood emerges, and another spray about 7 to 10 days later instead of waiting for the largest flights of moths."

The Catch

Mr. Patterson sends in the following records of catches of moths in his six bait traps from 1933 to 1939. The numbers given are for catches of moths each day during the periods mentioned. The date is not given, but can be determined by checking.

The 1933 record is as follows: From July 20th to August 30th. 1-6-5-3-1-1-7-12-5-6-5-6. August 1st to 30th, 1-3-0-3-3-0-3-1-2-1-16-11-7-7-8-10-6-4-12-4-3-4-5-3-3-0-4-6-10. From these records we will see that in 1933 there should have

been a spray put on the first of August and another 10 days later on late varieties.

In 1934 the flight was almost the same as in 1933.

In 1935 there was a heavy flight in July, from July 1st to 22nd as follows: 17-9-22-9-25-29-13-10-3-5-3-5-12-1-0-1-3-4-0-8-2, and from August 7th on the flight was 3-10-9-10-10-56-15-20-14-17-34-34-30-30-30-22-22.

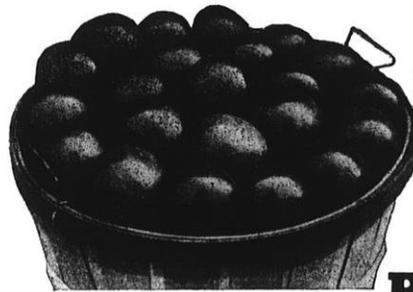
In 1936 the flight was very bad the first part of July, but in 1937, there were not so many.

In 1938 there was hardly any catch in my orchard from June 22nd to August 13th.

In 1939 the catch was small because of cool nights from June 1st to 30th. The following is a record for this year: June 1 to 30: 0-0-2-0-0-14-6-0-5-0-0-1-3-5-2-0-0-0-0-0-0-0-0-0-2-0-0-0.

During July the catch was: 0-1-0-0-0-2-0-0-0-0-1-0-2-0-0-0-0-0-0-0-0-0-0-0-1-1-0-0-0-2-3.

During August the catch was 6-0-0-0-10-37-8-0-0-0-0-2-0-4-0-1-0-0-0.



Fall Fertilization of Fruit Trees Recommended

EXPERIMENT STATION HORTICULTURISTS recommend fall fertilization for fruit trees.

It conditions the trees.

It gets the nitrogen down deep for the roots to feed on when spring growth starts.

It gets the job out of the way of other spring work.

Because GRANULAR 'AERO' CYANAMID is very resistant to leaching, you can apply it in the fall without danger of loss of nitrogen. It stays in the soil until needed by the trees.

Write for our leaflet "For a Better Fruit Crop Fertilize with 'Aero' Cyanamid."



AMERICAN CYANAMID COMPANY
30 ROCKEFELLER PLAZA NEW YORK, N. Y.

The Apple Exhibit at the State Fair

THE apple exhibit at the Wisconsin State Fair this year was larger than for several years past. In the 40 tray exhibit class alone there were six entries, making a total of 240 trays. The quality of the apples this year was high. The apples were well colored and of good size. Judging was done by D. E. Bingham of Sturgeon Bay.

There were several new classes which have considerable possibility, the pyramids containing 91 apples, a ring pack class in a standard bushel basket, and a basket of apples packed for show window display. These classes brought out a fair number of entries and it is hoped that more will be done with them in the future.

Winners in the larger classes were as follows:

40 Tray Exhibits

1st prize, Ed. Stoeber, Madison; 2nd, A. K. Bassett, Baraboo; 3rd, William J. Louis, Richland Center; 4th, Theo. J. Kurtz, Cedarburg; 5th, Waldo Orchards, Waldo; 6th, Meyer Orchards, Hales Corners.

10 Tray Exhibits

McIntosh: 1st, William J. Louis, Richland Center; 2nd, Ed. Stoeber, Madison; 3rd, A. K. Bassett, Baraboo; 4th, Waldo Orchards, Waldo.

Northwestern: 1st, A. K. Bassett, Baraboo; 2nd, Ed. Stoeber, Madison; 3rd, William J. Louis, Richland Center; 4th, Waldo Orchards, Waldo.

Wealthy: 1st, William J. Louis, Richland Center; 2nd, Ed. Stoeber, Madison; 3rd, A. K. Bassett, Baraboo; 4th, Waldo Orchards, Waldo.

Duchess: 1st, Ed. Stoeber, Madison; 2nd, A. K. Bassett, Baraboo; 3rd, Waldo Orchards, Waldo.

Dudley: 1st, A. K. Bassett, Baraboo.

Fameuse: 1st, Ed. Stoeber, Madison; 2nd, William J. Louis, Richland Center; 3rd, A. K. Bassett, Baraboo.

Delicious: 1st, William J. Louis, Richland Center; 2nd, A. K. Bassett, Baraboo; 3rd, Ed. Stoeber, Madison.

Wolf River: 1st, William J. Louis, Richland Center; 2nd, Ed. Stoeber, Madison; 3rd, A. K. Bassett, Baraboo.

Pyramids

Wealthy: 1st, A. K. Bassett, Baraboo; 2nd, Ed. Stoeber, Madison; 3rd, William J. Louis, Richland Center; 4th, Wm. E. Aeppler, Oconomowoc.

McIntosh: 1st, A. K. Bassett, Baraboo; 2nd, Ed. Stoeber, Madison; 3rd, William J. Louis, Richland Center; 4th, Waldo Orchards, Waldo.

Northwestern: 1st, Ed. Stoeber, Madison; 2nd, William J. Louis, Richland Center; 3rd, A. K. Bassett, Baraboo; 4th, Waldo Orchards, Waldo.

Ring Pack

McIntosh: 1st, William J. Louis, Richland Center; 2nd, Ed. Stoeber, Madison; 3rd, Waldo Orchards, Waldo; 4th, A. K. Bassett, Baraboo.

Northwestern: 1st, William J. Louis, Richland Center; 2nd, Ed. Stoeber, Madison; 3rd, A. K. Bassett, Baraboo; 4th, Waldo Orchards, Waldo.

Wealthy: 1st, William J. Louis, Richland Center; 2nd, Ed. Stoeber, Madison; 3rd, A. K. Bassett, Baraboo; 4th, Waldo Orchards, Waldo.

Peck Baskets

McIntosh: 1st, William J. Louis, Richland Center; 2nd, A. K. Bassett, Baraboo; 3rd, Ed. Stoeber, Madison; 4th, Waldo Orchards, Waldo.

Northwestern: 1st, Ed. Stoeber, Madison; 2nd, William J. Louis, Richland Center; 3rd, A. K. Bassett, Baraboo; 4th, Waldo Orchards, Waldo.

Wealthy: 1st, William J. Louis, Richland Center; 2nd, Ed. Stoeber, Madison; 3rd, A. K. Bassett, Baraboo; 4th, Waldo Orchards, Waldo.

5 Plates of 5 Commercial Varieties

1st, William J. Louis, Richland Center; 2nd, A. K. Bassett, Baraboo; 3rd, Ed. Stoeber, Madison; 4th, F. B. Sherman, Edgerton; 5th, Waldo Orchards, Waldo; 6th, Meyer Orchards, Hales Corners.

5 Fall or summer varieties: 1st, A. K. Bassett, Baraboo; 2nd, Ed. Stoeber, Madison; 3rd, William J. Louis, Richland Center; 4th, Theo. J. Kurtz, Cedarburg; 5th, R. W. Hammersley, Madison.

New Varieties

New varieties are beginning to appear at the State Fair, and of course will be shown in larger quantity as more trees come into bearing. There is considerable interest in the new varieties at the Fair, and more varieties should be listed in plate and single tray classes.

Cortland was shown in the single tray class, with William J. Louis winning 1st; Wm. Aeppler, Oconomowoc, 2nd; Waldo Orchards, 3rd; and Virgil Fieldhouse, 4th.

Several samples of Early McIntosh and Melba were shown, Wm. Aeppler winning first on Early McIntosh in single tray, and plate.

GOLDEN DELICIOUS MUST BE THINNED

“GOLDEN DELICIOUS must be thinned in Wisconsin if we want Delicious of the best quality,” was the statement made by C. L. Kuehner at the summer meeting of the Southeastern Fruit Growers Association held at Dawson Brothers Orchards in Racine County.

Golden Delicious have a tendency to set too heavily, and as a result the branches are overloaded, there is danger of injury to the tree, and above all, the fruit is likely to remain small. If they are properly thinned, we can produce Delicious of much higher quality which will sell at a better price.

We must also remember that Golden Delicious require good storage conditions if we wish to prevent them from shriveling. Not only must the storage be of proper temperature, but there must be considerable humidity.

Someone said: “If you want a job well done, select a busy man—the other kind has no time.”

Passenger: “Why are we late, porter?”

Porter: “The train ahead, suh, is behind, and we was behind before besides.”

Mulching Valuable for Red Raspberries

EXCELLENT results were obtained by George M. Darrow and J. R. Magness of the U. S. Horticultural Station, Beltsville, Maryland, by mulching red raspberries.

The most notable difference in conditions between the mulched and the cultivated rows in this experiment was in the day to day fluctuation of temperature. The mulch acted as an insulator and kept the soil temperature lower and much more uniform than under cultivation. It was an excellent insulator during fall and early winter before it had become packed and wet. Additional mulch was applied in June and it again became a good insulator.

Growth More Than Doubled

The total cane growth was about doubled in the mulched rows as compared with the cultivated at the end of the first season. It was over five times as great at the end of the second season, and was four times as great during the third year.

The total numbers of suckers produced under the mulched plots was about 16 times as great as in the cultivated rows for the entire three seasons. The fibrous roots were about 5 times as abundant near the mulched plants as those under cultivation.

The yield of berries in 1938, the first full crop year, was **five times as much** from the mulched as from the cultivated rows. The ratio of cane length on the mulched rows to that of the cultivated in October, 1937, agreed fairly well with the ratio of fruit yield in 1938.

Investigators concluded that the difference in plant survival, yield, cane length and sucker production, has been so large in this planting between the mulched and cultivated plots, that there must be several limiting

conditions effective in the field which are offset by the mulch. Temperature differences between the mulched and cultivated soils have been great. A maximum of 102 degrees F. was noted in the cultivated soil, which may be injurious to raspberries because they reach their best development under moderately cool, summer conditions.

The conclusions of this experiment are that the use of mulch apparently corrected some conditions which prevent satisfactory growth of raspberries when the soil was cultivated.

Workers in both New Jersey and Ohio have reported increased growth and production with the use of mulch on raspberries, but to a much less extent than was obtained at Beltsville.

We would urge Wisconsin growers to try a mulch of straw or marsh hay for their raspberries.

In this experiment, rye straw was used at the rate of 8 tons per acre, which is sufficient to prevent the growth of weeds and grass. The mulch would not only conserve moisture in dry seasons, but might give excellent results for other reasons such as cooler soil temperatures during hot weather on sandy soils.

Spraying in the Rain

Prof. Burkholder says in *HOOSIER HORTICULTURE*, "Spraying in the rain is not very enjoyable, but neither is 12 years' of waiting for a crop and then have apple scab do the harvesting. Our crews worked two entire days in the rain in 1937 to keep the orchard protected. It can be done and the smart growers are doing it when necessary, with good results." During the blooming season there were eight days of rain, totaling 5.4 inches.

GOOD PLUM VARIETIES FOR THE FARM ORCHARD

A LIST of good plum varieties for the farm orchard has been prepared by C. L. Kuehner of the Horticulture Department, Wisconsin College of Agriculture. He lists the following varieties with their descriptions and good pollinizers:

Underwood—An early, meaty, mild plum. Pollinizers: Surprise, Goff, DeSoto.

Tokata—Early, juicy mild. Pollinizers: Surprise, Goff, DeSoto.

Toka—Early, meaty, apricot flavor. Pollinizers: Surprise, Goff, DeSoto.

Monitor—Late, meaty, large, for jam. Pollinizers: Toka, Goff, Superior.

Kahinta—Late, juicy, large, for jam. Pollinizers: Toka, Goff, Lombard (only fair).

Lombard—Late, meaty, large, cans well. Pollinizers: Self fruitful.

Italian Prune—Late, meaty, large, cans well. Pollinizers: Self fruitful.

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Gladiolus Gleanings



By the WISCONSIN GLADIOLUS SOCIETY

Chester Harrison, Waldo, President

Dr. Geo. Scheer, Sheboygan, Vice-President

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

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

Regional Vice-Presidents
Frank Blood, Stevens Point

Fred Hagedorn, Sheboygan

Edwin Ristow, Oshkosh

Ben Robinson, Kenosha

The Wisconsin Gladiolus Show

THE Tenth Wisconsin Gladiolus Show held in the Ripon College Gymnasium, Ripon, proved to be a very attractive show, with about 1,800 entries of high quality glads. In the opinion of many, it was one of the prettiest shows ever held, though not as large as many past shows. Weather conditions were excellent and the blooms were at their best throughout the show.

To Mr. Karl Timm, past president, and his assistant Mr. A. G. Zanto of Markesan, goes the credit of the show's success, as they did a great deal of the work. Others who helped were Noel Thompson, Madison, floor manager; Otto Kapschitzke, Sheboygan, in charge of finances; Walter Krueger of Oconomowoc who did so much for the premium and the classification list; W. E. Menge, Fond du Lac, in charge of judges, and members of the Ripon Garden Club who helped stage the show.

Commercial Growers Exhibit

Mr. Walter F. Miller, Sun Prairie, was again the largest commercial exhibitor. His display was about 40 feet in length, and consisted of baskets, vases, and spike exhibits of all the leading varieties.

Mr. A. S. Haugen of Stoughton was the next largest commercial exhibitor. His exhibit was outstanding because of the perfection of bloom of the flowers shown.

Robinson's Gardens of Kenosha, F. P. Thomas, Kenosha, Chester Harrison, Waldo, Rev. F. W. Heberlein, Briggsville, Walter C. Krueger, Oconomowoc, and N. T. Meineke of Oconomowoc, were the other large growers who exhibited.

Point Winners

Largest premium winners at the show were Chester Harrison, Waldo with 142 points; Walter C. Krueger, Oconomowoc, 113 points; and Frank Thomas of Kenosha, with 84 points.

Picardy was the winning variety at the show. A spike of Picardy exhibited by L. M. Henderson of Waupun, an amateur, was the champion spike. F. P. Thomas, Kenosha, had the best decorative spike, variety La Fiesta.

The best 1939 introduction was the variety Su Ellen shown by Mr. Frank Thomas of Kenosha.

The variety Blazing Star was the best decorative spike in the late introductions class, exhibited by W. H. Sprangers of Waldo.

Beacon exhibited by Rev. J. Schulz of Van Dyne, was the best exhibition type, in the older introductions.

New Era exhibited by Otto Kapschitzke, Jr., of Sheboygan, won the best entry in the decorative type exhibited by an amateur.

There were a large number of late introductions, including seed-

lings exhibited. Walter Krueger, Oconomowoc, won a number of premiums on his seedlings in this division. New varieties of the exhibition type, which won premiums were Margaret Beaton, Shirley Temple, Golden Lancer, Uncas, Arethusa, Pfitzer's Masterpiece, Peggy Lou, Aladdin, Tasman, Rewi Fallu, Rima, Purple Beauty, Early Lavender and Zuni.

Among the decorative type new introductions, the following varieties were the winners: Jersey Queen, Hansel, Prairie Gold, Paradise, New Era, Colonial Maid, Blazing Star, Tweedledum, Constancy Gloaming, Blue Blood, and Redington.

In the large exhibition types, the following varieties won the first prizes: Mammoth White, Dearborn, Miss New Zealand, Picardy, Su Ellen, Heritage, Aflame, Rewi Fallu, Takina, Jubilee, Marmora, and Bagdad.

Many Seedlings Entered

More than 100 new seedlings were exhibited at the show, some of excellent quality. Walter Krueger of Oconomowoc had the champion seedling in the exhibition type, winning on No. 226, while Dr. Geo. Scheer of Sheboygan had the best decorative seedling on his No. 35C-150-06. Both of these growers exhibited a large number of seedlings of high quality. Other seedling exhibitors were: Legion Trial Gar-

dens, Spring Green; F. P. Thomas, Kenosha, Chester Harrison, Waldo; P. E. Hoppe, Madison, and L. C. Wright, Waupun.

Better Seedling Evaluation

A plan for better seedling evaluation was suggested during the show by Mr. Walter Krueger. His plan is to have several meetings of members of the Society during the blooming season at which growers will show their seedlings and have them rated by competent judges. This will help to introduce the really good seedlings, while those not up to standard may be discarded.

20 Spike Tables

The 20 spike table class with artistic arrangement in the center, again attracted attention. A. S. Haugen, Stoughton won first; Chester Harrison, Waldo, second; F. P. Thomas, Kenosha, third; and Robinson Gardens, Kenosha, fourth.

A table display of 25 varieties was also very good. A. S. Haugen, Stoughton, won first, Wm. Neuberger, Reeseville, second, and Chester Harrison, Waldo, third.

Artistic Arrangements

Some very nice arrangements of gladiolus with and without other flowers were shown. Mrs. Ben Robinson, Kenosha, was the largest winner in this division. Other winners were Edwin Ristow, Oshkosh, F. P. Thomas, Kenosha, Harvey Kiel, Sheboygan, and Mrs. J. Martin Johnson, Ripon.

The screens proved very satisfactory as substitutes for shadow boxes. In this class Miss Clare Mears of Ripon, Mrs. Ben Robinson, Kenosha and Mrs. F. P. Thomas, Kenosha, won prizes.

The large silver cup donated by Colonial Gardens, Rushford, Minnesota, for the best basket of gladiolus was won by Chester Harrison of Waldo, on a basket of Picardy.

Section Champion Winners

The best variety and winner in each of the sections of the premium list are as follows:

3 Spike class, F. P. Thomas, Kenosha, on Picardy.

Late Introductions, exhibition type, Walter C. Krueger, Oconomowoc.

Late Introductions, decorative type,

W. H. Sprangers, Waldo, on Blazing Star.

Large Exhibition type, Late introductions, Mr. Frank Thomas, Kenosha, on Su Ellen.

Open Classes, exhibition type, Rev. J. Schulz, Van Dyne, on Beacon.

Open Classes, decorative type, F. P. Thomas, Kenosha, on La Fiesta.

Novice Classes, exhibition type, L. M. Henderson, Waupun, on Picardy.

Novice Classes, decorative type, Otto Kapschitzke, Jr., Sheboygan, on New Era.

Meeting and Banquet

The banquet followed by the annual business meeting was very enjoyable and interesting. Following talks by representatives of the Ripon Advancement Club and entertainment by Ripon talent, president Karl Timm introduced H. J. Rahmlow as toastmaster, who then called on a number of members for their comments on the show and gladiolus varieties.

Election of officers this year was by ballot. The ballot had been sent to all members in advance. Additional nominations were called for from the floor.

In addition to the officers listed under the heading "Gladiolus Gleanings" the following members were elected on the Board of Directors:

A. S. Haugen, Stoughton; Walter Krueger, Oconomowoc; Walter Miller, Sun Prairie; Noel Thompson, Madison; Karl Timm, Markesan, and Wm. Neuberger, Reeseville.

A number of invitations for next year's show were received. However, it was decided to leave the selection to future meetings, and it was pointed out that it is necessary for the Society to consider carefully the matter of finances since during the past few years shows have not been profitable.

A motion was passed that the Recording Secretary obtain information on the advantages of belonging to the New England Gladiolus Society. A report is to be given at the next meeting, which will probably be held in the fall, at which time a decision will be made.

The Wisconsin Dahlia Society cooperated by setting up a table of excellent dahlias at the show. Mr. Joe Heine-man, president of the Wisconsin Dahlia Society, and Mrs. W. Delaporte of Milwaukee, attended as delegates.

Mr. Karl Timm was chosen as delegate to represent the Wisconsin Gladiolus Society at the annual show and banquet of the Wisconsin Dahlia Society to be held at Milwaukee, September 9-10. The show will be held in the

Electric Light and Railway Building Auditorium.

FALL MEETING WISCONSIN GLADIOLUS SOCIETY

**Sheboygan, Sunday, September 17
Association of Commerce Rooms,
2 p.m.**

PRESIDENT Chester Harrison of the Wisconsin Gladiolus Society announces the fall meeting of the Society to be held in the Sheboygan Chamber of Commerce Rooms, Sunday, September 17. He is arranging a very interesting program.

Anyone who has promising seedlings is asked to bring them as it is one of the reasons for having the meeting. Seedlings which were not in bloom at the time of the State Show will be judged at that time. The score card used by the New England Gladiolus Society will be used.

A judging class will also be arranged under the leadership of capable judges. These men will show how to judge according to the Wisconsin Gladiolus Society score card.

Mr. Noel Thompson, Madison, will talk on observations on gladiolus pest control. Other speakers are being arranged for.

Members are urged to **bring varieties of gladiolus introduced since 1935 for exhibition at this meeting.**

The Wisconsin Horticultural Society will show colored slides

(Continued on Page 15)

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Editorials



BOARD OF DIRECTORS MEETS AT BERLIN

THE Board of Directors of the Wisconsin Horticultural Society held their annual summer meeting at Berlin on August 4th this year. Board members and their families spent the forenoon visiting the cranberry marsh of the Berlin Cranberry Company, where Mr. Fred Elenndt, manager, explained how cranberries are grown. This was very interesting to everyone present.

The business meeting was held following a luncheon in Berlin. The secretary reported that now a total of 19 fruit growers associations, 78 garden clubs, 3 state-wide organizations and 1 gardener's association are affiliated with the Horticultural Society, making a total of 101 affiliated associations, with a membership of 4,300.

The Secretary also reported that he spoke at a total of 83 meetings of affiliated organizations between the period of December 1 and August 1.

The Board carefully went over the financial report and adopted a budget for the coming year.

The Board voted that the president appoint a fruit testing committee to make a trip to Minnesota to inspect new varieties of fruit adaptable to Wisconsin. They voted to hold the annual convention at Sheboygan and selected a candidate to receive the honorary recognition certificate of the Society.



Our Endowment Fund

Our Treasurer, Mr. E. L. Chambers, reported that the total amount now in the Endowment Fund of the Wisconsin Horticultural Society is \$1,031.30. At the present time the Society owns Government Bonds in amounts of \$18.75 and \$356.25. The balance of the amount is in a Savings Account at the First National Bank of Madison.

All life membership dues are deposited to the Endowment Fund. Gifts or donations for the Fund are welcomed by the Society. It is hoped to build up this permanent fund during the coming year so that eventually the Society may have a substantial income from the interest to insure its continuation. Some of our Eastern Horticultural Societies have built up very large Endowment Funds over the years, which now insures their continuation as educational organizations.

ANNUAL CONVENTION TO BE HELD IN SHEBOYGAN

THE annual convention of the Wisconsin State Horticultural Society will be held in Sheboygan, Chamber of Commerce Rooms, in November this year, according to the vote of the Board of Directors. Dates will be announced in our October issue. Several speakers of National reputation are being invited to speak on the program.

There will be a fruit show as in past years. Watch for the program in the October issue.

NURSERYMEN EXHIBIT AT THE STATE FAIR

FOUR Wisconsin nurserymen exhibited at the State Fair this year. They contributed a great deal to the beauty of the Horticulture Building with beautiful garden settings.

The awards were as follows: 1st prize, McKay Nursery, Madison; 2nd, Hawks Nursery, Wauwatosa; 3rd, White Elm Nursery, Hartland; 4th, Singer Bros., Milwaukee.

LAWRENCE BIG HILL PARK

DUE to the will of the late A. W. Lawrence, former vice-president of the Wisconsin Horticultural Society, the city of Sturgeon Bay has been given a 14-acre tract of land to be known as Lawrence Big Hill Park.

The land in the park is called the most picturesque in Door County. It contains many beautiful trees.

NOMINATING COMMITTEE APPOINTED FOR OFFICERS WISCONSIN HORTICULTURAL SOCIETY

Notify Committee of Your Choice of Officers

PRESIDENT Marken has appointed the outgoing members on our Board of Directors as the Nominating Committee for the election to be held in connection with our convention in November. The following are the committee members:

Mr. W. A. Toole, Chairman, Baraboo; Mr. R. E. Harris, Warrens; and Mr. N. C. Jacobs, Sawyer

Officers and Directors whose terms expire are Mr. R. L. Marken, President, and the three members of the Board mentioned as the Nominating Committee. A Vice-president must be elected to succeed the late A. W. Lawrence of Sturgeon Bay.

It has been customary for the President and Vice-president to serve for two years, so that Mr. Marken may be renominated. Members of the Board of Directors may not directly succeed themselves, and are elected for 3 years.

Any member of the Wisconsin Horticultural Society may send to a member of the Nominating Committee nearest him, his suggestion for candidates for President, Vice-president or any of the three Board members.

All nominations will close on September 16th in order that the ballot may be printed in the October issue of Wisconsin Horticulture. Voting will be done by mail. The ballot will be printed on this page.

The constitution requires that at least two candidates be nominated for each position on the Board of Directors.

People's minds are changed through observation and not through argument.—Will Rogers.

MISTAKE IN IDENTIFYING COTONEASTER SOONGORICA

CONSIDERABLE interest has developed in Wisconsin in a shrub mistakenly called *Cotoneaster soongorica* because of the beauty of plants brought into the state about six years ago as a result of our plant testing work. The editor has exhibited at a number of meetings branches of the shrub growing in his backyard. The branches when loaded with scarlet berries were most beautiful. As a result, *Cotoneaster soongorica* was recommended for further trial by Plant Testing Committees during the past few years. Certain nurserymen obtained seed from the editor's shrub, and it is being propagated.

Shrub is *Cotoneaster Multiflora*

Because some of our members in purchasing what they thought was *Cotoneaster soongorica* found that it was something else, the editor thought it best to check up on the shrub in his yard and sent a branch to the Arnold Arboretum in August.

A letter from Mr. Alfred Rehder of the Herbarium states that it is *Cotoneaster multiflora*. It is very similar to *soongorica*, but differs chiefly in the glabrous leaves, and is of somewhat looser, more graceful habit.

Furthermore, the variety *soongorica* has not been entirely hardy at the Arnold Arboretum, suffering some winter injury during severe winters. That fact is what caused the editor to question his variety because here in Madison *multiflora* has been entirely hardy.

It appears therefore that *multiflora* is even more desirable for Wisconsin conditions than *soongorica*, and we do recommend this shrub for those who desire a variety which grows from 8 to 10 feet tall. It has white flowers in spring, and is loaded with red fruit in September and October.

IRIS WINNERS FOR 1939

THE American Iris Society has made its awards of the best varieties for 1939. The following are the awards.

Dykes Medal Winners

First Choice, *Rosy Wings* by Gage. Second Choice, *Naranja* by Mitchell, and *Snow King* by H. P. Sass. (Tie vote.)

Awards of Merit

The following American varieties of tall bearded iris received awards of merit. *E. B. Williamson*, by Cook; *City of Lincoln* by H. P. Sass; *Exclusive* by Grant; *Angelus* by Egelberg; *The Red Douglas* by J. Sass; *China Maid* by Milliken; *Chosen* by White; and *Mount Cloud* by Milliken.

Other Than Tall Bearded. *Southland* by H. P. Sass; *Grace Mohr* by Jory.

Foreign Varieties: *Mme. L. Aureau* by Cayeux; *Louvois* by Cayeux; and *Mme. M. Lassailly* by Cayeux.

Honorable Mention

The following tall bearded varieties received honorable mention: *Answer*, *Blue Spire*, *Bronzino*, *California Trek*, *Champagne Glow*, *Coronet*, *Elsa Sass*, *Fair Elaine*, *Gallant Leader*, *Glen Ellen*, *Golden Majesty*, *Great Lakes*, *Matula*, *May Day*, *Monadnock*, *Morning Song*, *Mt. Washington*, *Mrs. Silas B. Waters*, *Red Bonnet*, *Rookwood*, *Royal Coach*, *Ruth Pollock*, *Snow Flurry*, *Song of Gold*, *Spun Gold*, *Stella Polaris*, *Symbol*, *Thelma Jean*, *Treasure Island*, *Yellow Jewel*.

Hybrids and Species: *Nada*, *Ormohr*, *Some Love*.

Highly Commended

The following varieties were highly commended: *Honey*, *Caroline Burr*, *Pink Ruffles*, and No. 39-74.

Home and Garden

Mrs. C. E. Strong

"There is still the thrill of venture waiting on the frontiers of garden building, new and more expressive plant materials, new ways of growing, new planning combinations, all there for you, it may be to fail with at times, but in overwhelming compensation to succeed with, and in the succeeding, to open new paths of advance."—From the Catalog of REX PEARCE.

The Soil

ONE of the very good things taught in the average Garden Club—both through study and example—is the need of soil preparation—and why the average garden will never really be a success until the soil is gotten in a proper condition.

So many times in the past, the gardener has thought first and only of the plants. In a number of cases known personally to me the border was not worked up at all. Holes were dug in the hard clay soil with a post auger; into these holes the roots were crammed—the gardener feeling they had done everything possible—because they watered the plants, or shrubs every day. They were very sure the nurseryman had given them poor plants. When it was suggested that six inches of coal ashes or sand should have been added to the soil, also humus and fertilizer, then spaded deeply and worked up well—they asked if you had any idea how hard that ground really was, it was like working in concrete even with a post auger. You did not doubt their word, for the whole yard was the solid clay taken in digging the basement, spread out and smoothed down and tramped over while wet. When we said that the shrubs and plants showed this very plainly by dying



promptly — they were usually quite amazed. They learned but it was rather expensive. Now they are learning how to prepare the soil first—also where to plant and what to plant. More and more rarely do we see spruce and Ponderosa pines used as foundation planting or elms, maple and birch trees planted thickly on a 20 by 20 front lawn. And by the way—just because "YOU" are a pretty wise and good gardener is no sign that a garden club will not be good for you—actually you will be surprised how many things you will learn, also your experience will help others. You will get a real thrill out of seeing other gardens grow in beauty because you gave kindly help and encouragement. If you do not belong to a club, hurry up and enroll. If there is no Garden Club in your town, start one.

Phlox

Have you been dissatisfied with the clumps of Phlox in your borders, smaller heads and blooms.—No doubt they need digging up. The ground should be worked up deeply and thoroughly, plenty of well moistened peat added, also some well rotted barnyard ma-

nure—or failing that, a good commercial fertilizer. When replanting the Phlox if you separate into small clumps, they will do much better. Water thoroughly and mulch with peat. When the Garden Club visits the garden—you will be able to "Point with pride."

Try These

Have you grown *Achillea Filipendula*—it is the most striking member of the family. It has good foliage and the large flat heads of yellow are long lasting. Does not spread all over the border.

The white *Physostegia* is another perennial very good for August bloom, both as a cut flower and for show in the border. This variety seems also to lack the bad habit of taking up all the space available.

Cassia, with its tall shrub like stems and heavy heads of yellow, is becoming a favorite in many gardens. It is quite easily grown from seed.

Vitex

If you have not as yet grown the *Vitex*—both *Macrophylla* and *Agnus Castus*, try them. I am sure you will be delighted with this lovely blue or lavender flowered shrub, they have a long blooming season at a time when there are few other shrubs in bloom. The foliage is good at all times.

Hemerocallis

It looks as though the *Hemerocallis* would help to solve the problem of an everblooming per-

ennial border. They bloom from the middle of May 'till the first part of September. That is doing fairly well for one family. And the new colors are something to dream about. But the very nicest thing about this family is—they are not the least bit fussy as to where they are planted. Also, bugs, worms, aphids, seem to scorn them, now isn't that nice?

You Will Like These

Have you thought of adding a clump or two of *Eremurus* in a somewhat sheltered spot in your garden, their bloom is breath-takingly beautiful.

Have you planted those new Peonies you admired so much in the spring? They need to get into the ground for as long a period of fall root growth as possible, if you expect them to do well for you the coming year.

If you have not ordered those bulbs, you may be disappointed—also Narcissus and Daffodil bulbs like to be planted early. Tulips are not so particular.

Repot and look after the plants you wish to grow in sunroom or windows.

Have you kept your pots of house Azaleas well watered and in a growing condition? If so, there will no doubt, be plenty of bloom, and do not let them get dry after bringing into the house, they like a little liquid manure, also.

A very satisfactory Fern for the house (if you would like a large showy variety) is the *Polypodium*. Its large blue green foliage is very handsome.

Mom's Part

Sonny—"Mom, we're going to play we're elephants at the zoo and we want you to help us."

Mom—"Why, what in the world could I do to help, Son?"

Sonny—"Well, we want you to be the kindhearted lady who feeds them peanuts and candy."

GLADIOLUS SOCIETY NEWS

(Continued from Page 11)

of new varieties and seedling gladiolus taken during the State Show. These slides will be loaned to any member for use at meetings. This will be explained at the meeting.

SEEDLINGS BY DR. SCHEER WIN AT CONNECTICUT SHOW

A LETTER from Mr. P. Vasaturo, Seedling Committee Chairman for the New England Gladiolus Society, states that their committee reviewed all seedlings at the Connecticut Gladiolus Show, held at Manchester, Connecticut, August 11th. Mr. Vasaturo states: "Your Wisconsin Gladiolus Society members will be interested to know that of the four awards of commendation for seedlings shown for the first time, at the Connecticut show, seedlings by Dr. Geo. Scheer of Sheboygan won three awards. He took the two large decorative certificates on a deep and a pure pink, both with distinctive commercial quality, and of clear colors. His third award was on a scarlet which attracts attention. It has a fine sheen and is one of the largest ruffled glads we have seen. These blooms were grown for Dr. Scheer by Wendell W. Wyman of Sharon Massachusetts and traveled one hundred miles on a hot day before being judged."

THE NEWEST STATE GLADIOLUS SOCIETY

A LETTER from Mr. J. H. Odell of the New England Gladiolus Society states that Mr. F. L. Worcester of Richglad Gardens Richmond, Virginia, is organizing the newest State Gladiolus Society in the U.S.A., the old Dominion Gladiolus Society of Virginia.

DR. D. L. FLOHR

DR. D. L. FLOHR of Columbus, for many years an enthusiastic gladiolus grower and a member of the Wisconsin Gladiolus Society, passed away on Saturday, July 29th.

The Wisconsin Gladiolus Society passed a resolution at their annual summer meeting which reads as follows:

WHEREAS, the Giver and Maker of all things has seen fit to call from our midst our beloved friend and fellow Gladiolus enthusiast, felt by all those who came in contact with him both by his relatives and friends, now

THEREFORE BE IT RESOLVED, By the Wisconsin Gladiolus Society, to extend to the family of Dr. D. L. Flohr our sympathy in this time of bereavement. Passed unanimously.

PEAT MOSS FOR ROSES

EXPERIMENTAL work at the Geneva Experiment Station has shown that the addition of peat moss to the planting hole when planting roses, is of considerable value.

The new root development and growth has been more active with plants in peat soil mixtures than in soil alone, regardless of the moisture content. Early root development influenced also the total shoot growth and particularly the flower production.

Plants grown in the peat-soil mixture produced their first flowers from seven to fifteen days earlier than those grown in pure soil.

This work was first carried on by the Geneva Station in planting young fruit trees. In these experiments there was considerable increase in the growth of the young trees when peat was mixed with the soil in planting. One pailful of peat was simply poured into the hole while the hole was being filled with soil. No special care was taken in making the mixture.

Wisconsin Garden Club Federation News

Mrs. E. A. St. Clair, President
2418 N. 65th St., Wauwatosa
Mrs. J. Martin Johnson, Hon. President
529 Woodside Ave., Ripon
H. J. Rahmlow, Cor. Secretary
Madison

Mrs. R. E. Kartack, Rec. Secretary
115-10th St., Baraboo
Mrs. Chas. Schuele, 1st V.-President
Oconomowoc
Mrs. C. H. Braman, 2nd V.-President
Waupaca

THE NATIONAL AND STATE CONVENTION

Wisconsin Federation Host to
National Council

Milwaukee—Pfister Hotel
October 11-12-13

WE are all looking forward to the convention of the Wisconsin Garden Club Federation and the semi-annual meeting of the National Council of State Garden Club Federations which will be held in the Pfister Hotel, Milwaukee, October 11-12-13. We are to entertain several hundred garden club members coming from all sections of the United States and Bermuda as well as the new federated club of Montreal, Canada, now belonging to our National Council.

Our committees have been working hard to prepare an attractive program, one which is not too long, and varied enough to make it interesting and worthwhile. The program will be found in this issue.

We should all try to attend this conference because it will be a pleasure to meet and associate with some of the finest people in the country, garden club members who are striving to make this country more livable and beautiful.

We have made the registration fee as low as possible. The fees will be as follows: If sent in before October 1st, for entire three days, \$7.50. This includes three luncheons, the informal dinner, the banquet, and two teas. After October 1st, \$10.00. Without meals the fee is \$3.00.



Write the Wisconsin Horticultural Society, 424 University Farm Place, Madison, immediately for your registration blank. All instructions will be given.

If you are attending the first day—Wisconsin Day only—the fee will be \$1.00 but the registration need not be made in advance.

CENTRAL REGIONAL DINNER

ON Tuesday, October 10th, at 6:30 p.m. the Central Regional dinner will be held. This will be followed by a forum discussion of various committees. The dinner is \$1.25 per plate. Those not wishing to attend the dinner may come later at 7:30 p.m., to attend the program. Mrs. Walter P. Morton, Vice-president of Indiana will preside. The states in the Central Region are Michigan, Indiana, Illinois, Missouri, Iowa, and Wisconsin. Here is an excellent opportunity to learn

what our neighbors are doing in all phases of garden and conservation work.

A small flower show will be held on the mezzanine floor of the Hotel Pfister which will be put up by an especially appointed committee. Garden Club members and their Presidents are invited to send in the names of their club's best exhibitors to Mrs. Robert Schissler, Exhibition Chairman, 2148 N. 74th Street, Wauwatosa, who will be glad to send a schedule to the member wishing to exhibit.

—Mrs. E. A. St. Clair, President.

OUR SUMMER MEETING

ALL members of the Wisconsin Garden Club Federation who attended the splendid summer meeting at Wausau wish to thank the Wausau Garden Club members for a very pleasant outing. We owe a special vote of thanks to Mrs. Ray Sell, president of the Wausau Garden Club, to Mrs. Peter Portman, Chairman, for their charming hospitality and the well organized program. These meetings are a happy get-together and every one was glad to be there.

Next year our School Children's Forest is to be dedicated, and our chairman, Mrs. Wilda Quimby of Racine is already making plans trying to arrange our summer meeting somewhere near the Nicolet Forest. This should be an attraction for all of our members.

—Mrs. E. A. St. Clair, President

SEMI-ANNUAL MEETING
NATIONAL COUNCIL OF STATE GARDEN CLUBS, Inc.
ANNUAL MEETING WISCONSIN GARDEN CLUB FEDERATION
PFISTER HOTEL, MILWAUKEE

October 11-12-13, 1939

OCTOBER 10—CENTRAL REGIONAL MEETING

6:30 p.m.—Dinner in Crystal Room. Open to all garden club members registering. Reports by State Presidents. Round table discussion. Price \$1.25.

OCTOBER 11—WISCONSIN DAY

- 8:30 a.m.—Registration.
 9:30 a.m.—What we have been doing in Wisconsin. Fern Room. Reports by State Committee Chairmen. Club activities and programs reported by Mrs. E. L. Sevringhaus, Madison.
 Meeting Board of Managers, Wisconsin Garden Club Federation. Mirror Room. Consideration of all business matters to come before business meeting.
 11:00 a.m.—Annual business meeting and election of officers Wisconsin Garden Club Federation.
 12:30 p.m.—Luncheon introducing visiting National officers. Crystal Room.
 2:00 p.m.—Why I like the Gardens of My State Best. 10 minutes each. Regional Vice-Presidents, National Council.
 3:00 p.m.—Lilies,—“Their selection and culture.” Colored slides. Merle Rasmussen, Oshkosh, Wisconsin Horticulture Chairman.
 3:30 p.m.—Report of the Flower Show Judges. Mrs. Wilma Weart, Oconomowoc.
 6:30 p.m.—Horticulture Dinner. Crystal Room, Pfister Hotel. Flower Poems with Music.
 Our Conservation Needs. Prof. Aldo Leopold, Professor of Wild Life Management, University of Wisconsin.
 Conservation. J. N. (Ding) Darling, Des Moines, Iowa. Fern Room.

OCTOBER 12—THURSDAY

- 9:30 a.m.—National Council Business meeting. Red Room. Report National Committee Chairmen. Report of Treasurer, Resolutions, Budget Committee, and Bulletin Editor.
 11:00 a.m.—Flowers and landscapes of Wisconsin.
 11:30 a.m.—Leave for Brown Deer Park Club House, along Parkways.
 1:00 p.m.—Luncheon at Brown Deer Park.
 2:30 p.m.—Leave for Wauwatosa, tour of Parkways along route. Program at Wauwatosa Woman's Club.
 3:30 p.m.—A Capella Choir, Wauwatosa High School. Gladys Garness, Director.
 3:45 p.m.—Play, Pa's Seed Flats. Author and Director, Mrs. Ella D. Iverson. 15 minutes.
 4:00 p.m.—Kaffee Klatsch.
 7:00 p.m.—Banquet. Hostesses, Past Presidents Wisconsin Federation. Bird calls set to music. Whistling. Mrs. J. E. Rueth, Milwaukee.
 Speaker, Alfred C. Hottes, “Garden Legends,” Des Moines, Iowa.

OCTOBER 13—FRIDAY

- 8:30 a.m.—Committee conference.
 10:00 a.m.—Business session National Council.
 Report of Resolutions Chairman.
 11:00 a.m.—Talk by Alfred Hottes.
 12:30 p.m.—Luncheon—Crystal Room.
 2:00 p.m.—Visit gardens and tour along Lake Drive.
 4:30 p.m.—Tea at Downer College.

COMMITTEE CHAIRMEN

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|--|---|
| Mrs. E. A. St. Clair, President, Wisconsin Garden Club Federation, General Chairman. | Mrs. Charles Braman, 2nd Vice President, and Mrs. R. E. Kartack, Secretary and Treasurer, Wisconsin Day Registration. |
| Mrs. Roy Sewell, President Milwaukee District, Co-Chairman. | Miss Alma Hoffman, Art Institute, Transportation. |
| Mrs. Charles Schuele, Vice President, Finance Chairman. | Mrs. Edward Corrigan, Wauwatosa, Radio and Tour. |
| Mrs. J. J. Simon, Hillcrest Garden Club, Registration Chairman. | |

- Dr. Carl Schwendener, City Club, Publicity.
 Mrs. H. M. Swigart, Green Tree, Hospitality, National Officers.
 Mrs. John LeFeber, Blue Beech, Music.
 Mrs. W. F. Roecker, City Club, Information.
 Mrs. Robert Schissler, Hillcrest, Exhibition.
 Mrs. John Dexheimer, Menomonee Falls, Souveniers.
 Mr. Anthony Wuchterl, Wauwatosa, Design.
 Mrs. James Livingstone, Blue Beech, Visiting Gardens.
 Mrs. C. E. Strong, West Allis, Room Flowers.
 Mrs. Ralph Hibbard, Blue Mound, Badges.
 Mrs. George Young, Countryside, Boutonnaires.
 Mrs. Ella D. Iverson, Wauwatosa, Playlet.

NOMINATING COMMITTEE REPORT

THE Nominating Committee for officers of the Wisconsin Garden Club Federation makes the following incomplete report. The committee was unable to contact all candidates and receive a reply in time for this issue. The committee will welcome further suggestions from members.

For President: Mrs. Chas. Schuele, Oconomowoc.

For 1st Vice-President: Mrs. C. H. Braman, Waupaca.

For 2nd Vice-President: Mrs. Frank Quimby, Racine, and Mrs. E. L. Sevringhaus, Madison.

Recording Secretary-Treasurer: Mrs. E. L. White, Fort Atkinson.

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Decorations

Mrs. Chester Thomas, Blue Beech, Mrs. J. Martin Johnson, Ripon, and Miss Merle Rasmussen, Oshkosh, Banquet. Mrs. Arthur Jaeger, North Shore, Horticulture Dinner.

Mrs. Wm. Bowers, Past President, Blue Beech, Downer College Tea.

Mrs. Henry Freudenberg, Blue Mound, Mrs. F. Thwaites, Mrs. Ed. Haasch, Wauwatosa, and Mrs. George Adami, Milwaukee Dental Auxiliary, Wauwatosa Tea.

Mrs. O. Wolters, Sheboygan, Wednesday Luncheon (gourds).

Mrs. Max Schmitt, Wauwatosa, and Mrs. Arno Krieger, Wauwatosa, Brown Deer Luncheon (wild flowers).

Mrs. W. F. Roecker, City Club, and Mrs. Arthur Taylor, Art Institute, Friday Luncheon.

Mrs. George Schroeder, Elm Grove, and Mrs. Kriz, Elm Grove, Perennial Breakfast.

Mrs. James Johnson, Wauwatosa, Regional Dinner.

SEND FOR CONVENTION APPLICATION BLANKS

IF you plan to attend the National Council of Garden Club Federations meeting in Milwaukee on October 11-12-13, write at once to the Wisconsin Horticultural Society, 424 University Farm Pl., Madison, for your application blank.

This blank, together with the proper fee, must be sent in before October 1st. After October 1st the fee will be increased to \$10.00.

Fees cover cost of banquets, luncheons, etc.

All Clubs Should Send Delegates to Board of Managers Meeting

Every garden club affiliated with the Wisconsin Garden Club Federation should send a delegate to the meeting of the Board of Managers to be held at the Pfister Hotel on October 11, as stated in the program. Clubs with less than 50 members are entitled to one delegate; clubs of more than 50 members are entitled to two delegates.

The Board of Managers act on all matters of business.

There will be no delegates giving reports this year, because of lack of time. Instead, each club President has been asked to send a written report to the State Program Chairman, Mrs. E. L. Sevringhaus, 3914 Cherokee Drive, Madison.

HALF-YEAR DUES ACCEPTED BY FEDERATION

GARDEN Club members who wish to join the Wisconsin Garden Club Federation and the Horticultural Society for the balance of 1939, may send in half-year dues for the balance of this year. Half-year dues are 30c per member, of which 20c goes to the Wisconsin Horticultural Society for membership and this magazine which is sent until the March issue, thereby giving members January, February and March in which to pay next year's dues.

Due to the cost of returning overpayments and the labor involved, the Board has authorized the Recording Secretary-Treasurer, Mrs. R. E. Kartack, 115-10th Street, Baraboo, to retain all over-payments of dues. In other words, if you send in 50c, the regular annual dues, the entire amount will be kept by the Federation, but credit given only for the balance of this year.

SUPERIOR CLUB ADDS TWO NEW AUXILIARIES

TWO new Auxiliaries have been added to the Garden Club of Superior Auxiliaries No. 8 and 9. This makes the total membership to the Superior Club, 213.

The following are the officers of the two new Auxiliaries:

Parkland Auxiliary: President, Mrs. Ed. Thompson; Vice-president, Mrs. Ervin Alberts; Sec'y-treas., Mrs. Olive Wilkinson.

Gordon Auxiliary: President, Mrs. Roy Lawler; Vice-president, Mrs. G. W. Welch; Sec'y-treas., Mrs. Roy Guest.

The Garden Club of Superior had charge of the flower show at the Tri-State Fair on August 14-20. One entire building was devoted to the show.

SUPERIOR CLUB HOLDS WILD FLOWER SHOW

Mrs. H. Saremba, Itasca

The Wild Flower Garden Club, Auxiliary No. 4 of the Superior Garden Club, held a wild flower display in June at the Franklin School. The exhibits included many varieties of wild flowers.

Members brought in a number of wild flowers from the farms of the members. Protected wild flowers were potted and taken back to the farms after the show and replanted.

Another show was held during our Tri-State Fair. Many people, on looking over the wild flower exhibit exclaimed that they never knew there were such pretty wild flowers. The exhibit was really educational.

I am sending a little poem my daughter wrote for our garden club:

To Wild Flowers

It may be just one touch of color
Deep in a forest dark:
Or there may be uncounted number
Scattered brightly all over a hill:
Or a few may be hidden among grasses
Which border a tinkling Stream.
And some will make a grand pattern
Which will cover a sun-kissed field.
But wherever there's one or many
Placed just in the very best spot
We know its the work of the Creator
Who for us this beauty has wrought.

WISCONSIN DAHLIA SHOW

THE Wisconsin Dahlia Show will be held in the Milwaukee Public Service Bldg. Auditorium on Saturday and Sunday, September 9-10.

All Dahlia fans are invited to attend this beautiful show. There will be a class for non-members, so anyone is welcome to exhibit.

The Garden Club Flower Show at The State Fair

A GREAT deal of improvement was noted in the flower show staged by member clubs of the Wisconsin Garden Club Federation at the Wisconsin State Fair, August 19-21. All classes were filled due to the good work of Mrs. W. F. Roecker, chairman of the garden club section of the show.

The Little Gardens

Especially notable this year were the three little gardens, built by garden clubs in Milwaukee County. This class called for a small garden illustrating the use of bird bath, bench, sun dial, pool, fireplace, or other garden features. First prize was won by the Juneau Heights Garden Club, the only all men's club in the Federation. It consisted of an excellent border of tall and dwarf yellow marigolds, lavender asters, and white sweet alyssum. A gazing globe was the garden feature. The design and color scheme were excellent.

Second place went to the West Allis Garden Club on a white garden with a bird bath. Excellent Junipers tied the flower border to the background. The border consisted of white zinnias, balsam and ageratum, and was well designed.

Third place went to the Wauwatosa Garden Club on a strictly formal white garden. In front of the evergreen background were two Snowberry shrubs, and the flower border consisted of white delphinium, snapdragons, vinca and petunias.

Tables of Seven Arrangements

The class of tables of seven flower arrangements were excellent. Many beautiful bouquets were shown. Judging was by the merit system.

In the *tall arrangements* the Wauwatosa Garden Club won an *excellent* award on a beautiful table of flowers ranging from yellow to dark brown. Two arrangements were in large brown jugs.

The La Belle Garden Club of Oconomowoc was given a red ribbon on a gladiolus table. Some of the arrangements were in gold digger's washing pans brought from Colorado by Mrs. Chas. Schuele.

An award of *Good* was given the Kenosha Garden Club on tall arrangements of gladiolus, phlox, tritomas, delphinium, foxglove and zinnias.

In the class *seven arrangements of flowers and foliage in vases*, the Kenosha Garden Club won a blue ribbon on a table in shades of pink to red. It was outstanding because of harmonizing colors and excellence of arrangements.

The Elm Grove Garden Club also won a blue ribbon on an excellent table of yellow arrangements. It was charming with a light green cloth and all yellow flowers.

A red ribbon was awarded the table of the Wisconsin Garden Club Federation and a white ribbon to the Sum-Mer-Del Garden Club.

New Varieties Tables

A most interesting class was the table of *nine arrangements of newer varieties of annuals and perennials*. This class was so interesting that it should be repeated in another year.

The Women's Dental Auxiliary Garden Club of West Allis won a blue ribbon on a table of Hollywood Star petunias, pink Cleome, Watermelon pink zinnias, Polar Bear zinnias, new marigolds, and petunias, Crimson Bidder nicotiana, red annual gaillardia, scabiosa zinnia and dahlia Easter Greeting.

A blue ribbon was also won by the Blue Beech garden club on a table of Apple Blossom petunia, Indian Spring hollyhocks, Zinnias linarius, Phlox Lillian, Leonard daisy, Madam Hedwick phlox, odorless marigolds, Hollywood Star petunias, and William DuPont petunia.

A red ribbon was won by the State Garden Club Federation. This table consisted of Clematis texensis coccinea, zinnia Cupid, zinnia Fantasia Stardust and

white, pink Cleome, Cynoglossum, firmamento, zinnia Watermelon pink, Buddleia Fortune, Scabiosa flowered zinnia, and tuberous rooted begonias.

Other clubs exhibiting in these classes were the Milwaukee County Horticultural Society and the Juneau Heights Garden Club.

Shadow Boxes

Shadow box arrangements were very good this year. In the class *arrangement of foliage*, *excellent* ratings went to the Blue Beech Garden Club and the Wauwatosa Garden Club. *Very good* to Hillcrest, and *Good* to Women's Dental Auxiliary.

Fruit or vegetable arrangement. Excellent: Art Institute Garden Club. *Very Good*, La Belle Garden Club, Oconomowoc; *Good:* Oconto Falls Garden Club, and Wauwatosa Garden Club.

A Flower Picture, using annuals or perennials. Excellent: Elm Grove Garden Club and Oconto Falls Garden Club. *Very Good:* Kenosha County Garden Club and Racine Garden Club. *Good:* Wisconsin Garden Club Federation, Menomonee Falls Garden Club, and Blue Mound Garden Club, Wauwatosa.

Dinner Tables

Informal Garden Luncheon Table. Excellent: City Club Garden Group, Milwaukee. *Very Good:* Wauwatosa Garden Club, Blue Beech Garden Club, and Blue Mound Garden Club, Wauwatosa. *Good:* Women's Dental Auxiliary, West Allis and Oconto Falls Garden Club.

Informal Dinner Table, showing use of one color. *Excellent:* Art Institute Garden Club, Milwaukee and the Blue Mound Garden Club Wauwatosa. *Good:* Wisconsin State Federation of Garden Clubs.

Buffet Table for Fall, using only fruit, vegetables or gourds. *Excellent:* Art Institute Garden Club, Milwaukee. *Very Good:* State Garden Club Federation, Blue Mound Garden Club, Wauwatosa, and the Women's Dental Auxiliary Garden Club, West Allis. *Good:* La Belle Garden Club, Oconomowoc.

Breakfast Table set with flowers for decoration. Excellent: Blue Mound Garden Club, Wauwatosa and the Blue Beech Garden Club, Milwaukee. *Very Good:* Art Institute Garden Club, Milwaukee. *Good:* Wauwatosa Garden Club.

In My Garden

THERE is no substitute for **perennial Phlox** for continuous bloom in the border during the hot summer months. In spite of the heat and dry weather, our Phlox bloomed week after week this season. One crop of florets would fade and die, and it looked as if the plant was through blooming, when new flower buds appeared and soon there was a new crop of florets.

Miss Kenosha still holds first place among the 25 or more varieties of Phlox in our garden. It is the tallest, most stately and longest blooming salmon-pink we have. We cannot help but recommend that you write Oscar Hoefler, Kenosha, for some plants this coming year. He is the originator.

A large number of beds of **Vinca rosea**, the annual Vinca which grows so well from seed, were noticed this year. The rose colored and the white with rose center appear to be the most popular. It is an excellent bedding plant. The leaves are dark green, glossy and healthy, and it blooms for several months.

The **Tuberous Rooted Begonias** are still our favorite flowers for the shady spot. Many begonia fans have become interested in this beautiful flower during the past few years, and now we hear its praises everywhere. Occasionally a complaint is heard that the plants are not doing well. It must be remembered that they require a cool situation and plenty of moisture to do well. In a rather dry place, and if the sun shines on them during mid-day, they will not be at their best.

Occasionally growers have trouble with decaying bulbs. This may be caused from slight injury to the bulbs or too much mois-



ture. Where there is considerable trouble of this kind, it might be well to surround the upper part of the bulb with sharp sand which dries out quickly and protects the bulbs from decay organisms.

Leaf Spot and Mildews. During September there may be more rain than during the summer. The nights are longer and cooler. The dew stays on the leaves long in the morning. These conditions are ideal for mildews and leaf spot on our Phlox, zinnias, roses and other flowers. Remember that **after you see the diseases on the leaves, it is too late.** Better start now dusting again with the sulphur dust. If your dust is the sulphur-rotenone mixture, use it because it is just as good. The rotenone will take care of most insects which may be troublesome.

Iris—Are your iris rhizomes becoming smaller as the plant becomes older? This often happens. The rhizomes so crowd each other that they are unable to obtain sufficient food for all of them to develop to their best, and so they actually deteriorate. It is then best to dig up the entire clump, tear it apart carefully, retaining as many of the long roots underneath as possible, and replant the

rhizomes after scraping off any diseased portions, and throwing away any superfluous rhizomes from old flowering stems. Before setting them back in the soil, it is well to spade in any organic fertilizers available, well rotted manure or wheat bran, and other fertilizers of this type.

Peonies. September and until freeze-up is the time to plant peonies. Order your peonies now for delivery the last half of this month or early October. Prepare your soil deeply and add organic fertilizer if possible. Plant the peony roots so that the eyes are not more than two inches below the level of the ground. Just before freeze-up ridge the soil up over the plants to keep off standing water and prevent the roots from heaving. If you plan on dividing your peonies, now is the time to do it.

H. J. Rahmlow.

BORROWING

The next time someone wants to borrow something and you don't want to lend it, just remember the case of the neighbor who wanted to borrow grandpa's new rope. The story, according to the news letter of the Indiana Beekeepers Association, goes as follows:

"When I was a little boy," relates Old Timer, "A neighbor came over to borrow grandpa's new rope. And grandpa says: 'No, I've got to use that rope today to tie up some sand.' After the neighbor left I says to grandpa: 'Grandpap, you know very well you can't tie sand with a rope.'" And grandpa laughed and said: 'Sonny, you jist remember you can do purt nigh anything with a piece of rope if you don't want to lend it.'



Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

OFFICERS

A. J. Schultz, Ripon, President
Walter Diehnelt, Menomonee Falls,
Vice-president

H. J. Rahmlow, Madison, Cor. Sec'y.
Mrs. E. Voigt, Box 60, Menomonee Falls,
Recording Secretary-Treasurer

DISTRICT CHAIRMEN

S. P. Elliott, Menomonee
N. E. France, Platteville
Geo. Jacobson, Kaukauna
Ivan Whiting, Rockford

The Honey Exhibit at the State Fair

THE Wisconsin State Fair may rightly lay claim to having the finest and largest exhibit of bees and honey of any Fair on the American continent. We have seen quite a few State Fair exhibits and the great Toronto Fair in Canada. We have heard about a great many more honey exhibits, but no where have we heard of or seen an exhibit housed in a building alone and with thirteen large booth exhibits in addition to other classes.

The County booths were eliminated this year and only booths by individual beekeepers were shown. They were judged under the new "Merit System" devised by the Wisconsin Horticultural Society for judging exhibits at flower shows. Scoring was done under the following score card:

"Quality of honey, 20 points; Quality and completeness of other exhibits, 20 points; Sales appeal and practical value of honey containers and labels, 20 points; Color harmony and attractiveness of decorations, 20 points; Stop and look appeal of the exhibit, 20 points.

The result was surprising. As a whole the booths were the best ever shown at the Fair, and those in the top rank had features which showed unusual skill in designing.

Awards in the individual booth classes were as follows:

Excellent: Blue ribbon. John Kneser, Hales Corners; Frank Johnson, Milwaukee; Mrs. Lee Shultis, Reedsburg.

Very Good: Red ribbon. Walter Diehnelt, Menomonee Falls; J. and M. Francis, West Allis; Edward Ranum, Mount Horeb; Ralph Raschig, Milwaukee; Gilbert Schultz, Reedsburg.

Good: White ribbon. Franklin Brown, Milwaukee; Lawrence Figge, Milwaukee; Charles Pritchard, Wisconsin Rapids; John Rahmlow, Madison.

Fair: Pink ribbon. V. G. Howard, Milwaukee.

Individual Extracted Honey Exhibits

Winners in this class were as follows: 1st prize, Walter Diehnelt, Menomonee Falls; 2nd, John Kneser, Hales Corners; 3rd, Lawrence Figge, Milwaukee; 4th, Gilbert Schultz, Reedsburg; 5th, Mrs. Lee Shultis, Reedsburg; 6th, Edward Ranum, Mount Horeb; 7th, Charles Pritchard, Wisconsin Rapids.

Individual Comb Honey Exhibits

1st prize, Walter Diehnelt; 2nd Lawrence Figge; 3rd, John Kneser; 4th, Gilbert Schultz; 5th, Mrs. Lee Shultis; 6th, J. and M. Francis.

Extracted Honey

The exhibit of 12 one pound jars of extracted honey was one of the finest ever shown at the Fair. There were 8 entries in this class. The honey was of unusually light color and heavy body this year. Winners were: 1st prize, A. L. Kleeber, Reedsburg; 2nd, Edward Ranum, Mount Horeb; 3rd, Charles Pritchard, Wisconsin Rapids; 4th, Mrs. Lee Shultis, Reedsburg; 5th, John Kneser, Hales Corners; 6th, Walter Diehnelt, Menomonee Falls; 7th, J. and M. Francis, West Allis; 8th, John Rahmlow, Madison.

Culinary Department

There was a nice exhibit of cakes, gingerbreads, drop cookies, etc. Winners were Mrs. Wallace Diehnelt, Mrs. Edward Ranum, Mt. Horeb, Mrs. Millie Francis, Mrs. V. G. Howard, Mrs. Anna Harris, Mrs. Lee Shultis, Mrs. George Rapps, Milwaukee, and Mrs. Charles Pritchard, Wisconsin Rapids.

FALL WORK WITH THE BEES

THE beekeepers year really starts in the fall. If we neglect to give the bees proper conditions in the fall, we will have weak colonies and a poor crop the next season.

What are these proper conditions? We used to think that all the bees needed for wintering was honey or sugar syrup. We now know that pollen is just as important for strong spring colonies as plenty of the sweets.

Speaking of wintering bees, many beekeepers have the mistaken idea that bees hibernate or become almost dormant during the winter. Several writers in National bee journals recently have stated, "We want our bees to be as quiet as possible all winter."

Are Bees Quiet in Winter?

Could we keep our bees quiet all winter? Those of us who have wintered in the cellar, and have looked in the entrances in mid-winter have noted that the bees seemed to be in a "resting state," very quiet. But how about the center of the cluster? Experiments conducted both in Wisconsin and Wyoming have shown that the temperature in mid-winter in the center of the cluster is about 93 degrees F. While there is a period of quiet along about October, the queens stopping egg laying, it has been found that beginning about January, the queen starts again to lay eggs in this center cluster. If there is pollen as well as honey or sugar

syrup present, these eggs are hatched and mature bees raised. If no pollen is present, a few bees may be raised, probably from body reserve of the adult bees, but from then on no more bees are matured, the eggs probably being removed.

In an experiment at Wyoming, Dr. C. L. Farrar found that by requeening a certain number of colonies of Italian bees with Caucasian queens in October, that in the spring a majority of bees were Caucasian, if such colonies had plenty of pollen. Without pollen, the colonies came out weak. This of course proves that bees raise brood during the latter part of the winter. In fact, his experiments also showed that regardless of the amount of pollen given in the fall, practically all colonies had used up available pollen by April 1st, another condition which often exists in Wisconsin.

Save Pollen

What can we do about it? It is important this fall to keep all combs of pollen in the brood chamber. That's probably one reason why many beekeepers are turning toward the two-brood chamber method of wintering, one brood chamber being insufficient to hold the amount of honey and pollen stores necessary for large colonies.

During the extracting season it would be well to select all combs with considerable pollen and return them to the brood nest of such colonies as may be in need of it. All combs not used in this way should be stored carefully over winter so as to be available early in the spring. Then on examination of the bees, they can be added to colonies short of pollen.

HONEY COOKERY NEWS

THE National Ladies Auxiliary of the Honey Producers League is publishing an interesting booklet entitled "Honey Cookery News." Address: 3414 So.

Western Ave., Chicago, Illinois.

It is the opinion of the National Ladies Auxiliary that each state should have an Auxiliary and that the ladies working together with the beekeepers could do a great deal in promoting the use of honey, if they organize and work.

In addition to considerable news and information, a number of recipes are given in the booklet each month.

State Auxiliaries turning in the largest number of memberships during this year will receive, first prize \$3.00; second prize, \$2.00; third prize, \$1.00. So far Wisconsin has eight members. Application blanks for joining may be obtained from Mrs. Ida Becker 12306 Wyoming Avenue, Detroit, Michigan.

ANNUAL STATE BEEKEEPERS MEETING

Ripon, October 26-27

THE 61st Annual convention of the Wisconsin State Beekeepers Association will be held this year at Ripon on October 26-27.

Beekeepers will meet in the Odd Fellows Hall, which is on the Main Square of Ripon, while the Ladies Auxiliary will meet just a few doors away in the Auditorium of the Bank.

Those who attended the meeting last year at Marshfield, and any of the other past conventions, know that there will be an excellent program, and a very enjoyable time at this convention. We hope that every member of the State Association can attend, and bring neighboring beekeepers to join the organization.

There are two hotels in Ripon with very reasonable rates. There are also tourists homes available.

Set these dates aside as your vacation. You can't afford to miss the meeting. Full program will be published in our October issue.

HONEY PRICES SHOULD STRENGTHEN

REPORTS from producers in Wisconsin as well as from the entire United States indicate that the honey crop will be shorter than last year.

Our estimate is that the Wisconsin crop will be about 75% of last year, depending somewhat upon the fall honey flow. While western Wisconsin is having a good crop considering that they had a failure last year, in many other parts of the state the flow was cut off suddenly right after July 4th. In sections where there has been no flow since that time, the colonies have probably lost weight. If there is no fall flow there will be less surplus than we hoped for. With the present price of honey, beekeepers will probably rather use honey than sugar syrup for feeding.

Another factor which must be considered in relation to honey prices is that business conditions are better than last year. The U. S. Department of Economics estimates that income of industrial workers is 10% larger than a year ago. After all, it is the laboring class that uses the most honey. If their income is better, more honey will be purchased.

Prof. I. F. Hall stated at our summer meeting that over a period of many years the price of honey has followed more closely the price of butter than it has the price of sugar. If the price of butter goes up, then we can expect honey to go up.

At any rate, with a smaller crop, and prospects for a better demand, the price should strengthen this fall.

WHAT GOOD IS A BEAR

A RECENT article in the Milwaukee Journal advocating protection for bear, caused one of our members, Mr. Walter T. Bosworth of Merrill, a honey producer, to write the Journal his opinion of this animal. His letter was printed in the Milwaukee Journal

which he sent to us:

and we quote portions of the article "I would be in favor of our State Association taking up arms against the bear. Why? Because the bear causes the northern Wisconsin beekeeper thousands of dollars of damage each year, and nothing is done about it. What is more, the bear will not permit the beekeeper to move into the choicest feed territory like wild raspberries. Several years ago a bear broke into my apiary in a farmer's field and did over \$200 damage. Your article states, 'The beekeeper is paid for damage done by bear,' but I am at a loss to know where to collect this money. Every northern beekeeper has had trouble with bear, and are entitled to damages, but I don't know of one who has been able to collect a cent.

"Your big argument seems to be, 'don't shoot the bear so the tourists will be able to see them.' In 1938 there were 269,451 licenses issued, and 186 bear killed. Now if this many hunters only saw and killed a few bear, how has the tourist ever a chance of seeing one? My father was a game warden for 28 years and roamed these woods all his life. I asked him how many bear he had seen and he said perhaps a dozen. If we are to have the bears so numerous that the tourists can see them, we might as well give the country back to the Indians.

"There is no bear that can be trusted after he is more than a year old. (Mr. Bosworth points out several cases of people being harmed by bear). He ends with this question. What good is a Wisconsin wild bear?"

THE HONEY CROP

THE U. S. Department of Agriculture reports on August 15th on the honey crop prospects for this year as follows: Much of the Plains States area south of the Red River Valley has a good crop of honey. The Red River Valley has averaged one of the lightest crops in years.

Most of the rest of the country, especially the Mountain States and the clover belt apparently has a crop of honey below that of last year, and frequently below normal.

Although the quality of the honey so far taken off is reported to be heavier in body and lighter in color than that of a year ago,

the total output appears to be definitely below last year. An unexpected large fall crop might change the situation.

Early offers for new honey throughout the clover belt show little change from those of a year ago, but beekeepers are generally holding off selling, hoping for higher prices later. New crop comb honey is in better demand than usual, but supplies are light.

WINNEBAGO ASSOCIATION ISSUES HONEY RECIPE BOOKLET

THE Winnebago County Beekeepers Association is a very active organization. It meets at regular intervals, has pleasant and interesting programs, and recently has issued a booklet of honey recipes. It is the work of the Ladies Auxiliary which meets regularly with the beekeepers. This is an excellent idea and one suggested for consideration by all County Associations.

The following are some of the interesting recipes in the pamphlet.

Honey Drop Cookies

1 cupful honey
3 cupfuls flour
2 t. soda sifted with flour
 $\frac{3}{4}$ cupful butter
2 eggs (beaten)
lemon flavoring

Mix together in order given.

—Mrs. H. E. Greenwood

Honey Doughnuts

1 cupful honey, $\frac{1}{2}$ teaspoonful salt, 1 teaspoonful orange peel ground fine, 1 cupful sour milk or buttermilk, 1 large teaspoonful soda, $\frac{1}{2}$ cupful sugar, 1 teaspoonful baking powder, 2 eggs, flour enough to make soft dough. Add lastly $\frac{1}{2}$ cupful melted butter. Add a little more flour so as to handle. Roll and bake in hot fat.

—Mrs. A. J. Schultz, Ripon, Wis.

Pumpkin Pie Filling

1 cupful stewed pumpkin, $\frac{3}{4}$ cupful honey, $\frac{3}{4}$ cupful milk, 2 eggs, 1 teaspoonful cinnamon, $\frac{1}{2}$ teaspoonful ginger, $\frac{1}{2}$ teaspoonful salt.

—Mrs. Wm. Rehwinkel, Butte des Morts, Wis.

He is the richest who is content with the least, for content is the wealth of nature.—Socrates

Not Frightening Enough

Farmer Hawkins was complaining to his wife that he could find no old clothes to put on the scarecrow.

"Well, said she helpfully, "there's that flashy suit son wore at college last year."

"Yeah, but I want to scare the crows, not make em laugh."—Cap-per's Weekly.

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Please do not ask for pictures or prices. Just tell us what you want and what you want to pay. If you do not know names, then tell us colors wanted.

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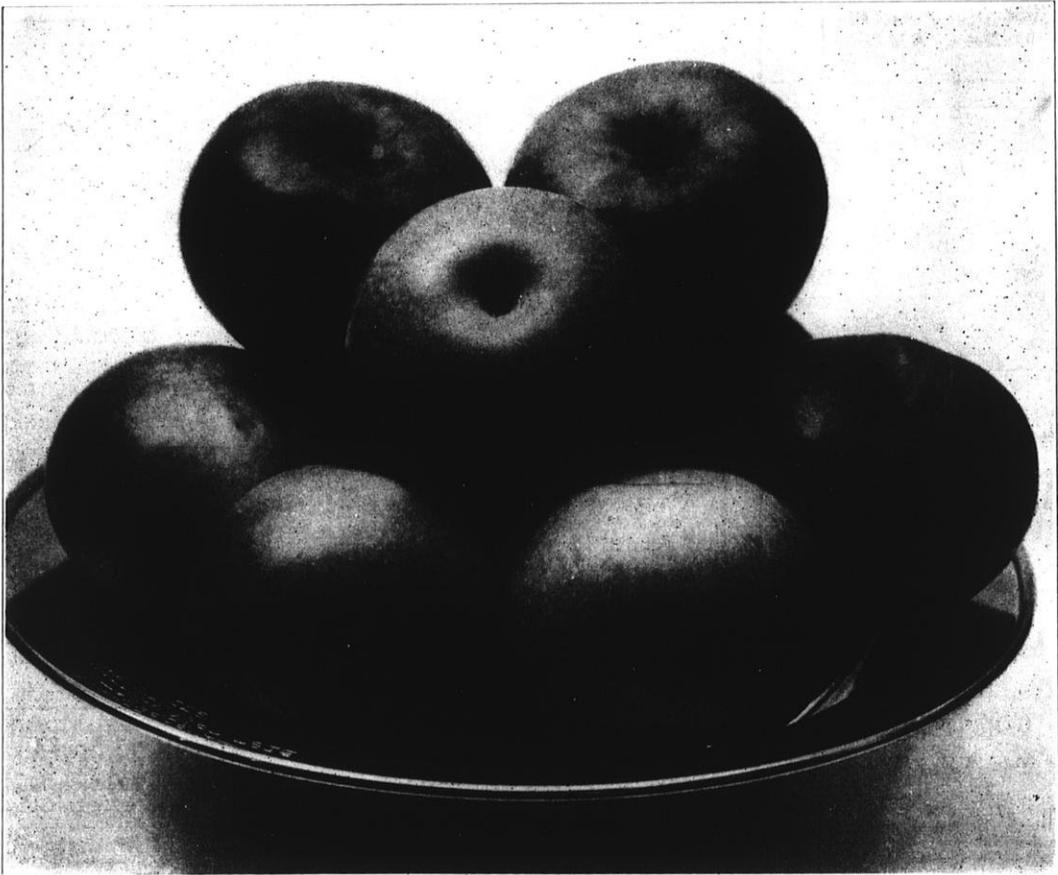
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Wisconsin *Horticulture*



EAT WISCONSIN APPLES

Annual Convention Number

FRUIT GROWERS PROGRAM, Page 35

BEEKEEPERS PROGRAM, Page 53

BALLOT FOR ELECTION OF OFFICERS, Page 41

October, 1939

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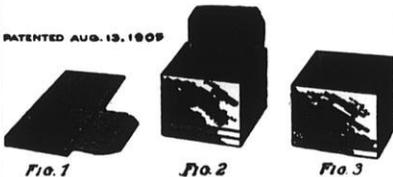
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424 University Farm Place
Madison, Wis.

Mrs. McTavish (looking out window): "Sandy, here comes company for supper."

McTavish: "Quick, everybody run out on the porch with a toothpick!"

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Wisconsin Horticulture

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PLEASE DO NOT SEND STAMPS

Wisconsin *Horticulture*

Fruit Testing Committee Visits Minnesota

Find New Fruit Varieties. Visit Leading Growers

This year's fruit testing committee of the Wisconsin Horticultural Society, appointed by President R. L. Marken, consists of Mr. N. C. Jacobs, Sturgeon Bay, Mr. Murray Bingham, Sturgeon Bay, Mr. Carroll Krippner, Fort Atkinson, Mr. J. E. Carlson, Bayfield, and the Secretary. All are members of the Board of Directors excepting Mr. Carlson who, as president of the Bayfield Fruit association, went to investigate solutions to problems of special interest to the Bayfield growers.

The committee had a very interesting trip to the Minnesota Fruit Breeding Farm at Excelsior, and to some of the leading growers in that state. We were especially interested in studying new varieties of fruits, especially apples, pears, plums, grapes, strawberries and raspberries which might be an improvement upon those now being grown in Wisconsin both in hardiness productivity and quality.

The first stop was made at the F. F. Isaacs Fruit Farm, White Bear Lake on Tuesday afternoon, September 5th. Here we saw an old orchard which had been planted to poor varieties including Hiberna and others of that type, and which Mr. Isaacs had topworked to better varieties. Since he has a good market for



early apples in the Twin Cities, he was interested in the Beacon because of its red color and long keeping qualities. Beacon is in the Duchess season, a new variety by the Minnesota Fruit Breeding Farm, which has several desirable qualities which make it better than Duchess. It does lack quality, however, and for that reason may not be planted more extensively excepting where a cooking apple is desired.

Minnesota No. 1007 was also observed at this farm. Mr. Isaacs thought it has excellent quality; a rather late apple which keeps for a long time, and one which may have considerable promise as a winter apple.

AT THE MINNESOTA FRUIT BREEDING FARM

WEDNESDAY, September 6 was spent at the Minnesota Fruit Breeding Farm at Excelsior, where Prof. W. H. Alderman and several members of his staff gave the committee a day of real interest and value.

The strawberry farm of S. M. Thimsen and Fred Braden were also visited on this day, but these are reported in the small fruits section of this issue.

A new greenhouse, new packing shed and storage cellar, and other improvements have been made at the farm during the past year, so that it is now well equipped to do the important work being carried on.

Prof. Alderman first took us through the orchard to inspect the new varieties of apples. The first one of considerable interest was **Minnesota No. 724**, a McIntosh cross which ripens just before McIntosh, and looks very promising. It appeared to be an excellent bearer, has good tree characteristics, and has the McIntosh color and flavor. Where an apple is wanted that ripens just before McIntosh, this was considered by the committee to be well worth trying.

Minn. No. 1007, was also carefully inspected. It is considered

to have excellent quality which is after all, the important point we are looking for. It is rather a late apple for the northern sections of the state, where it may not color up well, though this should be tested. The tree is a good producer, the apples are of nice shape and turn red later in the season. It is the most promising late maturing high quality apple yet produced by the Minnesota farm. It should be tested in a limited way in various parts of Wisconsin to see what it will do under different conditions.

The **Haralson** orchard at the farm was loaded with fruit. The Haralson has been a money-maker in Minnesota. It is an improvement on such varieties as N. W. Greening for cooking purposes. The tree is very hardy and young trees six years old were heavily loaded with fruit. In fact, it almost overloads during some seasons. A young Haralson tree is a beautiful sight when loaded with its large red fruit. The variety seems at its best in Minnesota.

PLUMS

A great deal has been done with new plums at the Farm where such excellent varieties as Underwood, Monitor, Superior, and Ember were originated. Of the new varieties noted by the committee, the Ember plum seemed to have the best quality as a late variety, maturing in early September. It is very large and has a light red color.

HARDY APRICOTS

Hardy apricots are being tested at the farm and Prof. Alderman remarked that he thought the new Scout apricot from the Canadian Experiment Station at Morden has possibilities. The hardy varieties introduced by Prof. Hansen of South Dakota were being tested. We noted troubles similar to those experienced by several Wisconsin growers. In the case of apricots which

had been grafted on plum roots, the union was not a strong one and many trees broke off or died at the union. Grafting on apricot roots therefore will probably be necessary.

HARDY PEACHES

Many hardy peaches are being tested at the Farm, and while the trees looked fine, there was no fruit this year excepting on very low branches which were covered with snow last winter. The trouble with peaches still is that the fruit buds are killed during our cold winters. In some sections of southern Wisconsin where trees are growing in protected places they often bear some fruit. However, it is hoped that we will eventually be able to get a hardy peach of good quality that will withstand our winters.

Strawberries and Grapes

Prof. A. N. Wilcox explained to the committee the work being done on strawberries and grapes. We were surprised at the amount of work being done in breeding new strawberries. Two large fields were devoted to this crop alone, and many promising varieties are under test. While there was no fruit excepting on the everbearing varieties, Prof. Wilcox explained that several new kinds looked very good. As soon as available, they will be brought here for trial.

Grapes

Minnesota has been breeding hardy grapes and several show considerable promise. The committee was asked to taste for quality three blue grapes still under number. We considered them fully as good as Concord, maturing early in September, and since they are never laid down at the Farm they must be quite hardy. The quality is not as good as those from New York, but growers who prefer the hardy kinds

which do not have to be covered during winter will want the Minnesota varieties.

Pears

The Minnesota No. 1, now called **Douglas** pear is an excellent variety. It is a good producer and quite pretty. The size is good and the quality fair. It is slightly coarser grained than Bartlett, but its hardiness recommends it for many sections of Wisconsin where pears have not been successfully grown in the past.

Hardiness of Plants

Prof. W. T. Brierley reported to the committee on some very interesting work relating to the hardiness of strawberries. This will be reported in more detail in a special article. Those interested in the subject might write to the Minnesota Experiment Station, University Farm, St. Paul, for technical Bulletin No. 135 on Factors relating to the hardiness of strawberries.

The committee enjoyed an excellent chicken dinner at the farm and greatly appreciated the courtesies shown them by Prof. Alderman and his staff.

A Western Fruit Farm

On Thursday, the 7th, the committee traveled about 75 miles westward from the Breeding Farm to the Loffelmacher Orchard at Fairfax. Here the scenery changed and took on a more western atmosphere. The farms were large with considerable corn and grain being grown. Evidence of strong wind was plainly indicated by the heavy plantings of windbreaks around the farmsteads. About 12 miles from Fairfax, surrounded by what looks like a grain and cattle country, was an excellent orchard. Here we saw hardy stock topworked to some of the New York varieties such as Milton, Cortland, Macoun and Orleans, as well as a number of the Minnesota varieties. All appeared to be doing well. By advertising

and producing the kind of fruit his customers want, Mr. Loffelmacher has no trouble in selling his fruit at a good price to farmers and city folks who drive in from 40 miles around. He has even developed a small park along the highway adjoining his orchard for the recreation of his customers. One of his best sellers is the Sapa plum which he sells on the trees—consumers picking their own and paying him a good price.

At the Andrews Nursery

A visit to the Andrews Nursery at Fairbault proved most interesting to the committee. We were surprised at the extensive plantings of this nursery along fruit lines. For example, we saw 150 acres devoted to the production of raspberry plants for sale as nursery stock. A special article on hardy rootstocks as seen at this nursery will be found in this issue.

Here too we found the Sapa plum being grown for canning purposes. Plums were all sold to customers who come to the orchard and pick the fruit themselves. Mr. Andrews stated that it is one of the best for canning — not at all puckery.

Here we found a piece of one-fourth inch board, about 6 inches wide, nailed to the southwest side of the tree to prevent sunscald.

Douglas or Minnesota No. 1 pear is being grown very successfully. The Milton apple, a New York variety, was doing very well and favored as a high quality variety.

At Webster's

Unfortunately the committee did not have much time to spend at the Webster Orchard at La Crescent, as they desired to reach home on Friday evening, the 8th. Here, however, we saw Haralson trees so overloaded as to break branches, although this was not noticed in any other orchard.

A WISE ORCHARDIST

ON a steep slope overlooking the Mississippi River at Minneiska, north of Winona, Minnesota, is the orchard of John Husser, whom the committee considered a very successful orchardist. Years ago, many Duchess, Wealthy, and other varieties of that type were planted in this orchard. Mr. Husser later found that these varieties lacked quality and ripened at a time when the market was rather dull. He stated that this year his neighbors were finding it difficult to sell Wealthies, even at a low price. Mr. Husser is a student of consumer's trend. Since he does not have a large orchard, he felt he could not afford to grow cheap varieties, so he topworked a lot of these older kinds of Starking, Golden Delicious, McIntosh, Cortland, Macoun and Orleans. His Starking were the best we saw anywhere, so his location must be very good for this variety, which is not true in many parts of Wisconsin. Cortlands were of excellent size and color, and Mr. Husser stated that it was the only apple which does not turn brown in a salad. He is recommending it for that purpose.

He thought that Orleans was a very good apple for those who do not like the sweetness of the Delicious.

BEAVER STRAWBERRIES TOP NEW YORK MARKET

BEAVER strawberries shipped by the Warrens and Sparta Fruit Growers Associations this season to New York City topped the market ahead of New Jersey and Long Island berries, according to Association officials. More strawberries would be shipped to New York if freight rates and services were better.

Child Training Expert: "If your children become unmanageable, quickly switch their attention."

Puzzled Parent: "Their what?"

WHAT GROWERS THINK OF THE CORTLAND APPLE

MR. HITCHINGS, Onondaga County: I am having a better opinion of the Cortland each year.

MR. MORGAN, Niagara County: I think just the opposite. The more I see of Cortland, the less I like it.

MR. MUSSER, Pennsylvania: The Cortland has a much nicer color, larger, and bears younger, and stays on the trees longer, but the McIntosh is a much better quality.

MR. HITCHINGS: You will find if you do not trim Cortland too much, if you have a large quantity of leaves per apple, the quality will be much improved.

MR. GELDER: We used at our Wayside Market about 1,000 bushels of Cortlands last year, and we are going to use some more this year. The McIntosh is a little more tender and does not require as long cooking. I think Cortland is a wonderful apple but it does not seem to be a good keeper in cold storage. We have people who prefer them, and if nothing was said to indicate that they were Cortlands, they would sell in many instances to the consumer. I think it is still a more handsome apple than the McIntosh. While the price is less with us than that of the McIntosh, I think the Cortland will make us just as much or more money year after year. They come into bearing earlier and bear more persistently than McIntosh. They are also good pollinators for the McIntosh.

DR. TUCKEY: You see, as the opinions are gathered, the general impression is that Cortland is best liked in those sections a little to the south of the "hard McIntosh" belt. You will find Cortland more favorably received by growers in the lower Hudson River Valley, in Pennsylvania and in New Jersey, than in Vermont, northern New York, and Canada. Where a good McIntosh can be grown, McIntosh still comes first.—From The New York State Horticultural Society Annual Report, 1939.

HARDY ROOTSTOCKS FOR APPLES

AT the Andrews Nursery at Faribault, Minnesota, the Fruit Testing Committee saw an interesting trial of hardy rootstocks for growing apples in colder climates. Mr. Andrews took us to the orchard and showed a row of trees in which every other tree was larger than the one adjoining it. He stated that the larger trees had been topworked on "northern stock," while the smaller trees were on French Crab or "southern roots." The southern roots were such varieties as Delicious, the seeds of which are obtained from cider mills in the west. Northern rootstocks were from seed of varieties grown in Minnesota, such as Duchess, Wealthy, etc.

The committee was then taken to the nursery where young apple trees were being grown. Here we saw rows of standard varieties of apples being grown on Manchurian crab stock. This small, hardy Manchurian crab was obtained from Prof. N. E. Hansen of South Dakota who imported it from Manchuria. The trees which have been grafted on this hardy rootstock were much larger in size than adjoining rows of the same varieties grown on common rootstock.

The trees on crab, furthermore, were much more uniform in size than on common stock. Mr. Andrews is very enthusiastic about the possibility of the use of hardy rootstock for apple varieties for the colder climates. It will be most interesting to observe how these trees will grow in comparison to others in the orchard.

"Guilty or not guilty?" asked the judge sternly of Rastus, charged with chicken stealing.

"Not guilty, Jedge."

"What is your alibi?"

"Alley by which?"

"You heard me. Have you an alibi?"

"You mean de alley by which Ah got away, Jedge?"

The Cost of Removing Mature Apple Trees and Replanting

THE oldest section of the apple orchard on the Purdue Farm at Bedford, Indiana, is 40 years old and many of the trees are in low vigor while others are so tall that thorough spraying of the top third of the tree is extremely difficult as well as expensive. In January, 1939, it was decided to remove nine acres of these trees, level, lime, fertilize and replant. The question immediately arose as to the probable cost and estimates varied widely. As the removal and replanting program called for the final elimination of over 40 acres of the aged trees in the planting, it was decided to keep a detailed cost account of all operations on the first area to be removed. Seventy-five dollars was deducted for the 75 cords of wood, leaving a net cost per acre of \$25.96.

Cost Per Acre Low

The next group of cost items includes liming, commercial fertilizer, reseeding, 335 young trees and planting of these trees. Total cost of all operations and trees was \$604.20 less \$75.00 for wood, giving a net cost of \$529.20 or \$58.80 per acre.

Pulling Trees

It is of interest to note that the expense of actually pulling the trees (\$20.80) was a very small part of the total expense. The entire 340 trees were pulled out in one day's time using a tractor driver and four helpers and a 10-ton Caterpillar tractor which was rented at \$1.50 per hour. By far the largest single item of expense (\$205.80) was the cost of trimming and sawing up the trees and pulling away and disposing of the tree crowns.

A study of the figures indicates that it is quite costly to remove

an orchard and replant—amounting to approximately \$1.55 per tree. However, the real question for every commercial orchard operator to consider is whether all areas and varieties in his orchard are paying back at least the cost of the care they receive.

"Loafers" Real Problem

A study of production costs and sales returns in this orchard beginning in 1930 would indicate that during the period 1930-1938 inclusive, this area of 340 trees has gone "in the red" at the rate of about \$1.25 per tree per year or that the rest of the orchard had to make up a deficit of \$3,825.00—more than twice the original cost of the complete stationary spray plant in this orchard. When figured from this angle, the investment of \$1.55 to pull out one of these old trees, level, fertilize, and replant a young tree becomes an entirely different picture.

Do you have an area of worn out "loafers" in your orchard? If you have, isn't it about time to hold court and bring condemnation proceedings!

By C. L. Burkholder and H. G. Hall. From *Indiana Horticulture*.

POISONED OATS BAIT

**For Field Mice
In Orchard and Field**

--PRICES--

10 lb. bag-----\$1.25

25 lb. bag-----\$2.50

Prepared by the U. S. Bureau of
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Sold at Cost by the

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Horticultural Society**

**424 University Farm Place
MADISON, WISCONSIN**

APPLE STORAGE HOUSES

CONSTRUCTION AND MANAGEMENT OF AIR COOLED AND COLD STORAGES FOR APPLES

A NEW bulletin has just been issued by the Michigan State College, East Lansing, Michigan, entitled "Construction and Management of Air Cooled and Cold Storages With Special Reference to Apples" by Prof. Roy E. Marshall. The bulletin gives considerable detail (44 pages) on the information of building of storages for fruit. It discusses both the cellar type versus the aboveground storage, and has pictures and drawings of construction details. A very complete bulletin on the subject.

CELLAR TYPE vs. ABOVE-GROUND STORAGES

AIR-COOLED storages may be built in side hills or banks with only one end exposed, partly below ground, or entirely above the ground level.

The cellar or bank storage is usually cooler during the fall than those storages built entirely above ground because the heat from the storage room is absorbed to some extent by the surrounding cooler earth. During the winter, however, temperatures in cellar type storages are likely to range between 35° and 40° because of the constant flow of heat from the floor and through the walls into the storage room. Such temperatures are very satisfactory for table stock potatoes but are high for apples, cabbage, onions, and most root crops. Lower winter temperatures in cellar storages may be maintained by wall insulation against heat transfer from the soil and by rather frequent ventilation.

Above-ground storages receive heat in winter only from the ground floor. Therefore, the

walls and ceiling must be insulated to retard heat transfer through them and thus prevent freezing of the products during sub-zero outdoor temperatures and to prevent material heat transfer into the storage during the warmer portions of the day in autumn. Observations have shown that the heat given up by the earth floors of above ground structures in winter approximately balances that transmitted through the walls and ceilings of well constructed buildings and that winter temperatures in storage rooms may be held uniformly at near 32° during severe winter weather without resorting to artificial heating. Most Michigan growers have considered the above ground structure the more practical though several of them have excavated one to three feet.

HUMIDITY FOR APPLE STORAGE

WHEN the air of the storage room is too dry, the stored products lose moisture and wilt or shrivel. However, if the air in the storage is too humid, there may be condensation on the products, and containers, walls, and ceilings, thus making conditions favorable for the growth of molds and fungi. The latter seldom present a problem in common storage if the temperatures are near the freezing point. The wilting or shriveling of products, however, is probably the most serious problem with which the owner of a storage must contend. One grower reports that several thousand bushels of apples lost approximately four pounds per bushel crate during the usual storage season.

For apples a relative humidity of about 85 per cent is necessary to prevent wilting of varieties like Jonathan, the russets and

Golden Delicious, when stored in open containers. The percentage of humidity is determined from temperature readings of both the wet and dry bulb thermometers of a sling psychrometer. The storage operator, however, may determine if the humidity is high enough by frequently examining thin-skinned varieties to determine if there is any indication of wilting. If the dirt floor of the storage room is kept in a very moist condition or if the concrete floor is kept covered by the application of water, there is likely to be little wilting of the fruit. Some growers thoroughly soak the floors and side walls and even sprinkle the fruit at frequent intervals throughout the storage season. Sprinkling or spraying the fruit with water can be recommended when the temperatures in the storage room are low enough to prevent the growth of molds and fungi on the fruits.

Setting tubs of water in storage rooms or allowing small streams of water to run through them does not provide sufficient evaporating surface to alter greatly the humidity of storage rooms. The evaporating surface should be very large in order appreciably to affect the atmospheric humidity. For that reason, it is preferable to have evaporation taking place from the floors, walls, and even the containers and fruits. For instance, in one bank storage with a concrete floor located in a depression where there was some seepage into the room, there was no wilting of Golden Russet to March 1 of the trying year 1931-32.

For most root crops, the humidity should be maintained even higher than that recommended for apples. Cabbages should also be held at relative humidities of 90 to 95 per cent.

From Michigan Bulletin on Air Cooled Storage.

In the Orchard

CURBING RABBITS IN THE ORCHARD

F. M. Schwab, Mankato, Minn.

"HERE is how I keep rabbits from injuring my fruit trees during the winter. Go into the orchard early in fall before the first snowfall and cut down a lot of worthless limbs and make little piles through the orchard, and let them lay till spring, keeping them above the snow through the winter. This will give the rabbits a lot of delicacies which they relish much more than the older bark from the bottom of the trees, and in this way they will rarely do any harm to the orchard, unless they are entirely too numerous. However, if you live in a severe climate I advise you not to cut the limbs close to the trunk or other permanent branches, for fear of winter injury to your trees, but leave stubs a few inches long, which may be removed in the spring after the weather moderates."

From *The Minnesota Horticulturist*.

WISCONSIN NEEDS BETTER APPLE VARIETIES

IN traveling among the fruit growers this fall, we hear complaints about the price being received for Wealthy apples, and also several other varieties of low quality. Said Mr. Ralph Irwin of Lancaster, "For several years I have been on the verge of cutting down most of my Wealthy trees. I will lose money on my Wealthies this year so I have determined to cut down most of the old trees this winter."

Said Carroll Krippner, Fort Atkinson, "What I saw on the Fruit Testing Committee trip this year convinced me that varieties of low quality should be topworked to better kinds."

Nursery salesmen are selling

and farmers are still buying many poor quality varieties throughout Wisconsin. Wise growers are planting McIntosh and other good quality varieties. As the supply of better varieties becomes more plentiful, it will be increasingly hard to sell the other kind.

This magazine has carried the above message each year for almost 10 years. We hope its repetition will bring results.

PROMOTE APPLE SALES

THE National Apple Institute an organization of apple growers whose purpose it is to promote the sale of apples throughout the United States, has the following suggestions for increasing the sale of apples in local communities.

They suggest that growers contact editors of local newspapers. Offer to take them around and show them the excellent fruit on your trees. Urge them to take pictures and publish articles calling attention that the harvesting of the Nation's biggest fruit crop is underway. That this apple harvest provides a wealth of pictorial and food interest value. That there are fine apple orchards within a few miles.

Ask them to emphasize that Wisconsin apples are the best to be had.

The new office boy had been instructed how to answer callers. Just before noon a man asked, "is the boss in?"

"Are you a salesman, a bill collector, or a friend of his?" the boy inquired.

"All three," was the answer.

"Well, he's in a business conference. He's out of town. Step in and see him."—K. C. Journal-Post.

SUCCESS WITH PLUMS

Virgil Fieldhouse, Dodgeville

WE like the Underwood, Elliott, Tonka and Ember plums because they are very mild, whether raw or in sauce.

The Monitor has a slightly stronger taste, but makes nicely flavored, beautifully colored jam.

For old-fashioned preserves, people still prefer Miner, Hawkeye, and Surprise.

The Underwood is a large healthy tree requiring proper pollinization. We had a wonderful crop this year, one that we may never see again. We are puzzled as to what other variety was responsible. We have had some Surprise trees in the orchard for years. The Underwood has been a shy bearer. A few years ago we planted a Hanska row as pollinizer, and these bloomed well this spring.

The Tonka is a freestone with small pit. Many people ask for this variety after once using it.

Ember

Ember is a new variety from Minnesota. A few years ago a tree heavily loaded with large yellow plums with a pink overcast, attracted our attention. We soon learned that one taste meant another customer. Now that it has been identified as the new Ember, we are planting more trees.

The Elliott has been a heavy bearer each year, small trees with ten times as many plums as should be left on the tree. Well thinned they are a very large mild plum with apricot flavor.

We have not made much money raising plums, but enjoy selling them, and always have better hopes for the future. This year a mild lime-sulphur spray (1-60) with added lime burned many of the leaves on most of the Minnesota varieties. The fruit was smaller than usual and ripened too early.

CONTROL CURCULIO

WE were very successful in controlling curculio in the plum orchard this year. Spraying had not been successful, so last fall we purchased a kerosene weed burner. We removed the sod from a small circle around the trunks, mounding the earth against them to prevent mouse damage. Then we burned the tall grass and weeds from the orchard and vicinity, using wet sacks if the flames became too hot. This year, the choice varieties were very free from stings, while the De Soto trees had attracted the remaining insects.

We have a very good demand for plums from customers within a twenty-mile radius. It requires more effort to sell plums in hot weather as people are not yet in the canning mood. Our customers return each year and we get many orders from their friends. A limited quantity are sold in the stores in quart boxes.

TREND TOWARD SMALLER PACKAGES FOR APPLES

THERE is a trend throughout the country towards smaller packages for apples. Chain stores especially look with favor on these packages as they are much handier than if the fruit has to be weighed out.

A recent bulletin of the New York and New England Apple Institute makes the following statement:

"There is an increasing demand by different classes of trade for a smaller consumer package. This varies in type of neighborhood, both in city and county and in different states. The size of unit, kind of grade and pack, and price obtained vary with local conditions.

"Progress in the development and use of such units is noticeable. The half-bushel, eight-quart and four-quart baskets are used by many roadside markets and in some city stores where homes with cellars or garages provide

storage space. Baskets or fiber containers with handles are popular in some places. The success of such consumer package depends largely on honest packing so that the face truly represents the contents. If the customer finds the bottom apples as good as the top when using the last of the apples she will likely come back for another such package of apples and use them more freely than if bottom apples are small and unattractive.

"In the large cities there is no room in ice boxes or elsewhere to keep apples fresh in quantity. It is customary for fruit to be bought daily as needed. There is an insistent demand by chains using these markets for a two or three-pound unit which can be sold without wrapping and which displays the top apples without opening the package."

FRUIT GROWERS CONVENTION

Be sure to read the program on page 35 for our annual convention at Sheboygan. Notice the program for the women.

LARGE SCALE ORCHARDING IN THE EARLY DAYS

AN item taken from the New England Farmer of November 2, 1822—just one hundred and seventeen years ago—tells of large scale orcharding plans in those days. The item was sent to us by Charles L. Hill, Rosendale, former Chairman of the Commissioners of the Department of Agriculture and Markets. Mr. Hill found the article in the New England Farmer this summer. The item states as follows:

Grand Agricultural Speculation

It is stated as a fact in the Poughkeepsie Journal that A. S. Pell, Esq. of Hyde Park, New York, has growing on his farm upwards of sixty thousand apple trees, nearly fit to set out.

He intends to transplant the trees on about 700 acres of rich land in Ulster County and to raise the fruit which is chiefly the Newton Pippin for exportation.

Be sure to exhibit apples at the Convention. See premium list, page 34.

ORCHARDISTS' SUPPLIES

FERTILIZERS

Sulphate of Ammonia—Aero Cyanamide

FOR THE APPLE HARVEST

Bushel baskets. Basket liners, fringes;

Picking ladders. Picking bags.

For your harvesting supplies and orchard equipment,

—write for prices to—

SOUTHEASTERN FRUIT GROWERS CO-OP, Inc.

WAUKESHA, WIS.

Lester Tans, Sec.

Route 3

Telephone Big Bend 2821

FRUIT EXHIBIT
WISCONSIN STATE HORTICULTURAL SOCIETY
CONVENTION

Association of Commerce Rooms, Sheboygan, November 16-17, 1939

Committee in charge: G. W. Lycan, County Agent, Sheboygan, Chairman;
C. L. Kuehner, Madison; Arno Meyer, Waldo; Hugo Wunsch, Sheboygan.

NEW APPLE VARIETIES

Plate of 3 Apples

Judges: C. L. Kuehner, Madison; N. C. Jacobs, Sawyer.

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

First prize, \$1; 2nd, 75c; 3rd, 50c; 25c for each additional entry.

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

STANDARD VARIETIES

Plate of 5 Apples

Judge: D. E. Bingham, Sturgeon Bay.

Special premiums offered by the Niagara Sprayer and Chemical Company, J. Henry Smith, Representative, Waupaca.

9. McIntosh 10. Delicious—any type of red

Premiums Class 9 & 10, each: 1st prize, \$1.50; 2nd, \$1.00; 3rd, 75c; 4th, 5th, and 6th, 50c.

- | | |
|----------------------|-----------------------|
| 11. Grimes Golden | 16. Snow |
| 12. Jonathan | 17. N. W. Greening |
| 13. Northern Spy | 18. Wealthy |
| 14. Salome | 19. Any other variety |
| 15. Golden Delicious | |

Premiums on each variety, Classes 11-19. 1st prize, \$1.00; 2nd, 75c; 3rd, 50c; 4th, 25c.

SEEDLING APPLES

Plate of 5 Apples

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

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

Premiums: 1st prize, \$3; 2nd, \$2; 3rd, \$1; five additional prizes at \$1.00.

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

Seedlings should be sent to the State Horticultural Society, 424 University Farm Place, Madison, not later than November 10, 1939. Seedlings may also be brought to the convention before 9:30 a.m., November 16, by the exhibitor.

SEEDLING NUT SHOW

Plate of 7 Nuts

Judges: Wm. Leonard and Carroll Krippner, Fort Atkinson;
Jason Swartz, Waukesha

- | | |
|-------------|----------------------------|
| 20. Hickory | 22. Butternuts |
| 21. Walnuts | 23. Any other variety nuts |

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

Program Woman's Auxiliary Meeting

Fruit Growers Section

WISCONSIN HORTICULTURAL SOCIETY

Sheboygan, November 16-17, 1939

Association of Commerce Rooms

6th Floor Security National Bank Bldg.

Thursday, November 16

10:00 a.m.—Call to order by Mrs. R. L. Marken, Kenosha, Chairman. Colored motion pictures and slides. Flowers and fruit for the home garden. Insect control made easy. Some dirt garden suggestions. H. J. Rahmlow, Madison.

11:00 a.m.—What is new in cake making. Miss Leona Kilborn, Home Demonstration Agent, Sheboygan.

12:00 M.—Luncheon. Arrangements to be announced.

Afternoon Program

1:30 p.m.—Trip to Kohler Village. Visit Waelderhaus model home. Tour of Village. Kohler Factory.

6:30 p.m.—Attend annual banquet. See Fruit Growers program.

Friday, November 17

10:00 a.m.—How to use herbs in the menu. Mrs. W. A. Toole, Baraboo.

11:00 a.m.—Topic to be announced

12:00 M.—Luncheon—to be announced.

1:30 p.m.—Tour of furniture factory and other points of interest in Sheboygan.

ELECTION OF OFFICERS

The ballot for election of officers will be found on page 41.

Members may vote by mail or during the first day of the annual convention at Sheboygan. Be sure to vote.

“When Mandy went and got married, us girls give her a shower.”

“Dat sho’ was nice. Ah’ll bet her husband was glad to get ’er all nice and clean.”

“Are you sure you can cut your meat?” she asked, after watching his struggles.

“Oh, yes,” he replied, without looking up from his plate. “We often have it as tough as this at home.”

THE USE OF APPLES IN THE DIET

Could you use a little thesis on a dietetic theme?

'Tis a useful dissertation for your files,
And the humble little apple will be served to you supreme

In a dozen different recipes and styles!
The apple leads the other fruits in mineral properties

'Tis amazing, all it's gastronomic uses
A hundred different benefits for young and old alike

Are extracted from the flesh and from the juices!

The rosy little fellow, from the skin into the core

Is packed with busy vitamins they say,
And the Duchess and Delicious are both healthful and nutritious

And are guaranteed to keep the Doc away!

And so we come to recipes, and different ways to serve

The hero of this culinary song,
There's handy apple jelly, apple catsup, apple relish,

On these you couldn't possibly go wrong!

Then of course we fry the apple with plump sausages, and ham

Which combine to make an appetizing dish

And with luscious apple fritters, or a "graham apple torte"

We've as fine a meal as anyone would wish!

Your scribe would have you try some day, a cake with apple sauce

The recipe is given here for you,
You'll find it is a splendid cake, and one that you will like

For it really is an easy one to do!
Just take a cup of sugar, and a cup of apple sauce

A scant half cup of shortening, and then

Combine it with these spices (a half teaspoon of each)

Cloves, nutmeg, salt—and now some cinnamon!

A teaspoon then of soda—a cup of raisins chopped

Two cups and then a half of sifted flour

Combine these things and mix them well (the batter should be stiff)

And bake it in your oven just one hour!

And so we hope we've given you some useful information

On the merits of the apple in your diet,

And we're sure that if you use it in these different combinations

Your family will be healthy—won't you try it?

Vera L. Seter,
Wauwatosa.

71st ANNUAL CONVENTION WISCONSIN HORTICULTURAL SOCIETY FRUIT GROWERS PROGRAM

Sheboygan, November 16-17, 1939

Association of Commerce Rooms

6th Floor Security National Bank Bldg.

Thursday, November 16

8-10 a.m.—Setting up fruit exhibits. See premium list page 34.

9:45 a.m.—Call to order by President R. L. Marken, Kenosha.

10:00 a.m.—**Orchard insect control.** Present and future of codling moth control. Dr. J. A. Callenbach, Department of Entomology, Madison. Experience with fruit insect control in Door County. Dr. John Lilly, Department of Entomology, Madison.

11:00 a.m.—Can Wisconsin growers use milder fungicides safely in apple scab control. Dr. G. W. Keitt, and C. N. Clayton, Department of Plant Pathology, Madison. Discussion by R. L. Marken, Kenosha.

Afternoon Program

1:30 p.m.—Development of a fruit from the dormant bud to ripening, illustrated with charts and slides. Pollination, set of fruit, summer growth and maturity. How these features tie up with recommendations for fertilizers, cover crops, thinning, etc. Dr. H. B. Tukey, Chief of Research, New York Experiment Station, Geneva, New York. Questions and discussion.

2:30 p.m.—Construction and management of air-cooled and cold storage buildings for apples. Dr. Roy E. Marshall, Michigan State College, East Lansing, Michigan. Questions and discussion.

3:30 p.m.—Report of fruit testing committee trip. Observations in Minnesota orchards. N. C. Jacobs and Murray Bingham, Sturgeon Bay.

4:00 p.m.—What we learned this year about apple marketing. The Future. 10 minute discussions by A. K. Bassett, Baraboo, Arno Meyer, Waldo, and N. A. Rasmussen, Oshkosh.

ANNUAL BANQUET

6:30 p.m.

Music and entertainment.

Toastmaster, Prof. J. G. Moore, Madison.

Honorary recognition services. Presentation of certificate by Mr. Ralph Ammon, Director State Department of Agriculture, Madison.

Progress in Horticulture in Terms of the Variety. Dr. H. B. Tukey, Geneva, New York.

Colored slides and Films.

Additional topics to be announced.

Friday, November 17

9:30 a.m.—How to Produce and Market Apple Juice. Practical discussion of manufacture of apple by-products. Dr. Roy E. Marshall, Michigan.

10:30 a.m.—Getting the young apple tree started. Planting problems. How to get a good stand of trees. Results with planting with peat moss. Dr. H. B. Tukey, New York.

11:30 a.m.—Annual business meeting Wisconsin Horticultural Society. President's and Secretary's reports. Announcement of election of officers.

Afternoon Program

1:30 p.m.—The problem of rootstocks for fruit trees. Lantern slides showing methods of propagating fruit trees. New rootstocks and new dwarfing roots and their possibilities. Dr. H. B. Tukey, New York.

2:15 p.m.—Results of research in flowering and fruiting of plants. Dr. R. H. Roberts, Madison.

SMALL FRUITS

STRAWBERRIES AS SEEN ON THE FRUIT TESTING TRIP

THE Fruit Testing Committee of the Society on their trip to Minnesota visited two strawberry growers who grow everbearing strawberries with considerable success. The first stop was the the farm of Fred Braden, Wayzata, Minnesota, originator of the Wayzata and who specializes in that variety. Here we saw it at its best. The fruit is of high quality and the way in which Mr. Braden grows it, a heavy producer.

Rye as a Cover Crop

We were interested to note that Mr. Braden uses rye as a cover crop. A very heavy covering of rye about one foot tall was being plowed under the first week in September. This rye had been sowed on July 16th and then 300 pounds of ammonium sulphate was added. In case of dry weather, the patch was irrigated. Mr. Braden stated he has had very little trouble in getting rye to grow in ordinary years. By plowing under this foot-high rye which had been seeded quite heavily, an excellent humus is turned into the soil. The reason he plowed it under early was to prevent the weeds from going to seed. He stated that he did not like oats as a cover crop as well as rye, because it rusts more and usually does not give as good a crop. He thought buckwheat might also be good.

Mulching Important

The Wayzata strawberries were mulched with five tons of straw per acre. Mr. Braden said he liked straw better than marsh hay because the wind does not blow it around so easily. The heavy mulching is necessary to protect the plants and conserve moisture. In addition, during mid-summer he irrigates the ever-

bearing strawberries whenever the soil is dry.

The entire strawberry field is weeded about every two weeks, and any runners which form are set by hand.

Mr. Braden said that during August he receives the best price for everbearing strawberries.

The Gem Everbearing Strawberry

The committee then visited the farm of Mr. S. M. Thimsen near Hopkins, Minnesota. Mr. Thimsen is an ace grower of Gem everbearing strawberries, and also has the Wayzata variety. He stated that he liked the Gem best for the mid-summer crop. It does better than the Wayzata during July and August. He has a good market at the Twin Cities. Later on when the weather turns cool it does not do well and then the Wayzata is at its best, so he has both varieties. The Gem is not as good a quality berry as the Wayzata, but in mid-summer it produces well and the color is very bright so that consumers do buy it.

Mr. Thimsen plants his Gem strawberries in double rows, 15 inches apart and the plants 15 inches apart in the row. Then he allows one runner plant to form between the rows. He states that the Gem must be exposed to the sun in order to ripen well.

Mastodon strawberries, according to Mr. Thimsen, bring the lowest price on the Twin City markets. They turn a dark, dull color quickly.

Likes the Catskill

Mr. Thimsen stated that the Catskill was the best June bearing strawberry he has tried. It will equal the Premier in production and the berries are larger. He received from 25c to 50c per crate more for the Catskill berries this year.

STRAWBERRY PLANTS DOING WELL

SPRING set strawberry plants have been running quite well this fall in the Warrens section. We had some nice rains the first part of September which helped. Plants need rainy weather to help the runners set.

Most growers here have had a chance to secure a good supply of marsh hay for mulching the strawberries this season.

R. E. Harris, Warrens

PLANTING DISTANCES FOR RASPBERRIES

THE proper planting distance for red raspberries appears to be a somewhat controversial subject among growers. It is rather generally agreed that six feet between the rows is a satisfactory planting distance, but there is much difference of opinion about the proper distance for setting the plants in the row for hill system culture.

A great many growers plant the hills four to four and one-half feet apart in the row, and this probably represents the prevailing practice in most areas where the hill system is used. In some sections the hills are planted six by six feet.

Those who prefer a distance of four to four and one-half feet in the row point out that such a plan will permit about 25 per cent more fruiting canes per acre, and they also maintain that raspberries will be more productive if the roots remain undisturbed by cross cultivation during the greater part of the growing season. We are inclined to agree with the latter viewpoint.

At least one grower is known to have divided a field into two parts to compare the two planting methods, the results being unfavorable to two way cultivation when it is continued throughout the entire growing season.

From the Minnesota Fruit Grower.

Cover Strawberry Plants Early

PRACTICALLY all strawberry growers now know of the experimental work carried on a number of years ago which proved that strawberry plants may be severely injured in the fall if they are uncovered when a severe cold snap freezes the soil. Unprotected plants or rows which are not heavily matted or protected with leaves may have their crowns and roots injured if the temperature drops to about 15° F., especially if this temperature endures for two or three days, freezing the soil.

Such early frosts may occur at any time during the first half of November. At Madison they often occur between November 10 to 20. Further north, possibly earlier.

Strawberry growers have therefore learned to watch the weather closely and to apply at least three inches of mulch or at the rate of about three tons of marsh hay or straw per acre, about the first week in November. More accurately, it should be done just before the cold snap, but this, of course, cannot always be determined.

Bare Ground Freezes Deeply

Recent experiments at the Minnesota Experiment Station and reported in Technical Bulletin No. 135 entitled Studies on Some Factors Relating to Hardiness in Strawberries, point out that bare ground will freeze deeply as compared to ground which has been mulched. In this experiment thermometers were placed at various depths in the soil. For example, at a depth of two inches the temperature went to -2° F. on bare ground while under three inches of straw it was 24° F. Under six inches of snow it was 22° F. and under six inches of straw also 24° F.

Experiments have shown that injury to strawberry plants usually occurs at temperatures of about 15°

to 20° F.

It can readily be seen, therefore that under three inches of straw the plants would be well protected from the killing temperatures but on bare ground they would not. During very cold winters the temperatures under a light mulch may also drop too low.

The Minnesota experiments also prove that ice covering in itself did not kill the strawberry plants. However, ice has no insulation value and so the temperature under the ice went quite low. Furthermore, when the mulching material became wet and then froze, forming an ice covering, the value of the mulch was greatly reduced. This was especially true with peat mulch. Peat was found to be effective as a mulch during winters when it remained in a dry condition but if it becomes wet, packed, and frozen, as often happens, it loses its value.

LARGER CRANBERRY CROP EXPECTED THIS YEAR

WISCONSIN'S cranberry crop is expected to be about 50 per cent larger than the crop harvested last year and the state will be the second largest producer in the nation, according to the Crop Reporting Service.

About 100,000 barrels of cranberries are expected to be produced in the state this year. If present estimates materialize the crop this year will be 36,000 barrels larger than that of 1938 and 40,000 barrels above average. The berries are reported to be large this year, and the harvesting season is a week to 10 days earlier than usual.

Cranberry production in the United States is expected to be about a third larger than a year ago and about 5 per cent above average. Crop conditions vary in the five states producing cranberries.

BLACK SPOT OF BEETS CAN BE PREVENTED

THE black spot disease of beets can be prevented by putting small amounts of borax to the soil, according to investigators of the Wisconsin College of Agriculture, who have been working on the problem.

Principal symptoms of black spot are dark, corky tasteless areas inside the beets, resulting in poor quality and low yield. As a rule the injury is not visible from the outside.

An application of about 40 pounds of borax per acre is recommended and may be applied along the rows or broadcast. Disease is most severe on sweet soils or soils containing lime.

This discovery was made by Dr. J. C. Walker, J. P. Jolivet, and J. C. McLean of the Wisconsin College of Agriculture.

"Do you realize, John," she asked icily, "that you've forgotten that this is my birthday?"

"Of course I've forgotten," replied her husband readily: "you see, there really isn't anything about you to remind me that you're a day older than you were a year ago."

Get extra savings on
Sheboygan
fruit and berry boxes



Now you can save money by assembling your berry boxes with the fast-working Neva-Clog hand stapler. It's quick, easy, and fun to do. You can assemble 5 boxes a minute with this practical pocket sized stapler. What's more, you'll get stronger, more attractive boxes—boxes you'll be proud to market your fruit in.

Get everything you need in fruit, vegetable, plant boxes and crates at thrifty Sheboygan prices. Leading growers have preferred this big, complete line for 60 years. Write today for color-ful, free folder and prices.

Sheboygan Fruit Box Co.

5109 CT

Sheboygan, Wis.



Gladiolus Gleanings



By the WISCONSIN GLADIOLUS SOCIETY

Chester Harrison, Waldo, President

Dr. Geo. Scheer, Sheboygan, Vice-President

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

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

Regional Vice-Presidents
Frank Blood, Stevens Point

Fred Hagedorn, Sheboygan

Edwin Ristow, Oshkosh

Ben Robinson, Kenosha

1939 DISCOVERIES

Walter C. Krueger, Oconomowoc

THE 1939 glad season was for me at least the best of the past five years. The fact that thrip were completely absent due to tartar emetic spraying and 100% disinfecting prior to planting left a few hours for true enjoyment. A better evaluation was also possible for both named and seedling gladiolus because they were at their very best.

This being the case, one would naturally anticipate a larger number of "discoveries." Two factors, however, worked to decrease this number. Firstly, I added but about 20 newcomers to my planting, and secondly, when glads stand side by side with seedlings it is impossible to keep from making comparisons, usually to the disadvantage of the named variety. This is an unfair situation, like comparing a 1939 car with that of the 1940 to 1944 model.

Three new gladiolus took my fancy. *Matterhorn*, a pure white as large as Mammoth White in floret, with as many open, but on a longer flower-head, and with precision of placement, left little to be desired. *Aladdin*, a fiery salmon-scarlet with a cream blotch in large size and excellent substance looks very promising. *Jasmine* in ruffled yellow and with fair size is apparently a real acquisition in the yellow colored group. Since this trio is new in my garden, I know little about their health, field habit or propagation.

Other discoveries were made in first bloom seedlings. This quintet must undergo test to determine their worth. The most outstanding is a tri-toned blend of orange, yellow and pink so far removed from normal glad coloration that I shudder should it never show its beauty again. Another was a lustrous buff with carmine splashes that is as different from other glads as it possibly can be. With eight 6" florets



KING'S RANSOM

open at once, it was superb. The third was a brown glad that made me for-

sake my habit of not exhibiting seedlings until their other qualities have been evaluated. It was declared the Exhibition seedling champion at Ripon. The fourth like the first, a seedling of *Diane*, was a large salmon with 7" florets, 8 open and with the same heat resistance that characterizes its parent. The last a cream with an undertone of pink that was superb in size, substance and placement.

One other discovery might be mentioned since it is two or three years away from introduction, and for that reason I cannot be accused of getting free advertising, is an absolutely new floret shape in gladiolus. The two-throated type floret has the top three petals of uniform size and laid back at the tip, making a partial umbrella hood. The color is yellow with a scarlet picotee edge. A glad friend who has known glads for 20 years stated that it was the most outstanding new thing he ever saw.

A final 1939 discovery was made at the 1939 Glad Show at Ripon. It was the cream white *Myrna* beautifully ruffled.

Not in the class of discoveries, but still rare in many gardens is a quartet of glads that looked good to me in their second bloom year in my garden, namely, *Arethusa*, *Festival Queen*, *Margaret Beaton* and *Rima*. Nor could I forget *Beacon*, *Christobel*, *New Era*, and *Recovery*. Who could forget *Commander Koehl*, *Betty Nuthall*, *Minuet*, *Maid of Orleans* and *Picardy*, all of which outdid themselves again this year.

Some time in the near future I will write about the group of seedlings that have stood the test of trial—seven long years from seed, that are ready for introduction and those that might qualify them in a year or two.

OUR MOST POPULAR GLADIOLUS

Wisconsin Gladiolus Society Members Choose Their Favorite Varieties

DURING September a card was sent to members of the Wisconsin Gladiolus Society asking for the names of favorite varieties of the different color classes.

Up to the time we go to press, only about one-fourth of the members have responded. We are therefore listing only the varieties receiving the highest votes in this issue, and would like to urge the rest of the members of the Society to send in their card at once so that we may publish a more complete report in the November issue.

The Favorites

From a vote of about 25 per cent of the members, the following rank as the favorites:

Red: Commander Koehl.
Cream or Buff: Shirley Temple.
Salmon Pink: Picardy.
Pure Pink: Phyllis McQuiston.
Yellow: Golden Chimes.
Lavender: Minuet.
Purple: Charles Dickens.
Violet: Pelegrina.
White: Maid of Orleans.
Best Variety any Color: Picardy.

The following varieties also received votes as the best variety of any color: Mother Machree, Vagabond Prince, Crinkles, Crystal, Rima, Minuet, Shirley Temple, Bagdad, Jalna and Maxwellton.

Seedlings

Listed as the favorite seedlings seen in 1939 were the following: Su Ellen, Krueger's No. 808; Hagedorn's Red; Dr. Scheer's 34-G-009-0; Krueger's No. 802; Krueger's No. 226-10; Waldos Blue Seedling; and No. 36151, cross of Picardy, Pfitzer's Triumph and Heritage, Champion at the Minnesota State Fair.

GLADIOLUS SOCIETY MEETS AT SHEBOYGAN

THE Wisconsin Gladiolus Society held an interesting meeting at Sheboygan on September 17th. Otto Kapschitzke reported on the financial condition of the Society, stating that due to small attendance there was a financial loss on the show held at Ripon. It was emphasized by several members that the Society must hold the show in larger communities where a large attendance can be secured to pay the cost.

Members present voted unanimously to affiliate with the New England Gladiolus Society. The affiliation fee is \$10.00 per year. For this the Society receives one silver and one bronze medal and two sets of all publications. Individual members of the Wisconsin Society can join and receive the Year Book and other publications of the N. E. G. S. for \$1.00 per year.

It was voted that the president appoint a committee to investigate a suitable location for the next show.

H. J. Rahmlow showed colored slides of garden flowers and talked on the culture of various annuals and perennials and also the slides of seedling and newer varieties of gladiolus taken at the annual show.

Mr. Edwin Ristow, Oshkosh, gave comments on the gladiolus pictures as they were shown.

The meeting closed with the members participating in the seedling scoring. An interesting collection of seedlings was shown.

FROM THE PRESIDENT

THE Constitution of the Wisconsin Gladiolus Society states: "This Society through its officers, shall endeavor to establish local chapters throughout the state."

What a wonderful opportunity for the glad fans throughout the state to organize a local Gladiolus Society in their own community and still be members of the State Society. Sheboygan County is going

to organize one. Our aim is 50 members. I am sure that any officers of our State Society will be glad to assist all they can to help organize local chapters.

The slides of gladiolus prepared by the Wisconsin Horticultural Society are beautiful and I hope that different communities in the state will show them.

Chester Harrison.

King's Ransom

King's Ransom (Almey-McCaw) was offered for the first time last year. The general color effect is a rich shade of apricot-orange. Actually it is a harmonious blending of peach red to golden apricot, according to Louis R. Fischer of Minneapolis, who loaned us the cut for use in this issue.

It is a decorative glad and blooms in 60 to 62 days after planting with Mr. Fischer and will open 6-8 florets on a tall, straight spike. It is a vigorous grower and an excellent propagator. It received the award of merit from the British Gladiolus Society in 1938.

Coming Diplomat

Teacher — You've answered so few questions correctly that if your answer to this one isn't satisfactory I'll have to punish you. Give me a sentence using a simile.

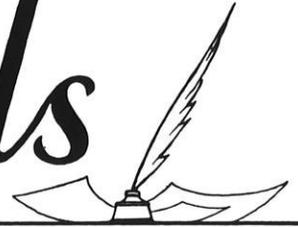
Tommy (thinking a moment) — I'd like to be as pretty as my teacher.

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Editorials



THE FRUIT GROWERS PROGRAM AT THE CONVENTION

WE feel that the convention fruit growers program this year is one of the best we have ever planned. Every Wisconsin orchardist should come to hear Dr. H. B. Tukey of Geneva, New York, because he is one of our outstanding horticultural speakers.

Dr. Roy Marshall of Michigan likewise is a very popular speaker at horticultural conventions and his subject of construction and management of air-cooled storage houses, air cooled and storage buildings for apples is a topic in which many orchardists are interested. Dr. Marshall has just written a very complete bulletin on this subject.

Be sure to read the convention program in this issue, and plan to attend both days.

Exhibit New Apple Varieties

We would like to urge all members of the Society who are testing the new varieties of apples to take part in the exhibit of new varieties as listed in the convention premium list. It will be interesting to see how the new varieties grow in various parts of the state.

The Women's Program

Fruit growers should be sure to urge the ladies of the family to read the special program for them in connection with the annual convention. In addition to some excellent talks for women, they will enjoy the visit and entertainment at Kohler.

The convention will have some-



CONVENTIONS

October 26-27. 61st Annual Convention Wisconsin Beekeepers Association, Ripon, Odd Fellows Hall.

November 16-17. 71st Annual Convention and Fruit Growers Program Wisconsin Horticultural Society, Chamber of Commerce Rooms, Sheboygan.

thing of interest for the entire family.

OUR ANNUAL ELECTION Vote by Mail or at Annual Convention

IN this issue will be found the official ballot for election of officers of the Horticultural Society.

Voting this year may be done by mail, or at the annual convention which will be held in Sheboygan on November 16-17. Ballots, however, may be cast only the first day of the convention, November 16.

Who Are the Candidates?

The ballot this year lists prominent members of the Society. The names of the candidates are listed alphabetically.

Mr. R. L. Marken has been president for one year, and has again been nominated without opposition.

For Vice-president there are three candidates. Mr. A. K. Bassett of Baraboo is a well known fruit grower, owner of Ski-Hi Fruit Farm. He has been a member of the Board of Directors for a number of years, and is well qualified for the office.

Mr. N. C. Jacobs of Sawyer is a retiring member of the Board this year. He is one of the leading fruit growers in the Sturgeon Bay area. Mr. Jacobs has been an enthusiastic fruit tester, and a member of the Fruit Testing Committee for the past three years. He is testing many of the varieties seen on the trips made by the Committee.

Mr. S. S. Telfer of Ellison Bay is well known to Door County fruit growers. He is manager of the Ellison Bay Orchards, has been a member of the Board of Directors of the Society, and is recognized as a leader in the field of horticulture. He was the candidate for Vice-president last year and failed by one vote of receiving the election.

For Director

Mr. Ralph Irwin of Lancaster is a well known fruit grower and beekeeper in southwestern Wisconsin. He has regularly attended the meetings of the Society.

Mr. W. H. Morse of Warrens is one of the leading strawberry growers and member of the Warrens Fruit Growers Association.

Mr. Earl J. Randles of Alma Center is one of the leading strawberry growers in the Alma Center section, and is president of the Alma Center Fruit Growers Association.

Mr. Ralph Otis of Sturgeon Bay is one of the leading apple, cherry and strawberry growers in that section.

Mr. Herbert Peterson of Sawyer is also a leading fruit grower in the Sawyer section.

Mr. Don Reynolds of Sturgeon Bay is well known to Door County growers and to fruit growers attending the convention. He has charge of the Reynolds Company orchards, and is an authority on apple, cherry and strawberry growing.

Mr. W. A. Dustrude of Hartland is in charge of the perennial and ornamental division of the White Elm Nursery and is an authority on that subject.

Mr. Arno Meyer, Waldo, is president of the Sheboygan County Fruit Growers Association, and the leading apple grower in that section.

Mr. Joe Morawetz, West Bend, is president of the Washington County Fruit Growers Association, and an enthusiastic tester and grower of new varieties of fruit.

Mrs. C. E. Strong of West Allis is well known to horticulturists throughout the state. She is editor of the Home and Garden page of this magazine, and has been a leader among the women in the field of ornamental horticulture.

All members of the Society may vote whether life members, individual annual members, or members through an affiliated organization such as garden club, fruit growers association etc.

Be sure to vote.

OFFICIAL BALLOT

FOR THE ELECTION OF OFFICERS

of the WISCONSIN STATE HORTICULTURAL SOCIETY

For President

R. L. Marken, Kenosha.....

For Vice-President

A. K. Bassett, Baraboo.....

N. C. Jacobs, Sawyer.....

S. S. Telfer, Ellison Bay.....

For Director to Succeed R. E. Harris, Warrens

Ralph Irwin, Lancaster.....

W. H. Morse, Warrens.....

Earl J. Randles, Alma Center.....

For Director to Succeed N. C. Jacobs, Sawyer

Ralph Otis, Sturgeon Bay.....

Herbert L. Peterson, Sawyer.....

Don Reynolds, Sturgeon Bay.....

For Director to Succeed W. A. Toole, Baraboo

Arno Meyer, Waldo.....

Joe Morawetz, West Bend.....

Mrs. C. E. Strong, West Allis.....

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

ALL MAIL BALLOTS MUST BE MAILED ON OR BEFORE NOVEMBER 10th. Voting may be done the first day of the annual convention at Sheboygan, November 16, where extra ballots will be available.

Notice: **You must sign your name**, as only members may vote. Your name on the ballot will be kept secret by the Nominating Committee.

Sign Name.....

Home and Garden

Mrs. C. E. Strong

GENTIANS

*Beside the brook, on the umbered meadow,
Where yellow fern-tufts fleck the faded ground,
With folded lids beneath the palmy shadow
The gentian nods in dewy slumbers bound.
Upon those soft fringed lids the bees sit brooding,
Like a fond lover, loth to say farewell,
Or with shut wings through silken folds intruding,
Creeps near the heart his drowsy tale to tell.*

Sarah H. Whitman.



In the Horticulture Building at the State Fair

THE Horticulture Building is the meeting place for all who are interested in that subject, "Anything and everything pertaining to the growing of plants." With a nine day Fair, there has been days allotted to various exhibits in order to have a good exhibit every day. The State Fair attracts more visitors than any other Flower Show can hope as yet to expect, so every effort should be expended to make it a worth while show, both in quality and arrangement. I am speaking of course of the amateur exhibits including that of the Federation of Garden Clubs.

The first days of the Fair, the space given to amateur exhibits was taken and fully filled by the Federation. Their exhibit was an improvement over last years—both in freshness and quality of bloom, the tables in shades of color attracted much favorable comment. While NEW varieties were weak—this is

a step in the right direction, and special effort should be made to make this one of the special features.

There were three little gardens. We agreed with the Judges, they were fairly good—but each club had failed in giving just enough careful thought to make them perfect. Because you are a garden club—the public is much more critical of you than if you were just an ordinary amateur.

How to Grow Gloxinias

One of the most attractive beds of flowers in the Florists division at the State Fair—was the bed of Gloxinias, these lovely velvet-like blossoms always attract favorable attention.

They are one of the most desirable bulbs for late winter or very early spring blooming in the sun-room or window. You can get the plants already started from the florist, buy the dry bulbs or raise them from leaves begged from your friends. You can also grow them from seed if you have patience to care for them carefully. If you buy plants or bulbs already started, either budded or in flower, be sure they are watered carefully. They must not be allowed to get dry or buds will wither and leaves become brown spotted. If you buy bulbs, pot them up in a mixture of two

parts coarse leafmold and one part of loam. It is important that the soil drain well, always place about an inch of gravel in the bottom of the pot. If the bulbs are fair size, use six inch pots. Do not cover bulbs too deeply, about an inch is best. Water lightly until growth is well started. When buds begin to form, a liquid fertilizer may be given once a week, or the plant tablets may be used. Gloxinias like plenty of light but not direct sunlight close to glass. They should bloom for several months. After they are through blooming, gradually withhold water until leaves and stems are dry, then place in dark shelf in cool place until growth starts. Bring them up, water and fertilize as before. Under this treatment my bulbs last for many years, and bloom freely.

Leaf Cuttings

Leaves taken from a plant can be rooted in sand and water—just a little sand and an inch or two of water. Then plant in the same mixture used for potting up bulbs, where they will form small bulbs in a short time. Keep them growing until they too show signs of wanting to rest, withhold water and place them with the other bulbs. Many times these small bulbs will bloom the second year.

Seed

If you wish to try growing them from seed, buy the best seed on the market; use shallow seed pans or flats with one or two inches of gravel at the bottom. Over this a sifted cover of the same — about one quarter of an inch deep—do not press down, leave it in a loose condition. Place the pans in water until well soaked from below. Then sow seed thinly over the surface, cover with glass and a sheet of paper to keep dark until germination takes place. The seed pans *must* be kept in a warm place if you wish good germination. When germinated remove paper and in a few days raise the glass in order to give air that plants will not grow spindly.

The tiny seedlings need warmth and moisture—but not a wet soil. Transplant when there are three or four leaves, to flats or pans prepared in the same manner as before. When growing nicely a little liquid fertilizer given once a week will aid in the forming of bulbs. These bulbs can be potted up the second year and should give you much pleasure as they open their many colored velvet blossoms.

You will never be satisfied with one pot of Gloxinias—a whole shelf filled with them, backed by a few ferns will add much to your winter window garden. Do not worry about the catalog saying that Gloxinias are summer bloomers—they are if you want them to be, but I like them in late winter or very early spring. I just coax them to bloom then, and it really does not take much coaxing. They seem perfectly willing to suit the blooming season to your liking.

The true fisherman has fun all the year—10 days of fishing, and 355 days of monkeying with his tackle.

HORTICULTURAL ODDITIES AND DEVELOPMENTS

Did You Know That . . .

Trees illuminated by street lights keep their leaves longer than trees where no artificial illumination is present.—From the March, 1939 issue of National Seedsman.

And trees that are fed hold their leaves longer in the fall, too. Artificial light may be too expensive as a steady diet for your trees, but anyone can afford enough plant food to feed a tree properly. Feed your trees this fall after they are dormant.

Holland research workers have developed a solution to strengthen and stiffen the stems of tulips after they are cut. The solution is made by dissolving two ounces of calcium nitrate in five gallons of water. Place the cut stems in this solution and weak stems will be noticeably stiffened.

We now have a "99% pure" four-leaved clover strain. C. T. Daniels of Balboa, Canal Zone, is the originator. He has been working on the production of a four-leaved strain of clover for ten years, and now has built up a lucrative business, shipping the leaves all over the world. According to our information, he has not introduced the strain to commerce.

But Mr. Daniels doesn't seem to have a corner on the market after all, for we also have tidings of still another four-leaf clover grower—H. R. Mosnat, Belle Plaine, Iowa, who is said to be growing four-leaved clovers as a commercial venture.

NEW MORNING GLORY

The new Scarlett O'Hara morning glory seems to have given a good account of itself this summer. The large bright rosy-red flowers are produced in great abundance and the good foliage and vigorous vine quickly covers large areas. In several places it has been seen in combination with the variety Heav-

enly Blue. The effect has been quite pleasing. The flowers in both of these sorts are large — from 3½ to 5 inches across. A sandy or gravelly soil with southern exposure is better for these plants than a heavy, rich soil.

W. R. Ballard, Maryland Garden Notes.

WISCONSIN UPPER-MICHIGAN FLORISTS CONVENTION

THE Wisconsin Upper-Michigan Florists Association will hold its annual convention on November 6-7, in the Plankinton Hotel, Milwaukee. There will be talks for growers, a school of design, and flower shop management.

FALL BULBS

Direct from Holland. Order now.

New Triumph Tulips—

Eros, double, old rose. Coxa—carmine edge. 65c doz.

The following at 60c per doz. Per 100, \$5.50.

Kansas, white. Ursa Minor, yellow. Mr. Kerbert, rose, white base. Aviateur, carmine—white edge. Rijnland, yellow—red border. Mr. Zimmermann, fuchsia red. Alberio, deep red. Castor, carmine and purple.

Parrot Tulips—

Fantasy, pink, per doz. 65c. Lady Derby, lilac, \$1.10. Blue Celeste, peony fl., double blue, 75c.

Darwin Tulips—

Mixed \$3.00 per 100. Separate colors. 45c and 50c per doz. Cottage, Alaska lily flowered, single and double tulips.

Hyacinths, 7 colors, 75c-\$1.00 per doz. Candidum lillies, 20c ea.

Mertensia, 6c & 10c per root.

Lycoris squamigera, 45c ea.

Many others

Send for list—shipping cost extra.

Klingbeil's Nursery

2435 N. Sixth St.

MILWAUKEE, WISCONSIN

Tel. Locust 2441

In My Garden

BARON Solemacher strawberry plants set out as edging plants around the flower border have been producing a nice crop of strawberries throughout September. Seeds of this variety were planted in a flat in April. They started bearing fruit in late July and being ever-bearing, we expect them to continue until frost. They do, however, require plenty of moisture and of course without watering we would not have had very many berries this year.

Drought seems to be causing more injury to shrubs and trees in southern Wisconsin than many people realize. While at Lake Geneva for the district garden club meeting we saw phlox looking very badly. The edges of the leaves were turning brown. Pulling up the plants the roots appeared in good condition. At Whitewater we saw hedges of lilacs with the edges of the leaves turning brown. No other troubles such as borers or diseases could be seen. Taking some of the branches back to Madison and consulting with members of the Departments of Horticulture and Plant Pathology, we came to the conclusion that the trouble was drought. Last year having been a wet year, and with plenty of moisture this spring, the plants made an excellent top growth with perhaps a rather shallow root system. When the drought and heat came the roots were unable to supply enough moisture to support the numerous leaves that had been developed. Consequently the edges of the leaves turned brown.

Pink Cushion continues to be a very popular Chrysanthemum. Its companion the *Bronze Cushion* is also one of the best. This type seems to meet with more approval in the border than the taller varieties because the plants have a better appearance. Being semi-



Many New and Beautiful Varieties of Zinnias Are Being Introduced.

dwarf they stand upright and have a solid cushion of flowers which come early enough to be enjoyed during warm weather. The trouble with many tall growing Chrysanthemums in the garden is that they have a rather ragged appearance, drooping badly unless staked carefully.

Dwarf Hybrid Asters make an excellent showing during September. Varieties such as *Victor*, *Nancy*, and *Snow Sprite* are nice edging plants. They are very hardy, relatively free from diseases and insects and are completely covered with flowers in September. The tall asters in the newer shades such as the dark reds can also be highly recommended.

Vinca rosea is our favorite annual this year. A bed of them made an excellent showing. We formerly grew *Verbena* in this bed, but they finally developed disease and did not last throughout the season as we

would have liked. The *Vinca* has been blooming all summer and promises to bloom until frost. It stands up straight, the foliage is a beautiful dark, glossy green, and the flowers bloom every day. It is easily grown from seed.

Nierembergia, (6 inches tall) a little lavender flower, is very pretty as a bedding or edging plant. It also is easily grown from seed, and we suggest putting it on your list for next year.

Hollyhock Indian Spring while a nice shade of pink, and a double hollyhock, nevertheless was not very robust growing. It grows only about three to four feet tall and does not bloom very long.

Annual Phlox. The annual *Phlox* while making an excellent showing during August, did not stand the heat well and was not as nice in September as were for instance the *petunias*. However they are worth

Tender Perennials Need Covering

growing. The varieties which we liked very much this year are Phlox Leopoldi, a rose pink with white eye, Stellata Splendens, red with white eye, and Salmon Glow, a light salmon with white eye. Rosea is also good.

Petunias make a fine showing in the flower border. In fact, one could make an entire garden out of petunias with their various types and colors which would be a thing of beauty. We admired very much the following varieties this year: *Hollywood Star*. This has a rather small pink star-shaped flower which is quite attractive because of the star shaped petals. Perhaps the most beautiful petunia is the double variety named *Apple Blossom*. It is an apple blossom pink, quite large and double. One with a very beautiful rose pink color is *Topaz Rose*. The fourth is a dark red called *Black Prince*. Try these varieties next year.

—H. J. Rahmlow.

HONEY STIMULATES ROOT GROWTH

ORDINARY honey may be used with good effect in floriculture in the stimulation of roots of cuttings. Preliminary experiments by the Division of Horticulture, Dominion Experimental Farms, proved the utility of honey in this respect, and a thorough test which was concluded in March established the fact that a 25 per cent solution of honey had a definitely stimulating effect on roots of both cedar and chrysanthemum cuttings and compared very favorably with any of the hormone chemicals used for that purpose.

From *The Canadian Bee Journal*.

Said the scientist to the druggist: "Please give me some prepared monaceticacidester of salicylic acid."

"Do you mean aspirin?" asked the druggist.

"That's right! I never can think of that name."

TENDER PERENNIALS NEED COVERING

MUCH more experimental work is needed in order to give us the correct answer to many questions about wintering perennials safely. From what work has already been done we know the following:

Strawberry plants, which are herbaceous perennials, are injured at temperatures of from 15° to 20° F., especially by early cold snaps in the fall such as often occur between November 5-20. Strawberry growers, therefore, have learned to cover plants with about three inches of marsh hay or straw just preceding the first cold snap which freezes the soil.

The mulch is used to keep the plants warm. Minnesota experiments showed that when the temperature two inches deep in the soil went to **-2° F. on bare ground, it was 24° F. under three inches of straw.** It can easily be seen that many tender perennials might be killed on bare ground but would be uninjured under the straw.

All plants have their freezing point, or a minimum temperature at which they will be injured. In hardy perennials such as delphinium, peony, iris, perennial phlox, etc., the temperature at which they are injured is probably quite low. With many other perennials it may be as high as for strawberries and even higher.

Icy Mulches Unsuitable

The Minnesota experiments also indicated that mulches which became wet and froze in an icy condition, such as happens during certain winters with peat moss, made them unsuitable for covering. They found that ice is a good conductor of cold and that temperatures dropped as low under the ice as without any cov-

ering at all. During winters when peat moss kept dry it proved a good mulch. During other winters when it became wet and froze in an icy condition it was of no value.

Glass wool and materials of that type will probably prove very good as covering because they stay dry, are good insulators and keep the plants warm. If covered with chicken wire so that the wool is not torn by wind it can be kept from year to year and prove little more expensive than straw or marsh hay which must be renewed each year.

Certain plants such as canterbury bells and foxgloves, which retain their leaves in a rather succulent condition during the winter, must be kept dry as well as above their freezing point to survive.

WILDFLOWERS PROTECTED IN WISCONSIN

THE present legislature has passed a revision of the law protecting Wisconsin wildflowers.

The new law provides that it shall be unlawful to dig up, destroy or remove from public property, public waters, or from the property of another, excepting for scientific purposes with a written permission from the Conservation Commission, the American lotus, trailing arbutus, ladyslippers or any member of the orchid family, trillium, American bittersweet pitcher plants or Turk's-cap lilies, or wood lilies. It shall also be unlawful to offer for sale any flowers, roots, seed pods, bulbs or whole plants of trailing arbutus, trillium, Turk's-cap, or wood lilies so taken.

The law does not provide, of course, that these flowers or bulbs cannot be gathered on or sold from one's own property.

TO AVOID WHITE GRUB INJURY

LAWNS and gardens can be protected against injury from white grubs by the use of a mixture consisting of arsenate of lead and sand. The treatment consists in broadcasting five pounds of ordinary dry, powdered arsenate of lead, mixed thoroughly with a bushel of slightly moistened sand over each thousand square feet of sod to be protected. If this dressing can be applied before the grass is grown and at a time when the poison can be raked down into the soil to a depth of about half an inch, the results are even more satisfactory. However, the mere broadcasting of this poison on the surface of the turf, from whence it may be washed down into the top layer of soil, has been found adequate.

White grubs feed normally on the roots of grass just below the surface of the ground. When lead arsenate is applied on the surface and allowed to be washed down either by rain or with the hose it does not injure the grass and the grubs, when feeding, swallow with their diet of hairy roots sufficient quantities of this arsenical poison to kill them. This treatment once applied will remain effective over a period of three or four years. Mowing, watering and other customary operations may be continued as usual on the treated lawn. (Do not apply fertilizer containing nitrate of soda, superphosphate, sulphite of potash, or potassium chloride, commonly known as kainit.) These chemicals all react with lead arsenate and reduce its grub proofing capacity. Aside from these materials, practically any of the ordinary fertilizers, such as well rotted manure, ammonium sulphate, cotton seed meal, synthetic urea, and activated sludge may be used.



Flower and vegetable gardens, shrubbery borders, etc., should not be treated with lead arsenate after being planted as it may injure certain of these.

Planting a few hills of corn at various points about the garden and treating the soil about them will be found effective in attracting the grubs and poisoning them.

Lawns treated with this mixture show a marked reduction in numbers of weeds since most of these including crab grass, chickweed, dandelion, sour dock, etc., do not thrive in poisoned soil. They are stunted in their growth and the percentage of the germination of weed seed is very small.

Division of Entomology, State Dept. of Agriculture.

E. L. Chambers.

Got His Man

The police had photographs of the escaped convict in six positions and sent the pictures throughout the country, asking the authorities to apprehend him. Promptly came a reply from the marshal of Bent Corners, which read as follows:

"Received the pictures of criminals. Have captured five of them and am on the trail of the sixth."

LET YOUR BOY STAY ALIVE

Editorial in *Wisconsin Agriculturist and Farmer*

DON'T say: "I suppose we'll get pulled into the world war ourselves pretty soon."

Don't say it unless you are also willing to say: "Jack and Jim have gone out to cut each other's throats. I suppose I'll have to cut my throat too pretty soon."

One statement is just as sensible as the other.

The United States will not get into this war unless somebody talks us into it or unless we talk ourselves into it.

Our national safety is not affected, no matter who wins. If the British and French navies were sunk tomorrow, if the German, Italian and Japanese navies were untouched, and if by some further miracle, the combined navy of these three powers were to attack the United States, our fleet and air forces could meet the invaders off either coast and defeat them.

Europe is going through its perennial struggle to see who is top dog. How many farmers want to see their boys killed to help decide who is to rule Britain's India, or France's Morocco, or Germany's lost colonies?

Neutrality costs a lot less than war, and it doesn't kill a single man.

Maybe, But—

"My sister Beatrice is awfully lucky," said little Mary.

"Why?"

"She went to a party last night where they played a game in which the man either had to kiss the girl or pay a forfeit of a box of chocolates."

"Well, how was Beatrice lucky?"

"She came home with 13 boxes of chocolates."—*Stray Stores magazine.*

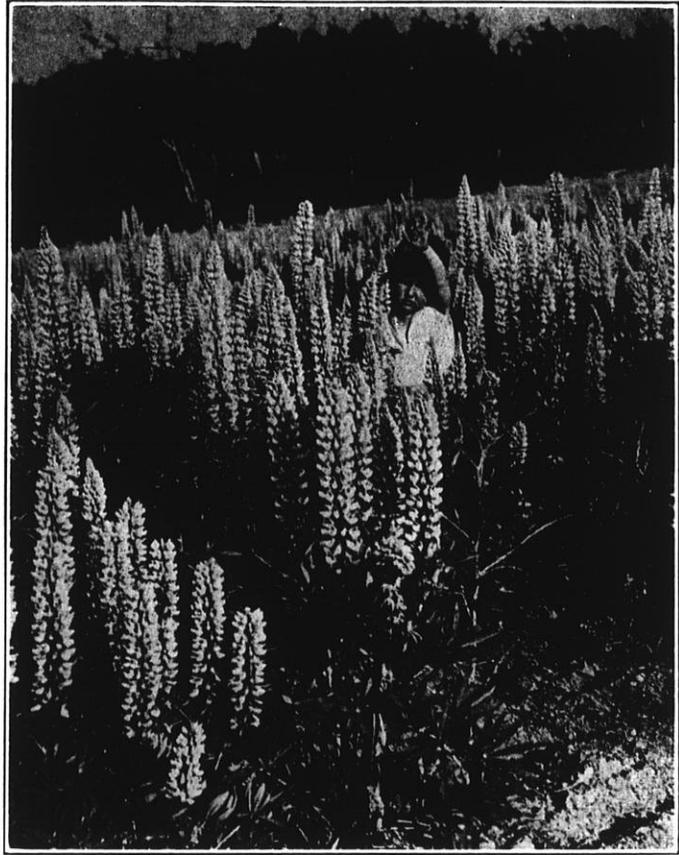
Lupines Do Best In Poor Soils

It is probably true that more difficulty in the growing of Lupines comes from over-fertilization with nitrogen than from any other source. Lupines do not thrive in a rich soil. A high nitrate content is very injurious to the roots. The injury may appear on the young seedling about the time the first true leaves appear. Often the plants attain a height of two or three inches, whereupon the leaves begin to turn yellow and the plant slowly dies. If it is examined, it will be seen that the roots are brown and dead. Sometimes the plants make good growth until set in the garden, where they gradually turn yellow and succumb.

Many people have had trouble in moving Lupines from one part of the garden to another. The plants may have been growing vigorously in their original situation, but in the new position soon passed out of existence. Their failure is unquestionably due to too much nitrogen in the soil. When nitrate is abundant, Lupine roots do not become inoculated with the nitrogen-fixing bacteria upon which they are so dependent, and no nodules are produced. Furthermore, the high nitrate content appears to be actually toxic to their roots. Therefore it is obvious that the first principle in success with Lupines is to be sure they are grown in a soil low in nitrogen.

Like Clover, Sweet Peas and similar plants, Lupines do need an abundance of phosphorous, which should be supplied by the use of super-phosphate. Once established, they should not be fertilized especially with a nitrogenous fertilizer.

Lupines are more indifferent to organic matter in the soil than many other garden plants. They have a deep penetrating root system and are not as dependent



Field of Lupines at Bayfield

upon the water-holding capacity of the soil as Delphiniums. While organic matter does tend to increase its tolerance to unfavorable soil acidity conditions, it must not be in the state of decomposition when large amounts of nitrogen are being liberated. When nitrogen is high in the soil, mixing in chopped straw or shredded sugar cane reduces the nitrogen and thus allows the plants to become established.

By Prof. R. C. Allen, Ithaca, New York, in *Horticulture*.

ELECTION OF OFFICERS

Notice the official ballot for election of officers of the Horticultural Society on page 41. All members should vote.

Wrong Translation

"Mary!" cried the cooking teacher, "how on earth did you ever happen to make such a mess?"

"Honest, teacher," said Mary, tearfully, "I was just following the recipe. It said to bring it to a boil and then beat it for 10 minutes, an'-an' when I got back it was all burnt up!"—*Washington Post*.

COMMERCE

Commerce is different than business. Business is when you buy apples in a store and don't discover that some of them are rotten until you get home. Commerce is when you send for a crate of apples and they arrive squashed full of splinters.

Wisconsin Garden Club Federation News

Mrs. E. A. St. Clair, President
2418 N. 65th St., Wauwatosa
Mrs. J. Martin Johnson, Hon. President
529 Woodside Ave., Ripon
H. J. Rahmlow, Cor. Secretary
Madison

Mrs. R. E. Kartack, Rec. Secretary
115-10th St., Baraboo
Mrs. Chas. Schuele, 1st V.-President
Oconomowoc
Mrs. C. H. Braman, 2nd V.-President
Waupaca

FROM THE PRESIDENT

ALL preparations for the National Convention are completed. We hope that all will go well and that our party will be a success. Everyone has cooperated and the clubs are doing their share. By the way registrations are coming in, indications are we will have one of the largest Semi-annual conventions of the National Council ever held. And for Wisconsin Day we look for an attendance exceeding any previous convention.

The State Fair Flower Show has enriched the treasuries of garden clubs considerably, especially those in the Milwaukee District. We realize that it is troublesome for other garden clubs to exhibit at some distance from their home; but the premium money should be an inducement. Do you wish to continue garden club exhibits at the State Fair?

Mrs. E. A. St. Clair, President.

SOUTH CENTRAL WISCONSIN DISTRICT ELECTS OFFICERS

GARDEN Club members in the South Central Wisconsin District enjoyed a very pleasant boat ride around Lake Geneva on September 14th. From the boat the gardens and estates on the lake shore could be seen. About 65 members attended. At the close of the trip a short meeting was held in Horticultural Hall. The following officers were elected for the coming year:

President: Miss Hannah Larson, Whitewater

1st Vice-pres.: Mrs. Pearl Ward, Fort Atkinson

2nd Vice-pres.: Mrs. E. Sorenson, Elkhorn

Secy.-treas: Miss Grace Armstrong, Whitewater

H. J. Rahmlow, Madison, closed the meeting with a talk and pictures on newer varieties of garden flowers.

MADISON DISTRICT ELECTS OFFICERS

THE Madison District of the Wisconsin Garden Club Federation held their meeting at Madison on September 21st.

The meeting opened with a luncheon at the Madison Y.W.C.A. At the business meeting reports were given by presi-

dents of each of the clubs represented. The new DeForest club was welcomed. The District is providing small sachets of herbs prepared by Mr. and Mrs. W. A. Toole, of Baraboo, as favors for the annual convention.

The program consisted of a talk by H. J. Rahmlow who showed samples of new varieties of annuals and perennials both from the plant testing list and others, commenting on their value. He also gave a preview of some of the lantern slide sets available to garden clubs. Rev. W. Beckman gave an interesting talk, with slides, on a trip to California and Mexico.

The following officers were elected: President, Mrs. N. S. Boardman, 930 Cornell Court, Madison; Vice-president, Mrs. Bohn, Baraboo; Secretary-treasurer, Mrs. Fowler, Shorewood Hills, Madison.



FOR YOUR GARDEN CLUB PROGRAM

BEGINNING in January the Wisconsin State Horticultural Society will have available several sets of 2x2 inch colored lantern slides on the subjects listed below for garden club programs.

Complete lectures are being prepared with each set of slides. There will be from 40 to 60 slides in each set. The lecture will consist of introductory remarks, giving the history and something about the culture of the class of flowers to be shown in the slides.

The following are the titles of the sets which will be available:

Set. No. 1. Lilacs and tulips for spring bloom.

Set No. 2. Iris and Peonies.

Set. No. 3 Perennials and annuals.

Set No. 4. Perennial Phlox.

Set No. 5 Gladiolus.

Bookings may be made now for any of the sets listed. The slides and lecture will be loaned free to any organization affiliated with the Wisconsin Horticultural Society on payment of return postage and the assurance that the slides will be carefully handled and that they will be returned or forwarded to another club immediately after they are used.

Projector

In most communities projectors are now available for showing 2x2 inch slides. If, however, it is impossible for the program committee to find such a projector in their community, the Horticultural Society will loan a very high quality projector for the sum of 50c plus transportation both ways.

Please note that these are the small slides, and cannot be used in the old type of projector in which the large size are shown. We have tested a number of the old style large slide projectors with the adaptor for 2x2 inch slides and find

them unsuitable. The pictures are usually unsatisfactory due to incorrect lens and lighting.

A good screen is important for showing colored slides. A good white wall may be used, or a sheet can be used in the evening when the room is dark. For an afternoon meeting it is important that the room be well darkened in order that the correct colors may be seen.

WELCOME NEW GARDEN CLUBS

DURING September three new garden clubs joined the Wisconsin Garden Club Federation, as follows: The DeForest Garden Club with 16 members; The Home Garden Club of Milwaukee with 14 members; and the Ravenswood Garden Club of Wauwatosa with 24 members. DeForest is located ten miles north of Madison.

The officers of the clubs are:

DeForest Garden Club

President: Mrs. Odell Camren.

Vice-pres.: Mrs. Roy Blanchar.

Secretary: Mrs. Leo Martalock.

Treasurer: Mrs. Chester Kelsberg.

Ravenswood Garden Club Wauwatosa

President: Miss Katherine Melcher,
108 N. 88th St.

1st Vice-pres.: Mrs. Carl F. Hofstetter,
136 N. 88th St.

2nd Vice-pres.: Mrs. Wm. J. Armitage,
190 N. 89th St.

Rec. Secy.: Mrs. W. E. Patitz,
110 N. 87th St.

Cor. Secy.: Mrs. H. F. Lichtsinn,
8701 Hawthorne Ave.

Treasurer: Mrs. Mark F. Pfaller,
8525 Ravenswood Circle.

Home Garden Club

Milwaukee Address Sta. F, R. 9

President: Mrs. Augusta Eisold

Vice-pres.: Mrs. Oscar Klug

Secy.-treas.: Mrs. Walter F. Beese

WANTED! PLANS FOR CHRISTMAS LIGHTING CONTEST AND PROGRAM

IN our November and December issues we would like to publish plans of garden clubs for Christmas lighting contests and programs.

We would like to hear from any club planning this project. A great deal can be done to make a community more beautiful during Christmas week by encouraging the lighting of evergreens by individuals and as a community project.

SCHOOL FOR FLOWER SHOW EXHIBITS AND JUDGES

THE second annual course for flower show exhibitors and judges by the Garden Club of Illinois, will be held at the Palmer House, Chicago, on November 14-15. Fees for non-members are \$6.00, single lecture, \$1.50.

Registrations should be sent to Mrs. George Parker, Palmer House, Chicago.

WISCONSIN FEDERATION HAS 81 MEMBER CLUBS

THE Wisconsin Garden Club Federation on October 1st had a total of 81 member clubs, 12 of which were new clubs in 1939. Total membership was 2,323.

Seventeen were honorary member clubs, 13 contributing, and 61 regular member clubs.

At the Board of Directors meeting held at Milwaukee on October 3rd, Mrs. R. E. Kartack, Rec. Secy.-Treas. reported substantial balances in treasury.

SAVE YOUR TREES

Pruning—Fertilizing—Spraying
Cabling—Cavity Treatment
Removals—Large Tree Moving
Complete Insurance Coverage

Lakeside 2907

Wisconsin Tree Service
2335 N. Murray Ave. Milwaukee

GARDEN NOTES

ACID SOILS BEST FOR LUPINE

AN article in the May issue of "Horticulture" states that experimental work in both Germany and Russia indicate that acid soils are best for the growth of Lupine. The soil reaction of pH 5.5 is mentioned as being favorable for these flowers.

In tests in Massachusetts good results were obtained in both plant growth and length of flowering stems in rather heavy peaty soils well supplied with phosphorus and a soil reaction of pH 6. Lupines in a neutral soil did not do so well and in an alkaline soil they were only of fair to poor growth.

The author suggests that soil around the Lupines be made acid and that this does not effect other flowers nearby because the movement in the soil is mostly downward and not lateral as illustrated by the effect of rain outside of a covered porch. The soil outside may be saturated, yet six inches away under the porch the soil may be dry.

RABBIT REPELLENT

THE search for a rabbit repellent to prevent rabbits from injuring shrubs and trees continues, but without apparent results. Here in Madison, last fall the editor carefully painted 300 English walnut seedlings about one foot high with a repellent that had evidently given good results in other places, only to find this spring that the top of almost every tree had been eaten off during the winter.

Evidently rabbit repellents work well when there is other food the rabbits like better than that painted with the rabbit repellent.

We will be glad to hear from members who have had success with any type of repellent.

BLUEGRASS AFFECTED BY HIGH TEMPERATURES

A 3-year study by the U. S. Department of Agriculture helps to explain why bluegrass is a "northern" grass, and why Bermuda grass does best in the south. The grass specialists conducted this study under controlled soil and air temperatures ranging from 40 degrees to 100 degrees F.

Although Kentucky bluegrass made a good aboveground growth at air temperatures of 40 degrees and continued growing even at 90 degrees, the roots grew best at soil temperatures of 60 degrees and stopped growing at 80 degrees. This explains summer "dormancy" of bluegrass.

Canada bluegrass reacted much as did Kentucky bluegrass, except that the best temperatures for both root and herbage growth were about 10 degrees lower than for the Kentucky bluegrass.

Bermuda grass did not begin "normal" growth until soil and air temperatures were about 60 degrees, but both roots and herbage grew well at 100-degree temperatures, the highest used in the study. On the other hand, Bermuda grass was severely injured by 40-degree temperatures.

Orchard grass made its best above-ground growth at air temperatures of 70 degrees, grew slowly at 80 degrees and stopped at 100 degrees. Orchardgrass roots grew best when the air and soil were 60 degrees to 70 degrees, but continued growth at 80 degrees in the lower levels—eight to sixteen inches. This explains why orchard grass will grow farther south than bluegrass.

From the American Nurseryman.

DYING OAK TREES

OAK trees have been dying at an alarming rate in southern Wisconsin in recent years. The cause has been attributed to drought, insects and fungi. While these may be contributing factors, observations by A. J. Riker (Plant Pathology) and C. A. Richards (U. S. Dept. of Agriculture) indicate that the primary cause remains to be determined.

There may be significance in the fact that, soon after the trees show definite injury, the two-lined oak borer, as well as the honey mushroom fungus, often appear. These probably help finish off oaks that are already weakened by some other as yet unknown cause.

The economic importance of this problem is best seen in the light of these facts: Oaks are the leading species in southern Wisconsin woodlots, and these woodlots have been contributing about as much to the Wisconsin farm income as potatoes or certain other important crops.

From *What's New in Farm Science*. (Wis. College of Agriculture).

THE FRUIT TREE

"A FRUIT tree is a symbol of home and comfort and good cheer. It is the emblem of good works.

"By the woodshed or the pump, or against the barn or over the garden fence, the apple tree or pear tree connects the residence with the world of life and space that stretches out to woods and farms. We rest our affections on it, as a midway place between ourselves and our surroundings. It is the warden of the fields and the monitor of the home."—Dr. L. H. Bailey.

THE SEVENTEEN-YEAR LOCUSTPLAGUE

E. L. Kammerer, Morton Arboretum

IN Arboretum annals, 1939 will long be remembered as a Locust year. Brown leaves and dead terminal branches still remain as evidence of the visit of these destructive pests, whose appearance in seventeen-year intervals has resulted in their being labeled "Periodical Cicadas."

The life history of the Cicada may be described briefly as follows: Emerging from the ground in early June, the insects cast off their nymphal shells and fly up into the trees for a final few weeks' existence above ground. During this period the males, who are the noisy members of the species, break the silence of the woods with their incessant buzzing, a disturbing sound not unlike the hum of an electric dynamo. The silent females are busy in the meantime depositing their tiny white eggs in slits made in the soft pithy centers of the terminal twigs. Branches thus mutilated wilt and turn brown and weakened by the incisions eventually break off and fall. The eggs have hatched by this time and the young may very conveniently burrow into the ground. Here they establish connections to plant rootlets thus assuring themselves sustenance until pressed by the urge to emerge and carry on their predestined life cycle.

Although in this area the Oaks, Hickories, and Maples have been most seriously affected, the Cicadas apparently have no decided generic preferences. Ash, Birch, Crabapple, Elm and Hawthorn are a few other trees showing injury in varied degrees. As to the results of the damage inflicted, while fatalities are probable only in cases of ailing specimens, it stands to reason that the vitality of all trees attacked has been considerably lowered.

Feeding, and watering during periods of moisture deficiency may be prescribed as a remedial treatment.

Damage by the seventeen-year locusts was especially bad around Lake Geneva this year. Trees on many of the estates suffered severely. (Editor).

ORNAMENTAL DWARF FRUIT TREES

THE training of ornamental or espaliered dwarf fruit trees holds considerable interest to horticulturists. A large number of home owners find that training apple or pear trees along a stone wall or against the house is fascinating.

A very good book on this subject is entitled "Ornamental Dwarf Fruit Trees" by Abjornson, published by the A. T. DeLaMare Company, 438 West 37th Street, New York City. (\$1.50). The book may be obtained from the Free Traveling Library, State Capitol, Madison, or may be purchased from the company direct, or through the Wisconsin Horticultural Society.

Ordinary fruit trees cannot be grown the espalier method. Only trees grafted on special dwarfing rootstock are suitable. These rootstocks grow a tree of small size which starts to bear fruit within two or three years. The tree produced, however, does not have a strong trunk, and so this type of tree cannot be grown out in the open unless supported with a heavy stake. It is, however, quite suitable to be trained and attached to walls.

There are two kinds of fishermen—those who fish for sport, and those who catch something.

CORRESPONDENCE COURSE OFFERED IN FLORAL DECORATION

MRS. L. Houston Reusch, The Garden Art Studio, 2752-37th S. W. Seattle, Washington, announces a correspondence course to be known as "Floral Formulas."

A series to be given this fall consist of four lessons. The first is on Thanksgiving Tables and Christmas Wreaths; the second on Charm Strings, Garlands, Winter Bouquets; the third on Winter Corsages, Boutonnaires, Wrappings; the fourth on Christmas and New Year's Tables. The cost of the course is \$1.00 for the four lessons, or \$5.00 for a group of 12 in a garden club.

A second series will be given on January 1st.

APPLES MAY BE WRAPPED WITH RUBBER

ANEW process has been discovered for wrapping apples with Latex. It is a very pliable and elastic rubber coating, and peels off the fruit without breaking. This rubber covering will lessen storage and market shrinkage and of course add to the attractiveness of the fruit.

The process was developed by the Fruit Machines Company of Portland, Oregon, and is called Rapel. A method for applying the rubber commercially is bound to come. One advantage of this new method is that it enables the apples to give off harmful gasses resulting from respiration which was not possible by previous methods.

Dinner's Ready

Caller—"Won't you walk as far as the street car with me, Tommy?"

Tommy—"Nome, I can't."

Caller—"Why not?"

Tommy—"Cause we're gonna eat dinner soon's you're gone."



Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

OFFICERS

A. J. Schultz, Ripon, President
Walter Diehnelt, Menomonee Falls,
Vice-president

H. J. Rahmlow, Madison, Cor. Secy.
Mrs. E. Voigt, Box 60, Menomonee Falls,
Recording Secretary-Treasurer

DISTRICT CHAIRMEN

S. P. Elliott, Menomonee
N. E. France, Platteville
Geo. Jacobson, Kaukauna
Ivan Whiting, Rockford

ASK YOUR COUNTY BOARD FOR HELP FOR DISEASE CONTROL

BECAUSE of the reduction in the State appropriation for A. F. B. control in Wisconsin, many counties are now in worse condition than they were formerly when they received county aid. Nineteen thousand dollars per year is not sufficient to cover Wisconsin, but that is all we are going to get for the coming two years. Therefore all county beekeepers associations are urged to contact their county board members at once, asking that the county help out with a small appropriation to guarantee the work in each county.

Don't pass resolutions. Any experienced legislator or county board member will tell you that they aren't worth the paper they are written on. Instead, write a personal letter to your own town chairman or county board member telling him of the necessity for this work. Appoint a committee to visit the Finance Committee of your county board and try to make an agreement as to how much should be placed in the budget for this work. If the matter is to come up for vote, arrange with the county board chairman or clerk for a committee to appear at the meeting to explain the need for an appropriation.

Mr. E. L. Chambers, State Entomologist, says that A. F. B. control work will be carried on largely in those counties which provide some financial help.

Woman's Auxiliary

THANKSGIVING and CHRISTMAS HONEY COOKY AND CANDY CONTEST

Open to all ladies attending the annual convention

CLASS 1. Eight holiday cookies. Prizes: 1st prize, \$1.00; 2nd, 75c; 3rd, 50c, 4th, 5th, and 6th prizes, 25c.

CLASS 2. Six to Eight pieces holiday candy. Prizes: 1st prize, \$1.00; 2nd prize 75c; 3rd, 50c; 4th, 5th, and 6th prizes, 25c.

WOMEN'S AUXILIARY MEETING WISCONSIN BEEKEEPERS ASSOCIATION

Ripon, October 26-27

Ripon Bank Auditorium

THURSDAY, OCTOBER 26

Morning Session in Odd Fellows Hall

- 9:30-10 a.m.—Set up honey baking contest exhibits. Mrs. A. J. Schultz, Ripon, Chairman.
- 9:45 a.m.—Assemble Odd Fellows Hall. Joint session with Beekeepers Association.
Call to order. Address of Welcome by Mayor H. M. Barbour.
What the Auxiliary is doing. Mrs. Frank Ortlieb, Chilton, President, Women's Auxiliary.
- 10:15 a.m.—What the American Honey Institute is doing. Mrs. Harriet Grace, Director.
Auxiliary members will transfer to Bank Auditorium.
- 10:45 a.m.—Planning meals for the family. Miss Ethel Mae Seward, Home Demonstration Agent, Oshkosh.
Planning a dairy supper. Demonstration by Betty Overton, 4-H Club member, Butte des Morts.
Luncheon in Odd Fellows Hall served by Rebekahs.

Afternoon Program

- 1:30 p.m.—Annual business meeting Women's Auxiliary.
Continuation of Program.
Tour of washing machine factory.

Annual Banquet

- 6:30 p.m.—Annual banquet with Wisconsin Beekeepers Association. Hive nailing contest for ladies. Bring your hammer. Nail one hive body furnished by G. B. Lewis Company. Nailing devices allowed.
Liberal prizes will be donated by the Wisconsin Beekeepers Association.

Friday, October 27

- 9:30 a.m.—Judging foods made with honey. Miss Mary Brady, Nutrition Specialist in Home Economics, Madison. (Bring foods prepared with honey for suggestions and comments by Miss Brady.)
- 10:30 a.m.—Questions and discussion on the use of honey by members. Roll call.
- 11:00 a.m.—What is new in foods and nutrition by Miss Mary Brady. Note: Miss Brady judged honey foods at the State Fair and gave many valuable suggestions. Don't miss her talk.
- 12:00 M.—Luncheon.

Afternoon Program

- 1:30 p.m.—Roll Call. Respond by giving your favorite honey recipe.
Continuation of business meeting.
Tour of Ripon Cooky factory.

**61st ANNUAL CONVENTION
WISCONSIN BEEKEEPERS ASSOCIATION**

Odd Fellows Hall, Ripon

October 26-27, 1939

Thursday, October 26

- 9:30 a.m.—Registration. Call to order by President A. J. Schultz, Ripon. Welcome to visitors by Mayor H. M. Barbour.
- 10:00 a.m.—Joint session with Woman's Auxiliary. What the Auxiliary is doing. Mrs. F. Ortlieb, Chilton, President. What the American Honey Institute is doing. Mrs. Harriett Grace, Director.
- 10:30 a.m.—Bee disease eradication. What was done this year; plans for next year. C. D. Adams, Madison.
- 11:00 a.m.—What shall we do with the honey on A.F.B. diseased colonies? Forum discussion, 10 minutes each. John F. Long, Westfield, Supervising Inspector; Mr. H. Hodgson, Waukesha; Mr. Walter Diehnelt, Menomonee Falls; Andrew Stevens, Stockbridge.
- 11:45 a.m.—Discussion by members. Questions.
- 12:00 M.—Luncheon. Business meeting Board of Managers. (Board consists of officers and one delegate from each affiliated county association.)

Afternoon Program

- 1:30 p.m.—Profitable outyard management for extracted honey production. G. H. Cale, Editor American Bee Journal, Hamilton, Illinois. Questions and discussion.
- 2:30 p.m.—Colony requirements for good wintering. Behavior of bees in the winter cluster and the problem of winter broodrearing. Dr. C. L. Farrar, Central States Bee Laboratory, Madison. Questions and discussion.
- 3:30 p.m.—The way to proceed in A.F.B. eradication. E. L. Chambers, Madison.

The Banquet—6:30 p.m.

- Banquet in Church parlors. (Chicken and all the trimmings, 85c.) Music and entertainment.
- Value of honey for babies. Dr. J. Martin Johnson, Ripon. (Dr. Johnson has been prescribing honey to babies under his care with excellent results.)
- Colored movies and slides on beekeeping. New fruits and flowers for the garden. Prepared by the Wisconsin Horticultural Society.
- Report of judges in container and label contest.
- Ladies hive nailing contest. Nail one hive body. Liberal prizes to fastest nailers.
- Stunts.

Friday, October 27

- 9:30 a.m.—How we can judge the quality of our queens. Relationship between stock and supersedure. Colored slides showing queens and their broodnests. Dr. C. L. Farrar, Madison.
- 10:30 a.m.—Speed, efficiency, and cleanliness in the honey house. G. H. Cale, Editor American Bee Journal, Hamilton, Illinois.
- 11:30 a.m.—Honey packages, labels and selling. Prices. Discussion led by Walter Diehnelt, Menomonee Falls. Bring samples of your labels and packages.

Afternoon Program

- 1:30 p.m.—How the new honey grades are working out. James Gwin, Madison.
- 2:00 p.m.—Annual business meeting. Election of officers.

**HONEY CONTAINER AND LABEL CONTEST—
ANNUAL CONVENTION**

James Gwin, Chairman, Madison

The object of this contest is to determine consumer preference for style of jars and labels.

Judging will be done by a committee of women who are consumers and know nothing of beekeeping. Judging will be entirely on appeal of jars and labels to the ladies.

Class 1. Six 1 lb. glass jars of Wisconsin No. 1 white honey with labels. Prizes: 1st prize, \$1.00; 2nd, 50c; 3rd, 50c.

Class 2. Six glass containers of any other size or style with labels. Wisconsin No. 1 white honey. Prizes: 1st prize, \$1.00; 2nd, 50c; 3rd, 50c.

Prizes given by the Wisconsin State Horticultural Society, Madison. Jars must be ready for judging at 12 M., October 26. Bring exhibits to Odd Fellows Hall in the morning.

HONEY WANTED

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

“What’s the difference between a fiddler and a violinist?”

“A haircut.”

NEW DRIPLESS SERVER

Retails at 50c

Just the thing to increase honey sales.

We allow 40% discount to beekeepers in lots of 1 dozen.

We have \$1.00 Dripcuts, and \$1.00 Fiesta Dripcuts at 40% discount in lots of 1 dozen.

Prices F.O.B. Menomonee Falls

HONEY ACRES

Menomonee Falls, Wisconsin

CONTAINERS!

NEW LOW PRICES!

- 2½ lb. cans, per case of 24.....\$1.15
 - 2½ lb. cans, per carton of 100 3.95
 - 5 lb. pails, per case of 12..... .90
 - 5 lb. pails, per carton of 50.. 3.00
 - 10 lb. pails, per case of 6..... .78
 - 10 lb. pails, per carton of 50.. 4.60
 - 60 lb. cans, in bulk, each..... .30
 - 60 lb. cans, per case of 2..... .92
 - 60 lb. cans, per carton of 24. 6.96
- F.O.B. Boyd, Wisconsin

GLASS HONEY PAILS

NEW SALES APPEAL

5 lb. Glass Pails, per case of 6 -----\$4.2

F.O.B. Boyd, Wisconsin

Order at Once and Save!

For prices on Comb Honey wrappers, cartons, glass jars, and shipping cases, refer to our 1939 catalog.

August Lotz Company

Boyd, Wisconsin

Plan Now For Next Year's Honey Crop

WETHER or not many colonies in the apiary will produce a good crop of honey next year, may depend largely upon what we do during October of this year.

It has been quite well established that bees start to rear brood in January and February, providing there is sufficient honey and pollen in the hives at that time.

Therefore, it is more important to watch the inside of the hives than the outside covering for winter.

There has been a great deal of discussion each year as to the proper method of packing bees for winter, indicating that beekeepers have worried probably too much about the type of covering and protection for their colonies. It does little good to carefully pack a colony of bees that does not have enough food to come through the winter in good condition.

In the southern half of the state at least, strong colonies with plenty of pollen and honey reserves can be wintered without any covering, although a windbreak is a very desirable feature.

The Queen

Every colony must have a good queen if it is to come out strong in the spring. Requeening may be done in October. If on examination we find a poor queen at this time, a new queen may be purchased and introduced quite easily, even after broodrearing has stopped for the season. Broodrearing usually stops in October for some unknown reason, and there will be very little brood found in the hives the latter part of this month or in November.

Fifty to sixty pounds of honey is not any too much for a strong colony of bees. Pollen should be available to the cluster during the

late winter months. Pollen placed on the outside of the hives cannot be reached by the bees during cold weather. Furthermore, under damp conditions it may become moldy and be unfit for use in the spring. It is best, therefore, to have several frames of pollen in the center of the broodnest so that it can be used as soon as broodrearing starts.

IT HAPPENS HERE TOO

WRITES James Starkey, Secretary of the Indiana Beekeepers Association in the Association News Letter.

"Even in the better producing sections of the state the difference in management is often astounding—sometimes we find whole rows of hives with a surplus of from 100 to 150 pounds per hive while others just over the fence or within a mile have almost no surplus. Good management pays.

"At least 80% of the over-wintered colonies examined the week of June 6, 1938, had large sealed queen cells. About 75% of these colonies had already swarmed once and in a few days all of these will be sending out a lot of little after-swarms. This, of course, will cut short the crop of honey of such owners.

MRS. ERNESTINE VOIGT

MRS. ERNESTINE VOIGT, Menomonee Falls, Recording Secretary-Treasurer of the Wisconsin Beekeepers Association for the past few years, died after a short illness from Streptococcus throat infection at the Menomonee Falls hospital, October 2. Mrs. Voigt, the daughter of our Vice-president and Mrs. Walter Diehnelt, has been of great service to the beekeepers during her term of office.

All members of the State Association extend to the family

Dysentery

Many beekeepers think that broodrearing causes dysentery. That is not the case. It is true that dysentery often causes abnormal broodrearing in a colony.

Dysentery is caused by the bees feeding on honey having excess moisture, or on certain kinds of honey which granulate quickly. The bees eat the liquid portion between the granules which is very high in moisture content. They cannot eliminate this high moisture content food and so become sick. Bees can rear brood in mid-winter if they have good, well ripened honey without any danger of dysentery.

Dysentery may also be caused by wintering bees in cellars which are very damp. We all know that honey absorbs moisture. In the damp cellar therefore, the honey would become quite thin and even turn sour. Bees wintered in the cellar should be watched carefully and the cellar kept as dry as possible. To warm a cellar is not good. There is evidence that many bee cellars are too warm.

KENOSHA BEEKEEPERS MEET

THE Kenosha County Beekeepers Association met at the home of Mr. H. Vincent, Twin Lakes, Sunday, September 10.

About 30 beekeepers and their wives attended. Mr. James Gwin spoke on honey grading, labeling and marketing. He gave us plenty to think about. The Association each year recommends honey prices to be followed by the members.

A resolution was passed to ask the County for \$250 to help in disease eradication work.

A good honey crop was reported, but not as large as expected earlier in the season.

Richard Hansen, President

and the bereaved husband deepest sympathy.

Observations On Honey Prices and Marketing

BEEKEEPERS who have watched the marketing of honey and prices received in different communities, and by different beekeepers for many years, have noticed that there is quite a variation in the price received.

Some beekeepers are able to sell their honey at retail to customers in communities where they do not have much competition at a relatively high price. That is fine. If they give good service, and have good quality honey, it is worth all they can get for it.

Beekeepers who produce a large crop find that they must sell through the larger retail stores, including the chain stores. If a chain will purchase 5 lb. pails for example, by the dozen or in lots of 50 or 100 then the price received by the beekeeper must be the national price, or the price established by large packers and cooperatives, and at the present time runs around 40c for a 5 lb. pail or even a little less. Chain stores doing a large volume of business on the cash and carry plan may sell this honey at a low margin of profit, resulting in a retail price of 50c per pail or less.

Beekeepers who deliver to small retail stores, such stores buying in lots of only three or six pails at a time, are entitled to a higher price because of extra cost of handling and delivering. Such small stores which have charge accounts and delivery service are forced to charge a larger profit and they may sell 5 lb. pails at 55 or 60, and even 65 cents, and it may be worth it.

If a beekeeper peddles honey from house to house he will probably not receive a high wage per hour for his time and his traveling expenses if he charges 55 or 60 cents for a 5 lb. pail. He is entitled to the extra price for the service he renders to the consumer.

Every year we hear beekeepers criticizing other beekeepers for the price they are charging for their honey. Often such criticism is justified. If, for instance, the beekeeper peddles honey at a very low price, underselling even the chain stores that do not deliver or render any service, he is open to criticism.

Recently, however, we heard a beekeeper complain about being criticized by a producer who advocated charging 75c for a 5 lb. pail, and made the statement that he had no trouble in selling his honey at that price. He sold a small percentage of his crop at the 75c price, and then sold the balance to a packer at

5c per pound. It is perfectly all right to charge 75c per 5 lb. pail if you can get it, but such a producer should not expect a packer or producer who must dispose of a large volume of honey to obtain that price — at least under present conditions.

According to economists, the price of honey seems to fluctuate, at least on a nationwide basis, with the price of butter. When the average annual trend of butter prices is upward, we should expect honey to follow suit. This probably accounts for the fact that during the short crop year of 1937 the price of honey did not rise as high as might be expected due to the shortage of the crop.

The income of industrial workers, according to economists, affects agricultural products, including honey, more than any other factor.

TAYLOR COUNTY ASSOCIATION ELECTS OFFICERS

MR. FRED MATSON, Owen, was elected President, and Mr. Ben Kraus, Whittlesey, Vice-president, and Mr. John C. Pagel, Medford, Secretary-Treasurer of the Taylor County Beekeepers Association in September.

The Association now has 34 paid up members and is having some very interesting meetings.

AMERICAN HONEY INSTITUTE ISSUES NEW ADVERTISING MATERIAL

THE American Honey Institute, Madison, has just issued some new pamphlets on the use of honey, and also two streamers advertising honey in grocery stores.

One of these which every beekeeper should have placed in the grocery window where his honey is for sale states: "Just Arrived—New Season's Honey. Order Today—Use Every Day!" The size is 6x17 inches. Another streamer of the same size shows a jar of honey with the statement "Order Honey Today. Hon-

THE HONEY CROP

THE estimate of the honey crop in Wisconsin continues to be about 75 per cent of last year. The western part of the state of course reports a good crop because they had a failure last year.

The fall crop was considered good in some sections. However, along about this time of year when the bees are being prepared for winter, many will find that they can well afford to put a lot of this fall honey into the hives for winter and spring feed.

The Red River Valley reports a short crop. Nebraska and Kansas have a better crop than last year. California had almost a failure this year, especially of orange honey. There was very little sage.

Michigan will have about 75 per cent of last year. Throughout the middle-West, however, the crop in general is good. In some sections where there was plenty of summer rain, there was a good flow. Nearby sections often had drought with a decreased crop.

The increase in the price of sugar does not seem to have affected honey. Perhaps honey does not follow the price of sugar as closely as we have always considered it to do. Honey is probably considered as a spread and more closely follows the price of butter in its price fluctuations.

Some authorities estimate that this year's national crop will not be over 65 per cent of last year, which of course, was a record crop of perhaps 200 million pounds or more. Therefore, even with a carryover from last year, the crop should be shorter than that of last year.

Whether or not prices will stiffen is still doubtful, but most beekeepers are inclined to think that there will be a much firmer tone to the market.

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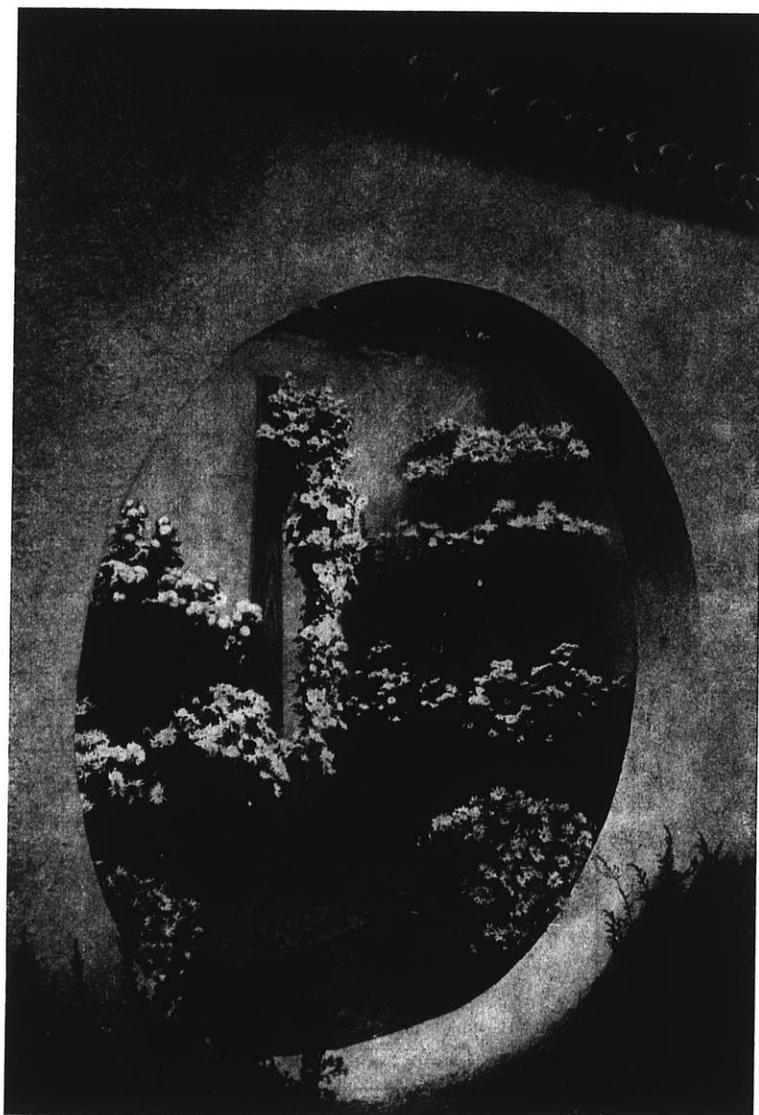
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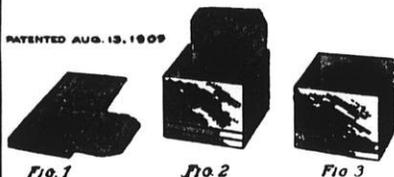
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"H'm, I guess my tummy must be running fast."

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Wisconsin Horticulture

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PLEASE DO NOT SEND STAMPS

Wisconsin *Horticulture*

Ten Points About The Cortland Apple

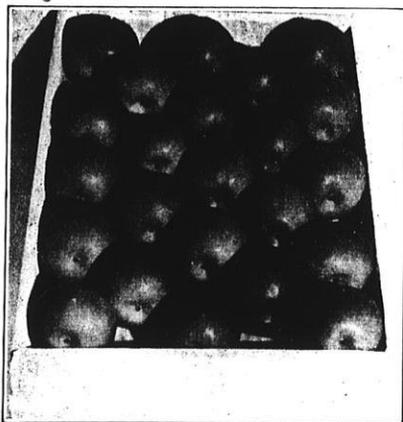
H. B. Tukey, New York

WHAT is the present line of thinking about the Cortland?

First, the similarity of McIntosh to Cortland is not being made very much of. There are those, including the writer, who will say that they prefer a Cortland to a McIntosh for eating, but few can be found today who will say that the quality of McIntosh is excelled or even equalled by Cortland. Quality is one thing; what you like is often quite another! Suffice it to say that the quality of a well-grown Cortland is good enough for the present market demands.

Second, the long hanging qualities of Cortland are no longer emphasized. The important point is that up to the time that it should be picked, it does hang better. But if allowed to hang too long it loses its keeping quality. Further, if picked too early it scalds. In other words, it is an apple which is exacting in regard to time of harvest. Instead of being thought of as an apple which can be allowed to hang two or three weeks after McIntosh, it must be picked with or just after McIntosh. Nevertheless, the fact that it hangs at least until it is picked, is a tremendous feature.

Third, the long-keeping qualities of the fruit are no longer



championed. In fact, the trade in New York City is now strongly of the opinion that Cortland is an ideal apple to market just preceding McIntosh. Commission men will tell you that Cortland should be off the market by January 15. The important point is that Cortland is now being thought of as a fine apple for early fall and early winter use.

Fourth, the similarity of tree characters of McIntosh and Cortland are no longer emphasized. Cortland is a smaller tree suggesting the willowy habit of growth of the Ben Davis. Further, it bears terminally like the Ben Davis as well as on spurs like the McIntosh. These are good points and make Cortland an early and regular bearer on

trees that are not so big as those of McIntosh. It is just these features which the apple industry is especially interested in at the moment—closer planting and earlier bearing.

Fifth, the Cortland is attacked by the rosy aphid whereas the McIntosh is highly resistant or almost immune. Besides, it scabs fully as badly as McIntosh, and the fruits are likely to be in doubles and to shelter codling moth larva between them to produce a higher proportion of codling moth damage than one should like. Fortunately, the spray program succeeds in handling these pests, although at a cost.

Sixth, Cortland is succeeding in part because the trees that are not in commercial production are young. As trees of most varieties get older the performance is poorer—look at Baldwin, Northern Spy, Delicious, Rome Beauty and a host of others. Many McIntosh trees throughout the country are now approaching the age where they are beginning to produce a higher proportion of green and off-grade fruit than they did a few years ago.

Seventh, because of the higher proportion of lower grade and lower quality McIntosh fruit that now finds its way to market

from older trees, from marginal orchards and from neglected trees, the relatively better fruit from young trees of Cortland shows up to good advantage. Not that the standard of Cortland is better, but that the standard of McIntosh is lower.

Eighth, while Cortland may not be called an improved McIntosh, it is nevertheless being found to be a generally good all-purpose apple. It is a good dessert fruit, it makes marvelous apple sauce; it bakes well; it goes well in a pie; and housewives have found that it is a perfect apple for salads because it does not discolor upon exposure to air.

Ninth, the claim is no longer pressed that Cortland will do well wherever McIntosh will do well. Because, where McIntosh does especially well, as in Northern New York, Vermont and New Hampshire, Cortland quality is none too good in comparison.

Tenth, and finally, shall we say in conclusion that Cortland is succeeding not because of the somewhat extravagant claims made for it but because there just doesn't seem to be anything better to plant to supplement the plantings of McIntosh in eastern orchards. Cortland may perhaps go quickly when something better to plant comes along. But at present what is there? Who has it? And so the Cortland is being planted. And when the market learns to know it and the grower learns how to grow and handle it, it will be perhaps not so highly thought of as the introducers claimed and hoped, but also perhaps more highly thought of than in some quarters today.

From *The Rural New-Yorker*.

A man went wearily into a barber shop and slumped down into a chair.

"Give me a haircut," he said.

The barber told him that he was too far down in the chair for a haircut.

"All right," said the customer, wearily, "give me a shave."

"Natural" Apple Juice Now Possible

New Bulletin

PRACTICALLY everyone agrees that apple juice just as it comes from the press has more flavor than that which has been clarified and filtered by any of the better processes. The difficulty with natural (cloudy) juice has been that until recently there has been no satisfactory method of pasturizing or preserving it. If the customary holding pasteurization procedure is employed, the juice soon deposits a heavy mud in the bottom of the container. Further, it loses its fresh apple flavor and takes on a different flavor which is sometimes said to resemble that of apple sauce.

Flash Pasteurization

On the other hand, if the natural (cloudy) juice is quickly heated to a temperature of 165° to 175° F., filled into containers which are immediately closed, inverted or turned on the side for 3 minutes, and then quickly cooled, the product retains its natural fresh flavor and does not deposit any considerable amount of sediment in the container during storage. This process is commonly known as flash pasteurization and represents a distinct advance in methods of preserving not only apple but nearly all other kinds of fruit juices. The procedure is applicable not only to cloudy juices but to clarified juices as well.

Flash pasteurization causes much less change in flavor than does holding pasteurization (the holding of the bottled or canned juices at a temperature of 170° F. for 20 or 30 minutes). Further, as can be seen by the above brief description, the process is not only very simple but is also very rapid. Its use eliminates the necessity of clarification by enzymes or by any other process.

The exact details to be followed in making the flash pasteurizing apple juice are described in detail in Circular No. 181 which may be obtained upon application to the New York Experiment Station, Geneva, New York. The circular also describes a simple, inexpensive flash pasteurizer which may be constructed at a cost of approximately \$15. This equipment is so simple and so easy to operate that it may be constructed and used on the average farm.

From October Farm Research, N. Y. Experiment Station.

SMALL APPLE PACKAGE SELLS BEST IN LARGE CITY

THE New York State Department of Agriculture recently staged a test to determine the preference of consumers for various sizes of apple packages. The work was done through certain retail stores. They packed a two pound package to sell at 19c, and another 12 pound package to sell at 60c, using the same kind of apples.

The two pound package in spite of retailing at twice the cost per pound, outsold many times the 12 pound package. In the magazine "The Marketer" we find this statement:

"Statistics show that the average sale of apples is three pounds. A small unit tends to maintain a more rapid movement of apples into the home, thus assuring better condition on reaching the consumer and consequently better satisfied customers.

"Grocers are likely to push these small consumer size packages because they can be handled quickly by the busy clerks with no additional store cost of wrapping, weighing, and handling."

SOMETHING NEW—SPRAYING TO PREVENT FRUIT DROPPING

SPRAYING with a plant growth substance to prevent apple dropping is a new idea, but in a recent issue of SCIENCE an account is given of tests with growth promoting substances by F. E. Gardner, P. C. Marth, and L. P. Batjer of the U. S. Horticultural Station at Beltsville, Maryland.

If it proves both successful and practical, then growers of McIntosh will rejoice. In fact, other varieties often drop their fruit prematurely. These workers recognize the tendency of many of the so-called growth promoting substances in delaying the normal dropping of flower parts, leaves, etc. They have therefore conducted experiments to find out whether a weak solution of these growth promoting substances might check the premature dropping of early ripening varieties of apples. Naphthalene acetic acid, and naphthalene acetamide solutions were applied on seven varieties just prior to ripening. The workers report:

"In the first experiments much stronger concentrations were used than are now proving to be necessary. Williams Early Red, as an outstanding example, was sprayed with .001 percentage of naphthalene acetic acid on July 13. By July 25 the unsprayed trees had dropped from 64.2 to 90.8 per cent of their total crop on actual fruit count, whereas the **sprayed trees had dropped only from 1.3 to 1.5 per cent of their fruit.** Concentrations of .00025 per cent on other varieties have since been found to bring about very marked inhibition of dropping. The effectiveness of some of these compounds in such dilute concentrations would definitely recommend their usage as a practical orchard procedure. Their practicability becomes enhanced if it is found that they can be added to the regular spray schedule.

BEWARE OF IMMATURE APPLES

(From New York and New England Apple Institute, Inc., Bulletin, August)

LAST season the Wealthy deal, and later, the McIntosh deal, was seriously retarded by the picking, selling and retailing of unripe, greenish, poor-flavored apples. The weather was responsible for much of the poor-colored Wealthies. This was not the case with McIntosh. Ideal weather resulted in one of the best-colored crops when McIntosh were **left to grow and mature properly.**

Both growers and distributors were responsible for this calamity. Consumers clamored for McIntosh in the markets, stores demanded McIntosh of their buyers and buyers worried the growers for them. Growers, anxious to get started, escape dropping, and get ahead of the rush, picked and sold apples that they could not have eaten themselves. **RESULT:** Thousands of retail stores stocked with unlovely, astringent, disappointing McIntosh which so disillusioned the consumers as to the goodness of McIntosh that they turned to the fine assortment of other seasonal fruits. Countless stores worried over their supplies of unwanted McIntosh before they got rid of them and made new purchases of mature apples.

This must not happen again! Buyers take warning! There is loss, not profit in green McIntosh. Growers beware of the lure of early sales of immature McIntosh! We do not have state control which prohibits the sale of immature apples. It is up to our intelligence and consciousness to protect the McIntosh and ourselves from picking too early.

When God created man, He gave him two ends—one to sit on and one to think with. Ever since then, man's success or failure has been dependent on the one he used most.

LOBO AND HUME APPLES LOOK GOOD

ABOX of Lobo and Hume apples from the Canadian Experiment Station, Ottawa, Canada, was sent to the Wisconsin Horticultural Society for inspection and trial during October, through the courtesy of Dr. D. S. Blair and Mr. M. B. Davis of the Horticulture Department of the Station.

Both of these varieties are crosses of the McIntosh, and ripen just before McIntosh. Hume is the latest and ripens practically with McIntosh. The trees are very hardy, the apples are an excellent deep red color and of high quality. Since they are doing so well at Ottawa where the McIntosh is not fully hardy, these varieties are considered quite promising for northern Wisconsin. Over 100 trees were imported from Canada last year and were planted and distributed by Dawson Hauser of Bayfield to growers in that section.

Trees of Lobo and Hume were also sent to the Marshfield Branch Experiment Station, the Spooner Branch Experiment Station, to County Agent H. G. Seyforth, Ellsworth, and to County Agent W. R. Marquardt of Polk County.

It is hoped these varieties will be an improvement upon any now being grown in northern sections of the state.

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In Orchard and Field

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25 lb. bag-----\$2.50

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In the Orchard

TEMPERATURE AND APPLE PRODUCTION

PROFESSOR M. A. Blake of the New Jersey College of Agriculture discusses the relation of temperature to commercial apple production in a recent article appearing in the New Jersey Horticultural Society's News. He points out that McIntosh and Cortland develop their highest commercial quality in regions where the September mean temperature does not exceed 60 to 63 degrees, and the August mean temperature does not exceed 68 to 70 degrees. These varieties are likely to lack color, he says, where the August mean temperature is as high as 75 degrees and they are not likely to be of good commercial quality at this temperature. Some varieties, such as Grimes and Winesap, develop better when grown where the September mean is at least 65 degrees and the August mean is 72 to 75 degrees.

On studying our local weather data we find that the September mean for all points on southeastern Minnesota and the lower Minnesota river valley falls between 60 and 63 degrees, and the August mean for this area falls between 68 and 70 degrees. Both McIntosh and Cortland appear to be well adapted to this region, thus supporting the statements made by Professor Blake.

J. D. Winter, in the Minnesota Horticulturist.

CRACKING WALNUTS WITH GAS

PERHAPS you have heard of the newest method of cracking English walnuts—not by pressure from without but by injecting an explosive gas through the shell and exploding it inside. It seems that by the old tedious method of

cracking the average worker put out about 35 pounds of meats per worker per day. In the new method a saw cuts a tiny slit in the shell of the walnuts. They are conveyed by two rubber-faced belts, which hold and guide the nuts through the machine. As they are carried along they are filled with an explosive gas mixture of air and acetylene. A flash or spark gap ignites the gas within the nut as it is released by the rubber-faced belts at the end of the machine. Since the shell is usually thrown at some distance, two concentric receptacles are placed below the flame, the one to receive the nut kernels and the other the shell. About 60 per cent of the nut meats come out whole or in half pieces. The capacity of the machine is 900 pounds of unshelled walnuts per hour and the quantity of gas required is 25 cubic feet per hour. Walnut growers approve of the prospects because they hope that the price of walnut meats will thus be reduced and consumption increased.

From *The Rural New-Yorker* by H. B. Tukey.

WISCONSIN SECOND IN BEETS FOR CANNING

WISCONSIN ranks second in beets for canning, with an estimated production of 8,800 tons this year, according to the Crop Reporting Service.

With a decrease in acreage and lower yield per acre, the crop of beets is only a third the size of the crop harvested last year. There is a decrease of nearly 50 per cent in production for the nation, according to the September estimate.

Last year Wisconsin produced 25,600 tons, and ranked first. The yield per acre is estimated at 5½ tons this year. Last year it was 7.2 tons.

APPLE VARIETIES EVALUATED

NEW YORK State has published a bulletin on the Evaluation of apple varieties. This study may be of value to Wisconsin growers because the climate of New York State is somewhat similar to that of Wisconsin, and of course their marketing problems would be very much the same as ours.

Twenty-one varieties were **recommended for discard**. Among the varieties we grow here in this group are Alexander, Gano, Hubbardston, King, King David, Lowland Raspberry, Maiden Blush, Winter Banana, Wolf River and Yellow Belleflower.

Four varieties are considered of **limited value**. Among these are, Ben Davis, Famuese or Snow, Red Astrachan, Stark, Tolman Sweet, Twenty Ounce, and Wagener.

The following varieties had rather **general approval**: Delicious, Duchess, Grimes, Jonathan, McIntosh, Northern Spy, Northwestern Greening, Wealthy, and Winesap.

Nine new varieties show **considerable promise**. Among these are Kendall, Linda, Lobo, Lodi, Macoun, Melba, and Milton.

Among the new bud sports considered of value are Red Spy, Richared and Starking.

The following varieties are considered of very little value in the north: Grimes, Jonathan, N. W. Greening, Winesap and Yellow Transparent.

“Give me two loaves of bread,” said Mohammed, “and I will sell one of them and buy white hyacinths to feed my soul.”

No prettier tribute was ever paid to flowers; or man's need for them so truthfully interpreted.

Good Grapes For Home Use

HIGH quality grapes are in good demand. Wisconsin has not produced as many of the table grapes as the market would warrant. Since many people buy grapes for eating purposes, and since the common blue grape being grown such as Concord, are not high enough in quality to be enjoyed as a table grape, there is opportunity in this state for growing the better quality green or white grapes.

Golden Muscat Outstanding in Quality

The editor has a vine of Golden Muscat originated by the New York Experiment Station, Geneva, New York, which has been producing well for the past three years, growing in his back yard. This is the finest quality grape we have ever seen growing in colder climates. It does very well, ripens about mid-September, but since it is not considered hardy, we cover it each fall.

FARM RESEARCH by the New York Experiment Station has this to say about Golden Muscat:

"In judging the flavor of European grapes, Muscat Hamburg is used as the standard par excellence, hence it has been used extensively in hybridizing. A cross between this variety and Diamond, made in 1916, gave Golden Muscat. This is the first hardy muscat-flavored hybrid sent out by this Station for trial. Golden Muscat is outstanding among the greenish-yellow grapes by reason of its very large, handsome, compact clusters and its large, oval, golden-colored berries. The vine is very vigorous and productive and requires close pruning. Its many excellent qualities would place it in the top rank if it were not for the fact that it requires a long season to ripen—about 10 days longer than Con-

cord—and because the berries are tender for shipping. For localities that are favored with a long season, it is highly recommended for the roadside market and home use. It was introduced in 1927."

Ontario and Portland

For those who wish a green grape of high quality, excellent for table use, but a little earlier in season than Golden Muscat, Ontario and Portland will fill the bill. These are also introduced by the New York Experiment Station, Geneva, New York, and FARM RESEARCH describes them as follows:

"The first named seedling of known parentage to be introduced by this Station was Ontario. It was obtained in 1892 by crossing two green grapes of good quality but lacking in good vine characteristics. One parent, the Winchell, is a very early green grape, and the other, Diamond, is a mid-season variety. Since the introduction of Ontario in 1908 and of Portland, another green variety, in 1912, the Winchell has become nearly obsolete. Ontario is not only earlier than Winchell, but it is of better quality and superior in vine characteristics.

"Portland ripens about with Ontario and takes first place for the earliest, commercial green grape. Its bunches and berries are larger than any other early green grape and they pack and ship well if picked before too mature. If left on the vine too long, the berries shatter badly and become very foxy. The vine of Portland is very satisfactory in all respects."

A number of members of the Wisconsin Horticultural Society are testing both Ontario and Portland and are finding them to be excellent grapes. We really believe that they should be plant-

ed instead of the older type of blue grape where a grape of high quality is wanted for table use.

COVER YOUR BERRIES TO KEEP THEM WARM

BY this time most strawberry patches will have been covered. It is well to watch the covering, however, to see that all plants are protected from the first freeze, in case it comes before a snow covering. It has been pretty well established that at this time of year strawberries may be severely injured by a temperature of from 15 to 20 degrees F. In other words it is the **cold** that injures the cells of roots and crowns. A mulch keeps the plants warm. As stated in our October issue, under the heading of **Tender Perennials Need Covering**, work at the Minnesota Experiment Station showed that when the temperatures 2 inches deep in the soil went to -2° F. on bare ground, it was 24° F. under 3 inches of straw.

The Minnesota Experiment also seemed to indicate that ice alone did not smother the plants. Strawberry plants were sprayed with water which was frozen so that the plants were in a solid cake of ice. They were stored for ten days just below freezing. After thawing them out slowly they were planted and grew satisfactorily.

Asked why plants covered with ice winterkill, Prof. W. T. Brierley of the Minnesota Station said that in his opinion ice was a good conductor of cold and plants under ice were frozen and killed in that way. Plant growers have had the experience of having plants covered with ice but by covering immediately with several inches of mulch, have saved their plants.

Never bet on a sure thing unless you can afford to lose.

WHY DO RASPBERRIES WINTERKILL

A GREAT many raspberry patches winterkilled last winter. Why? It was one of the mildest winters we have had in years. The minimum temperature at Madison was 7 degrees below zero. Some raspberry growers maintained that the winterkilling was due to the wet season causing a late, soft growth, which was tender. On the other hand, we did not have a wet season in the fall last year. Instead, the weather was more or less ideal for ripening the wood—the rains occurring earlier in the season.

We saw one illustration which leads us to think that our ideas on winterkilling may have to be revised. A patch of blackcaps in excellent condition which had borne fruit for several years were entirely winterkilled. However, a young patch on another part of the same farm, came through in fine condition. On examining the plants, we found the older and killed canes badly affected with anthracnose, but the young patch relatively free of the disease.

In every patch of red raspberries examined last spring which were winterkilled, a considerable amount of cane and spur blight as well as anthracnose was found.

Disease Prevent Canes Ripening

"How does the disease kill the plants?" one grower asked. The disease did not directly kill the plants, but when these diseases are serious as they were last year during a wet season, the canes are so badly injured that the transfer of food materials is interfered with and the crop is prevented from ripening. Winterkilling is the result, regardless of the kind of winter we have.

Most of southern Wisconsin has had a dry season this year.

We have noticed some cane blight which can be identified as a purplish area usually now on the lower part of the canes, irregular in shape but it is not serious. Northern Wisconsin, however, has had considerable rain this year, and both diseases are more serious. Unless the plants are well covered with snow this winter, there will be considerable winterkilling in the northern part of the state.

It all means that we will have to change our ideas about winterkilling and learn to recognize these diseases which are spreading rapidly. A spray program will have to be adopted. This will be discussed in further issues.

Look for Cane Borer

Many raspberry patches are now effected with the cane borer. The trouble can easily be seen now as an enlarged area on the cane, about one-half inch in length, looking like a swelling of the cane. By cutting through some of these swellings, one can become familiar with the work of the cane borer. Old canes should be destroyed now and should have been destroyed as soon as the crop was picked. Young canes showing the presence of insects, should now be cut off and burned.

Cold Cream

Mother: "Mabel, did you go down to the drugstore for the cold cream?"

Mabel: "Yeth, Ma'am."

Mother: "Well, where is it?"

Mabel: "I ate it."

Mother: "Ate it? Why, child, what kind did you get?"

Mabel: "Chocolate ice cream; it was the coldest kind I could get."

HARVESTING AND CURING GOURDS

IN harvesting all gourds, leave an inch or more of the stem on the gourd, as this is not only an aid in curing them properly, but it is helpful in stringing them together, where this is desired. Gourds should never be pulled from the vine. Cut the stem with a sharp knife.

After picking, wash and dry thoroughly and store in a warm, airy light place. The time required for curing varies with the variety. If a fruit feels cold and clammy it has not been thoroughly dried. The *Lagenaria* cure better if hung up for a long period, until the seeds rattle in the dried gourds.

If gourds are not treated with some disinfectant while curing, a skin fungus will create mosaic-like designs on the surface, which is liked by some people. If you find this objectionable, however, wipe over each gourd daily with a strong solution of a coal-tar base disinfectant.

After curing, some people shellac or varnish gourds to enhance the color, but many experienced gourd growers do not approve of this, because they say that even when gourds are to all outward appearances quite dry and well cured, there may be moisture on the inside, causing rot which will spread to the surface.

You may, without detriment to the gourds, wax them with a liquid floor wax, let dry for an hour and polish. This treatment gives a very good gloss and finish.

If desired, gourds may be painted with various designs. Before painting, be sure the gourd is well cured and thoroughly dry. Draw on the gourd lightly with a pencil any design wanted, and apply the paint with a camel's hair artist's brush. After the paint is dry, oil with vaseline.

Another method of decoration is to burn a design on the gourd with an electric needle.

How Should Plants Be Protected

Prof. L. Sando, Minnesota

WHAT materials should be used for covering our perennials? We have used marsh hay, straw, leaves, peat, sand, excelsior, excelsior and leaves, and soil. Brush placed directly on the ground and mulch thrown over it, filtering through to the plants beneath. Glass wool or cloth similar to that used in insulating dwelling houses. Boards placed inverted V-like fashion over the plants and straw placed over the boards.

I believe that we should pay more attention to the physical condition of the mulch on our plants for there is no question that they are much more responsive to rapid changes in air temperature than is perhaps realized. Permitting mulch to be blown away or removed is also a possible source of injury. Obviously winter protection plays a big part in the survival of our perennial plants.

When Should Mulch be Applied?

After the ground is frozen has frequently been recommended, but if we should have a late fall and one punctuated by rains, then it means soft tissues and crowns. These may be injured by a sudden frost before the mulch is applied. The tender crown of a plant may easily be severely injured by such conditions, the effects of which would not be seen until the following spring.

Plants have been covered **after** the first frost and before a hard freeze.

During a visit to North Dakota in late June, I saw as fine a bed of *Campanula medium* as it is possible to conceive. The plants were not covered in the fall due to early snow which remained on the plants until late February or early March. As soon as the snow began to show

signs of disappearing, a good straw mulch was thrown over the plants and not removed until all danger of frost was past. (Duluth)

Danger of Smothering Plants— Depth to Cover

It has been recommended by many authorities to cover a depth of six inches. If straw is used, this might be all right, but if leaves only, plants such as *Aquilegias*, which are the earliest to come through the soil, would be smothered.

On the other hand, *Hibiscus* and the hardy fall asters are later to emerge through the soil consequently would not be damaged by a heavy covering of leaves.

Experiments at Minnesota University Farm have shown that under a good mulch of leaves, the soil temperature was higher than under straw at least up to the middle of March. After this time the soil was warmer under straw and other covering material.

Removing part of the outer leaves of heavy foliage plants as in *Digitalis*, *Canterbury Bells*, and *Hollyhocks* would be beneficial and would do much to prevent the plants from being smothered by any one of the various materials recommended as a mulch.

"Mounding" with Soil or Sand

Quite often statements are made regarding late planting, such as planting may be continued up to freezing weather and so on. In contrast with this several nurserymen have this fall expressed their conviction that late planting is a mistake. These men say, plant early while the soil is warm so that the roots may take hold before freezing weather arrives.

Iris roots planted late by a commercial grower as a test, failed to produce a single root, and the following spring could be lifted out of the soil without any trouble whatever. No connection had been made with the soil.

This was a good example of the futility of late planting.

Should you plant in late fall how much guarantee is there that the plants will be thoroughly settled before a hard freeze and all root action ceases.

We have at University Farm very heavy clay soil, it packs, is poorly drained, and the physical condition far from perfect. The physical condition has been improved somewhat by the addition of sand and peat. Consequently we look at the matter of the soil and water content with great interest.

We find winter hardiness to be a question of water, temperature, and physical condition of the mulch applied rather than the type.

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Gladiolus Gleanings



By the WISCONSIN GLADIOLUS SOCIETY

Chester Harrison, Waldo, President

Dr. Geo. Scheer, Sheboygan, Vice-President

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

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

Regional Vice-Presidents
Frank Blood, Stevens Point

Fred Hagedorn, Sheboygan

Edwin Ristow, Oshkosh

Ben Robinson, Kenosha

GROW MORE GLADIOLUS

Chester Harrison, Waldo

NOW that we have successful methods of controlling thrip it is hoped that many flower growers that formerly grew gladiolus, but discontinued doing so after having many disappointments, will begin to grow them again.

Thrip Control

I have talked with many gardeners, and they all reported that bulbs treated over night with a solution of one ounce of Bichloride of Mercury, to 7 gallons of water, and after the gladiolus were up spraying two or three times with Tartar Emetic and brown sugar solution, produced the most beautiful flowers they had ever grown, with no sign of thrip present.

This treating and spraying requires very little time. The cost is small and is well worth the price and effort. To you who have discontinued growing glads, why not get a few of the following varieties which I am sure you would be pleased with: Picardy, the most popular salmon pink; Maid of Orleans, a cream throat-ed white; Duna or Wasaga, buff; Minuet, lavender; Aflame or Tip Top, Scarlet; Commander Koehl, red; Bagdad, or Mother Machree, smokies.

There are many others to choose from and so many colors that any one can get whatever colors they like best. The sym-



posium in last issue of the Horticulture and in this issue is wonderful for anyone to pick their varieties from. These varieties are favorites of different growers and they are all dependable glads.

Do not wait until next spring before you start planning what you are going to grow. You can often get your bulbs cheaper in the fall right after growers have cleaned their bulbs.

CONTROL GLADIOLUS THRIPS NOW

EVERY gladiolus grower, large or small, should be sure to treat all gladiolus corms every fall with naphthalene flakes to control thrips. This is important not only to eliminate thrip from the patch next summer, but to protect the neighbors. We should also urge all our neighbors to

treat their bulbs for our own protection.

Naphthalene flakes are not expensive. Use 1 ounce of the flakes for every 100 corms, or a level tablespoon to about 20 to 25 corms.

For small quantities place each variety in a separate paper bag, throwing the flakes into the bag and turning the top down so as to be approximately air tight. This is an easy way of treating. Along about January it will be well to shake out the flakes to prevent possible injury to germination of the bulbs.

FROM THE NEW ENGLAND GLADIOLUS SOCIETY

THE following letter was sent to Mr. Otto Kapschitzke, Recording Secretary-Treasurer of the Wisconsin Gladiolus Society in response to his application for membership of the Wisconsin Society in the N.E.G.S.

Dear Mr. Kapschitzke:

The officers and Trustees of the New England Gladiolus Society welcomes the Wisconsin Gladiolus Society into the group of societies affiliated to promote gladiolus interests in this country and in the world.

We expect your strong, active, and progressive Society will show many phases of leadership in the group. We have always found the

(Continued on Page 71)

The Most Popular Glads

RESULTS of the Symposium for favorite gladiolus varieties as given in our October issue, remains the same. However, we are giving the names of other varieties which received consideration in the voting by members of the Wisconsin Gladiolus Society.

The Reds

Commander Koehl led as the most popular red by a wide margin. However, the following varieties received a number of votes: Tip Top, Rewi Fallu, Memory to Hindenburg. Receiving one vote each were; Regent, Del Ray, Black Opal, J. S. Bach, and Rajah.

Cream or Buff

Shirley Temple received twice as many votes as the favorite cream or buff as its nearest competitor which was Duna. Amrita, Paradise and Wasaga received several votes each, while one vote each was given to Myrna, Conquest, Jersey Cream, Amulet.

Salmon Pink

Picardy of course led the field as the best salmon pink, as it did as the best all-around glad. Receiving scattered votes were Mildred, Louise, New Era and Rapture.

Pure Pink

Phyllis McQuiston led as the favorite pure pink, but it had close competitors in Debonair and New Era. Two votes each were given to Frank McCoy and Sonatine, and one vote each to Salbach's Orchid, Rosa Von Lima, Heritage and Maxwelton.

The Yellows

Golden Chimes received the highest number of votes as the best yellow, but Golden Goddess

was a close second. Scattered votes were given to Gate of Heaven, Golden Cup, Golden Dream, Ruffled Beauty, Streak of Butter, Loyalty and Golstaub.

Lavender

Minuet led as the best lavender by a wide margin. However, Isolla Bella, Rima, Hildred, Ave Maria and Dr. Moody received votes.

The Purples

Chas. Dickens also led by a wide margin as the best of the purples. Scattered votes were received by Ramsay McDonald, Improved H. Ford, and Takina.

The Violets

In the violets, the vote was rather close, Pelegrina receiving the highest number of votes, with Milford and Blue Admiral a close second and third. One vote each was given to the following: Blue Peacock, Veilchenblau, Blue Danube, Allegro, V. Woods, King Arthur, Joseph Hadyn, Rudolph Serkin, Graf Livia Cbobek.

The Whites

Maid of Orleans led as the best white, with Star of Bethlehem a close second. Scattered votes were given to the following: Albatros, Crystal, Nana, Margaret Beaton, Heiligtum, Mrs. Burttner, and Success.

Best Variety Any Color

Picardy led by a large number of votes as the best variety of any color, with Mother Machree receiving two votes, and one vote each to Vagabond Prince, Crinkles, Rima, Minuet, Shirley Temple, Bagdad, Jalna, and Maxwelton.

Harvest glads when the leaves are brown; dahlias after the first killing frost.

SHEBOYGAN CHAPTER ORGANIZED

THE organization meeting of the Sheboygan County Chapter of the Wisconsin Gladiolus Society was held at the home of Dr. and Mrs. Geo. H. Scheer, Sheboygan, October 19th.

At a meeting two weeks before, seventeen gladiolus enthusiasts met and elected a temporary Chairman and Secretary. A committee was appointed to draw up the Constitution.

At the meeting on the 19th the Constitution was read and adopted, and signed by 24 as charter members, and the following officers were elected: President, W. H. Sprangers, Waldo; Vice-president, Peter DePagter, Cedar Grove; Secretary-Treasurer, Harvey Kiel, Sheboygan; Directors, Dr. Geo. H. Scheer, Otto Hagedorn, and Chester Harrison.

At a meeting of the Executive Committee after election, Fred Hagedorn was appointed to represent the Chapter at all meetings of the State Society. A show committee was also appointed.

From the enthusiastic discussions this promises to be a very active chapter, and the members should get a great deal out of it.

It was voted to have four regular meetings a year besides special meetings. The next meeting will be held some time in December or January at which time special speakers will be had to talk on some phase of gladiolus culture.

Dues in the Sheboygan County Chapter are 25c plus the dues of the State Gladiolus Society which are \$1.00, making a total of \$1.25. However, if you are already a member of some organization which is affiliated with the Horticultural Society and receive the magazine, the dues are 40c less, or 85c.

Chester Harrison, Waldo.

Practically everything in the modern home is operated by switches except the children.

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Editorials



71st Annual Convention WISCONSIN HORTICULTURAL SOCIETY

**Sheboygan, November 16-17
Association of Commerce Rooms**

6th Floor Security National
Bank Bldg.

HAVE you read the program for our 71st annual convention as given on page 35 of the October issue. We feel that it is one of the best programs for fruit growers we have ever presented.

Dr. H. B. Tukey of the Geneva Experiment Station, New York, is one of the outstanding speakers on fruit growing in the East, as well as a writer for many magazines on fruit growing. He will discuss topics of special interest to Wisconsin growers at this time. His talk on Friday, forenoon, on *Getting the Young Apple Tree Started*, and in the afternoon on the *Problem of Rootstocks for Fruit Breeding* will be especially interesting.

The Ladies Meeting

Every fruit grower will wish to bring his wife and daughter. The ladies are assured a good time as well as an interesting program. Anyone who has visited Kohler Village knows that it is well worth while.

We want the wives of the fruit growers to become better acquainted and hope that a permanent Woman's Auxiliary may be organized.

Notice: The annual banquet will be held on Thursday evening, November 16, in the Foeste Hotel (price 85c). Headquarters



CONVENTIONS

November 14-16—Minnesota State Horticultural Society annual meeting, Hotel Radisson, Minneapolis.

November 16-17—Iowa Fruit Growers Association and Iowa Beekeepers Association annual meeting, Savery Hotel, Des Moines.

November 16-17—71st Annual Convention and Fruit Growers Program Wisconsin Horticultural Society, Chamber of Commerce rooms, Sheboygan.

December 5-7. Michigan State Horticultural Society annual meeting and apple show, Civic Auditorium, Grand Rapids. H. D. Hootman, Secy., East Lansing.

January 3-5—American Pomological Society annual convention, in joint session with Massachusetts Fruit Growers Association, Worcester, Mass. H. L. Lantz, Secy. APS, Ames, Iowa.

January 9-12—New York State Horticultural Society 85th annual meeting, Rochester. Roy P. McPherson, Secy., LeRoy.

Hotel will be Foeste Hotel, Sheboygan. The Grand Hotel is closer for those who wish to be nearby—and rates are lower.

DOOR COUNTY FRUIT GROWERS MEETING

Sturgeon Bay, December 5-6

THE annual two-day fruit growers meeting for Door County fruit growers will be held this year in the Court House, Sturgeon Bay, on Tuesday and Wednesday, December 5-6, according to County Agent G. I. Mullendore.

A very interesting program is being arranged by Mr. Mullendore, and all Door County fruit growers are invited to attend.

CANADIAN STRAWBERRY VARIETIES TO BE TESTED IN WISCONSIN

TWO thousand Mackenzie, and one thousand Claribel strawberry plants have been sent to members of the Wisconsin Horticultural Society for trial.

The plants were sent to us through the courtesy of Dr. D. S. Blair, Chief of the Horticulture Department Canadian Experiment Station, Ottawa, and Mr. M. B. Davis, Dominion Horticulturist. These two varieties are proving to be the best now grown in the Ottawa section where conditions are similar to those of northern Wisconsin.

Due to the late spring it was impossible to get the plants here in time last April, and so Dr. Blair suggested that they send them this fall. Growers were instructed to heel the plants in where they would be available for setting out in the field as early as needed in the spring.

COUNTY FRUIT GROWERS ASSOCIATION MEETINGS

COUNTY Fruit Grower Associations in Southeastern Wisconsin will hold their annual meetings the second week in December.

The following meetings have been scheduled:

Tuesday, December 12, Racine County, County Agricultural School, Rochester.

Wednesday, December 13, Waukesha County.

Thursday, December 14, Washington County. In Jackson Town Hall.

An excellent program is being arranged by the officers of these County Associations cooperating with the County Agents. Practically all of the meetings will begin at 10 a.m. this year, in order to give plenty of time for the business meeting and program. Further announcements will be made in our next issue.

OUR COVER PICTURE

OUR cover picture this month is entitled "Through a Moon Gate" and was taken at one of the Chrysanthemum Shows staged by the Missouri Botanical Gardens, St. Louis, Missouri.

Writes George T. Moore, Director of the Garden, "In this show innumerable varieties of bush and standard chrysanthemum plants were displayed, as well as cascades and hanging baskets of chrysanthemums. 'Jane Harte' is the cascade shown hanging from the wall and 'Melba' is one of the standards."

We appreciate the courtesy of the Missouri Botanical Gardens in loaning us the cut.

Customer: "You say this hair restorer is very good, do you?"

Druggist: "Yes, sir, I know a man who took the cork out of a bottle of this stuff with his teeth and he had a mustache next day."

MINNESOTA FRUIT GROWERS MEETING

THE Minnesota fruit growers will meet with the Minnesota Horticultural Society at the Radisson Hotel, Minneapolis, November 16. The program will be of special interest to western Wisconsin fruit growers. It will include discussion by J. K. Andrews of Faribault, Minnesota, on the use of Manchurian understocks for apple trees. He will show some remarkably strong and uniform growth obtained on these understocks.

Control of anthracnose on raspberries will be discussed by Dr. E. G. Sharvelle of Minnesota, while Prof. W. H. Alderman will speak on new orchard fruits for Minnesota. Problems of growing, transportation, and refrigeration of berries will be discussed by Mr. F. A. Schulte, president of the Head-of-the-Lakes Fruit Growers Association at Duluth. The principal speaker will be Mr. George Leslie Smith of Rock Island, Illinois, a large apple grower.

For complete program address Mr. J. D. Winter, Minnesota Fruit Growers Association, Mound, Minnesota.

TRY GLASS WOOL FOR COVERING PERENNIALS

BECAUSE of the success several of our members had last winter using glass wool as a covering for semi-hardy perennials, we would like to suggest further experimenting with it.

In experiments conducted by the Cornell Experiment Station, glass wool was found to be a very effective mulch. A thickness of 2 inches appeared best. It was especially good on plants of Foxglove and Campanula. The plants retained their green color and there were no dead or rotting leaves. The glass wool appeared to be a good insulator and allowed some light to pass through.

EXHIBIT AT ANNUAL CONVENTION FRUIT SHOW

WITH a good attendance assured at the fruit growers program for the annual convention at Sheboygan, November 16-17, it will be most interesting to have a large exhibit of the new varieties of fruit recommended for trial in Wisconsin.

We would like to urge members to bring especially a plate of 3 apples of Milton, Orleans, Macoun, Cortland, Secor and Kendall.

DESTROY PEONY TOPS TO CONTROL BLIGHT

PEONY blight, properly called Botrytis blight, is becoming quite common in Wisconsin. There are really three blight diseases which are fairly common, and the symptoms are quite similar. However, it is not necessary to distinguish them as the control measures are the same in each case. A wet season encourages the disease.

Many peony plantings in Wisconsin are effected with this blight. The disease can readily be seen because the leaves become covered with black spots. In severe cases the stem is also effected and wilts, and then the leaves shrivel.

Control

The disease lives over winter on the old leaves. In the spring the diseased spots produce spores which then float in the air and again attack the new shoots and leaves of the young peony plant. An important control measure therefore, consists of removing all the old dead tops and leaves and burning them.

In severe cases it is recommended that a top dressing of sand be given around the plant. The soil may also be sprinkled with corrosive sublimate—1 part corrosive sublimate to 2,000 parts of water to kill the spores on the soil surface.

Home and Garden

Mrs. C. E. Strong

BLOOM IN SEPTEMBER AND OCTOBER

IT is a nice custom for members of garden clubs to bring to the meetings any outstanding blooms from their gardens.

The new fall asters are a real addition, judging by the showing made recently, when blooms of the following varieties were shown: Aster Lutea, golden yellow; Harrington's Pink, a real rose pink; Beechwood Challenger, crimson, red, very striking; Mt. Everest, a grand white; Burbank's Charming—it really deserves its name; Skyland Queen, a clear soft blue; Queen Mary, also blue, yet quite different; Red Rover, another red, good, but keep it away from Beechwood Challenger as they do not harmonize. There are many more asters, but you will enjoy any or all of these.

Good Mums

Chrysanthemums that seem to be dependable for September and October bloom are, all of the Azaleamums, pink, deep rose, bronze, yellow, and white. Golden Glorymum, Pigmy Gold is a small very double yellow that started blooming for me late in June, and grew more beautiful as the weather grew cooler. Santa Claus is a strong growing plant, covered with fair sized red flowers with a slight golden tint, very showy. Astrid, a fine single pink is a "must have" with every one that sees it. Glory of Seven Oaks, Early Bronze, Halo, Roman, Mitzi, are good. Jean Cummings is a good white. Jean Treadway, a fine shaded pink, likes to be left in good sized clumps. All of these seem to



KOREAN CHRYSANTHEMUM "PYGMY GOLD"

—Cut courtesy Missouri Botanical Gardens.

get along without much petting—but they do like water and fertilizer when buds form.

ANEMONES

If you have a sheltered, shaded spot, these Anemones will give a lot of bloom: September Charm, silvery pink; September Queen, rosy red; September Sprite, soft pinkish mauve. The foliage is very attractive.

FROM A GARDEN NOTE BOOK

THIS note book is the constant companion of a gardening friend who belongs to a garden club that enjoy visiting gardens in their own and neighboring states. At first the notes were only of flowers and shrubs that attracted her—but presently she began to notice the charm of the garden aside from the beauty of flowers. Her own plot of ground

had considerable frontage, but not much depth, which she had accepted as something that just had to be. But one day the club visited a garden which gave the impression of depth—depth even greater than its width, and the note book had many rather crude but understandable sketches on how to achieve the impression of depth.

Slowly but surely her garden and grounds grew in beauty, without being very obvious. The lines of her garden began going from front to back instead of from side to side. Much of the shrubbery that had spotted the grounds were now cleverly massed with trees at the back. There were unbroken sweeps of green lawn, and one would declare that many feet had been added.

A beautiful Hickory tree, whose striking rough bark had been detracted by beds of flow-

IN MY GARDEN

ers at its base was given the place it deserved, a stretch of green lawn from the street—nothing back of it but a low sprawling rock garden. Beyond this were the evergreens and shrubs at the back. Two wide borders with a grass walk between, one given over to perennial plants, the other to trees (mostly blossoming varieties) shrubs, and a few evergreens, add to the impression of depth.

It is entirely different than the grounds from which the idea was taken—for that garden and planting was much more formal, the house much larger and more expensive.

"I feel that my garden and planting fits in—or perhaps I should say—our house fits into the garden, they belong together," the note book states. "The nicest part is—we did this changing so gradually even garden visitors scarcely noticed. We usually moved trees and shrubs in the fall, so the garden looked spick and span in the spring. I feel very proud of that central border, for without annuals, there is bloom there from spring 'til fall."

This note book reminded me at what season certain plants were blooming in other gardens. They added up to a quite continuous bloom.

FROM THE NEW ENGLAND GLADIOLUS SOCIETY

(Continued from Page 6)

Wisconsin Gladiolus Society most cooperative through the contacts we have had with Mr. Krueger, Dr. Scheer, H. J. Rahmlow, and yourself. We expect to have articles, suggestions, comments and criticism from many more of your members. We need them all and shall appreciate such interest.

We wish Wisconsin a banner 1940 and shall do all we can to help make it that.

Signed: James H. Odell,
Trustee for the N.E.G.S.

WHAT can one say that is interesting about the garden in November?

It is of course, interesting to cope with nature in preventing injury to our plants. There are so many factors involved in winterkilling of perennials, and in the methods required to protect them that it becomes a fascinating subject.

More and more we realize that the condition of the plants in late fall has a great deal to do with their ability to survive the winter. Plants weakened by disease are not likely to survive. If the soil has been too dry and plants go into winter in a very dry condition they may be winterkilled. On the other hand, if there is too much moisture, there is also danger.

A neighbor told me recently that a year ago they dug up their garden and added a fertilizer late in the fall, digging it into the soil. As a result they found that many plants heaved out. This was no doubt due to the fact that they loosened up the soil which enabled it to absorb a great deal of moisture in a wet season, and when this froze, ice formed which heaved out the plants.

Color in Autumn

The most strikingly colored shrub we saw this fall was the Winged Burning Bush, *Euonymus alatus*. The leaves turn to a deep rose and most plants are covered with purplish fruit. Used as a specimen shrub, it has a place in any garden. It is also called the Winged *Euonymus* because of its winged branches.

Another form, *Euonymus atropurpeus* turns a beautiful scarlet in the fall, and is also very attractive. For fall leaf coloration, few shrubs compare with these.

Cotoneaster Multiflora

The editor displayed branches of *Cotoneaster multiflora*, the tall shrub which was formerly considered to be *Cotoneaster soongoricus*, at our National convention where it met with a great deal of interest. No other shrub we have seen in Wisconsin is covered with so many fruits, and has such a graceful arching habit. There are hundreds of small, bright red berries on each branch. The difficulty will be in getting the variety true to name. We have been urging nurserymen to grow the shrubs from seed, and will be glad to send any nurseryman seeds free of charge. However, it may take a year for the seeds to come up. We understand that storing the seed in a refrigerator at a temperature of about 40 degrees for a period of over three months will improve the germination.

Dry soils dangerous for evergreens. So far this has been a rather dry fall. Evergreens are very likely to suffer if they go into winter with the soil as dry as it was in October.

All winter long the needles of evergreens must transpire moisture which they must get from the roots. If we have a very cold winter and the soil freezes deeply and is also very dry, there will be considerable winter killing especially during long period of cold northwest winds.

Therefore it may be well to water evergreens well, throw some marsh hay or straw over the roots to prevent the soil from freezing deeply, and in the case of valuable small evergreens such as the Alberta Spruce, it will pay to cover them with burlap during cold weather.

H. J. Rahmlow.

Our idea of a man with strength of will is one who can eat one salted peanut.

Wisconsin Garden Club Federation News

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Mrs. J. Martin Johnson, Hon. President
529 Woodside Ave., Ripon
H. J. Rahmlow, Cor. Secretary
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Waupaca

THANKS FOR A SUCCESSFUL CONVENTION

Mrs. E. A. St. Clair

OUR Annual Convention and the Semi-Annual Convention of the National Council of State Garden Club Federations was a grand success. I wish you all could have been there to meet and welcome our charming visitors, and could have heard their sincere expressions of appreciation.

The old adage, "Many hands make light work" certainly proved true for this convention. Because of the whole-hearted cooperation of our members this meeting was a success both socially and financially. I do want to express my appreciation to:

Mrs. Roy Sewell, our splendid co-chairman; Mrs. Charles Schuele, our Finance Chairman; Mrs. J. J. Simon and Mrs. R. E. Kartack for registrations; Mrs. Charles Braman and Mrs. J. Martin Johnson for ticket sales; Mr. H. J. Rahmlow for assistance in arranging our splendid program and help in the State Horticultural Society office; to Miss Alma Hoffman who so ably took charge of transportation for our tours, assisted by members of garden clubs who used their own cars and provided chauffeurs; Mrs. Edward Corrigan, radio and tour chairman; Dr. Carl Schwendener who assisted with publicity; Mrs. H. M. Swiggart who greeted our National President; Mrs. John LeFeber who arranged for the music; Mrs. W. F. Roecker, Information chairman; Mrs. Robert Schissler, assisted by Mrs. Ches-



ter Thomas and Mrs. David Weart, who set up the lovely flower show on the mezzanine floor. The tables for the show were loaned by the Art Institute Garden Club who also paid the drayage, shadow boxes by the Milwaukee Iris Society, and the tablecloths by the Milwaukee District. Mrs. Forrest Huttenlocher of Des Moines, Iowa, assisted by Mrs. Weart, judged the show. The Wisconsin State Horticultural Society contributed \$25.00 for premium money. Mrs. John Dexheimer had charge of souvenirs, all of which were very lovely.

Mr. and Mrs. Walter Diehnel of Menomonee Falls donated jars of honey. Cranberry and cherry juice were donated by the Reynolds Cherry Orchards, Sturgeon Bay. Apples were given by the Rasmussen Nursery, Oshkosh; milk, placed in all visiting delegates rooms each evening, was supplied by the Garden Club of the City Club of Milwaukee; cheese was furnished by the Plymouth Garden Club; menus by the Oshkosh Garden Club; burr oak acorns in lovely decorated envelopes by the Oshkosh Horticultural Society; herbs and lavender sachets by the Madison District; place cards by the Blue Beech Garden Club; bookmarks by the La Belle Garden Club, Oconomowoc. Boutonnieres of dried material were made by the Country-

side, Menomonee Falls and Port Washington Garden Clubs. The Waupaca Club furnished boutonnieres made of bittersweet and greens. Lovely silvered oakleaves and acorn souvenirs were made by the Oakfield Garden Club members.

The Chairman for badges was Mrs. Ralph Hibbard, Wauwatosa, and the very attractive "Wisconsin" identification badges were designed by Anthony Wuchterl, and decorated by the Garden Clubs of Ripon. Mrs. James Livingstone, Milwaukee, was our visiting garden chairman, and for the privilege of visiting their lovely gardens, we thank Mrs. John LeFeber, Mr. and Mrs. Hampton Thomas, and Mr. and Mrs. Louis Taylor.

The Green Tree Garden Club supplied the flowers for lovely corsages for our National officers and were made up by Miss Merle Rasmussen. The Racine Garden Club and the South Central District gave us financial assistance. Mrs. O. W. Krautschneider, assisted by members of the Hillcrest and West Allis Garden Clubs made bouquets for the rooms of our visitors.

Table Decorations

At the Regional dinner, Mrs. James Johnson and Mrs. Alan Kriz decorated the tables with wreaths of grains and chrysanthemums. Gourds were furnished by the Sheboygan Garden Club for the Wednesday luncheon, and arranged by Miss Emma Schipper and members of the Art Institute Garden Club; Mrs. Max Schmitt and Mrs. Arno Krieger decorated the tables at the Brown Deer Park lunch, made attractive by split rail fences down the center of long tables and trimmed with bittersweet. Miss Merle Rasmussen and Mrs. Arthur Jaeger, assisted by members of the Milwaukee County Horticultural Society and the North Shore Garden Club decorated for the Horticulture dinner, with lovely polished apples and candles. At the Wauwatosa Woman's Club, Mrs. Henry Freudenberg and Mrs. George Adami furnished lovely decorations of bronzy chrysanthemums and dahlias and autumn leaves. Mrs. Ed. Haasch, Mrs.

R. H. Johnson and Miss Katherine Melcher arranged for the Kaffee Klatsch, assisted by members of the Wauwatosa, Blue Mound, Ravenswood, Elm Grove, and Milwaukee County Dental Auxiliary Garden Clubs.

Decorations for the banquet were in charge of Mrs. Chester Thomas and Mrs. J. Martin Johnson, assisted by the Past Presidents of the Wisconsin Garden Club Federation. Orange candles were arranged in long containers and surrounded by bittersweet and loveapples.

On Wednesday noon, Mrs. Arthur Taylor and the W. F. Roeckers arranged chrysanthemums in decorated chicken feeders, furnished by the Cedarburg Garden Club, the chrysanthemums grown and donated by Mr. Alfred Boerner. At the tea at Milwaukee Downer College, Mrs. Wm. Bowers was our hostess and flowers were supplied by the Blue Beech Garden Club, and arranged by Mrs. Arthur Leidiger. Members of the Blue Beech and Fox Point Garden Clubs acted as hostesses. Besides this many members of the Garden Clubs acted as hostesses and information chairmen, and exhibited at our Flower Show.

Miss Merle Rasmussen contributed to our program with a most instructive talk on Lilies. Mrs. David Weart spoke on our Wisconsin System of Judging. Mr. H. J. Rahmlow gave a lecture on flowers and scenes of Wisconsin, with lovely colored slides. Mrs. J. E. Iverson had charge of presenting the playlet "Pa's Seed Flats."

I wish that I might personally thank each and every member that took some part in making this Fall Conference a success, for a success it was in every way. Without your assistance it never could have been done. I hope that you all have found it worth while in the delightful contacts with our visitors and the new friendships that you have made.

NEW RECORDING SECRETARY-TREASURER ELECTED

MRS. E. L. WHITE, Jefferson, Route 2, is our newly elected Recording Secretary-Treasurer of the Federation. Mrs. R. E. Kartack requests that all correspondence, and membership fees be sent to Mrs. White after December 1st.

Mrs. White was a former president of the Fort Atkinson Garden Club, and a well known garden club worker.

IMPRESSIONS AT THE NATIONAL CONVENTION

MRS. FREDERICK A. WAL-LIS, President of the National Council, writes: "A most successful convention. I believe Wisconsin turned out better than any state we have visited. It seemed there were more from the hostess state present and that makes it so much more worthwhile for all concerned."

Everyone attending our annual convention at which we entertained the National Council of State Garden Clubs, in Milwaukee, October 10-13, was enthusiastic about the contacts made, the inspiration received, and the program.

While our horticultural program this year was light, it was better so because it allowed for more association with our visiting members from other states. Sixty-two out-of-state members and officers of the National Council and State Federations, as well as National Committee Chairmen, and District Chairmen registered.

Twenty-two states were represented, as follows: Arkansas, 2; California, 1; Colorado, 1; Connecticut, 1; Florida, 2; Georgia, 1; Illinois, 11; Indiana, 5; Iowa, 4; Kentucky, 8; Louisiana, 1; Maine, 1; Massachusetts, 2; Michigan, 4; New Hampshire, 1; New Jersey, 3; New York, 4; North Carolina, 1; Ohio, 5; Virginia, 3; West Virginia, 1. From Wisconsin came a total of over 200 who attended the various sessions.

The flower show was outstanding. The committee reports and suggestions by various officers for improving our program of work, were inspiring. The speakers, because of the enthusiastic reception of the audience, outdid themselves.

Mrs. E. A. St. Clair, president of the State Federation, well deserved the vote of thanks given her for her untiring efforts to make the convention a success. The many committee members

LECTURES FOR GARDEN CLUBS

THE following lectures by Mrs. Arthur H. Taylor are available to garden clubs this coming season:

Salvaging Beauty From Nature.

Ideas and Suggestions for Artistic Arrangements—At Shows and in the Home.

Seasonal Flower Arrangements and Table Settings.

Further information and other topics available may be obtained by writing to Mrs. Arthur H. Taylor, 718 No. 61st Street, Wauwatosa, Wisconsin, or telephone Bluemound 5499.

TALK ON EVERGREENS AVAILABLE

Thomas Pinney, Sturgeon Bay, Has Excellent Slides

AN excellent talk on the subject of evergreens and shrubs for the home grounds is available to garden clubs in the eastern part of the state. Mr. Thomas Pinney of the Evergreen Nurseries, Sturgeon Bay, has an excellent set of colored lantern slides of evergreens and shrubs which he will show and discuss on request. A small fee and expenses will be charged.

We always called a spade a spade until we hit our foot with one the other day.

who worked so hard, well deserve our appreciation.

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Our Garden Club Program

By Mrs. Chas. Schuele, Oconomowoc, President Elect

AT the Board of Managers and business meeting of the Wisconsin Garden Club Federation a full program stressing the three points—**inspiration** and **study**, followed by **action** was voted.

The state set-up was brought more nearly into line with the National Council in that the same committees will be appointed. The **OBJECT** of the Federation was emphasized: **The object shall be the advancement of gardening; the development of home grounds; civic beautification; aiding in the protection of forests, wild flowers and birds; the extermination of obnoxious weeds; the improvement of our highways and conservation of our natural beauty.**

Two slogans will help inspire the year's work. 1. Multiply the jobs, with one man one job, 2. Order is Heaven's first law. Get as many people working as possible, even dividing the districts where practicable. The job must be made explicit. The project for the year will be **Organization** or **Reorganization**. This is a strategic year, following a national convention, to study our programs and discard the outmoded and unworkable rules and activities of the past.

A coordinated program, built about the object of the Federation and extending over a five or ten year period was favored. It is to stress native plant material. It was recommended that the state, districts and local clubs try to stand on their own feet financially. Activities cannot be carried on without money and many clubs are now strong enough to carry on in a businesslike way. This involves a finance committee and a carefully drawn up and followed budget.

The recommendation of the Regional director, Mrs. Walter Morton was adopted; that the following six committees be stressed; Conservation, Garden centers, Horticulture, Juniors, Legislation, and Roadside Development. Sub-committees under the latter will be: By-passes, City Entrances, County Zoning, Living Windbreaks.

Medals of Award, Memorial Spots, Roadside Parks, and Vistas. Birds will be a sub-committee of Horticulture. Other committees will be Finance, Radio, Membership and Organization, Program and Lectures, Liaison and Resolutions, Historian, Judging, Visiting Gardens, and Publicity.

Another flower show will be held at the State Fair as well as a flower arrangement school in the spring. The Federation will also participate in the wild-life stamp sale. The program for inspiration and study followed by action was aimed not to limit clubs in any way, but merely to suggest ways and means of carrying out the object of the Federation.

The President-Elect proposes to stimulate the keeping of records of files of all officers and committee chairmen for the coming year. Even national chairmen complain of receiving no data whatever when they come into office. Much lost motion is thus brought about. Records would enable new officers to take up work where their predecessors leave off.

These files to be handed on should include all materials received from national and state headquarters, as well as superior officers. Records of action taken during terms of office, problems met and problems solved, methods used and situations needing attention, expenses, and notes on club leaders who have done good work would be helpful to new officers. The pages in Horticulture should be so preserved and filed in order.

We propose certain standards in order to enter the "Blue Star" contest.

1. A black notebook for size 8½x11 paper which will be large enough to keep letters neatly.
2. Index tabs to separate subjects.
3. This article pasted on the inside front cover.
4. Papers of different color may be used for different subjects, but of standard size.
5. Page 1, the name of your job, the date and any other identification.
6. Page 2—National Organization
 - Officers
 - Chairmen of Committees and addresses
 - Regional officers
7. Page 3—State Organization.
 - Officers
 - District officers
 - Counties in present districts

Other information about the record books will be printed from time to time. Have you any suggestions to add to the above?

South Central District Committees Appointed

Miss Hannah Larson, Whitewater, Chairman of the South Central District claims credit as the first District chairman to announce her roster of chairmen of committees for the coming year. They are:

Conservation—Mrs. John Johnson, Whitewater

Roadside Development—E. L. White, Jefferson, R. 2, Frederick Bullwinkel, Jefferson

Juniors—Mrs. Frank Ledger, Lake Geneva

Judging—Mrs. Boyd Dickinson, Lake Geneva

Flower Shows—Mrs. Pearl Ward, Ft. Atkinson, R. 1

Historian—Miss Abbie Kyle, Ft. Atkinson

Publicity, Bulletin—Miss Hannah Larson, Whitewater

Legislation—Mrs. Franz Tensfeld, Jefferson

Horticulture—Mrs. Wilbur Strobusch, Jefferson

Program—Mrs. N. Thayer, Elkhorn

Liaison—Mrs. Robert Alder, Elkhorn
Membership and organization—Miss Avis Cleland, Whitewater.

The business man should not forget that there is much in life outside of mere business. It is a mistake for one to devote himself to it so exclusively that in time he loses all power to find enjoyment or interest outside of it. —C. L. Hutchinson.

The first few days in the house are the critical period for indoor plants which have been brought in from the garden. Use great care in watering and be sure the foliage is kept sprayed with water to guard against too rapid evaporation.

The height of illegibility—a doctor's prescription written with a post-office pen in the rumble seat of a second-hand car.

The Convention Flower Show

A VERY beautiful flower show was held in connection with the Annual Convention of the Federation and National Council. It was staged on the mezzanine floor of the Hotel Pfister, and some very striking exhibits were shown.

The show was in charge of Mrs. R. C. Schissler, Wauwatosa, Mrs. Chester Thomas, Milwaukee, and Mrs. David Weart, Oconomowoc.

The judging was done by Mrs. Forrest Huttenlocher of Des Moines, Iowa. The following were the premium winners:

SCREEN ARRANGEMENTS

Arrangements expressing moods, such as gaiety, music, poetry, season, etc., with screen background.

Excellent—Blue Mound G. C., Mrs. Roy Sewell, Wauwatosa. Mood expressing jealousy. Comment: Shows originality.

Excellent—La Belle G. C., Mrs. David Weart, Oconomowoc. Mood expressing music. Comment: Full of Spirit.

Fair—Art Institute G. C., Mrs. A. L. Noerenberg, Milwaukee. Mood expressing season.

Arrangement depicting a Wisconsin scene.

Excellent—Art Institute and City Club G. C., Mrs. Arthur Taylor, Wauwatosa. Comment: Very original.

Very Good—Wauwatosa G. C., Mrs. Max Schmitt, and Mrs. A. Krieger, Wauwatosa. Comment: Well executed.

SHADOW BOXES

Shadow box suggesting an etching in tones of tan and brown.

Excellent—La Belle G. C., Mrs. David Weart, Oconomowoc. Comment: Perfect.

Very Good—Art Institute and City Club G. C., Mrs. Arthur Taylor, Wauwatosa. Comment: Material unusual.

Flower picture, using chrysanthemums. Other material allowed.

Mrs. Wm. Bruhn and Mrs. S. Hyatt, West Allis. Mrs. C. Colnik, Milwaukee.

Arrangement of fruit—Mrs. James Johnson, Wauwatosa; Miss Lauretta Seaman, Milwaukee.



TABLES

Seasonal Table

Excellent—Art Institute and City Club G. C., Mrs. Arthur Taylor, Wauwatosa. Hunter's Lodge dinner table. Comment: Very original.

Thanksgiving table—Miss G. Colnik, Milwaukee.

Open House holiday season.

Excellent—La Belle G. C., Mrs. David Weart, Oconomowoc. Comment: Flower arrangement delightful. Good holiday spirit.

Christmas dinner table.

Good—Green Tree G. C., Mrs. William Hughes Marshall, Milwaukee. Comment: Appointments good. Spirit of Christmas lacking.

ARRANGEMENTS

Arrangement of chrysanthemums.

Excellent—Ripon G. C., Miss Clare Mears, Ripon. Comment: Good rhythm.

Good—Mrs. N. C. Nelson, West Allis. Comment: Harmony good.

Good—Menomonee Falls G. C., Mrs. G. L. Otto. Comment: Coloring very good.

Miss J. Brick, Milwaukee, and Mrs. I. Swenson also exhibited.

Winter bouquets

Excellent—La Belle G. C., Mrs. David Weart, Oconomowoc. Comment: Fine balance.

Excellent—Elm Grove G. C., Mrs. G. Alan Kriz, Waukesha. Comment: Color perfect.

Very Good—Elm Grove G. C., Mrs. J. Johnson, Wauwatosa. Comment: Good material.

Very Good—Ripon G. C., Miss Clare Mears. Comment: Container too dominant; arrangement good.

Very Good—Art Institute and Shorewood G. C., Mrs. C. A. Biebler, Milwaukee. Comment: Color and harmony good.

Good—Blue Mound G. C., Mrs. R. R. Hibbard, Wauwatosa.

Miss Celia Dix, Milwaukee, and Mrs. William Bruhn, West Allis, also had exhibits.

Arrangement of gourds.

Excellent—Blue Mound G. C., Mrs. Irving Miller, Wauwatosa. Comment: Color design beautifully handled.

Good—Art Institute G. C., Miss Celia Dix, Milwaukee. Comment: Color good; too great a similarity in gourds.

Good—Elm Grove G. C., Mrs. J. Johnson, Wauwatosa. Comment: Arrangement too somber.

Artistic arrangements of berried branches, emphasizing line.

Excellent—Art Institute G. C., Mrs. A. L. Noerenberg, Milwaukee. Comment: Almost perfect.

Very Good—Milwaukee Horticultural Society, Mrs. A. Jaeger, Milwaukee. Comment: Material good; unusual coloring. Vase dominates branch, should be higher.

Good—Blue Mound G. C., Mrs. H. Freudenberg, Wauwatosa.

Mrs. Wm. Bruhn, West Allis, also exhibited.

Arrangements in pairs. Suitable for mantle.

Excellent—City Club G. C., Mrs. Arthur Taylor, Wauwatosa. Comment: Very effective.

Suitable for living room end tables.

Good—Hillcrest G. C., Mrs. S. Hyatt, West Allis. Comment: Too symmetrical; coloring good.

BOUTONNIERES

Suitable to wear on ladies coat using winter material.

Excellent—La Belle G. C., Mrs. David Weart, Oconomowoc.

Excellent—Art Institute & City Club

G. C., Mrs. A. Taylor, Wauwatosa.
Very Good—Art Institute and Shorewood G. C., Mrs. C. A. Biebler, Milwaukee.

Very Good—Art Institute G. C., Mrs. A. L. Noerenberg, Milwaukee.

Good—Blue Mound G. C., Mrs. E. Cooper, Wauwatosa.

NEW PRONOUNCING DICTIONARY OF PLANT NAMES

A NEW Pronouncing Dictionary of Plant Names is available at low cost. The book contains 3,000 plant names and botanical terms with accurate pronunciations, and also brief description. It is 4x6 inches in size, and contains 64 pages.

The booklet retails at 25c per copy. Garden clubs may make a little money for their treasury by ordering in quantity lots and selling them to their members at this price. The price for 100 copies is \$15.00; 50 copies, \$8.50; 25 copies, \$4.50; 10 copies, \$1.90. Booklets are available from the Florists' Publishing Company, 508 South Dearborn Street, Chicago, Illinois.

WATERING HOUSE PLANTS

THERE is, perhaps, no better solution of the problem of keeping house plants watered when the entire family is away on a vacation than the old one of setting the pots on bricks in pans of water. The bricks may be laid flat, on their sides, on end or piled on each other. The two essentials are that the surface on which the potted plants stand should be above the water level and that the pan contains enough water to last through the period of absence. This method was devised for the unglazed porous clay pots used by the florists and is satisfactory only when the plants are in such containers.

By Maud R. Jacobs, Kentucky, in Horticulture.

Never owe a poor man or kiss a homely girl, because they both go around talking about it.

The Annual Convention Business Meeting

THE annual business meeting of the Wisconsin Garden Club Federation was held the forenoon of October 11, at the Pfister Hotel, Milwaukee.

From the minutes of the Recording Secretary-Treasurer, we have the following report of action taken at the meeting. At the election of officers, the following were elected by ballot:

President, Mrs. Chas. Schuele, Oconomowoc

1st Vice-pres., Mrs. Chas. Braman, Waupaca

2nd Vice-pres., Mrs. Frank Quimby, Racine

Recording Secy.-Treas., Mrs. E. L. White, Jefferson, Route 2

An amendment to the constitution was adopted on recommendation of the Board of Managers. The amendment adds to Article IV, Section 2, the words, "The district officers shall be elected previous to the annual meeting of the Federation."

The object of this amendment is to enable the State Federation officers to have a meeting soon after the convention of the entire Board of Directors elected for the coming year. All district chairmen are members of the State Board of Directors.

Another amendment was adopted to Article II, Section 1 of the By-Laws as follows: It was changed to read "The annual dues shall be 50c for each member of an affiliated club—with such exceptions as the Board of Directors shall decide."

The object of this amendment was to enable the Board of Directors to make exceptions in the dues in case it is desirable for more than one member of the family joining the Federation and Horticultural Society. The Board will probably reduce the membership dues for the second member of a family to 15c.

It was voted that the Federa-

tion again take part in exhibiting at the State Fair flower show.

President elect, Mrs. Chas. Schuele, then outlined her program of garden club activities for the year which she had given in detail at the Board of Managers meeting.

A motion was carried that this program be adopted with the understanding that, being so very comprehensive, it cover a period of years. Motion carried.

A rising vote of thanks was given to Mrs. E. A. St. Clair, outgoing president, for her work this year in arranging for the National convention, and to Mrs. Frank Quimby of Racine for her work as chairman of the Conservation Committee.

A report of the Resolutions Committee thanking those who took part in making the convention a success was read and unanimously adopted.

Some excellent reports were given by our State Committee Chairmen. Mrs. E. L. Sevringhaus, Program Chairman; had prepared a very fine report of garden club programs, with many suggestions. Copies of these have been mailed to every Garden Club President in the hopes that they will be of help in preparing next year's program. We hope to be able to publish other committee reports in early issues.

WANTED! NAMES OF QUALIFIED COMMITTEE MEMBERS

GARDEN Club presidents, in fact, all garden club members, are asked to send to their district chairman on a postcard the names and addresses of any qualified persons in their garden clubs who can serve on any of the committees of the State Federation this year, stating the committee on which they are best qualified to serve.



Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

OFFICERS

Walter Diehnelt, Menomonee Falls,
President
S. P. Elliott, Menomonee,
Vice-president

H. J. Rahmlow, Madison, Cor. Secy.
Louise Diehnelt, Box 60, Menomonee Falls,
Recording Secretary-Treasurer

DISTRICT CHAIRMEN

S. P. Elliott, Menomonee
N. E. France, Platteville
Geo. Jacobson, Kaukauna
Ivan Whiting, Rockford

Our Successful Convention

"A SPLENDID convention!" "An excellent banquet." "I had a wonderful time." These were some of the expressions heard on all sides following our 61st annual convention held at Ripon. About 125 beekeepers, and 42 members of the Woman's Auxiliary attended. The program was most interesting.

Because this issue is ready for the press, we will be unable to publish a full account of the convention, but will continue more details in our next issue.

Here are some of the highlights.

New Officers Elected

Mr. Walter Diehnelt of Menomonee Falls was elected president of the Association for the coming year. Mr. S. P. Elliott of Menomonee was elected Vice-president, Miss Louise Diehnelt, Menomonee Falls, Recording Secretary-Treasurer, and H. J. Rahmlow, Corresponding Secretary.

Other members of the Board of Directors are the District chairmen.

The Woman's Auxiliary elected the following officers: President, Mrs. S. P. Elliott, Menomonee; Vice-president, Mrs. Chas. Roy, Sparta; Secretary-Treasurer, Mrs. F. Schmidt, Ripon.

The Cooky and Candy Contest

The following were the winners in the women's cooky and candy contest.

Cooky: 1st, Mrs. Fred Schmidt, Ripon; 2nd, Loretta Stueck; 3rd, Mrs. A. J. Schultz, Ripon; 4th, Mrs. Chas. Roy, Sparta; 5th, Mrs.

Joe Elsinger, Knowles; 6th, Bernice Schultz, Ripon.

Candy: 1st, Bernice Schultz, Ripon; 2nd, 3rd, and 4th, Mrs. A. J. Schultz, Ripon; 5th, Mrs. Henry Piechowske, Redgranite; 6th, Mrs. Chas. Roy, Sparta.

One of the interesting events at the annual banquet was the hive and frame nailing contest, the ladies nailing the hive bodies, and the men nailing 8 frames each. The following were the winners in the women's hive nailing contest: 1st, Mrs. Fred Schmidt, Ripon; 2nd, Loretta Stueck; 3rd, Mrs. Wm. Nelson, Oshkosh; 4th, Mrs. A. J. Schultz, Ripon.

In the men's frame nailing contest, the following were winners: 1st, S. P. Elliott, Menomonee; 2nd, Paul Cypher, West Bend; 3rd, Chas. Roy, Sparta; 4th, Frank Greeler, Neillsville; 5th, Ralph Raschig, Milwaukee.

At the Business Meeting

At the annual business meeting some of the important transactions are as follows: It was voted to have two summer meetings next July, one to be held at Honey Acres, Menomonee Falls, and the other in Menomonee for the western Wisconsin beekeepers.

A secret ballot was taken among all present at the business meeting to determine their reaction in favor of continuing the burning of all honey on A.F.B. colonies, or to have the ruling modified in some way so that in exceptional cases honey might be saved. The secret ballot resulted in 21 votes cast in favor of burning, and 18 votes in favor of mod-

ification of the rules. The vote was simply to get an idea of the opinions of beekeepers for the information of the Department, but no action was taken by the Association.

A committee was appointed to investigate the desirability of the Association putting out an improved label for honey containers.

Resolutions were adopted thanking those who took part in making the convention a success. A resolution thanking Mr. A. J. Schultz for his splendid efforts as president of the Association for the past three years was unanimously adopted.

Honey for Babies

The beekeepers were exceptionally impressed with the statement by Dr. J. Martin Johnson of Ripon that he has been experimenting with and has found very valuable, a formula for babies, containing evaporated milk, boiled water, equal parts, and 7% of extracted honey. This formula has been more successful in feeding babies than any other tried, including some highly advertised brands.

A very interesting part of the convention was the judging of the honey jars and labels. Mr. James Gwin and Mr. Henry Piechowski were in charge of the contest. It was found that there was some similarity between the judging by the general public, the beekeepers, and the Woman's Auxiliary, but they did not agree with the official judges, composed of three Ripon women.

Mrs. J. Martin Johnson was chairman of the judges, and gave a splendid talk at the banquet, pointing out the faults of many of the labels and jars, and stating that today women are brand conscious. She said, "If we like 'Bee Hive Brand Honey, then the next time we want honey we will ask the grocer for Bee Hive Brand." Therefore she advocated that beekeepers use a brand, and have it in bold letters on their labels.

Excellent talks were given by Mr. G. H. Cale of the American Bee Journal, and Dr. C. L. Farrar, Madison, which will be reported in our next issue.

QUESTIONS ASKED BY BEEKEEPERS

1. Is heavy packing of value for wintering bees in Wisconsin?

Answer: Indications are that the condition of the colony on the inside of the hive is much more important than the packing on the outside. A moderate amount of packing will effect some saving in the consumption of stores. While we do not wish to advocate a beekeeper changing his methods if they are successful, nevertheless many are wintering successfully in Wisconsin with no packing excepting roofing paper, tar paper, or no covering at all.

2. How much honey should a strong colony have for winter?

Answer: A strong colony should have 60 or more pounds of stores. A colony in two-story standard equipment should have a gross weight of 120 to 130 pounds at the close of broodrearing. If there are the equivalent of three to five frames of pollen in addition, then a strong colony should come through the winter in excellent condition.

3. Should the upper hive body, when wintering in two bodies, be filled with honey, or how should the honey be arranged?

Answer: The ideal arrangement for the second body of a two-story hive colony is to have all frames filled with honey excepting three or four in the center. In the center frames there should be some honey, pollen, and empty cells for clustering. We know that pollen located in the outer frames of the hives will not be available to the colony during mid-winter. Frames with sealed honey covering the pollen should be next to the center combs. The lower body should have heavy combs of honey to the outside pollen and light combs toward the center.

4. If we find a queenless colony in the fall which has been queenless for a month or more, should we requeen such colony?

Answer: It is probably best to unite such a colony with a strong colony. Colonies queenless during August will not have time to rear sufficient young bees to winter even though a young queen is successfully introduced. It is difficult to introduce a queen to such a colony. If the bees in such a colony act extremely nervous it may be just as well to destroy them rather than taking the risk that they may injure the queen of a good colony.

5. Is winter broodrearing in a strong normal colony of advantage or disadvantage? Will it cause dysentery?

Answer: Every normal colony which has honey and pollen available, will start broodrearing in January or February. In experiments conducted by Dr. C. L. Farrar in Wyoming, colonies given considerable pollen and which raised brood during the winter months, came out much stronger in the spring than those that were denied pollen and did not raise any brood. Winter broodrearing is therefore a normal process in the hive and this brood will provide young bees for early spring, which are of much more value than old overwintered bees. Pollen reserves provide good insurance against spring dwindling—a colony of largely old bees will dwindle badly.

Dysentery is not caused from winter broodrearing, but is caused from excessive moisture in the honey used for food, or because the winter stores granulated into coarse granules and the bees fed upon the liquid portion between the granules, which are high in moisture content. A very damp cellar may cause the honey to become thin or high in moisture content by absorption of moisture which may cause dysentery, or the honey may ferment under such conditions, increasing the danger from dysentery. It would therefore be far better to winter bees outdoors than in a damp cellar.

HONEY WANTED

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

Historians tell us that women used cosmetics in the Middle Ages. For that matter, women in the middle ages still use them.

ASK YOUR COUNTY BOARD FOR A.F.B. CONTROL FUND

BY this time we have all heard that the State Legislature went home without balancing the budget. It is estimated that the receipts will be some 20 million dollars below appropriations.

Just what this will mean to the A.F.B. control appropriation we do not of course know at this time. However, all county beekeepers associations should realize that a further cut in the appropriation may be possible, and that if the work is to continue in the different counties, the County Boards should be asked for a small appropriation to help the work along.

The appropriation has already been reduced from \$31,000 to \$19,000 per year, which means a great deal of reduction in the work in many counties.

The amount received from bee taxes is added to the appropriation. Beekeepers should make inquiry occasionally as to how much money is being sent to the State Treasury gathered from the bee tax. For some reason or other, the amount sent to the State Treasurer is very small, and it is difficult to understand why. Something should be done about it. There is some evidence that the money collected is being kept in the counties and not sent in to the State Treasurer. This does not help disease control.

The County Board should at least appropriate an amount for A.F.B. control equal to what is taken in through the tax—that is what the tax is for.

MARKET SUMMARY

INQUIRIES for honey in large lots have been increasing, and many beekeepers are rapidly disposing of their honey. Yet many others are holding in the hope of higher prices. Already the market level has advanced appreciably in Southern California, and slightly in many other producing sections—although at the same time many sales have been consummated at price ranges prevailing last season and early this season. Local sales are generally good, and the recent cooler weather and more normal buying on the part of many consumers, following the buying hysteria prevalent early in September, has resulted in a more healthy market tone. Comb honey is scarce and moving fairly rapidly. Beeswax continues to strengthen as buyers realize that imports of beeswax, especially from Africa, can be expected to be curtailed because of the war situation. Some beeswax dealers on the East Coast are withholding beeswax quotations pending further information regarding the possibility of importation.

October 16 Honey Report by U. S. Agricultural Marketing Service.

Thoughts About Wintering

THERE are some things we know about how bees winter, but there are probably a lot of things we do not as yet know.

We know, for example, that bees do not warm the entire hive. Instead they form a tight cluster.

In experiments conducted by H. F. Wilson and V. G. Milum at Madison, careful temperature records were kept with electrical thermometers of temperatures within the cluster during the winter. These showed that the temperatures in the area occupied by the cluster varied from approximately 45° F. up to 89° F. The decline in temperature at the edge of the cluster is very sharp.

The average temperature of the cluster was found to be relatively low at the beginning of the winter, but gradually became higher as the period of confinement lengthened. After brood-rearing started, usually the latter part of January and February, the temperature remained more or less uniform, near 90° F. or above in the center of the cluster.

On the edge of the cluster there are groups or layers of bees that remain perfectly quiet with wings slightly raised at about a 45° angle. Inside the cluster some of the bees are active and may be seen moving about without any apparent purpose in mind. Some of the bees remain in a still position, but vibrate their wings quite rapidly. A third group may be seen shifting the body from side to side in a sort of waltz movement.

As the temperature outside the cluster goes lower, the temperature on the inside becomes higher, up to a variable limit.

Each colony prepares a clustering space before winter, and under normal conditions the cluster does not shift from that position. The cluster contracts and expands with changes in temperature, and does not change its location with the beginning of brood-rearing until the outside temperature allows easy expansion.

Winter Broodrearing

The amount of honey or stores consumed by the bees during the winter probably varies more with the size of the colony and the amount of brood reared in late winter than it does to the kind of packing or winter conditions we provide. A strong colony, given plenty of pollen available during mid-winter, would start brood-rearing in late January and February, and may raise a number of frames of brood before spring. Of course it takes considerable honey and pollen to raise brood, so such a colony will decrease considerable in weight.

The fact then that a certain colony may not have lost much weight in winter, is not a desirable sign. Such a colony may come out weak in the spring, and will not be the one to produce the most honey the coming year.

Temperature for Cellar Wintering

At the Wyoming Experiment Station, Corkins and Gilbert found that there is a difference between cellar and hive temperatures of about 8° F. In other words, the temperature within the hive was about 8° higher than the cellar temperature. Their conclusions were as follows: "The generally recommended cellar temperatures are 42° to 46° F. Such cellar temperature then would produce hive temperatures of from 50 to 54° F. At the present time it can only be said that such temperatures within the beehive are too high by possibly 6 to 10 degrees for the best results."

In other words, temperatures of from 34 to 38 degrees F. in the cellar will reduce activity in the cluster, and would be entirely within the range of safety for movement of bees onto new stores.

PRIZE WINNING RECIPES

THE following recipes are given in the Iowa Beekeepers' Bulletin for October, and were the recipes used in making the prize winning cake and honey snaps at the Iowa State Fair for this year.

White Loaf Cake

2 C. cake flour	¾ C. sugar
2 t. baking powder	¼ C. honey
¼ t. salt	⅔ C. milk
½ C. butter	1 t. vanilla
3 egg whites	

Honey Snaps

1 C. sugar	1 t. soda in
1 C. honey	½ C. cold water
1 C. shortening	1 t. vanilla
¼ C. nut meats	¼ t. nutmeg

Mix, add flour enough to roll into balls. Add nuts, press down with fork. Bake about 380°.

It is a fine thing to be a gentleman or a lady, but it makes you lose an awful lot of arguments.

NEW DRIPLESS SERVER

Retails at 50c

Just the thing to increase honey sales.

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We have \$1.00 Drip-cuts, and \$1.00 Fiesta Drip-cuts at 40% discount in lots of 1 dozen.

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60 lb. cans, per case of 2.....	.92
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Intersection Hi-ways 26-23

If the ground is not frozen in November, this is the best month of all the year to plant peony roots.

Peonies like cold weather and remember that you are simply putting them in cold storage until spring calls them.

Ridge up the dirt high over your plantings to avoid standing water and heaving. With this precaution you will never lose a root. Hundreds of people lost many hundreds of peonies last winter because they failed to follow directions.

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Wisconsin *Horticulture*



—Cut courtesy Planning Board, State Conservation Commission.

WHITE TAILED DEER IN NORTHERN WISCONSIN

Will Santa Claus Get His Team Here This Year?

December



1939

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PACKAGE COMPANY**

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PLEASE DO NOT SEND STAMPS

Wisconsin Horticulture

How to Increase the Use of Apple Juice

Roy E. Marshall
Michigan State College

AMERICA is becoming decidedly juice conscious or juice minded. We show an increasing tendency to consume fruits in the form of juice rather than as fresh fruit. It is predicted that some 20 million cases of fruit juices (exclusive of tomato juice) will be produced this year. If this figure is realized, it will be twice the production of 1935. About 80 per cent of this volume will be grapefruit and pineapple juices and probably less than 10 per cent will be apple juice. Even though the apple juice makes up but a small portion of the total, the increase in volume for preserved apple juice has been very great during the past three or four years. Few grocery stores stocked processed apple juice three years ago, but now most grocers have it on their shelves.

If the apple industry can popularize apple juice as a year-around drink rather than as a September through Thanksgiving commodity, we should be able to merchandise a considerable portion of our utility grade apples at a fair price in the form of juice and thus limit fresh fruit sales to apples of U. S. No. 1 grade or better.

The above paragraphs relate to processed or preserved apple juice. We have ample evidence,



that improved methods of handling apple juice to be merchandised **unpreserved** during the fall months in gallon bottles will result in an increased volume of business and a greater net income for the producer than ordinary methods of handling.

The Preparation of Apple Juice

I need not tell you that only clean, wholesome apples, free from decay and worm infestation, should be used in any apple juice plant. Yet, I am afraid that this is one of the biggest problems we face today. The opinion is too prevalent that apple juice is a cheap commodity and that only cheap apples and cheap methods of handling are justified. It is time that enforcement agencies require grading to remove all de-

cay and worm infestation and washing that really removes dust and dirt from apples that are to be ground for juice extraction. I see no reason to make any distinction between apple juice plants and canning factories insofar as wholesomeness of raw product and sanitary conditions in the plant are concerned, and in Michigan we are requesting our State Department of Agriculture to use its canning factory inspectors in apple juice plants, regardless of whether the juice is to be canned or bottled.

Nothing can retard the rate of development of a substantial apple juice industry to a greater extent than the musty or vinegar-like flavors that result from the grinding of decayed fruits or handling under unsanitary conditions. Furthermore, unless the industry can be developed on a plane that will justify paying the grower "canning factory" prices rather than "vinegar stock" prices for apples used for juice purposes, this promising industry is bound to run up against a stone wall.

After grinding and pressing, the producer faces these questions: Shall I clarify and filter the juice or simply strain it to remove some of the pulp? If I clarify, what method is most

feasible? Shall I use a coarse filter that will produce a reasonably clear juice, shall I use a fine filter that will result in a brilliant, polished juice, or shall I attempt to produce a product intermediate between these two juices?

Filtered Juice Preferred

We sell fruits, vegetables, apple juice, and other products at our Horticultural Building at East Lansing. No advertising or sales propaganda is employed. For several years customers have had opportunity to purchase either unfiltered or clarified and filtered juice at a price differential of five cents per gallon (the cost of clarifying and filtering is about two cents per gallon). **Very seldom does a customer ask for the unfiltered juice.** Recently we have been unable to keep up with the demand for this juice. If only the unclarified and unfiltered juice is available when customers come, more than 50 per cent of them will go away without juice and return the next day to fill their jugs. Most of those that do accept the unfiltered juice do so because they must have it that particular day for a party or cannot make a second trip.

Consumers **will buy larger quantities of juice and pay more for it if it is clear.** Some apple flavor may be lost in clarifying and filtering, but the consumer does not detect the difference and really buys on the basis of appearance. I do not see that there is any room for argument on this point.

How to Clarify

The most popular method of clarifying is the so-called enzymic one, in which a material sold under the trade name of **Pectinol** is mixed with the juice just after it comes from the press. The juice, with the added Pectinol, is allowed to stand some 10 to 15 hours, when it will be ready for filtration.

This material is rather expensive, but it involves a minimum of handling, is easy to use, and Pectinol-treated apple juice filters readily.

A few producers clarify by flash heating the freshly made juice to 180 to 190 degrees by passing it through the coils of a flash pasteurizer and then immediately flash cooling the juice. The process coagulates the suspended materials and makes possible a rate of filtration a little slower than the enzymic clarification. We are experimenting with this method and modifications of it and may offer some specific suggestions at a later time. Our experience indicates that one need not filter fine enough to produce a highly polished juice, but that the filter medium should be sufficiently fine to make the juice transparent and free of any cloudy conditions.

Processing by Flash Pasteurization

Either unfiltered or filtered apple juice will begin fermentation within two or three days at room temperature and within a week when kept in household refrigerators. Adding of preservatives, like benzoate of soda, is unlawful in Wisconsin.

Heating in Container Not Good

So-called holding or in-bottle pasteurization, which involves heating the juice to 170 degrees for a minimum of 20 minutes, causes apple juice to lose its fresh flavor and to take on a cooked or apple sauce flavor. Hence, repeated efforts to popularize apple juice subjected to such treatment have resulted in failures in developing consumer demand. Germ-proof filtration is satisfactory only when the bottling room is kept free of air currents and is as clean as the best hospital operating rooms. Such conditions are not practical in commercial operation.

Quick Heating

In 1936 we found that if apple juice is very quickly heated, while under a high state of agitation, to 185° and the hot juice run into containers which are sealed as soon as filled, the juice was practically free of cooked taste and possessed characteristics not materially different from fresh juice. This process is known as flash pasteurization, and it is accomplished by running the apple juice through a flattened and coiled, monel metal tube which passes through a steam or hot water chamber or jacket. In most cases, the temperature of the juice is raised from about 60 degrees to 180 to 185 degrees in three to five seconds. The high rate of heating is made possible by the fact that only a ribbon-like stream of juice is flowing through the 10 to 30 feet of flattened tubing and the tubing is in contact with live steam or steam-heated water.

Bottling

The hot juice from the flash pasteurizer may be run into gallon or quart bottles (which have been warmed to prevent breaking), sealed and allowed to cool slowly in air, or the juice may be run into enamel-lined cans, which are immediately closed, inverted or turned on the side for several seconds, and then cooled quickly by causing the cans to revolve rapidly as they are passed under a spray of cold water.

The higher quality juice is that sealed in the double enamel-lined cans, because the time that the juice remains hot is reduced to a minimum by the cooling operation which would result in breakage of glass. Plain tin cans are not desirable, because the hot juice fades or lightens in color almost as soon as it comes in contact with the metal. A double enamel can seems to be as satisfactory as glass from the standpoint of preservation of color and flavor of juice. Furthermore, can

containers cost only half as much as glass containers and they facilitate handling. The only serious objection to them is that the attractive product is not visible when the containers are displayed.

A Time Schedule

A time schedule for our operations at the College may aid in visualizing the process. The temperature of the juice is raised from about 55 degrees to 185 degrees in 2½ to 3 seconds, held at 185 degrees some 3 to 4 seconds while passing through tubing leading to can closing machine, the can is filled in 9 to 10 seconds and is closed some 5 seconds later. The can is then inverted for some 15 to 20 seconds to insure sterilization of the cover. Then the juice is cooled to approximately 100 degrees in 1 to 1½ minutes. Thus, in approximately 2 to 2½ minutes the juice is heated to pasteurizing temperature, filled into cans, sealed, and cooled. In larger commercial plants the time of can filling is shortened, but other operations use essentially the same time schedule.

Details for equipment and operations are available in published form and may be obtained on application to the Michigan Experiment Station.

Merchandizing

Several interested parties in Michigan met from time to time during the past spring to plan plant layouts and estimate probable costs of processing and canning apple juice. They decided to merchandize under a uniform label—Mich-O-Maid apple juice. They adopted the 303 x 509 can, holding 20 ounces, as a container that would probably permit marketing apple juice made of any wholesome apples poorer than U. S. No. 1 at a retail price of 10 cents per can, and, of course, allowing some profit for the plant. This group adopted a set of speci-

fications for raw product, processing methods, quality of final product, etc., and said that anyone willing to meet such specifications would be entitled to use the Mich-O-Maid label. Processors pay slightly more than actual label costs, the difference going into a small sales promotion fund. Five plants are now operating under this arrangement.

The Michigan Experiment Station approved a project to investigate methods of merchandizing the apple juice and to make a study of consumer demand.

It must be evident that the Michigan Experiment Station regards this apple juice project as of major importance. We think there is a possibility of developing it into a million dollar industry in Michigan if it can be guided in the right direction. However, unless the quality of the final product is such as to bring frequent repeat orders at a price that will encourage the grower to dispose of his less than U. S. No. 1 grade apples for this purpose and similar purposes rather than dump them on the fresh fruit market, the apple juice business will fail as a real asset to the apple industry.

SURPLUS APPLES PURCHASED BY F. S. C. C.

THE Federal Surplus Commodities Corporation reports that more than 1,650,000 bushels of surplus apples were bought during the first few weeks of the purchase program to assist apple growers in meeting the marketing problem caused this year by large supplies and uncertain market conditions.

The apples were given to State welfare agencies for distribution to eligible low-income families, children who are receiving free school lunches, and certain institutions.

Prices paid for apples have ranged from fifty to seventy-five cents per bushel according to variety and grade.

LARGE CHERRY PRODUCTION EXPECTED DURING NEXT 5 YEARS

CHERRY production in the United States probably will continue to show a slight upward trend for the next five years, the U. S. Bureau of Agricultural Economics indicated in its annual November report on the cherry outlook. Sweet cherries will have a more marked rise than sour.

In both cases little change in plantings is occurring, the rise in production being the result of increasing production from young trees.

"With most of the principal market outlets now expanding at a relatively slow rate, no appreciable increase in prices to producers is to be expected other than may come from a general increase in consumer purchasing power," the report stated.

Utilization of cherries has increased in most major outlets during recent years, but a slower rate of expansion is indicated for the future. The pack of canned red pitted cherries continues on an upward trend, with a heavy pack—over 3 million cases—in 1939, but little further expansion is likely unless consumer demand improves. The pack of frozen cherries has trended upward during the last 7 years, and a further increase is indicated. The pack of canned sweet cherries, which has trended downward for over a decade, increased in 1938 and 1939 but the heavier pack in these years does not necessarily indicate a reversal of the past downward trend, the Bureau pointed out. Fresh shipments of sweet cherries have shown no marked trend either upward or downward in recent years.

If we adapt ourselves to our present surroundings, show love and kindness to all who are with us in these surroundings, we will be contented for the present, and for us the future holds no fear.

Premium Winners at Fruit Show

THE fruit and nut show held in connection with our convention this year was of good size and of considerable interest to those in attendance. There was an excellent exhibit of new varieties, including Milton, Kendall, Cortland, Macoun, Orleans, Newfane, Secor, Haralson, Sweet Delicious, Sweet McIntosh, Early McIntosh, Melba, and Joan. This exhibit enabled growers to examine the specimen and become acquainted with them, with the possible view of testing them in their locality. The following were the winners in the new variety classes:

New Varieties

Milton: 1st, Bill Aeppler, Oconomowoc.

Orleans: 1st, Bill Aeppler, Oconomowoc; 2nd, Henry A. Dvorak, Casco.

Macoun: 1st, Bill Aeppler, Oconomowoc; 2nd, G. C. Pieper, Oakfield; 3rd, H. E. Wunsch, Sheboygan.

Cortland: 1st, Bill Aeppler; 2nd, Edw. Kassner, Casco; 3rd, Fromm Orchards, Cedarburg.

Haralson: 1st, Virgil Fieldhouse, Dodgeville; 2nd, Art Plummer, Oshkosh; 3rd, Jos. L. Morawetz, West Bend.

Secor: 1st, Fromm Orchards, Cedarburg; 2nd, G. C. Pieper, Oakfield.

Kendall: 1st, H. A. Dvorak, Casco; 2nd, Fromm Orchards, Cedarburg.

Any other variety: 1st, Bill Aeppler, on Sweet Delicious; 2nd, G. C. Pieper, Oakfield, on Edgar, a cross of McIntosh and Forest.

Standard Varieties

There were a large number of entries in McIntosh and Delicious classes because of the premiums offered by the Niagara Sprayer and Chemical Company, through



William Aeppler

One of the youngest members of our Society who won many prizes on new varieties of apples.

J. Henry Smith of Waupaca. The quality of the other standard varieties was high this year. The following were the winners:

McIntosh: 1st, Bill Aeppler, Oconomowoc; 2nd, Hugo E. Wunsch, Sheboygan; 3rd, Arthur L. Wagner, Cleveland; 4th, H. A. Dvorak, Casco; 5th, Nieman Bros., Cedarburg; 6th, Edward Kassner, Casco.

Delicious: 1st, Sylvester Woelfel, Cleveland; 2nd, Hugo Wunsch, Sheboygan; 3rd, Bill Aeppler, Oconomowoc; 4th, Victor Heinz, Cleveland; 5th, Alden Kolb, Cleveland; 6th, Sam Herd- rich, Adell.

Grimes Golden: 1st, Jos. L. Morawetz, West Bend; 2nd, Victor Heinz, Cleveland; 3rd, A. Plummer, Oshkosh.

Jonathan: 1st, Nieman Bros., Cedarburg; 2nd, Jos. L. Morawetz, West Bend; 3rd, H. E. Wunsch, Sheboygan; 4th, St. Nazianz Seminary, St. Nazianz.

Northern Spy: 1st, Nieman Bros., Cedarburg; 2nd, Jos. L. Morawetz, West Bend.

Salome: 1st, Erwin Tuma, Cato; 2nd, J. E. Paulson, Manitowoc; 3rd, St. Nazianz Seminary, St. Nazianz.

Golden Delicious: 1st, L. B. Irish, Baraboo; 2nd, Sylvester Woelfel, Cleveland; 3rd, M. Brunner, Cleveland; 4th, Sam Herd- rich, Adell.

Snow: 1st, Jos. L. Morawetz, West Bend; 2nd, Nieman Bros., Cedarburg; 3rd, St. Nazianz Seminary, St. Nazianz; 4th, H. A. Dvorak, Casco.

N. W. Greening: 1st, Erwin Tuma, Cato; 2nd, Fromm Orchards, Cedarburg; 3rd, Arthur L. Wagner, Cleveland; 4th, H. A. Dvorak, Casco.

Wealthy: 1st, Bill Aeppler, Oconomowoc; 2nd, Fromm Orchards, Cedarburg; 3rd, Edw. Kassner, Casco; 4th, J. E. Paulson, Manitowoc.

Any other variety: 1st, St. Nazianz Seminary, St. Nazianz; 2nd, Chas. Conrad, Cleveland; 3rd, A. Plummer, Oshkosh; 4th, Erwin Tuma, Cato.

Seedling Apples

The seedling apple show was not as large as it has been in the past. However, according to the judges, Prof. J. G. Moore and C. L. Kuehner, the first prize seedling this year was of high quality, and cions have been requested for testing in the University orchard. The following were the winners:

1st, Wm. Radka, R. 2, Cambria; 2nd, Victor Heinz, Cleveland, R. 1; 4th, J. K. P. Porter, Evansville. Mr. Ralph Irwin won 2nd prize on his seedling which had won a premium at past shows.

Seedling Nut Show

There were some nice nuts exhibited this year, which were judged by Wm. Leonard, Carroll Krippner of Fort Atkinson, and Jason Swartz, Waukesha. The following were the winners:

Hickory: 1st, Mrs. Walter Barth, West Bend; 2nd, Fred S. Mills, Endeavor; 3rd, Jos. L. Morawetz, West Bend; 4th, Lillian Colburn, Wisconsin Dells; 5th, Arthur Plummer, Oshkosh.

(Continued on Page 87)

THE APPLE OUTLOOK FOR 1940

By the U. S. Bureau of Agricultural Economics

LARGE supplies of apples and other fruits in the United States and in foreign countries, and an unsatisfactory export situation, are unfavorable factors in the apple marketing situation for the 1939-40 season. But an increase in domestic consumer buying power during the season, and the program undertaken by growers, aided by the Federal Surplus Commodities Corporation, to divert apples of less desirable grades from sales for fresh consumption into commercial by-products or other outlets, will tend to offset the unfavorable elements in the situation.

Domestic commercial apple supplies for the current season are about 22 per cent larger than for last season, and 5 per cent larger than the 1928-37 average. Supplies are relatively heavy in some of the important Central and Eastern States, including important export areas. The quantity of apples used for canning and drying is expected to be considerably larger in 1939 than it was in 1938, when about 10,300,000 bushels were canned and dried.

From a long-time viewpoint, the number of apple trees of bearing age in the United States is expected to continue to decrease, and the production trend during the next 5 or 6 years is expected to continue downward at a moderate rate with greater reduction in the total crop than in the commercial crop. If plantings and replacements continue to be as light as they have been during the last several years, production 10 to 15 years hence may be materially lower than it is now.

In the Pacific Coast and Rocky Mountain States commercial production in recent years has been

fairly stable at around 35,000,000 bushels per year. Young trees in these regions are relatively few, and the tendency to remove old and unprofitable trees was continued during last year.

In the Central States the annual production varies tremendously. Increasing commercial production from young orchards probably will offset decreasing production from old commercial and farm orchards for several years, assuming average growing conditions.

Although the hurricane of September 1938 destroyed or damaged many apple trees in the New England storm area, permanent tree loss from the storm will not greatly affect commercial production in the Atlantic Coast States as a whole. A stationary supply to a moderate decrease in commercial production in this group of States is expected during the next several years.

FOREIGN MARKETS CLOSED TO APPLES AND PEARS

THE British and French Government announced in mid-November a virtual prohibition on imports of American apples and pears. This closes the export market for more than 50 per cent of our normal exports of apples, and for more than 65 per cent of our normal exports of fresh pears, according to the office of Foreign Agricultural Relations, U. S. Department of Agriculture.

Both crops this year are considerably above average.

This seriously affects the price of these fruits in sections of the United States which normally export to these countries.

CHIPPEWA POTATOES MAKE GOOD IN WISCONSIN

THAT the Chippewa potato deserves to be ranked with the best varieties now available to Wisconsin growers has become clear as the result of trials conducted in 9 counties during 1937 and 1938 by G. H. Rieman (Genetics, Horticulture, and Plant Pathology).

Chippewa produces a high percentage of exceptionally smooth and uniform U. S. No. 1 size tubers. The eyes are shallow and few in number. The skin is white and attractive, but it is so tender as to be rather easily bruised. Yields compare favorably with those of such leading varieties as Irish Cobbler, Rural New Yorker, and Green Mountain.

Unfortunately, Chippewa is susceptible to scab. For this reason it is not satisfactory on all soils. Apparently the potato breeding program now underway offers the only hope of securing varieties that will combine disease resistance with other desirable qualities under Wisconsin conditions, but meantime Chippewa may be a good stop-gap where scab is not too severe.

Another new variety named Sebago produced high yields of fine quality tubers in 1938, and showed resistance to late blight disease. Under conditions which produced 75% tuber rot in standard varieties, Sebago showed less than 5% such loss.

From What's New in Farm Science (Wis. College of Agriculture).

PREMIUM WINNERS AT THE FRUIT SHOW

(Continued from Page 86)

Walnuts: 1st, Dawson Bros., Franksville; 2nd, Neill Zadicok, Gays Mills.

Butternuts: 1st, Mrs. Walter Barth, West Bend; 2nd, Jos. L. Morawetz, West Bend.

In the Orchard

APPLE VARIETIES HAVE LIMITED CLIMATIC RANGE

MR. J. D. WINTER, Secretary of the Minnesota Fruit Growers Association expressed the opinion recently that the Haralson apple has a rather limited range in which it is at its best. This appears to be in the vicinity of the Twin Cities, extending perhaps east and west and somewhat north of that section. The apple was developed at the Minnesota Fruit Breeding Farm at Excelsior, and does unusually well there. Farther south growers do not like it, which illustrates that apple varieties do have a limited range in which they do well.

The same is true of other varieties. McIntosh is at its best only in a few sections of the United States.

It may also be true of small fruits. Mr. Winter reports that a grower in Polk County, Wisconsin, told him that the Chief raspberry outclasses Latham as a commercial berry in his experience. The Chief seems at its best in the more westerly and north-westerly region of these states.

THE HONORA APPLE

SAMPLES of the Honora apple were shown at the Southeastern Fruit Growers meeting at the Dawson Brothers Farm near Racine on August 15th, by C. L. Kuehner.

This is an introduction by the Ottawa Experiment Station, Canada, and has been recommended by New York growers as being very desirable for the roadside stand. It is a McIntosh cross, but is a semi-sweet apple. It is red in color, ripens about the middle of August, and a very pleasant eating apple. It no doubt meets with an excellent demand at the roadside stand.

CARBON DIOXIDE USED FOR APPLE STORAGE

WHEN McIntosh are held in an atmosphere of 5% carbon dioxide and 2% oxygen at 40° F., they will keep in good eating condition until the first of June. In cold storage at 32° F. with ordinary atmospheres similar fruits will not retain their characteristic quality much after March first. In modified atmosphere storage the fruit keeps without showing brown core which develops at the lower temperatures required for the usual cold storage. If previously held in the modified atmosphere mentioned above, McIntosh apples when removed from storage in March will keep four times as long at room temperature as compared with apples of the same variety removed from ordinary cold storage on the same date.

Cortland apples keep much longer in modified atmosphere storage than in ordinary cold storage but the scald hazard is so great with this variety that it is not recommended that it be tried with this newer technique of storage. Preliminary experiments indicate that ozone treatments of the atmosphere may control scald, however.

From Report of work done by the New York Experiment Station, Ithaca.

A dusky lady went into a drug store and asked for one-cent's worth of insect powder.

"But that isn't enough to wrap up," said the clerk.

"Nemind 'bout wrappin' it up. Jess blow it down ma back."

Football: A game in which the best team loses on account of the other fellows getting some of the darndest breaks.

A NEW ERA IN PEACH VARIETIES

"THE old varieties of peaches no longer meet modern requirements. The demand today is for large, red all over, firm, attractive fruit that are as sleek and trim as a race horse."

This is the opinion of the New Jersey Peach Council, given in their annual report and bulletin describing new varieties. The bulletin continues: "Fruit blanketed to their 'chins' in fuzz, or peaches which are hard today and mush tomorrow are not wanted. The public wants peaches first of all that look appetizing and luscious, and then prove to be as good as they look."

A recent New Jersey survey showed that 7 out of the 10 leading varieties grown in that state were bred by the New Jersey Experiment Station. Varieties which are now being named and introduced during what may be termed the second decade of breeding, show a marked advance over the previous introductions. This is especially true in regard to fruit size, firmness of flesh, slow rate of ripening, high edible quality, and reduction in fuzziness. Some of the new varieties are Triogem, Golden Glow, and Golden East.

After the new varieties were bred, the second step is the distribution of true to name varieties to practical growers. Therefore the New Jersey Peach Council was organized to provide a dependable means of distributing trees to growers in order to insure them the greatest possible benefits of the breeding program.

Judging from the colored pictures in the bulletin, some of the new varieties are much more attractive than the older kinds.

Only 33 states have laws against the vending of narcotics.

Destroy Two Raspberry Pests Now

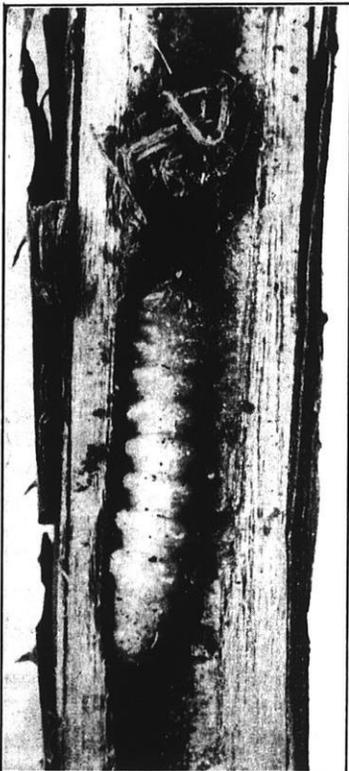
By A. L. Piller

The Red Necked Cane Borer

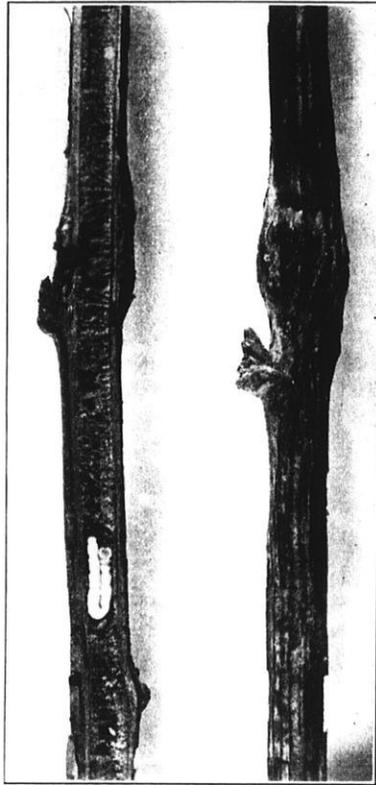
NOW is the time to take action in controlling the Red Necked Cane borer and Raspberry cane borer of raspberries. These two insects, causing considerable damage to many Wisconsin plantings the past season, are controlled by **pruning out all infested canes during the fall and winter months.** All nearby wild and neglected raspberry plants in which the pests may breed should also be destroyed.

Look For Swellings on Canes

As shown by the illustrations, canes infested by the Red Necked Cane borer may be detected by



An enlarged view of a raspberry cane which has been split open to show the larva of the Raspberry Cane Borer.



Right—Section of red raspberry cane showing spindle shaped gall caused by the larvae of the red-necked cane borer.

Left—Section of red raspberry cane split lengthwise showing position and condition of overwintering larvae.

enlarged swellings or galls one to three inches long, usually characterized by longitudinal splitting of the bark. The borer, about $\frac{5}{8}$ to $\frac{3}{4}$ of an inch long, yellowish white in color, is slender and flattened, and is usually found in the pith several inches above or below the swelling **during the winter months.**

The adult of the borer is a beetle about $\frac{1}{3}$ of an inch long with blackish wing covers and coppery to red thorax or neck. They appear during June and July and lay eggs on new growth in the bark at the base of a leaf. Upon hatching, the borers spiral

upward in the sapwood five or six times, thus girdling the cane and causing the gall. They then burrow in the pith where they complete their growth in the spring, pupating within the plant and emerging as adult beetles in June and July.

The Cane Borer or Girdler

The Raspberry cane borer, also illustrated, differs in that it is shorter, round and more robust. The adult, a blackish beetle, appears in June and while egg laying girdles the stems above and below the egg puncture, causing the canes to wilt above the girdle. These infested canes should be pruned at that time. However, any which were missed **may be detected by the girdle scars and should be pruned out now** as the Raspberry cane borer also hibernates within the plant.

Cut off all canes in which these insects can be detected close to the ground, and burn at once.

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Now you can save money by assembling your berry boxes with the fast-working Neva-Clog hand stapler. It's quick, easy, and fun to do. You can assemble 5 boxes a minute with this practical pocket sized stapler. What's more, you'll get stronger, more attractive boxes—boxes you'll be proud to market your fruit in.

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STRAWBERRIES AT WARRENS

STRAWBERRIES were covered in the Warrens section the last of October and during the first two weeks in November, according to Mr. R. E. Harris, Vice-President of the Warrens Fruit Growers Association, who was in the office of the Society November 14th. Mr. Harris observed that early in November the temperature dropped one evening to 16° F. which might have injured the strawberries that were uncovered, but he thought that because the soil was dry, and the foliage heavy, the frost did not penetrate. He observed that where there was a heavy mat of leaves, the soil was not frozen under the leaves even though there was no covering.

Mr. Harris said that some growers have made the statement that they were not covering their rows heavily with mulch because the stand of plants was light. This would be wrong because the lighter the stand, the less natural protection the leaves give, so that the light stand should really be covered the heaviest, and perhaps the earliest.

Will the frost penetrate more deeply in wet soil than in dry soil? This question was discussed. Work recently done by several experiment stations would seem to indicate that if the soil is very wet when it freezes, this soil will allow the frost to penetrate more deeply and the temperature drop lower several inches below the surface than if the soil were dry. In other words, dry soil is a better insulator than wet soil. Consequently it would be more important to cover a wet field early than when dry.

Minnesota experiments have indicated that peat moss is a good cover during a dry season, but not any good at all when it becomes wet. If peat moss were

applied as a mulch and there were heavy rains just before freeze-up, the peat would become soaked with water and freeze into an icy mass which would allow the temperatures to go lower under the peat than otherwise. In other words, a dry mulch is the only kind that is of any value.

If it is correct that strawberry roots and crowns are injured at a temperature of about 15-18° F. early in the fall then we must do everything we can to protect them from this temperature. This can be done by mulching.

Cane Borer Numerous in Raspberries and Blackberries

Mr. R. E. Harris stated that he had seen quite a few cane borers in his blackberries and also in some of the raspberries this year. Wherever a swelling is noted on the cane, these swellings should be examined. Cut through to see if it is due to the borer. The red-necked cane borer is described elsewhere in this issue. Be sure to remove all these canes this winter because they will die anyhow and unless removed cannot be controlled.

THE STRAWBERRY OUTLOOK FOR 1940

From the U. S. Bureau of Agricultural Economics

OCTOBER estimates indicate about 197,000 acres of strawberries for picking in 1940. The indicated acreage is the largest since 1929, and 9 per cent above the 1928-37 average. Should yields in 1940 be average, production would be somewhat less than in 1939, when the per acre yield was about 10 per cent above average. Higher consumer incomes in 1940 probably will result in a better demand for strawberries than existed in 1939.

Increases in 1940 over 1939 acreages are indicated in the late and intermediate States. In the second early and the early States some decrease in acreage is expected.

During the last decade, acreage has increased markedly in the late States, and in 1940 is expected to be the largest on record. The upward trend in acreage in the intermediate States is expected to continue in 1940. In the early States acreage had declined somewhat, while in the second early States there has been no pronounced acreage trend in recent years.

THE CORTLAND APPLE

Opinions of N. Y. Growers

MR. HUBBARD: If any business were to set up a factory and start manufacturing and marketing a new competitive article on a large scale without developing a market, it would soon go out of business. The Cortland was planted with the expectation of prolonging the market 2 months more. It will not keep 2 months longer as well as we expected it would keep, and this limits the market very much on Cortland. However, it does seem that as soon as the consuming public has use for the qualities of Cortland, and learns about them, they buy them and use them irrespective of price. The Cortland price is set by those who do not know Cortland.

MR. GELDER, Champlain Valley: I feel that the McIntosh is first. I think we would be money ahead if our entire orchard were Cortland instead of McIntosh. Cortlands in our orchards have been planted as pollinizer for the McIntosh. In one block of 100 acres, the Cortlands have persistently borne since 4 years old, and I should think they have probably given us four times as many apples as the McIntosh trees. The returns would be greater than for the McIntosh even if the McIntosh should sell for 50c a bushel more than the Cortland.

Success With Dwarf Apple Trees

A Truly Garden Type of Tree Now Available that will Provide Beauty and Novelty to the Lawn or Garden

By H. B. Tukey, New York Experiment Station

AT the moment there is an increasing interest among amateur gardeners and small home owners in America for a very dwarf apple—one that will grow no taller than a man can reach and which will bear fruit the first or second year planted—not a tree so much for the production of the family supply of apples as a tree for ornamental purposes and for an interest spot in the garden or around the home.

Fortunately, tests which have been made at this Station give some promise of success with dwarf trees and give direct answers to such questions as "How soon will the trees come into bearing?", "How big will they get?", "What kind of fruit will they bear?", "What varieties shall I use?", "What special care must I give them?"

Truly Dwarf Trees Available

Fortunately, too, the trees which are now becoming available are true "dwarfs" in every sense of the word. They are produced by budding or grafting the desired variety onto a standardized rootstock which has been selected for its particular dwarfing virtues. Several kinds of dwarfing rootstocks are available, some more dwarfing than others. Of these, only one will be mentioned here, namely, the one that produces the greatest dwarfing effect and called "Malling IX" or "Jaune de Metz." Although varying with the variety, such trees seldom become higher than one can reach. They are particularly well suited for training to special shapes and forms, and are generally successful where a very small tree is needed. They are

precocious in fruiting, often bearing even in the nursery row. According to records at the Station more than half the trees of many varieties will bear the first year planted, and the rest will surely fruit the second year.

How Varieties Differ

There is, however, a difference in the performance of different varieties on this rootstock. Northern Spy, for example, which is notoriously late in coming into bearing on standard roots (not infrequently 12 to 18 years) is one of the latest to fruit as a dwarf tree, usually not until 4 or 5 years of age. Trees of Spy at the Station have borne 51 apples at 4 years of age. On the other hand, varieties which normally bear early, such as Wealthy, Cortland, Oldenburg, Jonathan, and Delicious, can be depended upon to bear the first year. Others which have done well are Milton, Stark, Grimes, and Early McIntosh.

Trees Bear Young

One of the very best for all around usefulness is Delicious. The tree is attractive in blossom, leaf, and wood, and the fruit is symmetrical, shapely, well-colored, pleasing to the eye, and hangs well to the tree. The writer has at his home a most attractive 3-year-old dwarf tree of this variety which this year carries 16 well-colored fruits of good size. McIntosh, although growing well, is likely to develop excessively large and uneven foliage or overly large fruits which drop easily, and is therefore less satisfying.

To offset some of the attrac-

tiveness of such trees, the general criticism by some is that they are not "apple trees" as commonly visioned. Further, they break off easily just below the union because of the special brittleness of the rootstock. For this reason they should be staked. A high wind, a heavy load of fruit, or a careless person can easily snap a tree. Again, if they are planted too deep, the scion may root from above the union, thus destroying the dwarfing influence of the special dwarfing root stock and eventually producing a standard tree.

Planted close to the eaves they may be hurt by the ice or snow from the roof. A large snowdrift, too, may break the low branches. Also, when trained to special forms, five years work may be destroyed by a sudden ravage of blossom blight, which may attack a blossoming spur on a main limb and run back into it and kill it. On the other hand, dwarf trees are easily protected from common insects and disease. A hand sprayer and the use of materials now readily available at local stores give very good control.

All in all, these dwarf trees are garden plants and require garden care—not at present commercial assets for fruit production, although there are doubtless some varieties, as Northern Spy, which under special culture could be made annually profitable. But for the amateur gardener and small home owner they are exceptional, useful, and interesting novelties.

From October Farm Research.

Statisticians claim 21,500,000 American homes are equipped with radios.

PLANTS ARE KILLED BY COLD

THERE is more and more proof that plants are killed by low temperatures more often than from any other cause. When thawing occurs the soil is filled with water which later freezes. Such soil, filled with frozen water, is a much better conductor of cold than dry soil. Consequently, temperatures several inches under the surface will then drop much lower than when the soil is covered with snow.

This is well illustrated in an article on Frost Penetration by P. H. Wright of Saskachewan—where the temperature often goes down to -40° F. He writes in the November issue of the *Gardener's Chronicle*:

Most interesting are the temperature records of the surface and the four-inch depth, particularly those taken during the Winter of 1931-32. Temperatures in January and early February were relatively severe, several days occurring when lows of -30° and less were made. And yet, on those very days, the temperature at the surface, but under the snow, remained **at or near 20°** .

When the Snow Thaws

In late February, an unexpected thaw occurred and the snow cover was removed. The week following brought a low of only -18° , and an average of only -12° , and yet the temperatures at the surface sank below the Winter average by **fully fifteen degrees**. Similarly at the four-inch level, new lows for the Winter were recorded.

This lesson of the efficiency of snow as an insulator is borne out by many observations. For instance, wild raspberries picked up at the Pas, far in northern Manitoba, and taken to Minneapolis with the idea of breeding from them super-hardy varieties,

actually winter-killed in their new homes more freely than the domesticated varieties standard in those places. The explanation usually given is that the wild raspberries grew in thickets where snow was accustomed to drift deeply, thus allowing comparatively tender strains to thrive and propagate themselves many hundreds of miles north of what would be their habitat, if compelled to grow in an open field with its much lighter snow cover.

It has been stated more than once that many of the hardiest plants in North America come from areas of the Great Plains where snow is frequently entirely lacking.

The new "artificial snow," although expensive, will doubtless be very effective. It may even be better to put straw on top of the snow instead of under it, to prevent removal of the snow covering by a sudden unseasonable thaw and to delay exposure in the Spring.

THERE'S GOLD IN LEAVES

THERE will soon be a lot of the "makings" of needed leaf mold going up in smoke in about every community in the state.

Some Wisconsin communities will follow the lead of a Massachusetts township by establishing a municipal compost heap in which this fall's crop of leaves will be turned into rich leaf mold with which to fertilize lawns and shrubs another season.

William Longenecker, director of the University of Wisconsin arboretum, rates well rotted leaves excellent as a soil conditioner and high among fertilizers. He finds that, on sandy soil, leaf mold conserves moisture and, on heavier soils, it loosens the ground and prevents it from

packing. Leaf mold, he says, is relatively high in potash, an important plant food. While low in phosphate and nitrogen, it does help in making more available to plants the supplies of these foods which are already in the soil.

In making compost heaps, Longenecker suggests mixing the leaves with about a quarter to half as much soil and then thoroughly moistening the mixture.

To get the best results from the compost Longenecker suggests that it should be left in the heap for two winters. To break down the leaves more quickly use this formula: to one ton of straw, leaves, and other refuse add 60 pounds of ground limestone, $67\frac{1}{2}$ pounds of ammonium sulphate, and $22\frac{1}{2}$ pounds of superphosphate.

The materials are thoroughly mixed, then heaped in a square pile, tramped down and packed, and thoroughly dampened but not waterlogged. Left to stand over winter, by spring it should be in good condition for use.

Leaf mold, well-rotted, may be used in one of two ways. Used in small amounts, it may be spread as a top dressing. Used in larger amounts, it should be well spaded into the ground. The reason is that plants tend to develop a heavy root system where the leaf mold lays. If this is too close to the surface, the plants become shallow-rooted and have a hard time resisting drouth.

THOUGHTFUL

A man on a visit to a friend in London overstayed his welcome. It was getting towards Christmas and his host thought a kindly hint would have the desired result.

"Don't you think," he said, "that your wife and the rest of your family will want you to be with them at Christmas?"

"Man," replied the guest, "I believe you're right. It's real thoughtful of you. I'll send for them."

Colchicine-Treated Plants Open New Field of Research

By U. S. Department of Agriculture

PRODUCING fertile hybrids, making successful plant crosses that heretofore have been impossible, and changing the very size of the plant itself are now within the realm of the plant breeder. His tool is a powerful and poisonous drug—colchicine—an extract from seeds of the meadow saffron, a wild plant of some Asiatic and European countries. Weak solutions of the drug have been used for medicinal purposes for many centuries. Only recently has it stepped into its new role.

The colchicine literally drugs young plants in the process of rapid cell development, resulting in cells with a double or redoubled number of chromosomes. This phenomenon opens new fields of research in breeding such economically important plants as cotton, certain cereals, tobacco, fruits and grasses.

Improved flavor of berries and a wider adaptation of certain cool weather fruits are the possibilities that colchicine brings to small fruits, the bureau scientists report.

Colchicine - doubled chromosomes produced fertile hybrids from crosses between several berry varieties that heretofore have been unable to reproduce. The cross between the Loganberry and the ordinary blackberry, for instance, gives delicious flavor. But until the chromosome number of the hybrid was doubled it could not reproduce.

By crossing the red raspberry with other berries more able to withstand the warm southern climate, it is possible that a new raspberry variety capable of growing farther south than at present will in a few years be a reality.

What Happens

What happens to the colchicine treated plant is explained as follows by Bureau scientists:

The drug affects the unit of all plant life—the cell. Growth of all living things, both plant and animal, is the result of cell division. They start with a single fertilized cell which divides in two, from two to four, from four to eight, and so on into countless millions.

As the cells divide they have one thing in common that as a rule makes like produce like. Each is provided with sets of chromosomes containing genes which determine the behavior of the plant. These heritable factors, discovered by the Austrian monk, Mendel, more than a half century ago, have been the basis of modern plant breeding. The chromosome number remains constant as the cells divide, if the plant grows naturally. Simply each cell is provided with the same factors that influence such characteristics as color disease resistance or susceptibility, tallness, ability to yield, although as Mendel proved some may be dominant and other recessive.

Nature prevents a piling up of chromosomes in plants and animals by halving the number in the reproductive cells. Fertilization of egg cells by sperm restores the normal number of chromosomes found in the body cells. Thus, the appearance and the behavior of the plant is inherited through genes obtained from both parents. Although the plant body dies, the germ plasm lives on in the seed. Selecting plants with superior germ plasm—those with desirable characteristics—is the basis of selective breeding.

Fertile hybrids are obtained only when the parent chromosomes pair successfully. Lack of perfect pairing leads to an unequal distribution of chromosomes to the new cells with the result that they fail to function. For this reason offspring from so called wide crosses—where parent chromosomes are unequal in number or have some other fundamental difference—have been difficult, if not impossible, to obtain.

Treating a young seedling or a growing shoot of a plant with colchicine often results in doubling the number of chromosomes. When the drug is applied as a weak solution, normal cell division is halted. Ordinarily, the chromosomes split and the same number of chromosomes pass to the two daughter cells. The drug destroys the mechanism which normally causes the two sets of chromosomes to pass into the two daughter cells. In such a state, the chromosomes split although the cell division is not completed. When removed from the solution the cell again starts normal division in which the chromosomes split again to give the new cells twice the number of chromosomes.

A wound seared by the iron may become whole, but a wound burned in by the tongue can never heal.—A Pagan Pearl.

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In Orchard and Field

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Complete Fertilizer Gives Excellent Results With Gladiolus

A RATHER extensive experiment on the use of various fertilizers for gladiolus, both for size and quality of bulbs, and on size and quality of flowers, was conducted in Germany and reported in the bulletin "Plant Nutrition" for July. The following are some of the results obtained:

The highest yield of large sized bulbs was obtained from bulbs of 2.4-3.2 inches in circumference.

Repeating the experiment with fertilizers over a period of years, complete fertilizers had a favorable effect on the general development and flowering of the plants. This would indicate, state the experimenters, that the opinion often heard in market gardening circles that commercial fertilizer tends to impair the quality of bulbs is not correct.

The following conclusions are reported by the experimenters.

1. Inadequate manuring impairs the seed quality and yield of gladiolus bulbs.

2. Balanced fertilizing has a favorable effect on the yield and quality of the bulbs and increases flower formation.

3. Potash has a particularly favorable influence on the development of bulbs. The yield of seed bulbs as well as their quality was greatly improved by application of potash.

Of course we must remember that soil types vary and so it is



almost necessary for gladiolus growers to do some experimenting of their own to determine which fertilizers are the best.

FUTURE GLADIOLUS

DR. RONALD BAMFORD of the University of Maryland, who has been studying the gladiolus for a number of years and who has grown many of the species as well as hybrids is of the opinion that it will eventually be possible to utilize many more of the wild types in crosses than have so far been done. This will add new forms and color patterns as well as fragrance, the latter being a character quite prominent in some of the wild forms. The origin of some of the commercial types is shrouded in mystery but it is probable that only a relatively few of the species have entered into the make-up of the common garden forms.

BEST GLAD INTRODUCTIONS OF THE PAST THREE YEARS

MR. RALPH BAERMAN of Minnesota has selected the best glads which in his opinion were introduced during the past few years. We are listing his selections beginning with 1937. He makes this statement. "The year 1937 was undoubtedly the greatest one for Gladiolus introductions to date. This was rather a fitting coincidence, since 1937 was the centennial of the year of the first successful Gladiolus hybridizing in Europe. I have purposely omitted any of our own introductions for the last three years."

The following are his selections as the best introductions for the years stated:

1937. Amrita, Arethusa, Barcarole, Camellia, Conquest, Gloaming, Margaret Beaton, Rima, Shirley Temple, Zuni.

1938. Aladdin, Amulet, Angelica, Carillon, Edelweis, Greta Garbo, King Lear, Leona, Rosalie, Valeria.

1939. Diane, Jasmine, Lord Selkirk, Marguerite, Myrna.

The world would be better and brighter if we were taught the duty of being happy, as well as the happiness of doing our duty.

It is not how much we have, but how much we enjoy, that makes happiness.

THRIPS TREATMENT HARMFUL

TREATMENT of gladiolus bulbs with naphthalene flakes to control thrips should be made as soon as possible after the bulbs have thoroughly cured, to prevent damage to the bulbs. This damage later appears as a malformation known as strap-leaf stunt. Strap-leaf stunt causes a crumpled and twisted appearance of the foliage according to an article in the bulletin of the New England Gladiolus Society, by A. M. Reeves. It is thought that other less noticeable damage is caused by this treatment, which results in a weakened plant.

If naphthalene flakes are used to control thrips, treatment should be made soon after the bulbs have cured. After the treatment the bulbs should be freed of any adhering flakes and thoroughly aired. Under conditions where bulbs were treated by dipping in water at 120 degrees for ten minutes, as recommended by the United States Department of Agriculture, the thrips were killed and the plants showed no signs of foliage damage.

In one case, when bulbs that were stored over winter in a damp place, with naphthalene placed in the bags were planted the first sprouts and roots were black. As a result of this injury, the first blooms did not appear until late in September, instead of August. It was apparent that the blooms were the result of secondary buds and roots, since the first buds and roots had been damaged by the naphthalene treatment.

In one case injury from naphthalene was so bad that a lot of bulbs sent for trial planting did not grow at all. It is the opinion of some growers that bulbs cannot be treated at any time with naphthalene without being damaged.

From THE FLORISTS' REVIEW.

A man's worth to society should be judged by what he does when he doesn't need to do anything.

SHOW LOCATION COMMITTEE APPOINTED

MR. Chester Harrison, Waldo, president of the Wisconsin Gladiolus Society has appointed the following committee to consider locations for the next State Gladiolus Show: Fred Hagedorn, 1127 Alabama Avenue, Sheboygan; A. S. Haugen, R. 5, Stoughton; and Walter Miller, Sun Prairie.

Members who have suggestions as to a location for the show should get in touch with the committee members.

MOTHER MACHREE

R. A. E. KUNDERD once told me that the parentage of Mother Machree is Aviatrix x Corunna (K), and it has *G. Primulinus* as one of its ancestors.

An interested crowd was gathered around two magnificent spikes of this variety at the American Gladiolus Society Show in Toledo, Ohio, one afternoon in August, 1928. These specimens had been sent from Oregon under refrigeration and were seven days on the road, yet were in perfect condition. As I remember it, one of them had ten open blooms.

Foss Heaton and I were among this group, and directly in front of us was Floyd Stevens. He was telling about the good points of Mother Machree. After the little party was over I asked Mr. Heaton if he wanted to meet the originator. Mr. Heaton had not hesitated to express his dislike for the variety, as he did not admire the coloring. But for some reason best known to himself, he deferred the meeting 'til later.

Elmer E. Gove sprang into prominence by purchasing one-half of the stock for \$1,000. It is said that he reaped a fine profit.

The seed which produced Mother Machree was harvested in 1922, and the "Sunset Smoky" was introduced in 1927.—From "Glad Winnowings," Iowa Gladiolus Society.

A NEW LATE HARDY ASTER

AMONG the 400 varieties of asters in the testing gardens of the Waltham Field Station of the Massachusetts State College, the outstanding variety this year was Curtis Pink. This aster was sent to the station by an amateur in the Middle West, who declared it superior to the popular Harrington's Pink. Unquestionably, the new variety proves to be a worthy rival of the older sort, and because of its unusually late-flowering period, it will at least supplement it, if not replace it entirely.

At Waltham, when the blooms of Harrington's pink were at their best on September 20, the buds of Curtis Pink were opening. The plants were in good flower on October 1 and held well until October 15.

Gardeners who have enjoyed Harrington's Pink aster since it became available two years ago will appreciate Curtis Pink in that it extends the season two weeks longer, with the same bright rose-pink color, and with flowers a little larger and more open in habit than those of its predecessor. Both varieties should be sheared back one-half height June 1 and again July 1 to prevent legginess.

Ray M. Koon, Waltham, Mass., in Horticulture.

The best thing to do with a college degree after winning it is to forget it.

AGICIDE

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A Merry Christmas

NEW OFFICERS ELECTED

THE following new officers of the Wisconsin Horticultural Society were elected by mail vote and by voting at the convention: President: R. L. Marken, Kenosha

Vice-Pres.: S. S. Telfer, Ellison Bay

For Directors, for a period of 3 years:

Ralph Irwin, Lancaster, to succeed R. E. Harris, Warrens

Don Reynolds, Sturgeon Bay, to succeed N. C. Jacobs, Sturgeon Bay

Arno Meyer, Waldo, to succeed W. A. Toole, Baraboo.



OUR 71st ANNUAL CONVENTION

THE 71st Annual Convention of the Wisconsin Horticultural Society was in the opinion of those present, the most interesting and best attended ever held. There were 150 men and 60 women attending the two programs. The attendance at the annual banquet was especially large, there being 160 present.

Woman's Auxiliary Organized

The women who came to the convention especially enjoyed the program and the entertainment. The trip to Kohler Village where they were entertained by members of the Kohler Garden Club, and the tour of Sheboygan Parks and a Furniture Factory, planned by members of the Sheboygan Garden Club, were greatly appreciated.

(Continued on Page 99)

THEIR WORK HAS BEEN RECOGNIZED

THE Wisconsin State Horticultural Society has recognized the service to horticulture in Wisconsin, of a total of 22 persons since 1929.

Each person was carefully selected by a committee and the Board of Directors. Only those who have made outstanding contributions to horticulture, have received the honor. The following is the list of those to whom the certificate, which is a beautiful piece of work, has been given:

- 1929—H. H. Harris, Warrens
John F. Hauser, Bayfield
Geo. J. Kellogg, Janesville
1930—Louis G. Kellogg, Ripon
E. S. Sullivan, Alma Center
William Knight, Bayfield
1931—Frederick Cranefield, Madison
Wm. P. Longland, Lake Geneva
C. B. Whitnall, Milwaukee
1932—Mrs. Francis K. Hutchinson, Lake Geneva
Mrs. C. E. Strong, West Allis
1933—Huron H. Smith, Milwaukee
1934—H. C. Christensen, Oshkosh
Axel Johnson, Lake Geneva
W. J. Moyle, Union Grove
1935—James Livingstone, Milwaukee
1936—Mrs. E. L. Roloff, Madison
A. W. Lawrence, Sturgeon Bay
1937—D. E. Bingham, Sturgeon Bay
J. G. Moore, Madison
1938—N. A. Rasmussen, Oshkosh
1939—Walter J. Kohler

A NEW LIFE MEMBERSHIP

MISS MERLE RASMUSSEN, Oshkosh, of Rasmussen's Nursery and Fruit Farm, became a life member of the Wisconsin Horticultural Society in November. The Society welcomes Miss Rasmussen as our newest life member.

All life membership dues, which are \$10.00, are deposited in the Endowment Fund of the Society. We invite more members to become life members.

IN THIS ISSUE

IF you are interested in plant hormones, be sure to read the article in this issue "Colchicine Treated Plants Open New Field For Research" page 93.

The article on page 92, on Plants Are Killed by Cold, brings out a new theory that is gaining headway in solving an old problem.

Walter J. Kohler Awarded Honorary Recognition Certificate

FOR his achievement in building a garden city, and his inspiring leadership in developing a more beautiful state and nation, Walter J. Kohler, of Kohler, was presented with the honorary recognition certificate of the Wisconsin Horticultural Society at the annual banquet at Sheboygan, November 16.

The presentation was made on behalf of the Society by Mr. Ralph Ammon, Director of the Department of Agriculture. Mr. Ammon told of the excellent work which has been done at Kohler and emphasized that those things which are done to increase the happiness of others live long in our memories. He then read the certificate which stated:

THE WISCONSIN
STATE
HORTICULTURAL SOCIETY

Recognizing the eminent services
of
WALTER J. KOHLER
for his achievement in building
a garden city, and his inspiring
leadership in developing a more
beautiful state and nation,
the Society presents this
TESTIMONIAL
upon the recommendation of the
Board of Directors.

In accepting the certificate, Mr. Kohler stated that the work of building Kohler village was the work of many and that he accepted it on behalf of all those who had taken part in building the garden city.

Biography

Walter J. Kohler was born in Sheboygan, Wisconsin, the son of John Michael and Lillie (Vollrath) Kohler.

He was educated in the Sheboygan public schools, and in his teens started work in the manufacturing plant which his father had established.

In 1899 the industry was removed to a site in the county about four miles to the westward



WALTER J. KOHLER

of Sheboygan, a pioneer instance of a type of industrial de-centralization which has since become very important in American life.

Mr. Kohler was married November 3, 1900, to Miss Charlotte Schroeder, of Kenosha. They have four sons—John Michael Kohler III, Walter Jodok Kohler, Jr., Carl James Kohler and Robert Eugene Kohler, all of whom are now associated with Kohler Co.

Within a few days after Walter Kohler's marriage, the death of his father left to him and his brothers, Robert and Carl, the task of managing and developing the business. Less than four months later the factory was completely destroyed by fire, adding greatly to their difficulties.

The two brothers of Walter Kohler lived only about three years after operations were resumed in the reconstructed plant, leaving him alone of the family to face the many technical, financial and business problems.

About the plant in the early years a little hamlet grew up, consisting of homes of some, associated with the company, who desired to live close by. Mr. and Mrs. Kohler made their first home in one of these little cottages in 1901 and here their first son was born.

In 1912 the small community was incorporated as a village, to which the inhabitants chose to give the Kohler family name. Intensive and long study was given to the development of the village, and continues to this day. In this study, as in active measures for carrying it into effect, Mr. Kohler gave invaluable leadership, among other things visiting notable housing developments in this country and the garden cities of England and the European continent prior to the undertaking of developments in a physical way.

The reward of this joint effort and study, with the assistance of town planners, landscape architects and engineers, is a community which is known far and wide as a refreshing departure from the ordinary conception of a factory town. It has the beauty and liveableness associated with an exclusive residential suburb—tree-lined streets, many of them winding, wooded parks, a grass-carpeted natural amphitheatre, playgrounds, vine-covered houses, and generous grounds about the homes where the householders exhibit a native genius for gardening. The grounds of the company itself, about the factory and the American Club, exhibit the same interest in the culture of trees and vegetation. The community is literally a garden city.

The same characteristic is evidenced at the Wealderhaus, and year after year at the demonstra-

(Continued on Page 99)

Home and Garden

Mrs. C. E. Strong

GARDEN CLUB PROGRAMS

HAS it ever occurred to you that we take some of the things we are interested in altogether too seriously? Garden Club programs for instance. We plan a program and we know how much good it is going to do every member of the club if it is carried out **exactly** as we have planned. Are we annoyed if something happens to upset that plan! The whole meeting is spoiled for us and, unfortunately, for many others who happen to be in our vicinity. It doesn't make the least bit of difference that the rest of the folks enjoyed the changed program because what we were really thinking about was our own efficient way of presenting a program. We knew that program would have been good for them, even though they did not enjoy it.

I am afraid some of us will have to learn that Garden Club meetings are not created to show off our particular brand of efficiency but a chance to **help and interest people** in this grand work. That a group of men and women can work together good humoredly, we need not worry over.

Pleasant Atmosphere Necessary

For the past few months I have visited a number of clubs. Their meetings were quite different, yet all were enjoyable and helpful. At the last meeting were men and women of varying interest in things horticultural (if you have never looked up the definition of this word you may find it quite interesting and enlightening). These people of various in-



terests started their meeting with a most excellent supper—the sort where you filled your tray with the things you specially liked, then sat down beside congenial groups and ate and talked. After the supper they settled down, nearly a hundred well-fed, good-humored folks, and listened to the business transactions and the program. The program consisted of a very clever report of the National Convention held at Milwaukee. The speaker kept the audience amused by exaggerated attention to his watch, giving them muted assurance that he had not forgotten the delegates' remark "that speakers who talked too long were a bore." He told us a lot of things about Wisconsin waters and water rights, tracing the history from way back when. We who are interested in horticulture and everything that word means, were very much interested for, without water, all our work with gardens would be as naught.

Now what has this report on a meeting to do with the serious thinking I mentioned at the beginning of this article. Well, just this; regardless of what you or I or someone else may think, no group of people can meet together once a month, year after

year, in the atmosphere of tolerance, good humor and a common interest, without getting a lot of good out of it and leaving considerable good influence on the community as well.

It may be possible that some of our struggling clubs may need neither tonics, efficiency experts or specialists—just human understanding of their needs, with perhaps a good supper to help it along.

If you have a pet idea for study, get a few folks who think as you do and study at some special time, then give the result as a program before the club. Nine times out of ten they will enjoy it. If you are still doubtful, start the program with a supper. It will be worth the extra effort for there is something about a meal that puts both men and women in an appreciative mood. And remember, it is a more beautiful state we are striving for, a more contented people, pleasant homes for children to grow up in and remember memories they will pass on to their children. It really does not matter if folks know how much we have done to bring this to pass but it does matter that WE know we have done all in our power to make life better for others.

Those Hardy Chrysanthemums

As you drive here and there through the state in the fall the Hardy Chrysanthemums growing in sheltered spots just beam at you with their colorful bloom. Tucked in with faded and brown leaves about their roots, they remind us that there is still charm in the garden. There are so many

new Mums with really frost-proof blossoms as well as foliage. All gardens should have a few to help shorten the winter season. The south side of the house or garage, the sunny side of the shrubbery border—especially if it contains quite a few evergreens—are good spots to plant the hardy Mums.

In very sheltered spots you may even pick a vase of flowers at Christmas time.

OUR 71st ANNUAL CONVENTION

(Continued from Page 96)

A short business meeting was held by the ladies at which they decided to organize an Auxiliary and elect officers, in order that they may better plan for meetings and programs in the future. The following officers were elected: President, Mrs. R. L. Marken, Kenosha; Vice-president, Mrs. M. H. Bingham, Sturgeon Bay; Secretary-Treasurer, Mrs. Arno Meyer, Waldo.

The ladies were especially grateful to Miss Leona Kilborn, Home Demonstration Agent, Sheboygan, and to Miss Ruth Huckstead, Home Demonstration Agent, Manitowoc, for their excellent presentations, and to Mrs. W. A. Toole of Baraboo for her talk on the use of herbs, and the fine exhibit of herbs the Tooles prepared.

Fruit Growers Enjoy Program

We are especially indebted to Dr. Roy E. Marshall of Michigan, and Dr. H. B. Tukey of Geneva, New York, for their timely and excellent presentations to the fruit growers. Equally valuable were the talks by Drs. G. W. Keitt, and C. N. Clayton of the Plant Pathology Department, and Drs. John Lilly and J. A. Callenbach of the Entomology Department on the control of diseases and insect pests of fruit.

Interesting discussions were given on fruit marketing by Mr.

A. K. Bassett, Baraboo; N. A. Rasmussen, Oshkosh; and Arno Meyer of Waldo, while N. C. Jacobs and M. H. Bingham of Sturgeon Bay interestingly described the tour of the fruit testing committee.

It was unfortunate that more growers were unable to remain to hear the excellent talk by Dr. R. H. Roberts given on the last afternoon. He showed a series of pictures illustrating the effect of light and temperature on the flowering and growth of different kinds of plants as found in recent experiments. This work is valuable because it explains many things we have noticed about the growth of plants but have little understood.

We Thank You

The Society wishes to express its appreciation for helping to make the convention successful to the following: Mr. Alvin Gillett, Secretary, and the Sheboygan Association of Commerce, for the use of their rooms and help in arranging the programs; to the Sheboygan A Capella Choir and its Director, Mr. G. F. Schlei for the wonderful concert at the banquet; to Mrs. Arno Meyer and Miss Merle Rasmussen and their committee for the fine table decorations at the banquet; to Mr. Henry Winsauer and the string trio of Kohler who played so well during the banquet; to Prof. J. G. Moore, our toastmaster, and Mr. Ralph Ammon, Director of the State Department of Agriculture, who so ably presented the certificate of recognition to Mr. Walter Kohler; and to Mayor Herman Runge, and Mr. Oscar Wolters for their interesting talks at the banquet.

We also appreciate the help of the committee in charge of the fruit show consisting of Mr. Conrad Kuehner, Madison, Mr. Arno Meyer, Waldo, and Mr. Hugo Wunsch of Sheboygan. Also the judges who so ably judged the

various classes of fruit. These were Prof. J. G. Moore and Mr. Conrad Kuehner, Madison; N. C. Jacobs and D. E. Bingham, Sturgeon Bay; Wm. Leonard and Carroll Krippner, Fort Atkinson; and Jason Swartz, Waukesha.

The spirit and interest of those present gives assurance that our convention will become increasingly popular in the future.

WALTER J. KOHLER HONORED

(Continued from Page 97)

tion houses, as a result of the interest of Mr. Kohler's sisters who have provided inspiration and assistance in the work of the Garden Club, Woman's Club, Girl Scouts, the Better Homes movement and other activities.

Mr. Kohler's house grounds at Riverbend in the Village of Kohler are a delight not only to those who make gardening and landscaping an occupation or hobby, but to all who have a love of nature. The natural woodland has been preserved, and the beauties of the situation at what might be called the neck of a great loop in the river have been availed of. The place is full of surprises—interesting trees and shrubs, the rock garden, the sunken garden, and many more—and is a fascinating haunt of bird and animal life.

Mr. Kohler as Governor of Wisconsin in 1929-30 was much interested in problems of conservation and reforestation. This was to be expected, for interest in trees and other growing things, his love of outdoor life, and his private endeavors as a conservationist have marked his entire career.

In one year the government sold more than 635,000,000 duck stamps.

The Itinerant Workers' Union, Hoboes of America, has a membership of over 800,000.

In My Garden

A WELL known journalist-gardener made the statement recently in a national garden magazine that he had tried rotenone dust on his roses to control aphids, but without success. Dusting the roses with rotenone one day, he looked at the plants the next day and found the aphids still there. He then dusted with nicotine and lo and behold, the next day the plant was entirely free from the pests.

This is not an unusual experience. As was stated here several years ago, rotenone is a very slow acting insecticide. About three years ago at the suggestion of John E. Dudley, Jr., entomologist of the U. S. Department of Entomology, stationed at Madison, and working on pea aphid control, we tried rotenone dust to control a serious case of aphids on Concolor Fir. Applying the dust one noon, we looked at the evergreen the next noon to find that practically all the aphids were still there. We reported this to Mr. Dudley, who then stated, "While this is a very new insecticide, we do know that it is slow acting, so just wait another day."

The next day at noon when we went out to look again, we found that every aphid had disappeared. So let's just be patient when using rotenone and not jump at conclusions.

How to keep dogs away from evergreens has been a problem. Nicotine sprays have been recommended. Now comes the suggestion that moth balls be thrown on the ground underneath the evergreens. Dogs won't go near the moth balls. It won't do any harm to try it.

Wintering bulbs. We have again placed our tuberous rooted Begonia bulbs in Mason jars. We allowed the bulbs to dry only slightly, then turned the cover down tight on the jars and placed them in the coolest part of our

basement which contains a furnace and has a temperature of between 40 and 55 degrees. Mr. H. C. Christensen of Oshkosh reports excellent success in wintering his bulbs by this method, and it is especially suitable for such roots or bulbs as are fleshy and inclined to dry out readily. It is not necessary for gladiolus.

Many gardeners recommend that summer Gloxinia, *Incarvillea delavayi*, *Salvia patens*, and other tender perennials should be dug in the fall and stored in cold frames or in a cool cellar for the winter. No doubt it is a good idea if the proper cellar with the right temperature and humidity can be obtained.

Daphne cneorum seems difficult to grow. A writer from Michigan in the November 1 issue of HORTICULTURE makes the observation that the plant seems to grow well with a pH of 7.5 to 8—slightly alkaline soil is the best. Also that the most thrifty plants were found growing among rocks in a yellow sand too poor to grow grass, and on banks where the drainage is very free. The conclusion is that *Daphne cneorum* likes a poor, well drained, alkaline sandy soil, with a chance for a root run under rocks, and no coddling.

Soon it will be time for the new seed catalogs to arrive. Then we can do some indoor gardening. H. J. Rahmlow.

OLD TIME GARDEN IDEAS

"SOME of the old-fashioned practices which either do more harm than good or have no value and should be abandoned," writes Victor H. Ries of Columbus in the current issue of the *Country Gentleman*, are the following: "Storing clumps of dahlias upside down; giving your plants coffee grounds and dish water instead of fertilizer; put-

ting potatoes in the hole under your shade trees when you plant them to give them moisture; planting or sowing seeds according to the particular phase of the moon; and putting lime on lawns when nine times out of ten they do not need it."

APPLE CORSAGES

THE war in Europe destroyed the market for over two million boxes of Washington apples, about forty per cent of the state's crop, and Seattle civic bodies have tried to find new outlets. However, it was Wendell Leckner, of the Bon Marche Flower Shop, Seattle, Wash., who definitely tied in with weekly style show held in the department store in which the shop is located, he made more than a dozen corsages using apples of various sizes and colors, instead of flowers, on a background of autumn leaves. The innovation took like wildfire, and local newspapers devoted considerable space and many illustrations to the novelty corsages.

From THE FLORISTS' REVIEW.

RATING ON LAST YEAR'S ALL AMERICA ANNUALS

AN interesting score on seven of last year's all America annuals was given in HORTICULTURE, November 1st issue, by Mrs. H. Rogers of New York, as follows:

Petunia Hollywood Star.....	90
Antirrhinum Guinea Gold.....	90
Aster Early Giant.....	85
Petunia Apple Blossom.....	85
Morning-glory Scarlett O'Hara..	80
Cynoglossum Firmament.....	80
Marigold Golden Glow.....	75

Considerable praise was given by some gardeners to the Hollyhock Indian Spring. Morning glory Scarlet O'Hara was considered the most beautiful by others.

WINTER PROTECTION FOR PLANTS

WE are slowly but surely learning how to properly protect our plants during the winter. Before we can learn to protect them properly, we must first know what causes them to die. There have been many mistaken notions about winter killing which have delayed our finding the best methods of protecting our plants.

In Minnesota, experiments were conducted by Dr. W. G. Brierley and associates in which perennials and strawberries were sprayed with water at below freezing temperatures so that a cake of ice formed around the plants. The plants were then stored just below freezing for ten days. At the end of the ten day period, the plants were thawed out and planted in a greenhouse. They grew normally.

It is the opinion of these workers that practically all plants have a "freezing point" or a temperature at which the plant cells are killed. This may vary with the variety, dormancy of the plant, or its physical condition.

Mulches Must Keep Plants Warm

They also found that dry mulches such as straw, hay, etc., keep the temperature of the soil at an unbelievably high point even though outdoor temperatures were low. This was also proven at Madison a number of years ago and which has been mentioned in this magazine before that the temperature of plants covered with three inches of marsh hay and two inches of snow was never lower than 28 degrees F. even though the air temperature outside dropped to -15 F. The warmth of the soil comes upward and keeps temperature high under the mulch.

The thing for us to remember, however, is that wet mulches have no value, but dry mulches are excellent. Peat moss is one of these. If we apply several inches of peat over plants and it then rains heavily so as to drive the air out of the peat, it freezes into a mass of ice, becomes a good conductor and the temperature drops very low beneath it, killing the plants.

No doubt the reason why glass wool is such excellent material for protecting plants is because it does not become wet and always remains a good insulator.

In Canada it has been found that there are plants such as raspberries found in sections where there is plenty of snow which are hardy where winter temperatures drop to -40 F. If these plants are taken further South, even to where the winter temperatures are mild, but where there is little snow, they are winterkilled. The reason is that they are protected by the snow further North.

Some of our hardiest plants have been found in sections where the winter temperatures are relatively mild, but where there is no natural winter protection.

It may be well to point out that small areas of mulch may not be effective because winds may penetrate from the side.

THE LIVE CHRISTMAS TREE

IF you wish to try a live Christmas tree this year, here is some information concerning the procedure to follow, and the comments of an evergreen grower on the idea:

Buy a balled and burlapped tree, not too large. When the tree is received, without removing the wrapping, wet the root ball

thoroughly, then keep the roots cool and damp by placing the entire wrapped root ball in a large tub of peat moss. Keep this peat moss damp by watering every day—not too heavily. Keep the tree in as cool a room as possible. Excess heat may damage or kill the tree.

After the holidays, if ground and weather conditions are such that the tree cannot be planted out-of-doors promptly, remove tree, peat moss, tub and all to a cool basement room and keep the root ball moist. Plant out-of-doors just as soon as conditions are such that it is possible to do so.

Now for the comments of our friend the grower: He says the idea is feasible, providing the tree does not remain too long in the house and if it is properly planted outdoors after the holidays. For immediate planting out-of-doors after the holiday season, he states it is necessary that the hole be dug previously, and that the dirt used in packing about the roots be free from frost when planting is made. He considers firs better than spruces for this purpose, as they retain their needles to better advantage. He states he has seen a Douglas fir planted out in the spring after having been kept in a cool basement all winter, and the tree survived and made good growth, but that results under such conditions are very uncertain and one simply has to run the chance of failure or success.

Gardeners who have experimented with live Christmas trees in the more favored climates where outdoor planting is possible immediately, say the tree should not be kept unplanted more than two days after Christmas, as they have found it fatal to hold the tree in the atmosphere of the home longer than that period.

By the Master Gardener.

The Travelers' Aid Society aids more than 50,000 persons a year.

Christmas Lighting Contest

A MOST interesting project for garden clubs to undertake during the month of December, is a Christmas lighting contest. A number of our clubs have carried on such contests in the past, which created a great deal of favorable comment and interest in their community, as well as creating a more beautiful community during Christmas week.

Caroling

The Racine Garden Club has urged "caroling" on Christmas eve which was most appropriate. Grade school and High school students were urged to form little groups and go caroling all over the city. Adults might join in as well.

A Lighting Contest

The following are the steps in promoting a lighting contest:

1. Service clubs and organizations in the community may be solicited for financial aid to take care of prizes.
2. Certain committee members should be designated as speakers to speak at luncheons of Service Clubs and meetings of other organizations to explain the plan. Speakers should not be allowed to solicit however.
3. Churches should be urged to cooperate by decorating and lighting the front entrances to the churches. (Non-competitive.)

Suggested Rules

1. All entries must be arranged so as to be judged from the street.
2. Entry blanks must be mailed to the contest chairman, by December 21.
3. Lights must be turned on December 24th and every succeeding night including December 31st from 6 until 9:30 p.m.



A Prize Winner in the Plymouth Christmas Decoration Contest

Suggested Schedule

1. Lighted door or entrance only.
2. Lighted door or entrance including other outside effects.
3. Lighted tree.
4. Flood-lighting the house or planting or both.
5. Window lighting.
6. Biblical display such as the Star of Bethlehem, or Three Wise Men, etc.
7. Display depicting the Christmas spirit, "Santa Claus."
8. Business house or store window Christmas lighting display.

A score card for judging these classes should be worked out by each committee and published so that contestants may know how they are to be judged. It is well to contact neighboring clubs to secure competent judges.

A man with a big wart on his chin dropped into a doctor's office to have it removed. When he failed to return for additional treatments, the doctor phoned him to ask how the wart was getting along. "Just fine," replied the patient. "My face is gone, but the wart is still there."

AMERICAN ROSE SOCIETY ELECTS OFFICERS

DR. L. M. MASSEY of Cornell University, Ithaca, New York, was elected president of the American Rose Society at the annual meeting on October 5th, held at the Brooklyn Botanic Gardens, Brooklyn, New York.

Dr. L. C. Fischer, Atlanta, Ga., was elected vice-president; Samuel S. Pennock, Philadelphia, treasurer, and R. Marion Hatton, Harrisburg, Pa., secretary.

About 125 members of the society from all over the country were at the meeting.

Sterling Rose Receives Gold Medal

The Hubbard gold medal, the highest American rose award, which is given every five years for the best American garden rose disseminated within that time, was awarded to the E. G. Hill Co., Richmond, Indiana, for the variety Sterling. This has become one of the best clear pink garden roses of today.

In everything the middle cause is best; all things in excess bring trouble.

Food For Winter Birds

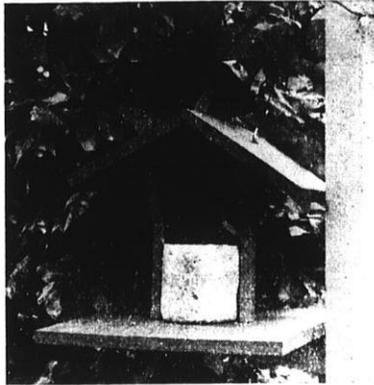
THESSE are the days when we should seriously think about feeding the birds who play such an important part in helping us keep down insect pests. We read that the Premier of England takes a walk each morning to feed the birds.

In the November 1 issue of *Horticulture* we find the following valuable suggestions for feeding birds:

A very effective feeder, especially for the small climbing birds as chickadees, nuthatches, and woodpeckers is the suet stick. This is a stick 15 to 18 inches long drilled with a number of holes into which is packed a mixture of suet, seeds and nuts. The advantage of this feeder is that the larger and more quarrelsome birds, as the English sparrow, the starling and the bluejay, cannot get at the food, for there are no places for them to perch. If one is bothered with squirrels, a trolley feeder on a wire between the house and a tree will solve that problem. It is hard for squirrels to climb along a wire. But do not make the mistake of using a rope, for they will run along it nearly as easily as on the ground.

Other Food for Birds

The kind of food which is used is important. Chicken feed can be used, but there is the disadvantage that some of the grains are broken and when exposed to wet weather will mold quickly with, sometimes, disastrous results to the birds. Also, there are a number of seeds in the chicken feed that will only be eaten if



A good type of bird feeder.
—Cut courtesy *Horticulture*

nothing else is available. As a result, if one is too generous in supplying it, he is apt to find some noxious weeds in his garden next Summer.

It is always better, although a little more expensive to use a mixture specially prepared for wild birds. It should contain such seeds as sunflower, canary, millet, and other whole seed and grains that wild birds are fond of, but with very little or no cracked grain. Peanuts or other nut meats are always welcome. Raisins, pieces of apple and lettuce are cherished by some, especially mockingbirds, and bread

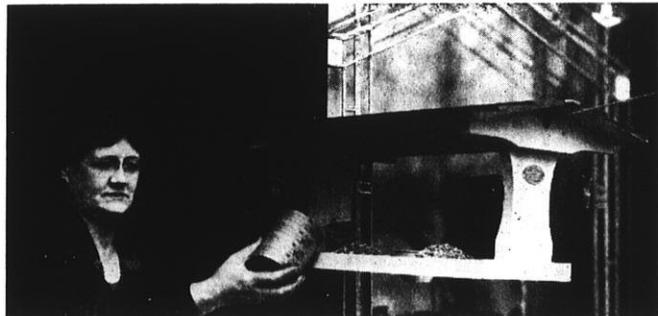
crumbs, although their big disadvantage is that the starlings are fond of them. One of the most important foods is suet—preferably beef suet—which should be available at all times, for birds have a high body temperature and need considerable fatty substances to maintain it.

One must remember that by attracting birds to the garden he can have more beautiful flowers in greater abundance as insect and weed seeds are highly appealing to the birds. Nor must the delightful songs and bright colors of the birds be forgotten.

THESE BIRDS ARE WINTER RESIDENTS

Mrs. W. A. Peirce, Racine

Slate-colored Junco	Northern Shrike
Snow Bunting	Pine Siskin
Brown Creeper	Tree Sparrow
Red Crossbill	Buffalo-head
White-winged Crossbill	American Golden-eye
Evening Grosbeak	Barrow's Golden-eye
Pine Grosbeak	Old Squaw
Northern Horned Lark	American Merganser
Herring Gull	Red-breasted Merganser
Rough-legged Hawk	Greater Scaup
Redpoll	



This is a handy feeder. It can be moved on the wire.
—Cut courtesy *Horticulture*, Massachusetts Horticultural Society.

Wisconsin Garden Club Federation

News

Mrs. Charles H. Schuele, President
247 Woodland Lane, Oconomowoc
Mrs. E. A. St. Clair, Hon. President,
2418 N. 65th St., Wauwatosa
H. J. Rahmlow, Cor. Secretary,
Madison

Mrs. E. L. White, Rec. Secretary,
Route 2, Jefferson
Mrs. C. H. Braman, 1st V-President,
Waupaca
Mrs. Frank Quimby, 2nd V-President,
1422 Blaine Blvd., Racine

REPORT TO OUR MEMBERS BY OUR RETIRING PRESIDENT

ON December 1st I turned over the gavel to our new President, with the sincere hope that her term of office will be as happy as mine has been. If mistakes have been made—they have occurred only because of over-anxiety to accomplish too many things in one short year.

As Vice-President in 1938, it was my pleasure to represent the Federation at the Annual Meeting of the National Council in New York, with the Post-Convention trip to Bermuda. In May of this year, accompanied by Mrs. Chas. Schuele and Mrs. Charles Braman, we represented the Wisconsin Federation at the National convention in Colorado Springs and in Denver. In March, I attended the Central Regional Meeting in Chicago and took part in the forum discussions, taking the project of Horticulture. This meeting was at the time of the Chicago Flower Show, at which I assisted in judging of Junior exhibits.

I have presided at five Board meetings and at three Regional meetings, one in Milwaukee in January, the next in Whitewater in March, and another in Oshkosh in April. I have attended two District meetings in Sheboygan, two in the South-Central District, two in Milwaukee, and one in the Fox River Valley. I have judged at six flower shows and given five talks on flower arrangement, one in Honey Creek at



a Civic Club meeting, at which garden club members of Burlington, Rochester, Waterford, Mukwonago and East Troy were present. We hope to have stimulated interest for the future affiliation of some of these garden clubs with our Federation. I also spoke before the Calumet County Federation of Women's Clubs, at which time we had inquiries about organizing garden clubs in Chilton, Brillion and New Holstein.

I have responded to every invitation of Garden Clubs, except one, because of conflicting dates, as a speaker; and in this capacity have contacted sixteen clubs. Also attended two lectures of the Green Tree Garden Club, one by Constance Spry of London and the other by Richardson Wright. Have attended two meetings of the Nature Activities Clubs and three on Conservation during the Wildlife Stamp sale activities. As President, I attended the Board

Meeting of the Horticultural Society in Berlin and the convention in Sheboygan in November. In July, we attended the Summer meeting in Wausau. In August, assisted by your 2nd Vice President, Mrs. Braman, we exhibited at the State Fair, the premium money being used to help defray expenses.

Last May, we conducted the three day Flower Arrangement Clinic by Dorothy Biddle; and I accompanied Miss Biddle from Milwaukee to Madison and then to Ripon. This clinic was a complete success. The proceeds were over \$150.00. Evidence that we have learned a great deal from this school showed in our Convention Flower Show. *The National Council has awarded us the Purple Ribbon for "Outstanding Achievement in Flower Shows."* Three Judges' Certificates have been issued during 1939.

We introduced our new Horticulture Project of Plant Testing by all garden club members, during this administration; and have contributed to the cause of Conservation by the purchase of the animated movie cartoon distributed by the National Wildlife Association. This cartoon is now available to all garden clubs and schools. Our Federation has made a donation of Twenty-Five Dollars toward the fund of our sister state, Illinois, for a planting in the Abraham Lincoln Memorial Gardens in Springfield.

We have tried to carry out the program of the National Council and have started the project of Awards of Merit for Filling Sta-

tions in the Roadside Beautification Program. We have great hopes for the continuance of this project this next year.

As Chairman for the Fall Convention of the National Council of State Garden Clubs, we have met on six different occasions, with all committee chairmen, besides many other contacts at other gatherings. More than 400 letters and 150 postals have been written; and I have answered and acknowledged all mail. Monthly President's Messages were printed in our Horticulture magazine. I took part in a broadcast over WTMJ on the Federated Women's Club program and in our annual Federation broadcast over WHA in Madison.

We now have 82 clubs in our Federation, with a total membership of 2334, and many more ready to join us very soon. Our thirteen new clubs are Namakagon, Germantown, Kaukauna, North Shore, Winneconne, Tess Corners, Scandinavia, New Richmond, Oconto Falls, Home Garden Club of Milwaukee, Ravenswood, De Forest and Manitowoc.

If activities in the past year, both as your President and as Chairman of the Convention, have resulted in any measure of success, we must attribute the greatest share of it to the splendid cooperation of my fellow officers and committee chairmen, to the help of Mr. Rahmlow and the office of the Horticulture Society and to the many garden club members who have responded whole-heartedly in the many duties asked of them.

In retiring from the office of the President of the Wisconsin Garden Club Federation, may I express to you my appreciation and pleasure in my associations with all of you. It has been a real joy to have had such delightful contacts in carrying out our program. I pledge my continued interest and assistance in every possible way.

Mrs. E. A. St. Clair, President.

MESSAGE FROM OUR PRESIDENT

"The wilderness and solitary place shall be glad for them, and the desert shall rejoice, and blossom as the rose. It shall blossom abundantly, and rejoice even with joy and singing. And the parched ground shall become a pool, and the thirsty land springs of water."—(Isaiah, 35:1, 2, 3)

MOST cordial greetings to the 2,387 members of the Wisconsin Garden Club Federation, for the year 1940. As your new president, I wish to give most freely of my time, my energy, and my experience, such as it is, gained over the years in different fields of activity.

In return I beg your most sincere understanding and kind cooperation. Then at the close of the year, we may say with the ancient philosopher, "Let our worry be over the things we have NOT done, rather than the things we have done."

I am most interested in adding my bit to the unfoldment of the program of inspiration, study and action, adopted at the annual meeting of the State Federation in Milwaukee, in October. The National Council adopted a program for study in 1933, which was presented by the State of Florida by Mrs. Robert Morris Seymour, the author, and covers a period of seven years. It was sent out in slightly abridged form to every State Federation with the hope that each state would develop a similar program on the basis of the Florida plan.

Its aim is to develop greater interest in plant material native to each state; its use in the home garden, on the highways, in parks, and for the preservation of scenic beauty in each section of the state. The subject is LANDSCAPE GARDENING AND LANDSCAPE ART and the motto is "Learn what to do before we do it."

One topic is developed each year in this state-wide program, as in university extension work. The first year Native Plant Material is considered, then each year following in order, Introduced Plant Material, Plant Identification, Landscape Horticulture, Garden Design, Highway Planning and Planting, and City and Regional Planning. The aim is not for uniformity, but for unity of interest and effort throughout the states. The first lesson of this national program will appear in the January Horticulture, thus being available for the February programs of such clubs as would enjoy it. The subject is "Natural Areas of Special Interest in Wisconsin."

Mrs. Charles H. Schuele.

WANTED! NAMES OF OFFICERS OF GARDEN CLUBS FOR 1940

ALL club secretaries should send in the list of officers for 1940 just as soon as they are elected, giving in addition, the regular meeting date and place for each monthly meeting. This will be published in our March issue. However, it is needed at once so that material can be sent to the club officers as soon as possible.

SAVE YOUR TREES

Pruning—Fertilizing—Spraying
Cabling—Cavity Treatment
Removals—Large Tree Moving
Complete Insurance Coverage

Lakeside 2907

Wisconsin Tree Service
2335 N. Murray Ave. Milwaukee

Report of Conservation Chairman On Activities During 1939

Mrs. Frank K. Quimby, Racine

THE Wisconsin School Children's Forest in Vilas County is now on its fourth year and will end with contributions which come in during the spring of 1940. Total number of trees contributed according to counties follows:

Number of Trees Contributed

Barron, 1,192; Brown, 4,000; Buffalo, 1,892; Calumet, 300; Chippewa, 10,508; Columbia, 2,056; Dane, 88; Dodge, 1,584; Door, 1,000; Douglas, 6,228; Florence, 2,172; Fond du Lac, 780; Forest, 1,092; Grant, 824; Green, 8,304; Iron, 4,748; Jefferson, 3,384; Kenosha, 33,576; Lincoln, 3,260; Manitowoc, 1,200; Marathon, 7,456; Marinette, 1,796; Milwaukee, 60,520; Monroe, 4,856; Outagamie, 3,000; Racine, 36,028; Rock, 7,628; Rusk, 100; Sauk, 1,140; Sheboygan, 2,828; Trempealeau, 100; Vernon, 96; Walworth, 16,840; Washburn, 6,468; Waukesha, 42,372; Winnebago, 1,956; Wood, 5,072; Miscellaneous, 960. Total, 287,404.

During the school year fifty county supervisors have used the slides, made by the U. S. Forest Service, describing the forest. They report that the slides have done much to create a definite interest and a sense of pride among the children. Any Garden Club wishing to use them for a meeting may obtain them by writing to the U. S. Forest Service, Milwaukee, Wisconsin.

The children purchased the trees for this forest, which is located in the Nicolet National Forest, at the rate of 4 pines for a penny. Dedication services are planned during the summer meeting in 1940.

The Christmas Tree Cooperative

Through the suggestion of this committee a cooperative was



Entrance to School Children's Forest

formed among Wisconsin Christmas tree growers. Garden Club members called on local dealers asking them to stock these tagged trees marketed by the Yule Tide Greens Cooperative. The work of the garden clubs was most effective and so many trees were sold that, in some instances at least, the cooperative was not able to make deliveries. At the various district meetings it was decided the Federation need not publicize the Cooperative any further but all garden club members are asked to patronize the Cooperative market when they buy their trees.

Legislation

The following three bills were endorsed by the Federation and when they were in committee, telegrams were sent urging their passage:

- a. Bill dealing with a general \$1.00 fishing license.
- b. Bill dealing with establishment of public hunting grounds.
- c. Bill dealing with more rigid rules on slash disposal. This bill was passed and became a law.

Protection of Natural Resources

a. Letters of protest from garden club members throughout the state were sent to Racine County Highway Committee asking

that the glorious elms along Highway 20 in the village of Rochester, be preserved when the new bridge was built. So many letters poured in that we were promised they would do all in their power to combine safety and beauty.

b. Petrifying Springs in Kenosha County was in the process of being reconstructed under a W.P.A. project. All the wild areas were being destroyed. By working through the Kenosha Garden Club's Conservation Chairman, who contacted the proper authorities, it was possible to stop this destruction, and a promise was given that the areas already destroyed would be restored or planted with native wild crab.

This chairman cannot stress too much, the need for vigilance on the part of those who would like to see Wisconsin's beauty spots preserved. Often the right word to the right person at the right time is all that is necessary.

SHEBOYGAN DISTRICT HOLDS ANNUAL MEETING AND APPOINTS COMMITTEES

THE Sheboygan District elected the following officers for the coming year, at their annual meeting on October 24th: Chairman, Mrs. Fred Epling, Kohler; Vice-Chairman, Francis X. Schmidmeyer, Sheboygan; Secretary-Treasurer, Rev. A. H. Otto, West Bend.

A small flower show of late flowers was held in connection with the meeting. The Plymouth Garden Club exhibited an arrangement representing the north woods, made by the president, Mrs. Henry Gritt. An interesting program followed the business meeting, followed by refreshments. There was an excellent attendance at the meeting, and everyone was pleased with the results.

GARDEN CLUB NEWS

GARDEN CLUB MEETINGS

THE following procedure has been suggested as helpful in economy of time and effort:

1. Business meeting 30 minutes or less (turn over to the Executive Board as many details as possible).

2. Limit reports of committees to actual work done.

3. Program. One hour without interruption of any kind. Each member assist in developing an audience spirit, paying strict attention to the subject, and development of the theme "Native Plant Material" each month. During the open forum members contribute points of interest that may have been overlooked.

4. Exhibit and social half hour. An open forum period of 15 minutes for question and answer if so desired, and 15 minutes for exhibit. It is taken for granted there will always be a planned exhibit, an amateur flower show.

5. A second meeting in the month could be arranged for visiting gardens, and making special observation of plants.

6. Certain garden clubs have tried two meetings a month as follows:

"President's Day." All business, reports, reading of the minutes for the two meetings a month. Any new business the president wishes to discuss. A garden month by month exhibit. Discussion of gardening problems.

Lecture Day. Second meeting in the month. Devoted to the State Program: Topic "Native Plant Material" with Book Review when called for, and a special exhibit. Discussion of garden planning problems. No business of any kind. Trained attention given to the speaker and the subject.

Inspiration—Study—and Action mean ORDER. These are the fundamental principles on which to build garden club procedure.

SALE OF WILDLIFE STAMPS AND AFFILIATION OF GARDEN CLUBS WITH THE WILDLIFE FEDERATION

DURING Wildlife Week several clubs sold Wildlife stamps and made considerable money which they used for local conservation purposes. Likewise, many clubs received their certificate of affiliation during this year. All clubs are urged to send for their certificates to C. J. Ballam, President of the Wisconsin Wildlife Federation, 1819 Helena Street, Madison, Wisconsin.

COMMITTEE CHAIRMEN APPOINTED

1. Conservation—Mrs. Henry Gritt, Route 1, Plymouth, Wis.
2. Horticulture—Mr. Joe L. Morowitz, Route 4, West Bend, Wis.
3. Garden Centers—Mrs. Warren Cooley, 605 Summit Drive, West Bend, Wis.
4. Juniors—Mrs. Albert L. Treick, 435 Church St., Kohler, Wis.
5. Legislation—Mrs. S. V. R. Evans, 622 Ontario Ave., Sheboygan, Wis.
6. Roadside Development—Mr. S. F. Garner, 419 Church St., Kohler, Wis.
7. Liaison or Coordinating—Mrs. G. E. Snell, 414 Erie Ave., Sheboygan, Wis.
8. Program and Lectures—Mrs. Ida Wiebe, 324 N. 8th Ave., West Bend, Wis.
9. Publicity—Rev. George B. McCreary, 1821 N. 5th St., Sheboygan, Wis.
10. Records—Mrs. A. Piepkorn, Plymouth, Wis.
11. Visiting Gardens—Mrs. A. S. Radloff, 129 Division St., Plymouth, Wis.
12. Flower Shows—Miss Lillie B. Kohler, 606 New York Ave., Sheboygan, Wis.
13. Judging—Mrs. L. E. Larson, 2037 N. 6th St., Sheboygan, Wis.
14. Historian—Mrs. Merton N. Emery, Route No. 2, West Bend, Wis.
15. Finance—Mrs. L. Rhode, 350 Stafford St., Plymouth, Wis.

TEXAS GARDEN CLUBS SPONSOR ANNUAL GARDEN PILGRIMAGE TO MEXICO CITY

DEMANDS for another Garden Pilgrimage to Mexico have become so great that the Texas Garden Clubs announce the Fifth Annual Pilgrimage to Mexico February 22nd to March 4th.

This year a full week in Mexico City and surroundings is planned. Visits to Pyramids—Puebla—Xochimilco—Cuernavaca—Oaxaca—Jalapa—an over-night trip to quaint Taxco. Receptions by prominent Mexican Government officials, and visits to private gardens, including those of the American Embassy.

Plans call for the party to con-

centrate at San Antonio, Texas, where a day of entertainment will be provided on February 23rd.

For more information write Mrs. Ben Oneal, Country Club Estates, Wichita Falls, Texas.

LECTURES TO BE SUPPLIED TO GARDEN CLUBS BY STATE HORTICULTURAL SOCIETY

THE Wisconsin Horticultural Society will again present to all affiliated garden clubs, wherever the schedule can be arranged, a lecture on the following subjects: What is new in gardening; also a discussion with motion pictures on the pruning of shrubs and evergreens, and transplanting and pruning of flowers. The pruning was done by Profs. L. G. Holmes, G. Wm. Longenecker of the Department of Horticulture, and Mrs. C. E. Strong of Oshkosh. There will be colored lantern slides of new varieties of flowers for the garden, with description.

Under "what is new in gardening," Mr. H. J. Rahmlow, Secretary of the Society, who will give the lectures will discuss such new things as the use of Vitamin B₁ for plants, and answer questions on disease and insect control and fertilizers which may come up.

WELCOME MANITOWOC GARDEN CLUB

THE Manitowoc Garden Club voted to affiliate with the Wisconsin Garden Club Federation in November. At a meeting of the Board of Directors of the Federation held on December 1, the Manitowoc Club was voted to membership. The Board expressed themselves as very much pleased with the organization of the club in Manitowoc, and we wish to welcome them as our newest members.



Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Walter Diehnelt, Menomonee Falls,
President
S. P. Elliott, Menomonie,
Vice-president

OFFICERS

H. J. Rahmlow, Madison, Cor. Secy.
Louise Diehnelt, Box 60, Menomonee Falls,
Recording Secretary-Treasurer

DISTRICT CHAIRMEN
S. P. Elliott, Menomonie
N. E. France, Platteville
Geo. Jacobson, Kaukauna
Ivan Whiting, Rockford

VARIATION IN QUALITY OF BEES AND QUEENS REPORTED

DR. C. L. FARRAR reported at the convention on tests conducted by the Central States Bee Laboratory with 13 lots of package bees—10 packages in each lot. The tests showed a wide difference in the performance of the different lots. This year's results were similar to those reported in Circular 473, "The Influence of Stock on Supersedure or Loss of Queen Bees."

The average production of the best group of 10 packages was 160 pounds of surplus honey with no loss of queens. The average production of the next two best lots was 150 pounds of surplus.

The poorest lot averaged 55 pounds of surplus honey with a loss of four queens. The next two poorest lots produced 65 pounds and 85 pounds respectively.

In the best group **all 10 packages** produced above the average. In the three poorest groups, **all colonies** produced considerably below the average.

Supersedure of queens, both this year and last year, was highest in the low performing groups. (The production is in terms of colonies which did not supercede.)

Dr. Farrar was asked the question, "If I plan to buy 50 packages next spring and didn't know where to buy them, would it be better to buy ten packages from each of 5 package shippers, or buy them all from one shipper?"

The answer was, "It would probably be best to buy from five different shippers until one has found stock he considers satisfactory."

Pictures of Brood and Queens Shown

Dr. Farrar showed colored slides illustrating the difference in quality of brood in the high and low producing groups. The brood in poor stock is scattered with many empty cells, while in high producing colonies it is more compact and of course there are more frames of brood in the colony. Pictures of different queens showed that there was a difference in the size and body conformation of high and low producing queens. While little is known of the necessary size or physical make-up of queens, **the best small queen is never equal to the best large queen.** Further studies along this line are being made.

The value of pollen for spring broodrearing was also stressed. It was brought out that package bees after installation should have pollen available at once for best results. Unless pollen is available, they cannot start broodrearing. If it should **not be available** for two or three weeks, there will be a gradual decrease in the size of the colony due to the dying of the old bees and the package will probably never do well. More will be said about this in later issues.

DISTRICT OFFICERS APPOINTED FOR FOX RIVER VALLEY AUXILIARY

MR. S. P. ELLIOTT, Menomonie, State President of the Woman's Auxiliary of the Wisconsin Beekeepers Association, has just appointed the following officers for the Fox River Valley District Auxiliary:

District Chairman: Mrs. Frank Ortlieb, Chilton;

Secretary-Treasurer: Mrs. Wm. Nelson, R. 4, Oshkosh.

The appointment was necessary because no officers had been elected by this district.

HONEY ADVERTISED OVER RADIO

THE State owned radio station WHA, Madison, and WLBL of Stevens Point are of considerable value and help to our people. The announcer over the Farm and Home Hour at 12:30 each noon recently made the following announcement:

"H. J. Rahmlow, Secretary of the State Beekeepers Association, reports that Wisconsin beekeepers have harvested a fair crop of honey this year. But the crop was of the finest quality.

"Most of the 1939 honey crop came from white and alsike clover blossoms—and that's what bee men think is tops.

"Demand for honey is good, although prices are low."

Articles of this type keep honey before the people and cannot help but stimulate demand.

MANAGEMENT OF BEES DISCUSSED BY DR. C. L. FARRAR AT CONVENTION

"FEWER bees are wintered in the cellar today than in years gone by," said Dr. C. L. Farrar at the annual convention of the State Beekeepers Association. Today every effort is being made to cut down labor costs, and to decrease the costs of producing our honey. This means that we must have strong colonies to take advantage of the white and alsike clover flow which comes early in Wisconsin. Small colonies may develop into producing colonies if we have a late honey flow, but in a year such as the one just past, only the strong colonies produced well.

Colonies must have plenty of honey and pollen for winter. Any colony which does not use 50 pounds by the next honey flow (including spring broodrearing) is not at its best. A beekeeper once told Dr. Farrar that he wintered a colony on 3 pounds of honey. Dr. Farrar said he wouldn't give a nickel for such a colony because it would not produce any surplus from an early honey flow.

A good colony in the fall is one consisting of about 10 pounds of bees, and having from 3 to 5 frames of pollen, together with 60 or more pounds of honey. Such a colony will start broodrearing in January or February, and will come out strong in the spring. We may examine colonies in late winter and find the queen laying. Those having reserve within the cluster will have brood in all stages.

If each colony could have plenty of pollen stored in the fall, there would be less spread in production between our best colonies and the average in the yard.

He stated after bees fill their honey stomach, this food will last them from 15 to 16 days in the winter time.

THE HONEY MARKETING SITUATION

Walter Diehnelt

RIGHT now (Nov. 18) honey is not selling nearly as fast as it did six weeks ago. However, this is a reaction due to the sugar scare. We expect sales to come back again within the next week or ten days.

There has been a great increase in the sale of honey the last two years over those of two or three years ago, and I think we can look forward to an increase in the demand for honey as people become more honey minded. I think that honey sales will continue to increase providing the price of honey does not rise too high to be out of line with other sweets. I think our slogan should be "A better product at a fair price."

I do not think it would help the industry if the price would jump too high. An increase in price can only be accomplished over a long period of time with people becoming honey minded enough to want the product at a higher price.

Quality Important

I would like to stress the quality of the honey being sold to the trade. It should at all times be properly clarified and heated. At the present time, the 5-lb. pail is still the standard package, and it seems as though the public prefers it to the 5-lb. glass jug.

I do not think there will be a change in the price of honey, at least in the next month or two. Sales have been rather at a standstill, and many small beekeepers have been trying to unload their crop of honey.

I think we should continue to stress the value of honey to increase consumer demand.

There can never be genuine happiness and peace where material values of money and pleasure are the whole object of human pursuit.

HONEY WANTED

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

FOR SALE

Wisconsin No. 1 white and amber honey. H. H. Reim, 924 Labaree St., Watertown, Wisconsin.

NEW DRIPLESS SERVER

Retails at 50c

Just the thing to increase honey sales.

We allow 40% discount to beekeepers in lots of 1 dozen.

We have \$1.00 Dripcuts, and \$1.00 Fiesta Dripcuts at 40% discount in lots of 1 dozen.

Prices F.O.B. Menomonee Falls

HONEY ACRES

Menomonee Falls, Wisconsin

WE THANK YOU

For your patronage during the past year, and wish all of our Beekeeping friends and customers a very

MERRY CHRISTMAS

AND A

Happy and Prosperous

NEW YEAR

AUGUST LOTZ COMPANY

Manufacturers of those famous Lotz Sections

Boyd, Wisconsin

WHY DOESN'T THE PRICE OF HONEY GO UP

THE question has been asked by a number of beekeepers this fall, "Why doesn't the price of honey rise?" We were assured that there was not a bumper crop, and that there is a good consumer demand. Still the price has not gone up.

No one seems to blame. Large packers say that the small beekeepers undersell them locally so they must hold their price at present levels. The small beekeeper says he cannot sell to his local stores because shipped in honey is selling at a low price and he has to meet this competition. One beekeeper says he is trying to hold the price up, but his neighbor undersells him, and so the controversy goes back and forth.

Our opinion is that when everyone is to blame, no one is really to blame, so we may as well stop blaming each other and remain friends. After all, we'll get much further by cooperating and remaining in good humor than by blaming each other and creating enemies within our ranks.

As long as we can remember, this controversy about prices has been going on. We haven't noticed it do any good because the price seems to go up and down as a result of conditions beyond the control of any individual or group of individuals. If you think it's true only in the case of honey, go to your groceryman and ask him about the prices of other lines of merchandise he has, and see if there isn't just as much competition, price cutting, etc.

What is the answer? The bright light seems to be in the fact that more and more people are eating and using honey. As soon as the demand exceeds the supply the price is going to go up. That, we think, is the only way it can go up. So let's help to increase the demand for honey.

THE HONEY MARKET

SAID a beekeeper recently. "We have been reading and hearing a lot about the short honey crop in some sections—that the crop throughout the country isn't large, and that prices should rise. But prices don't seem to be going up."

That seems to be about the situation in the middle West, or at least in this section. While we read that in the East price recommendations are 7c per pound for carload lots, and 7½-8c for ton lots, and in the central West 5-5¼c in carload lots, these prices do not seem to be obtainable by beekeepers who have honey for sale in Wisconsin. However, the situation does look brighter. The demand seems to be increasing, and the tendency at least is for an uplook in prices.

The future looks brighter because it now seems as if consumer demand at present prices will soon clean up the honey supply. If this happens, prices will definitely rise, but just as long as there is plenty of honey to be had, it is going to be difficult for producers to get what might be considered a fair price for good honey.

Of course the improved industrial situation is going to have a big effect on price increases.

The price of honey is influenced a great deal more by the National crop and the industrial income than it is by whether or not our neighbor sells his honey too cheap.

IT'S A GOOD BUSINESS

ACCORDING to the general belief farming (or beekeeping) is one of the hard luck occupations. There are still some who believe that if farming is a business, it should be run like one and that if you've some horse sense, there isn't any better business than farming. The same is true of commercial beekeeping.

Anyway, the field in commercial beekeeping is wide open and when any young man has finished learning the details of the business of disease control, honey production and marketing, he can go into the commercial beekeeping in a big way and still stand a good chance of success. He may not get rich but he will be his own boss and have his own business.

J. E. Starkey, Indiana Beekeepers News Letter.

G. H. CALE DISCUSSED OUTYARD MANAGEMENT AT ANNUAL CONVENTION

MR. G. H. CALE, editor of the American Bee Journal, gave a very interesting discussion on outyard management to the beekeepers at the annual convention. He described in some detail the method used by Dadant and Sons in their extensive honey producing operations. One man has charge of the extracting room, while another man has charge of the field crew. They must work together so that there is always a supply of honey in the extracting house to keep the crew going.

To do this the field crew use the carbolic acid screen for removing the supers. He emphasized that they used pure crystal of carbolic acid which are liquified by placing in a small amount of water and then heated. He thinks there is no danger of contaminating the honey. Commenting on the idea that one can detect carbolic acid in the honey, he told of placing two jars before several men. He stated: "This one was removed with carbolic acid, and this one wasn't." After tasting both of them very carefully, the men concluded that they could taste carbolic acid in the one that was removed by that method. He then told them the truth that neither of them had been removed with carbolic acid, showing the power of the imagination.

Editor's note: There is some evidence that if carbolic acid screens are used improperly on cool or windy days for too long a period, that it may cause supersedure of the queen.

Mr. Cale emphasized that all foulbrood colonies should be removed at once. Every intelligent beekeeper should make it a point to examine colonies frequently for disease.

Men and apes are the only creatures whose eyes can be focused for different distances.

THE COST OF PRODUCING A POUND OF HONEY

HOW much money could you make producing honey if it cost you 23 cents per lb. to produce it?

In a bulletin issued by the Oregon Experiment Station in cooperation with the U. S. Bureau of Entomology and Plant Quarantine, entitled "Cost and Practices in Producing Honey in Oregon" it was found that it actually cost some of the beekeepers 23c per pound to produce their honey. Other beekeepers produced it for 3.1c per lb.

The yield per colony, was the most important single cause for this high or low cost per pound.

Those producing the honey for 3c per lb. obtained yields of an average of 108 pounds per colony. Those whose honey cost them 23c per lb. had a yield of only 20 lbs. per colony, on the average.

Better management also helps to reduce the cost.

These observations might be mentioned from a study of this bulletin; 1st, it is practically impossible to determine what the cost of producing a pound of honey is, because of the wide variation; 2nd, that if only a few of the best producers are able to produce honey at 3c per lb. there isn't much money being made at present prices.

COUNTY ASSOCIATION MEETINGS HELD

A SERIES of five very successful county beekeepers association meetings were held the **second week of November** at which Secretary H. J. Rahmlow was the principal speaker. The meetings were held as follows: November 6, Pierce and adjoining counties at River Falls. November 7, 1:30 p.m., Barron County Association at Barron. 7:30 p.m., Rusk and Sawyer Counties at Ladysmith. November 8, 1:30 p.m., Clark and Taylor Counties at Dorchester. 7.30 p.m., Shawano County, at Shawano.

All of the meetings were well attended and keen interest of the beekeepers in the program was especially noted.

The motion picture on methods of packing bees for winter and insulation of packing bees and the question of strong colonies and the value of pollen was discussed.

FOLLOWING THE WRONG LEADER

ALMOST every community has someone in its midst who is regarded as the **know it all** in beedom, and this authority is generally quite willing to pose as the outstanding teacher. In a certain community there were a number of beekeepers who owned 83 hives in all. All of them used the same size hive, a small one, well made but with no food chambers and about half the combs in their hives contained from half to two-thirds drone size cells, which made them fit only for the molting pot. Certainly such combs have no place in the brood nest. Investigation revealed that the community leader used a small hive, all had heavy winter losses or very weak hives in the spring and that all had been taught by their community leader that the best results were obtained by using only one inch starters in the brood frames. What a mistake! Or rather, what a series of mistakes!

—James E. Starkey, Indiana State Beekeepers' Association.

BEEKEEPERS MEETINGS FOR DECEMBER

COUNTY Beekeepers Association meetings scheduled for December are as follows: Sheboygan County Association, December 6; Racine and Kenosha Counties, December 12, 7:30 p.m.; Washington County Association, Hartford City Hall, December 13, 7:30 p.m.; Milwaukee County Association, Greenfield Town Hall, December 14, 7:30 p.m.

The speaker will be H. J.

Rahmlow who will show moving pictures of new beekeeping methods and discuss important new findings of value to beekeepers, including a discussion of mid-winter broodrearing, its effect on strong spring colonies, and its effect on swarm control methods.

THE HONEY SITUATION

From U. S. Department of Agricultural Marketing Service

WITH a few exceptions more moisture is needed in all sections to insure normal vegetation during the next honey season. Some rains are reported during the period where badly needed, but clover and other seedings should have more moisture in most sections. The honey flow from fall flowers was not generally as large as expected, and broodrearing in some cases was curtailed by this short flow. In many localities bees will have to be packed for winter with a shortage of young bees and stores. Supplies of pollen are plentiful.

Honey is moving better in most sections than expected in spite of the unusually warm weather which normally retards honey sales. Producers are hoping for better prices and in some cases are reluctant to sell. Comb honey is in light supply. Very little 1938 honey remains to be moved.

The summary statement for the last half of September stated that "Losses of bees from grasshopper poison bait have been heavy in Utah and other States." The implication of poison bait in these losses based on reports received from our cooperators, has not been confirmed. An attempt is being made by the Department and State agencies to definitely determine the cause of these losses but evidence now available to the Department indicates that **grasshopper bait is not attractive to bees** and its distribution does not result in colony losses.

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Wisconsin *Horticulture*



—Cut Courtesy Planning Board, State Conservation Commission

Copper Falls in winter. The landscapes of most of the state parks are attractive during all seasons—Copper Falls State Park.

Happy New Year

January, 1940

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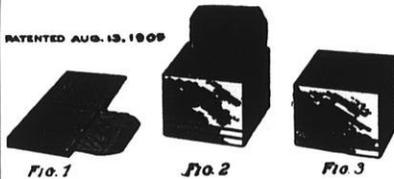
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I wonder why it is that we are not all kinder to each other than we are. How much the world needs it! How easily it is done.—Henry Drummond.



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Wisconsin Horticulture

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PLEASE DO NOT SEND STAMPS

Wisconsin *Horticulture*

The Construction and Management of Air-Cooled and Cold Storages

Roy E. Marshall, Michigan State College

ANY estimate as to the number of common or air-cooled and refrigerated storages on fruit farms in Michigan would be guess work. We do know that there are now 19 storages having a combined capacity of 175,000 bushels in one community.

No attempt is made to discuss the details of construction and management of storages in this report because of time limitation. Michigan Experiment Station Circular Bulletin No. 143 presents this information in detail and the publication may be had by addressing the Director of the Experiment Station at East Lansing.

Best Temperatures for Storage

Numerous investigations show that most varieties of all tree fruits should be held at a **temperature of 32 degrees for best results**. Exceptions are varieties of apples, like the Jonathan, which are subject to soft scald development when held at temperatures lower than 35 to 36 degrees.

When apples are stored at temperatures higher than 32 degrees, the rate of ripening is hastened and the storage period shortened in proportion. For instance, under average conditions, apples will keep two times as long at 32



as at 40 degrees, four times as long at 32 as at 50 degrees, and eight to ten times as long at 32 as at 65 to 70 degrees. Thus, an apple that would have a normal storage season of six months at 32 may be expected to become "eating ripe" in six weeks when held at 50 degrees. Again, if apples are held for one week between time of harvest and time of storage at 65 degrees, the potential storage period is shortened as much as eight to ten weeks by the delay in handling compared to storing within a few hours after harvest.

It may be desirable to hold a certain quantity of some variety at temperatures in the vicinity of, say, 40 so that the variety may ripen in storage at such a rate as to be ready for consumption during the Christmas holidays. This is practical only if separate rooms are available that may be managed at higher tem-

peratures than the balance of the storage.

For McIntosh

Autumn temperatures in air-cooled storages cannot be maintained at low levels; consequently, the apples ripen rather rapidly until about this season of the year when the temperatures of the house should be near 32 degrees. The later maturing varieties are more satisfactory for air-cooled storage than early maturing ones like McIntosh, because by mid-October storage room temperatures in the vicinity of 45 should be attained at this latitude in the normal season. Because temperatures in air-cooled storages are high in September, we do not recommend holding McIntosh in common or air-cooled storages.

Construction

Building materials such as lumber and masonry have **little insulation value** and they are employed merely to give supporting strength to the building, to furnish a means of holding the insulating materials in place and to keep moisture or vapor from coming in contact with insulating materials. The supporting materials should be inexpensive

from the standpoints of cost of the materials and cost of erecting or laying them. They should be rather resistant to penetration of water vapor and should not buckle or pull loose in the presence of high humidity. They should make it easy to apply the insulation and should hold it in place. They should also be fire-proof, vermin-proof and free from undesirable odors.

Tile Construction Good

Our growers in Michigan consider glazed or hard hollow tile the most satisfactory material to use in wall construction. The general practice now is to build two walls of four-inch tile with a space between them which is filled with insulating materials (these walls must be tied together with cross wires laid in the mortar). The insulating materials used at this time, listed in order of preference as indicated by numbers of recent users of same, are shredded redwood fiber or bark, granulated cork, rock wool, and vermiculite (expanded mica). These materials have similar insulating values and are all of low density or light weight, ranging from six to about eight pounds per cubic foot when packed in place. The best one to use is the one that costs the least per cubic foot when packed at the density recommended by the manufacturer.

Cooling

Air-cooled storages are cooled by moving large volumes of cool air through the storage rooms and this is obtained at no operation cost except that paid for current to drive electric motored fans. Therefore, it would be foolish to spend money for large amounts of insulation. However, freezing of fruits may occur in winter unless the building is insulated. On the basis of experience, if a two-inch space between the two walls is filled with one

of the above materials, no freezing will occur during the coldest weather. However, many prospective builders think that they may install mechanical refrigeration at some later time. In such cases, three or possibly more inches of insulation should be used at time of construction.

Operating costs for mechanical refrigeration of cold storages are rather expensive and refrigeration engineers tell us that it is economy to spend a little more money for insulation at time of construction and save in operating costs later, because the greater the amount of insulation provided, the fewer will be the number of hours per day that the equipment must be in actual operation during warm weather. Four inches of corkboard applied to supporting walls is considered standard for storages operated at 32 degrees. Walls providing a similar amount of insulation may be built at lower cost by making the space between double tile walls five inches and filling it with one of the materials mentioned in an earlier paragraph.

Ceiling construction usually consists of metal lath and cement plaster, or redwood boards, or copper bearing corrugated steel applied to the lower edges of joists. In the space between the joists, one of the fill type insulating materials mentioned earlier is spread on top of the lath and plaster or other ceiling material to a depth one inch greater than that used in the side walls. Any building materials applied on top of the joists or rafters is optional.

Methods of Cooling

The temperature of the air-cooled storage is lowered by forcing large volumes of air, colder than that of the storage room, through the stacks of fruit. Consequently, there must be several air intakes so distributed in the side walls that cold, incoming

air will pass through all parts of the room. These cold air intakes are usually about four square feet in size and are usually located just above the outdoor ground line. These openings must be fitted with insulated doors. One of these doors usually suffices for each 1000 bushels of apples. The warmer air leaves the room through ventilating shafts extending from the ceiling through the roof. The number and size should be such as will accommodate the number and size of motor-driven fans installed near the bases of these shafts. The fans should be capable of changing the air in the storage room some 15 times per hour. For a 10,000 bushel building, the fans should exhaust air at the rate of 5,000 cubic feet per minute. This may involve one large fan, but two of smaller capacity are usually used.

Various types of mechanical refrigeration are available for cold storages. I am not so much interested in type or make of equipment as in actual ability to produce the needed amount of refrigeration with a minimum loss of water from the fruit through frosting over and defrosting of coils or dispensing units.

Refrigeration

Three items make up the refrigeration load. First, and perhaps most important, is the heat transferred through the walls, ceiling and floors. During August the mean temperature difference between the two sides of walls may be as much as 60 degrees. Heat transfer from the outside to the inside of the walls is very rapid under such conditions even in well insulated structures. For example, two tons of refrigeration per day may be required to take care of the heat leakage through well insulated walls, ceiling and floor of a 10,000 bushel storage when the outdoor temperature is in the vicinity of 90 degrees.

Heat must be extracted from warm fruit that is brought into the storage. If 500 bushels of fruit at a temperature of 80 degrees is placed in the storage room each day, $3\frac{1}{2}$ tons of refrigeration will be required to do the cooling job. If the fruit is ten degrees cooler when it is loaded into the storage, $2\frac{3}{4}$ tons of refrigeration would be required to do the cooling job.

Then we have heat of respiration to counterbalance with refrigeration. The higher the temperature of the fruit, the faster it respire and the more heat is evolved. At the usual rate of cooling, the above addition of 500 bushels of fruit daily would produce enough heat to require approximately $\frac{2}{3}$ ton of refrigeration to counterbalance it. Now we have 2 tons + $3\frac{1}{2}$ tons + $\frac{2}{3}$ tons = 6 plus tons of refrigeration. To this we should add 10 per cent for heat produced by workmen, lights and motors and opening of entrance doors, which would probably make the maximum requirement of this room some $6\frac{3}{4}$ tons of refrigeration. If a five-ton compressor were used, the operator could probably get by if he adds fewer bushels per day during hot weather and leaves the fruit stand out-of-doors overnight and loads into the storage room in early morning. However, our experience has been that there is too great a tendency to install too little rather than excess refrigeration.

I haven't told you what kind of equipment to buy and I do not intend to do so. You should say to any representative of refrigerating equipment: "Here is the building. It has so much of a certain kind of insulation. I expect to load a certain number of bushels of peaches or apples per day in such and such month. I want the temperature of the fruit to be lowered to 32 degrees within 72 hours after loading. Quote me on equipment guaranteed to do this job with a minimum of loss

of weight of fruit due to dehydration." Then you are in a position to give a limited amount of consideration to so-called selling points, types of equipment. The first consideration should be equipment that will actually meet your peak load requirements. Then prices for equipment meeting these requirements can be compared and, lastly, types of equipment may be given consideration.

Humidity Control

Unless the atmospheric humidity of a fruit storage room is maintained at approximately 85 per cent, some wilting or shriveling of fruits will take place due to dehydration. Maintenance of proper atmospheric humidity is a serious problem in air-cooled storages during winter months and may be serious in refrigerated storages at all seasons. In the latter case the moisture that condenses on cold pipes or dispensing units is moisture that came from the stored product. Some of this may be blown back into the atmosphere of the storage rooms when certain types of units defrost but most of it is carried or drained away from the room and artificial means should be used to replace it.

Soak Floor

If the air-cooled storage has a dirt or gravel floor, the soil should be thoroughly soaked in the early fall and it should be watered frequently to keep it in a condition approaching muddiness. Furthermore, it is desirable to spray the walls and the crates of apples during the winter to permit evaporation of free water from a maximum amount of surface. If orchard or slatted crates are stacked in the cold storage, similar methods may be employed to maintain a high humidity, but if the fruit is packed in baskets or boxes, and especially if these containers have paper liners, cor-

rugated paper caps, fringes, etc., the operator usually has to be content with allowing water to evaporate from a concrete floor. In some cases it is practical to have very fine spray nozzles shoot a fine mist or fog into the room in front of a fan or diffusing unit.

In conclusion, I might state that air-cooled storages are being built in Michigan at essentially the same rate as prevailed ten years ago, but greater amounts of insulation are provided so that it may be practical to install refrigerating equipment for all or a part of the building at some later time. A few new buildings have been constructed during the past year or two in which perhaps one-third of the building is cold storage and the balance is air-cooled storage. Such an arrangement permits storing peaches and other fruits in late summer and shortly after the peaches move out McIntosh apples are placed in the cold storage. Varieties of apples maturing later are placed in the air-cooled room, but inasmuch as the temperature of the fruit in the cold storage room is reduced to 32 by this time and all of the refrigerating capacity of the equipment is not being used, a set of doors between the two rooms may be opened and cold air blown into the normally air-cooled room. This was especially advantageous during warm periods in October of both 1938 and 1939.

The young bride placed the turkey carefully on the table for the Christmas dinner.

"This, my dear," she exclaimed, "is my first roast turkey."

Her husband looked with admiration.

"Marvelous, darling," he said. "And how wonderfully you've stuffed it!"

"Stuffed it?" she asked. "Why, dearest, this one wasn't hollow."

In the Orchard

WHY WE GROW APPLES

Submitted by a Grower

APPLES are grown to keep the tree from blowing away; the grower from going away; and the buyer from throwing his money away.

Apples are handled as though they were worth a million dollars. They are sprayed over by the growers; prayed over by his wife; and preyed upon by the buyer. They are nitrated, freight-rated, and berated. They are thinned, washed, rinsed, sized, labeled and selected. Then they are inspected, insected, dissected and rejected.

They are graded by the growers, regraded by the inspector, and upbraided by the state experts.

After the grower does all this, and gets what apples are left into a freight car, he turns them over to a broker. HE is called this because he is the same as a grower, only broker. This man sends them 2,000 miles away and has them looked at by a color-blind confederate, who telegraphs back that they can't handle car at any price account lack of color.

Then they call in the grade guesser. The paid guesser is called an inspector by the authorities, a crook by the buyer; and a durned fool by the grower.

Then the broker sells them for 10 per cent less than the price of the empty barrel; and deducts freight, demurrage, storage, towage, postage and his own age. That leaves the grower's children going to the orphan home.

Sometimes a girl looks as if she had been poured into her dress—and had forgotten to say "when."

TREE VIGOR AND BIENNIAL BEARING

Dr. Laurenz Greene, Indiana

FRUIT growers are always interested in any record of factors which influence the annual blossoming and fruit setting of apple trees. In the orchard soil management plots at Lafayette a heavy crop was borne on most trees in 1937. Blossom records were made before the May freeze destroyed all prospects for fruit in 1938.

The most vigorous trees set a good bloom in 1938, following a heavy crop in 1937. Weaker trees were distinct biennial bearers in their response to the 1937 crop, while the weakest trees set a light bloom in 1938 even when following a light crop in 1937.

The most vigorous trees were under a mulch system of soil management and were not crowded. They set a heavy bloom in 1938, even though they had produced a maximum crop in 1937. On trees quite low in vigor under cultivation without nitrogen fertilizer a light crop in 1937 was followed by a light crop in 1938. Where nitrogen had been applied to the trees under cultivation the trees were strong but still devalitized, and a light crop in 1937 led to a heavy bloom in 1938. Under sod a light crop in 1937 was followed by a heavy bloom in 1938.

From *Hoosier Horticulture*.

On Schedule

Iva: "Conductor, does this train stop at San Francisco?"

Conductor: "Well, if it doesn't lady, there's going to be an awful splash."

THE FUTURE FOR NUT GROWING IN WISCONSIN

R. G. Dawson

WHAT would be finer than to raise a few bushels of Carpathian English walnuts? These walnuts are one of Wisconsin's finest ornamental trees.

We are growing the Thomas, Ohio, and Stabler black walnuts, and for the past three seasons have won with the Thomas and Ohio at the Wisconsin Horticultural Society Show. We have been successful in grafting the Carpathian walnuts on these black walnuts. All of these named black walnuts differ in foliage and size and shape of nuts. The foliage of the Stabler is much smaller, about half as heavy as the Ohio and when you become familiar with these trees you can distinguish one from the other.

We have the Japan and Heart nut, from native nuts raised here. These are of rapid and ornamental growth. We have the Chinese Chestnut, of which we know but little, also Northern Pecan. Have the Norton and Butterich which are the pure pecan.

Of the Hicans we have the Please, a pecan-bitternut cross, and the pecan and hickory cross in the following varieties: Nussbumes, Bixby, McAllister, and Burlington. The Burlington is claimed to be hardy at Minneapolis. We planted last season crosses of the butternut and heart nut. There are many varieties of hickory, both hybrid and shagbark, but we have not tried them. If the ravages of the borer continue in southeastern Wisconsin, the hickory tree will be a thing of the past.

"Hush, little mosquito, don't you cry; There'll be a picnic, by and by."

BAD CROTCHES ELIMINATED BY NEW METHOD

A FEW months ago we reported that scientists at the U. S. Horticultural Station at Beltsville, Maryland, had found that spraying apple trees with a very weak solution of one of the new chemicals which have such difficult names, this one being naphthaleneacetic acid, prevented the premature dropping of some varieties of apples.

Now we hear that by painting the upper surface only of the crotches of certain apple trees while they are still growing with one of these new organic acids, also called auxins, the rate of growth of the tissues coming in contact with the material was increased. This resulted in widening of the angle between the shoot and the trunk.

The work was done by Dr. Leif Verner of the University of Idaho, and is told in Research Paper No. 179. The material used was indole-butyric acid.

If we can avoid the splitting of narrow angle crotches simply by applying one of these chemicals with a brush, it will indeed be a step forward in horticultural science.

In the method described above, the auxin paste was applied with a stiff brush to the upper surface of the basal internodes while these were still growing. The branch angle cannot be changed after the elongation of the basal internode stops. No doubt we will hear more about this work in the future.

These organic acids seem almost magical in their effect. We hear, for example, that at Michigan State College, seedless watermelons were produced by spraying the watermelon blossoms with a very weak solution of naphthaleneacetic acid after the stamens had been removed.

Revised Definition—School is a place where children give their parents some relief.

PRUNINGS TO RABBITS AND MICE

ONE successful way of preventing damage to tree trunks by rabbits and mice is to prune the trees in the orchard and leave the prunings on the ground, scattered well about the trees. Rabbits and mice will feed on the prunings and since this bark is more tender and palatable, unless there are too many of the rodents, they will not injure the trunk.

In the long run, of course, with a heavy infestation of mice, it is far better to use poisoned bait to reduce the population.

Very Thoughtful, Kind Sir

Lady Customer: "I see you've put all the best apples on top."

Grocer: "Yes, mam, that saves you hunting for 'em."

The man who makes an ash-tray out of the parlor rug is not necessarily a magician.

COMMENTS ON ADVERTISING APPLES

Money spent in advertising apples is largely wasted if the consumer is unable to buy the product mentioned.

Poor or inadequate sales service at the retail store can completely nullify an advertising program.

The most effective selling of a variety of fruit is measured by the opportunity of the consumer to actually see and sample the product he may purchase.

Some stores are too busy selling something else to really sell apples.

If two competitive fruit or vegetable districts start an advertising "war" who will make the most profit?

By M. A. Blake in the *New Jersey Horticultural Society News*.

APPLE TREES

Melba, Milton, McIntosh, Cortland, Secor, Macoun, Red Delicious and other leading varieties.

FERTILIZERS

Sulphate of Ammonia—Aero Cyanamid

SPRAYERS

Plan your order for spray materials now.

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Waukesha, Wis.

LESTER TANS, Sec.

Room 3

TELEPHONE BIG BEND 2821

Fruit Growers Association Meetings Well Attended

THE following County Fruit Growers Association meetings were held during December: The Door County Fruit Growers, December 5-6; Sheboygan County Association at Millersville, December 7; Racine County Association at Rochester, December 12; Waukesha County Association at Waukesha, December 13; Washington County Association at Jackson, December 14.

All meetings this year, excepting the one in Waukesha County, were full-day meetings with a luncheon at noon. These brought out excellent crowds and a good representation of the ladies, who held special sessions at the Sheboygan, Racine and Washington County meetings.

The full-day sessions resulted in a more friendly spirit among those present. The noon hour gave an opportunity for growers to become better acquainted, and exchange experiences.

Principal speakers at the meetings were Mr. C. L. Kuehner and H. J. Rahmlow, Madison; Mr. Lester Tans, Waukesha; while Mr. John Callenbach, Madison spoke at the Racine County meeting, and Mr. Guy Hales, Port Washington, fruit grower, at the Washington County meeting. Mr. M. G. Farleman, East Lansing, Michigan, of the California Spray-Chemical Corporation attended some of the meetings and spoke on new findings in insect and disease control of fruit.

Officers Reelected

All Associations reelected their officers which are as follows:

Racine County

President: Charles Patterson, R. 1, Franksville
Vice-president: William Verhulst, Franksville

Secy.-treas.: Lyman Skewes, Union Grove

Sheboygan County

President: Arno Meyer, Waldo
Vice-president: Hugo E. Wunsch, R. 1, Sheboygan
Secy.-treas.: Joseph Thackray, Glenbeulah

Washington County

President: Jos. L. Morawetz, R. 4, West Bend
Vice-president: Elias Kopp, R. 3, West Bend
Secy.-treas.: E. E. Skaliskey, West Bend

Waukesha County

President: Lester Tans, R. 3, Waukesha
Vice-president: C. J. Mitchell, R. 5, Waukesha
Secy.-treas.: Wesley Adams, R. 1, Waukesha

A RABBIT REPELLENT

WHILE we have become rather discouraged about the possibilities of rabbit repellents when applied to fruit trees, here is another one that has given good results, according to reports.

The Maryland Fruit Grower suggests mixing copper carbonate and raw linseed oil to the consistency of regular paint. It is applied to apple trees only of any age, but should not be put on too heavily. Apply as if it were a priming coat on a new piece of wood. It is good for two or more years.

Experience seems to indicate that rabbits will leave alone trees covered with a repellent, providing they have plenty of other things to eat. When they get real hungry, however, it is a different question.

STUDY KITCHENETTE SAUERKRAUT

THE best temperature for producing kitchenette sauerkraut is from 68 to 76° F., according to findings made by L. Tarkow and W. C. Frazier.

In general kitchenette sauerkraut put up in sealed fruit jars responded to different temperatures in about the same way as commercial kraut packed in vats or barrels. Kraut made at temperatures of 50 to 59° was of poor quality, because the lactic acid bacteria needed to make the product sufficiently acid failed to grow well under such cool conditions. On the other hand, 82° was too high, for the kraut developed an undesirable flavor and turned slightly brown.

Using 2.5% sugar in making kitchenette sauerkraut does not seem to be wise, for this caused the kraut to become soft and sticky.

Why sauerkraut sometimes turns dark when made in fruit jars is a mystery. Exposure to air cannot be the cause when the jars are sealed. It does not seem to be caused by bacteria, because Tarkow and Frazier found no abnormal bacteria on the darkened kraut, nor did juice from the darkened product set up any "infection" in freshly shredded cabbage. Adding certain iron salts to cabbage did not cause darkening, thus casting doubt on the idea that iron knives or shredders may be to blame.

Although proof is lacking at present, there are grounds for suspecting the enzymes of cabbage may be concerned in its darkening.

From Bulletin 446, "What's New in Farm Science," Wisconsin College of Agriculture.

It's a Pretty Big Shop when it takes about two weeks for a good joke to get from the superintendent back to the superintendent.

Strawberry Plants in Cold Storage

Properly Stored Plants May Be Superior to Freshly Dug Plants

RESULTS of experiments by the U. S. Department of Agriculture indicate that not only is it possible to store strawberry plants in cold storage for rather extended periods, but that under many conditions stored plants may be distinctly superior to freshly dug plants. This is the conclusion reached by M. H. Haller of the Department, as reported in the Proceedings of the American Society for Horticultural Science. The report states:

"By the use of cold storage the nurseryman may be able to more evenly distribute his labor, he may have plants available for both earlier and later markets, and, most important to the grower, he may be able to furnish superior plants that have not been winter-injured or that for other reasons are in better condition for transplanting.

"At the present time growers generally demand freshly dug plants. Such plants would no doubt be superior to plants that have been exposed to room temperatures for appreciable periods but might be distinctly less desirable than plants that have been under cold storage conditions. The leaves on plants from storage may appear to be more wilted and discolored than on freshly dug plants but the results of this year's trial indicate that such plants are in no way inferior and may be superior to freshly dug plants. It is not always possible therefore to judge the desirability of plants by their appearance.

"Although these results show the feasibility of storing strawberry plants for as long as 6 months, they do not indicate at what time in the fall the plants first reach a condition suitable for storage. Further investiga-

tions are planned to determine this.

Stored Plants Found Good

"The growth of the plants from 30, 32, and 36 degrees storage was equal to and generally distinctly superior to that of freshly dug plants that were left in the field over winter. **Practically all of the plants stored at 17 degrees F. for 3 months were killed.**

Best Storage Temperatures

"There was some evidence that plants stored at 30 degrees F. produced more leaves and runners than those stored at 32 degrees. Plants stored at 32 degrees F. grew as well as those stored at 36 degrees. On the basis of these results storage at 32 degrees F. is recommended because of the superior appearance of the plants from this temperature as compared with those from 30 and 36 degrees. Storage humidity within the range tested was not an important factor. Plants stored at 32 degrees F. for as long as 6 months grew satisfactorily. Under these conditions, the time of storage between December 21 and March 21 was not an important factor. Satisfactory stand and growth were obtained with storage plants set out as late as May 21, whereas the stand and growth of freshly dug plants were relatively poor by April 21.

"Growth of plants stored 'in the rough' for part or all of the storage period was slightly better than that of freshly dug plants. Removing the leaves from the plants at the time of storage was of no benefit. Fumigation of the plants with methyl bromide at the time of storage

caused considerable injury, but fumigation just previous to planting was not injurious."

From the Proceedings of the American Society for Horticultural Science for 1938.

Double Duty

"Yes, Rupert," said mother, "the baby was a Christmas present from the angels."

"Well, mama," said Rupert, "if we lay him away carefully and don't use him, can't we give him to somebody else next Christmas?"

No one is useless in the world who lightens the burden of it for anyone else.—Dickens.

STRAWBERRY PLANTS

Strawberry plants for spring delivery. Warfields, Dunlaps, Beavers, Premiers, Fairfax, Dorsett, Catskill. Priced to sell. Order early. Mrs. John Jensen, Warren, Wisconsin.

Get extra savings on
Sheboygan
fruit and berry boxes



Now you can save money by assembling your berry boxes with the fast-working Neva-Clog hand stapler. It's quick, easy, and fun to do. You can assemble 5 boxes a minute with this practical pocket sized stapler. What's more, you'll get stronger, more attractive boxes—boxes you'll be proud to market your fruit in.

Get everything you need in fruit, vegetable, plant boxes and crates at thrifty Sheboygan prices. Leading growers have preferred this big, complete line for 60 years. Write today for colorful, free folder and prices.

Sheboygan Fruit Box Co.

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Sheboygan, Wis.

Adaptability Of Fruit Varieties To Freezing

Strawberries

STRAWBERRIES are the best seller in the line of frozen fruits, and the production of frozen strawberries, both cold pack and quick-frozen, is more than double the amount of all other frozen fruits combined. Hence, they should be given first consideration.

To be desirable for freezing preservation, a strawberry should have a pleasing potent flavor and acidity and a uniformly deep bright red color, and all of these qualities should be retained during freezing, storage, and thawing. Berries with white tips, prominent seeds and hollow centers are not desired.

The Pacific Northwest has its Marshall variety, which has all of the above qualifications, hence the prominence of strawberry freezing in that territory.

Premier Not Good

New York State has large quantities of Howard 17, also known as Premier, and although this is an excellent berry for fresh market trade—and for that reason there are heavy plantings of it—it is *not good for freezing*, for the resulting frozen product, when thawed, has soft texture, its flavor can only be rated as fair, and its color is only fair due to its white centers.

If strawberries of the varieties Senator Dunlap or Big Late or some other variety, that the Experiment Station at Geneva might recommend as being adaptable for freezing and worthy of being grown in the State, were made available in commercial quantities, it is quite possible that future attempts might be made to freeze New York State strawberries.

Raspberries

Unfortunately for New York State fruit farmers, the only raspberry which gives a full flavored

frozen product is the Cuthbert. This is the leading variety of the Pacific Northwest and accounts for a red raspberry production in that territory of better than 10 million pounds annually.

The Cuthbert variety possesses a potent rich flavor, a deep red color, is free of seediness and does not collapse on freezing and thawing. The desirable qualities are the same in raspberries as in strawberries, except for sweetness. In retail trade, the public prefers a dry pack of raspberries; hence, since no sugar or syrup is added in preparing the product for freezing, the original product must have natural sweetness.

At the present time, there are very few plantings of the Cuthbert variety in New York State because of its susceptibility to mosaic and the fact that it is a poor yielder. The variety Viking could be used as a substitute for Cuthbert. Raspberries of the varieties Latham, Lloyd George, June and Newburgh, which are commonly grown in New York State, are unsuitable for freezing due to acidity and poor color.—From The New York State Horticultural Society Annual Report, 1939.

There is the story of the advertising agent who worked hard, but unsuccessfully to get a local merchant to advertise. "Nothin' doin'," remarked the storekeeper. "Been established 80 years and never advertised." "Excuse me, sir," said the agent, but what is that building on the hill?" "That's the village church." "Been there long?" "Oh, about 300 years." "Well, they still ring the bell, don't they?"

Opportunities? It is only necessary to look around you in order to find something that needs improvement.

OVERPRODUCTION OF STRAWBERRIES

Since the early days of the extensive field culture of strawberries there have been repeated discussions of the danger of overproduction. As early as 1868 such discussions were common in the Rural New Yorker and other periodicals and again 20 years later considerable emphasis was being placed on the danger. As the industry has spread through widely separated sections and the transportation facilities have been greatly improved so that such a perishable crop can be put in distant markets successfully the matter of overproduction is an interstate problem. For example, the early Michigan crop competes with that from Ohio, Indiana, and Illinois, and its mid-season and late crop with that from Minnesota, Wisconsin, and New York.

From Bulletin by Michigan Experiment Station, "The Relative Importance of Various Factors Influencing Profits in Strawberry Production" by Neal D. Peacock.

For Gifts Only

Customer: "These hose came from your store, but they aren't worth a darn. They went through the very first day I wore them."

Haberdasher: "Great Scott, you didn't put them on and wear them, did you? They weren't intended to be worn. They were designed solely for Christmas presents."

A woman came into a car with five children. She busied herself seating them. A sailor arose and gave her his seat.

"Are these all your children, madam," he asked, "or is it a picnic?"

"They're all mine," snapped the woman, "and it's no picnic."

WINTER BROWNING OF EVERGREENS

Allan Troemner, Friendship

ABROWNING or discoloration of the foliage on the south and west sides of evergreen trees or shrubs in mid-winter often shows up. It is usually severest in exposed situations where the ground has been allowed to freeze deeply. Here we find that it usually follows a wet summer that has turned dry in the fall and early winter. The whole thing is of course brought about by unfavorable weather, and by the use of tender kinds which should not be planted in this section where the climate may be severe.

"Winter browning" as it is called in the west where it is still more troublesome, on the dry, wind swept prairie where there is little snow, often kills the needles, buds, or entire tree.

In this section, shallow rooted evergreens are effected first. These would include Norway spruce, Black spruce, Black hill spruce, and white pine. Among the tender sorts I would include Hemlock, Oriental and possibly Siberian arborvitae. The last named like a somewhat shady situation. They may be severely defoliated, or killed if subject to direct sunlight and drying winds during winter.

So far, I have not discovered definite "winter browning" injury on foliage of deeper rooted evergreens like Scotch, Red, Jack, and Ponderosa pines, Colorado blue spruce or pyramidal arborvitae. The cedars and junipers may change in tone of foliage color, but, return to normal cast in spring without injury. It is apparent that deeper roots are not frozen so tightly, at least they have better assurance of moisture to furnish the needles to transpire.

To help insure against defolia-

tion, smaller trees may be protected by artificial shade or wind break. Soil around roots should contain ample moisture upon freezing. A mulch of leaves or straw should also be applied before ground freezes too deeply. And above all, plant on a well drained situation, using those species that are adapted to your climate and soil conditions.

HOW LONG DOES QUICK-FROZEN CORN "KEEP" AFTER THAWING

THE mounting popularity of quick-frozen foods has made it desirable to know how well such foods "keep" after they are taken out of cold storage. To be sure, the directions usually say to thaw them only when they are to be used, and then to do it quickly—as by placing them directly in the pan and thawing them by the heat of the stove just before cooking. But in practice, such instructions will not always be followed to the letter.

Information on the time required for spoilage to set in, and the organisms responsible for the spoilage, when quick-frozen corn is allowed to thaw has now been secured by H. R. Bilford and W. C. Frazier.

These are some of the findings:

1. When corn was thawed and stored at ordinary room temperature of 68° to 77° F., the first signs of spoilage appeared after 17 hours.

2. At an ice-box temperature of 44° to 57°, spoilage set in after 70 hours.

3. Under temperatures such as maintained in electric refrigerators, from 32° to 41°, spoilage began after 119 hours.

Condensed from Bulletin 446, "What's New in Farm Science,"

WISCONSIN STATE FORESTS

WISCONSIN has today more than 160,000 acres of state forest in four separate forests.

This is the result of general recognition that if timber were cut selectively, if standing forests were protected from fire, and if a constructive program of reforestation were followed, Wisconsin would always be a great forest state, would always have logs for the sawmills, and would always have great areas of woodland for the enjoyment of those who love the outdoors.

The following are the State Forests:

Northern Highland State Forest. Comprises more than 140,000 acres of rugged and rolling land in the central part of Vilas County. It is the largest of Wisconsin's State Forests in which are located more than 150 lakes.

Flambeau River State Forest. This comprises 3,000 acres of virgin hardwood forest along the Flambeau River in southeastern Sawyer County. Has a frontage of about three miles on the river. Here is maintained a virgin timber stand which is typical of the forest growth once covering Wisconsin. Not easily reached by motor.

American Legion State Forest. This forest is in Oneida County and is similar to the Northern Highland Forest. Covers 18,000 acres. There are a number of summer resorts located in the area, as well as public camping grounds and outdoor recreational facilities.

Brule River State Forest. Along the Brule River in Douglas County, this forest comprises 4,000 acres. The Brule River is known to fishermen everywhere as one of the finest trout streams in the country. There is an excellent camping ground maintained at the ranger station near Brule.

Wisconsin College of Agriculture.

GARDEN NEWS

INDOOR GARDENER

AN excellent book for the indoor gardener has just been published by the University of Minnesota Press, Minneapolis, Minnesota. The book is entitled, "The Indoor Gardener," by Daisy T. Abbott author of "The Northern Garden" (\$1.50).

"There is no such thing as a magic green thumb," Miss Abbott says, "unless it is a love of growing things. That is the green thumb, and anyone can have it for the trouble."

Yet many of us never think of starting our own gardens. We admire displays in florists' windows, but our casements are often bare.

And gardener Abbott is practical. She says, "Leave the icky things for fools like me who spend most of their time gardening and select the plants which you can take care of with no trouble."

This handbook is for a busy person with window sills, not an unhurried one with a greenhouse. It emphasizes the hardy plants, not exotic ones; inexpensive, not expensive ones.

Directions are simple and easy to follow. "Spray the leaves often if they are thin, less often if they are thick, not at all if they are hairy. Give little moisture to the plant which is resting, plenty to that which is blooming. Always spray in the morning, for no plant likes to go to bed with wet feet."

A SPORT GLADIOLUS

FROM a bulblet of *Dream of Beauty* Gladiolus there grew a flower spike much different than I have ever found in the gladiolus.

Instead of being a solid deep rose, as is natural in *Dream of Beauty* the florets bore two de-

cid colors. Two side petals were deep rose (same shade as parent) and the other four were a delicate pink. The effect suggested a clown's costume, each side of a different color, so I named it Harlequin.

We wondered if this peculiar change would continue. It did. For this summer for the second time, two lovely spikes developed in the same manner; the bi-color effect being carried out in every floret on the spike. A new kind of flower, at first glance.

—Rena Bauer, Colby.

FLOWER GROWERS ASSOCIATION TO BE ORGANIZED

A MEETING was held in Cincinnati, Ohio, on December 3rd to weld the flower growers of the United States into a National organization.

A report of a survey made at the expense of the Society of American Florists stated, "In our opinion, the time has come to form an association of growers of flowers and plants whose sole duty it shall be to serve the best interests of the growers."

It was proposed that the organization meeting be held in Chicago on Saturday, April 6, 1940. Funds for organizing the association are being sent to Leonard Vaughan, 423 A, Stevens Hotel, Chicago.

This is a step in the right direction. The growers in the past have not been organized and such an organization is needed. We hope that the growers in Wisconsin will also form such an organization.

Know the value of time; snatch, seize and enjoy every moment of it. No idleness, no delay, no procrastination; never put off until tomorrow what you can do today.—Chesterfield.

CAUSES OF FAILURES WITH TUBEROUS ROOTED BEGONIAS

THE most common failure in Begonias is the falling off of buds before they develop, which is caused either by the plants being grown in too small pots without a sufficient amount of food, severe drying out or severe over-watering. In hot weather the flowers develop too rapidly and the plants, by drawing much more water from the soil, tend to throw off the buds. Abundant growth, with little or no flowers, is the result of too heavy shade. Curled and shiny foliage is a sign of too strong an exposure to the sun. The most damage is done by over-feeding; the first signs of it are a soft, glassy texture of the foliage, curling under gradually, wilting and dying off.

By Vetterle & Reinelt, Capitola, California.

TUBEROUS BEGONIAS FROM CUTTINGS

TUBEROUS rooted begonias may be grown from cuttings. The tubers are planted about the latter part of February at a temperature of 60 to 65 degrees F. When the shoots have made a growth of from 5 to 6 inches they may be cut. Leave at least two eyes below the cut so that the side shoots will form again, otherwise the tuber may be killed. Cuttings are planted in a propagating bench, in a peat and sand mixture of equal proportions. Sixty-five to seventy degrees F. is about the right temperature. Glass should be placed over the cuttings and the foliage and soil should be kept moderately moist and ventilated during the day. When the cuttings are rooted they should be set out in pots or flats.

Why Plants Are Sometimes Winterkilled

THE article on page 92 of the December issue entitled "Plants are Killed by Cold" has created considerable interest on the part of our members. This statement was made: "Soil filled with frozen water is a much better conductor of cold than dry soil. Consequently temperatures several inches under the surface of such soil will drop much lower than when the soil is covered with snow."

To verify this assumption, we turn to a Soil Physicist, Mr. R. J. Muckenhirn of the Soils Department, Wisconsin College of Agriculture, who bases the statements made below upon information in the "Handbook of Physics and Chemistry" for 1937-38. From the figures given he has given us the following statement:

"Ice plus soil conducts heat from 6 to 10 times as well as dry soil, about twice as well as moist soil, and from 6 to 50 times as well as snow.

"Ice alone conducts heat at least 10 times as well as dry soil, about 2½ times as well as moist soil, and at least 16 times as well as snow.

"The addition of water to soil increased the conductivity of soil up to 5 times (to the value of water and beyond) because transfer is more rapid from particle to particle through water than it would be through air. If ice replaced the water, this effect would be much greater because ice conducts heat 4 times as fast as water, and the maximum possible would be the conductivity of ice, which is 10 to 15 times that of dry soil.

"Snow is a very good insulator. With regard to mulches, sawdust is equal to snow, and peat or straw would be similar, when dry.

"The frozen soil immediately under an ice sheet or under frozen soil, especially if the soil was wet before freezing, would undoubtedly reach a much lower temperature under the same conditions than soil covered with snow, mulches, or even a layer of dry soil.

"With regard to the freezing of roots in ice, it is known that plants, if frozen quickly, do not suffer nearly as much as plants frozen slowly, or alternately frozen and thawed. Even fish may be frozen inside blocks of ice without being killed."

This information gives us something to think about, and may enable us to determine why our plants die during different seasons. A dry covering therefore is of considerable value. If an ice sheet forms over plants during the winter as is often the case, a mulch applied on top of the ice might do a great deal of good because it would prevent low temperatures coming later penetrating so deeply into the soil. Covers of materials which retain moisture and then freeze, such as peat, are only good during seasons when they remain dry.

Heavy soils containing humus may not freeze as readily as sandy soils because they contain more dead air space and the humus acts as an insulator, while sandy soil particles are larger and the air spaces between them are larger, nevertheless there are many more small particles in the heavier soil.

Something else to think about—in this issue is an article on Cold Storage of Strawberry Plants. It was found that plants kept in good condition at 30° F. but **were killed when stored at 17° F. for 3 months.**

LEAD ART FOR THE GARDEN

A VERY interesting exhibit of lead containers and lead art was made at the annual convention of the Wisconsin Garden Club Federation at the Pfister Hotel in October by Mrs. Delphene Biebler, Milwaukee. Mrs. Biebler states, "the making of lead art containers for the gardens has become my hobby due to its appropriateness in such a setting. On account of its serenity and aging beauty it has become one of the necessary adjuncts to landscaping. Lead was used in gardens before Christ's time. Hence its indestructibility. It is constructive in design, both practical and ornamental in the yard when properly placed. In fact, it has its happiest setting in the garden, as it does not dominate what nature produces, but complements it."

PILGRIMAGES TO NATCHEZ, MISSISSIPPI

NATCHEZ, Mississippi, has become the mecca of garden lovers during the early spring months. A visit to the beautiful old homes in Natchez is a trip long to be remembered.

Two organizations hold pilgrimages each year. The first will be held by the Pilgrimage Garden Club on March 2nd through March 23rd. This is the Ninth Annual Pilgrimage of the club, and takes in the original Pilgrimage houses, the Ante-Bellum houses that made Natchez famous.

The second pilgrimage will be by the Natchez Garden Club, member of the National Council on March 24th-April 7th. This is also the Ninth Annual Pilgrimage of this organization. Circulars describing the tours may be obtained by writing the garden club.

The more noise a man or a motor makes, the less power there is available.



Gladiolus Gleanings



By the WISCONSIN GLADIOLUS SOCIETY

Chester Harrison, Waldo, President

Dr. Geo. Scheer, Sheboygan, Vice-President

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

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

Regional Vice-Presidents
Frank Blood, Stevens Point

Fred Hagedorn, Sheboygan

Edwin Ristow, Oshkosh

Ben Robinson, Kenosha

Is There An All-Purpose Gladiolus?

Walter C. Krueger, Oconomowoc

THE day of the all-purpose gladiolus is distinctly on the wane, if not already passed. The diversity of the requirements make it almost impossible for a variety to satisfy all of the groups that purchase and use gladiolus. Picardy and Minuet came closer to deserving such consideration than other varieties. Perhaps Betty Nuthall and Maid of Orleans should be mentioned as having aspired to "all purpose" classification. A simple analysis will clarify the contention.

There are at least seven buyer-user groups, namely, (1) wholesale producer, wholesale florist; (2) local florist, local cut-flower grower, roadsider; (3) cataloger, and cataloger-jobber; (4) fancier; (5) show competitor; (6) home gardener; (7) hybridist. True, a buyer may represent several of these groups totally, but he purchases a gladiolus from the viewpoint of one of the mentioned groups.

As each of the groups is analyzed, bear in mind the different requirements that each is interested in and see how much they vary.

The first group demands qualities such as bulb health, reliability of usable spike production, bloom from small stock, ability to stand up in the field, and long distance shipping qualities. The usable color range includes har-

monious, white, pink, yellow, lavender, and possibly orange. Smokies, violets, etc., are used hardly at all. They prefer the taller, larger flowered varieties. Bulbs that shoot two spikes of satisfactory bloom are much appreciated. Muddy and inharmonious colors are not used by this group. Have you ever thought of the florist list in terms of the source of origination? They represent a real all-American selection. Stock investment makes them conservative buyers.

The local florist, grower, and roadsider, included in the second group is much like a member of the first group except that he uses a wider color range. Shipping qualities are not so important. He is the tester of varieties. A lesser stock investment allows of earlier substitution and trial.

The "cataloger" and "cataloger-jobber" grows varieties that are on their way up. Propagation and demand are their major considerations. Together with the first two groups they are variously considered as the commercial men.

The fancier is usually a collector. A slightly different color, a better color, an improvement in beauty of form, specialties such as lacination, etc., are of real interest to him. He may even discard an old variety for a slightly less better new introduction.

How different are his wishes from those of the wholesaler!

For the Show

The show competitor desires to win awards. The larger the floret, the more open, the longer the flowerhead, the better. He is not particular about bulb health, for every year or two he replaces his bulbs with new stock. Propagation is, therefore, of lesser importance. The "Distance lends enchantment" glads are readily received by many in this classification. Blotched varieties to fill specified color classes are desired. A few decoratives may even be appreciated by the keen showman.

The home gardener is primarily interested in house bouquets. He prefers the medium and smaller sized flowers for use in artistic pieces. He desires less open flowers because in that way the bouquet keeps longer. Tall specimens and large bulky flowers are too large for home decoration.

The hybridist is in search of varieties of a certain color, blooming season, specialty, parentage, heat resistance, etc.

A Problem

How can a gladiolus grow florets both large and small at the same time? How can the variety produce a spike with fourteen

open and five open at the same time? How can a variety be desired by a representative of one of the buyer groups and not be desired at the same time? The day of the all-purpose glad seems to be gone, for the diversity of wants desired by buyers is too wide for any one variety to cover. It would therefore seem advisable for catalogers to indicate, as some now are doing, the purpose of the introduction, i.e., which group will find the new glad a worth while introduction.

NEW GLADIOLUS SOCIETIES BEING ORGANIZED

A REPORT from Mr. A. K. Parker, Secretary of the New England Gladiolus Society, states that on December 1 the West Virginia Gladiolus Society was organized. The Society will hold an annual exposition and will sponsor a trial garden at the Fairmont State Teachers College in West Virginia. An opportunity to have seedlings and new originations tested from other sections of the country is offered by hybridizers and commercial growers. Anyone interested should write to Thomas Manley, Fairmont Teachers College, Fairmont, West Virginia.

The Maine Gladiolus Society has been organized and is building up on a solid foundation.

There is some discussion of organizing a Mid-Western Gladiolus Society as a regional grouping of state societies in the middle-West.

The Sheboygan County Gladiolus Society has had some very interesting meetings and has now a large membership.

A small boy at the zoo asked why the giraffe had such a long neck.

"Well, you see," answered the keeper gravely, "the giraffe's head is so far from his body that a long neck is absolutely necessary."

CHAMPION SPIKES

From Iowa Gladiolus Bulletin

EACH year tells a different story concerning the championships won by certain varieties. Picardy has been a great favorite, as was Phipps in its heyday. However, here is a 1939 list which is entirely distinct from other years:

New Era—Indiana Gladiolus Society.

Picardy—New England Gladiolus Society—Championship Vase. Wisconsin Gladiolus Society.

Ames Gladiolus Society.

East Bay Gladiolus Society.

"*Luminosa*" a seedling, Utah Gladiolus Society.

Heritage—Grants Pass (Oregon) Gladiolus Society.

Miss New Zealand—Sioux City Gladiolus Society.

Colossus—Metropolitan Gladiolus Society (N. Y. City).

Pfister's Masterpiece — Calgary (Canada) Gladiolus Society.

Phyllis McQuiston — Advanced Amateur Division, Minnesota Gladiolus Society.

Flagship—Canadian Gladiolus Society.

Frank J. McCoy — Connecticut Gladiolus Society.

King Midas—Blue Ridge Gladiolus Society.

Marguerite — Washington State Gladiolus Society.

Recovery—Illinois Gladiolus Society.

Beacon — Wellsville (O.) Gladiolus Society.

Wings of Song—Iowa Gladiolus Society.

Myrnia—Maryland Gladiolus Society.

Peggy Lou—Michigan Gladiolus Society.

Bagdad — Pennsylvania Gladiolus Society.

Shirley Temple—Eastern New York Gladiolus Society.

Maxwelton—Algona Gladiolus Society.

Reports from 23 Glad Societies make it evident that Picardy is not winning all the awards this year.

THE HARTFORD GLADIOLUS COLOR CONFERENCE

A MEETING was held at Hartford, Connecticut, on November 5 to discuss color, order and classification for gladiolus shows. Represented at the meeting were the Eastern New York G. S., the Metropolitan G. S., Connecticut G. S., and the N. E. G. S. (five representatives), guests of the Connecticut Gladiolus Society.

Suggestions had been submitted by mail by the Yakima Valley G. S., Iowa G. S., Michigan G. S., Ohio G. S., Wisconsin G. S., Maryland G. S., and Canadian G. S.

Recommendations adopted at the meeting for color are as follows:

- 01 White
- 02 Cream
- 03 Yellow—light—deep
- 04 Buff, etc.
- 05 Orange—Yellow-orange—orange—red—orange
- 06 Salmon, light salmon—Scarlet
- 07 Pink, light—deep
- 08 Red, light—red—deep red (black red)
- 09 Rose, light, deep
- 10 Lavender, light, deep
- 11 Purple (red) (violet)
- 12 Violet, light, deep, blue violet
- 13 Smoky
- 14 Any other color
- 15 Special

It will be noticed that light salmon has replaced salmon-pink, and light and deep rose replaces rose pink and rose red. Several Societies have already signified their willingness to follow the Hartford recommendation. Additional conferences will be held from time to time.

This report was sent to us by Mr. J. H. Odell, Wellesley Hills, Massachusetts, Chairman of the Board of the N. E. G. S.

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Editorials



SECRETARY GIVES ANNUAL REPORT AT CONVENTION

THE following is condensed from the annual report of the Secretary of the Wisconsin Horticultural Society, presented at the annual convention at Sheboygan on November 17th.

Today we can report that the Wisconsin Horticultural Society has 105 affiliated organizations, and a total membership of 4,600. This is an increase of 14 organizations and 350 members during 1939.

The membership is now constituted as follows: 15 County Fruit Growers Associations with 1,200 members; 82 garden clubs with 2,200 members; 4 district and 29 county beekeepers associations comprising the Wisconsin Beekeepers Association, 350 members; 3 strawberry growers associations, 200 members; other organizations affiliated are the Wisconsin Gladiolus Society, the Lake Geneva Gardener's Association, the Wisconsin Nurserymen's Association, and the Cranberry Growers Association. In addition there are annual and life members.

Last year we again imported 150 pounds of English walnut seed from the Carpathian Mountains of the Ukraine and Poland, selected from hardy trees by Rev. P. C. Crath. In favorable sections of the state, wherever good varieties of apples grow well, these nuts are proving successful, although they are still under test.

Last year the Society sent out 1,800 plants of Dresden straw-



We Wish All Our Members
a very Happy New Year

COMING EVENTS

FEBRUARY 28 to March 6. National flower and garden show, sponsored by the Society of American Florists, Houston, Texas.

March 9 to 16. Milwaukee spring flower show, Milwaukee Auditorium, Milwaukee, Wisconsin.

March 11 to 16. International flower show. Grand Central Palace, New York.

March 23 to 31. Detroit flower show, Convention Hall, Detroit, Michigan.

March 30 to April 7. Chicago flower show, Navy Pier, Chicago.

berries from the Geneva, New York, Experiment Station, as well as the following fruits: 62 plants of New York grapes—Eden, Athens and Buffalo; 10 of the new Alton apple trees, the earliest apple available; 140 trees of Lobo and Hume, McIntosh crosses from Canada which were sent to Bayfield, Marshfield, Spooner and Polk County for trial.

Observations on the Taylor and Marcy raspberry plants sent out for trial in 1938 indicated

that Taylor is very promising and should be pushed for further trial. The Catskill strawberry plants sent out in 1937 and 1938 show considerable promise.

Considerable interest is developing in Cortland, Kendall, Macoun and Secor, with Cortland being planted by commercial growers, but the other still on trial.

This year the Fruit Testing Committee made a tour of the Minnesota Fruit Breeding Farm and leading orchards of Minnesota to study the influence of hardy rootstock on the growth of apple trees.

During 1939 five sets of lantern slides were made for use by garden clubs. Films and lantern slides were also made for lectures to be given to the various affiliated organizations of the Society.

During the year the Secretary attended and spoke at 107 meetings of affiliated organizations and gave seven radio talks.

Our stenographer, Mrs. Jean Steinmetz reports that 4,817 letters and postcards were mailed from the office, and of course the monthly magazine goes to all the members each month excepting July.

It Does Take Time—Men live fifteen years longer than they did a generation ago in order to pay for their automobiles.

Which do you enjoy more, the doing of your work or the reward for doing it?

Do Plants Need Vitamins

RECENT articles in several magazines of national circulation tell of some unusual results in experiments with Vitamin B₁, reported by the California Institute of Technology. The use of the chemical resulted in larger plants, larger flowers, and unusual success in transplanting roses in full bloom.

In a discussion of the value of vitamins for plants with Dr. Conrad A. Elvehjem of the Agricultural Chemical Department at the University of Wisconsin (the chemist who discovered the cure for pellagra with nicotinic acid), he expressed the opinion that in the near future we will probably find that plants need as many different vitamins as human beings for best growth and health.

Vitamin B₁ is also known as Thiamin. When available it increases the development of the roots and especially the root hairs.

The presence or lack of this vitamin may account for the difference in growth and health of plants on different soils. Dr. Elvehjem said that wheat bran, for example, contains 20 parts of vitamin B₁ per 1,000,000—enough to benefit the plants when it becomes available to the roots. There is a small amount of Vitamin B₁ in some manures, which may explain why manures are often more beneficial than mineral fertilizers, depending of course upon whether the soil was deficient in vitamins before the fertilizers were applied.

Asked if peat moss contains vitamins, Dr. Elvehjem said that it had not been tested so the editor provided samples of peat moss which will be tested in the near future.

In discussing this matter with Prof. J. T. Curtis of the Botany Department, University of Wisconsin, he stated the Botany Department has been experimenting with vitamin B₁ but has been un-

able to duplicate the results which were reported as obtained by the California Institute of Technology. He said, "When we add Vitamin B₁ to the soil nothing much happens."

Vitamins Produced by Plant Leaves

He said that vitamins are produced by the leaves of the plants and that plants which make a rapid growth such as grains and annual flowers no doubt produce sufficient vitamins for their needs. That is why certain plants can be grown well in water containing only chemical plant foods.

However, plants which grow slowly do not seem to produce enough vitamins for their needs which perhaps accounts for some of the results obtained when vitamin B₁ was added.

Since Vitamin B₁ stimulates only the development of roots and root hairs, whatever results we see on the top would no doubt be due to an improved root system.

WISCONSIN NURSERYMEN WILL MEET IN MILWAUKEE FEBRUARY 7-8

WISCONSIN nurserymen will hold a two-day convention this year in the Schroeder Hotel, Milwaukee, on February 7-8. A far more elaborate program than usual has been prepared. The two-day convention will give the nurserymen an opportunity to transact much more business and hear many more speakers than has been the case in the past.

The first session will be at 9 a.m. on February 7th, followed by a business meeting. There will be a noon luncheon at the Schroeder, with a general program in the afternoon.

In the forenoon of February 8th there will be a tour of the Milwaukee Public Museum, followed by a program in the afternoon.

ARE COAL ASHES VALUABLE FOR GARDEN SOILS?

THE merits of coal ashes have been discussed in many publications. We have felt that their value has been greatly exaggerated in many instances. To get a statement from a reliable authority, we wrote to Prof. C. J. Chapman, Extension Specialist in the Soils Department, Wisconsin College of Agriculture, who writes as follows:

"We have never recommended the use of coal ashes excepting as a means of loosening up heavy, tight, impervious soils. Coal ashes do carry small amounts of plant foods—a little phosphorus, a little potash, and a small amount of lime. However, I think the value of coal ashes is over-emphasized in some of the publications. I much prefer peat or other organic materials as a means of loosening up and improving the texture of tight, heavy soils.

"I can see no objection, however, to the application of coal ashes on gardens if not used in excessive amounts. There may be some fertilizing value from this material."

THE BOERNERS IN FLORIDA

MR. and Mrs. A. F. Boerner of the Cedar Hedge Nursery, Cedarburg, write from 812½ S. E. 12th Street, Fort Lauderdale, Florida, where they are spending the winter. They report receiving chrysanthemums from their own place picked on December 1, but say that the weather is so pleasantly enjoying it. Shrubs and trees are in leaf and flower, like June in Wisconsin.

When you make a mistake, don't look back at it long. Take the reason of the thing into your mind, and then look forward. Mistakes cannot be changed. The future is yet in your power.

Home and Garden

Mrs. C. E. Strong

A NOVEMBER SHOW WITH UNUSUAL FEATURES

I RECENTLY visited a late November Show featuring arrangements with Evergreens, Winter Holly and Snowberry, both for indoor and outdoor decorations. There were baskets of Strawflowers arranged with the foliage of Helleborus Virida, the Green Christmas Rose, Bittersweet berries used with the brown seed sprays of the yellow dock, and large grey jars filled with graceful branches of grey poplar, red dogwood, and green Kenia. Because of the careful selection they were extremely effective. Trailing sprays of fluffy white seed pods from the Yellow Clematis, combined with the creamy yellow branches of the Smoke tree. There were arrangements of colored leaves from indoor plants as well as outdoor varieties. A table filled with weeds of unusual shapes and colors, and grain heads, arranged in vases or small baskets gave us new ideas.

There was a very fine showing of Hardy Chrysanthemums for so late in the season.

Table Decorations

Table decorations for holidays were good looking. Then a buffet table set with brown and yellow pottery dishes, braided corn husk mats, a low cream and brown wooden bowl filled with oat, barley and wheat heads and some cleverly contrived daisy-like flowers made from yellow and red ear corn, three tinted glass birds approaching the feast over scattered yellow and brown leaves, added to the charm. Nearly every visitor carried away notes on this table.



Window Exhibit

Another attractive exhibit consisted of two rather large windows, arranged to shut off a not too pleasant view. Could be used in either living or dining room. No curtains are needed. Five glass shelves were used for each window, fastened to plain neat brackets. The top shelf, which was several inches wider than the rest, gave the effect of a valance with its small pots of ivy in creamy white bowls set rather closely together, while at each end were bowls of the very unusual Rosary vine, their long trails thickly set with the white tubers which look like the beads of a Rosary, whence its name. The three center shelves held small colored glass bowls filled with various foliage plants, unusual cactus, small ferns, etc. One of the windows held bowls filled with bittersweet, barberries, Cotoneaster, and snowberries with a few evergreens. The lower shelves held narrow loaf tin cake pans which were enameled to match the bowls. These were filled with Chinese Narcissus in white and yellow. A window decoration easily cared for and which can be changed to suit the owner's taste.

There were admiring groups constantly before each of these windows.

Something New

A very clever variation of the hooked rug made of flowers was shown. This one was made of various shades of moss, from green to a reddish brown. The corners were of grey lichens, edgings of the black Cotoneaster berries. The design, a spray of Poinsetta bloom made of Barberry and Winter Holly berries. This rug was made on a wooden frame with a tightly stretched burlap covering closely tacked. Moss and berries were fastened with library paste. A very little moisture was needed to keep the moss in good condition and the maker received many compliments on her clever ideas.

Interesting collections of gourds from seeds brought from everywhere helped to make this a really different Garden Show.

Gardening Notes

Are you remembering that most house plants respond to the use of some kind of fertilizer used regularly during the winter months?

Does your view of the garden satisfy you? It should have features that are attractive in winter as well as summer. Color in branches, evergreens, especially if you have rock walls. Make your plans now, if you are not satisfied, so you may do the work this coming spring. Begin to plan for next year's garden by sending for those catalogs advertised in your garden magazines.

You can scatter some of the

commercial fertilizers among the shrubs and over the bulb beds this winter. The shrubs will surprise you in growth and bloom.

HANGING BASKETS IN CITY STREETS

HANGING baskets add greatly to the charm of any city. During recent visits to Europe I have been greatly charmed with them in a number of towns and cities in Great Britain. The plants mainly used are geraniums, trailing lobelia, white marguerites, fuchsias, ageratums, and *Tagetes signata pumila*. A great many ivy-leaved geraniums are used, too, and the effect is beautiful. Petunias are used rather sparingly as they do not grow and flower so well as here because of climatic differences. The use of window boxes in great numbers in London and other cities are also striking features. Many of these are kept filled through the entire year, evergreens and berried shrubs being used in winter, followed by bulbous plants, tender bedding plants, hydrangeas and chrysanthemums in their season. On some of the hotels and department stores several changes a year are made, while here we see very few of them in our cities and then usually a mixture of red geraniums and variegated vincas, although in some summer resorts like Bar Harbor, Me., we see a better variety.

Ivy-leaved geraniums are used in immense numbers in huge iron vases in the great London parks. These vases stand high and are often as much as seven to nine feet in diameter. The plants are tied to light stakes except near the edges, where they are allowed to trail naturally and present a beautiful appearance, being smothered with bloom in white, salmon, pink, rose and pure white colors.

By William N. Craig, Weymouth, Mass., in *Horticulture*.

ACCREDITED JUDGES

MR. E. L. WHITE, Fort Atkinson, has been awarded a certificate as a Master Judge. Mr. White has qualified in all the requirements.

Mrs. J. Martin Johnson, 529 Woodside Avenue, Ripon, has been appointed as chairman of the committee on selection of Master Judges. All applications should be sent to her.

The following are the requirements for Master and Accredited Judges:

Requirements for Master Accredited Judges

1. Five years or more of exhibiting experience at flower shows with winning exhibits in at least five shows.
2. Three years or more experience judging flower shows. Judging at least five shows.
3. Attendance at not less than three flower arrangement and judging schools or lectures.
4. Knowledge of judging in Perfection of Bloom classes for at least two of the following classes: a. Perennials; b. Annuals; c. Iris; d. Tulips; e. Peonies; f. Gladiolus; g. Dahlias; h. Roses.

Assistant Accredited Judges

1. Three years or more of exhibiting experience at flower shows with winning exhibits in at least three shows.
2. Two years or more experience judging flower shows. Judging at least three shows.
3. Attendance at not less than three flower arrangement and judging schools or lectures.
4. Knowledge of judging in Perfection of Bloom classes for at least two of the following classes: a. Perennials; b. Annuals; c. Iris; d. Tulips; e. Peonies; f. Gladiolus; g. Dahlias; h. Roses.

Seaman Sam says: "A fool and his money are some party."

DAHLIAS SELF-SEEDED

BECAUSE of an unavoidable delay in cleaning up the garden in Fall, the seed-pods left on some dahlias matured. The following Spring many plants came up by themselves, where the old stalks had been left on the ground.

They were from the common ball-type dahlias. One seedling, however, turned out to be an improved type. It was yellow, with flat, pointed petals, while the variety the seed was from had round, curled petals.

—Rena Bauer, Colby.

Sure Thing—The man who says there is no such thing as silence has never asked a bank manager for a loan.

ROOT TONIC and GROWTH STIMULANT

For Plants

Vitamin B₁

Bigger flowers . . . better house plants . . . new growing energy . . . invaluable in transplanting . . . pep-up tonic—users say. Now in new, handy tablet form.

Plant Magic Tablets of Vitamin B₁—SO EASY to use . . . no muss, no fuss . . . no eyedroppers necessary . . . no bothersome stock solutions. Drop a tablet in water and your watering solution is ready!

Bottle of 100 tables, only \$1.00.

FREE instructions

PLANT MAGIC TABLETS

900 18th Street,
DES MOINES, IOWA

When You Are Elected President

By Margaret Harlan Hilton

AFTER the nominating committee has caught you in a moment of weakness and you have consented to let them put your name up for president, which amounts to the same thing as being elected, you are sure to have a few bad moments wherein you realize that you know nothing about being president. But if you are one of those whose heart is in several places, and who had hoped that being president might be made somewhat incidental to living, you will want to make the best of your time.

First Step. The first thing, quite obviously, is to find out what the organization expects of its president. Get the whole year's program in your mind, or better in a notebook, right away: the number of meetings, the plan of committees, special programs and the financial plan. Read the secretary's record and the treasurer's book. They will tell the story. Taking off a few days at the beginning to map out your program for the year will save you a lot of worry later and help you to avoid the feeling that there must be things you should be doing and aren't.

Next Move. Having made an outline of work for yourself, your next move is to put others to work. If you end up by doing everything yourself, the chances are that your membership won't point with pride to your term of office in later years. Women's organizations are pretty democratic. If you find yourself inclined to be a dictator, watch out; they'll balk on you. After all, they elected you and it's their club and you'd better do what they want you to do.

There are a few rare souls who work faithfully for a principle, but most of us do it a lot more easily when we feel properly thanked. And be wary of the member who claims to work for the cause alone; you'll need to see that she has her picture on the woman's page ever so often.

Then. Next parcel out the year's jobs. Get as many people working as possible. However, this does not mean large committees or several people on one job. The rule that works best is: One man—one job. Multiply the jobs and allocate responsibility. Eight women on an arrangements committee may all pass the buck to the chairman who will fall down on you from sheer overwork, but eight women, each in charge (one of tickets, one of decorations, one of tables, one of chairs, one of dishes,

one of menu and one of speakers) will leave you with little to do except to see that things dovetail at the last minute.

Divide Labor. Dividing the labor is one good idea and making the job explicit is another. Few people object to doing their bit now and then if they know exactly what is expected of them. There are those creative souls who, given wide scope and a big job, can go about their work and figure it out for themselves. If you are lucky enough to have one of these don't waste her on routine. Give her one of the jobs that you can't figure out yourself. But it is possible that if there were anyone that good in your organization who was willing to work, the nominating committee would have gotten her instead of you for president. For the most part, you will do well to define the work pretty exactly when you ask someone to serve in this or that capacity.

Getting Workers. Having mapped out the work of the various committees and sub-committees, chairmen and members, in your notebook, your next big job is to ask your people. This is the hard part. It is really the biggest part of being president. When it is over you can begin to relax and enjoy the fruits of office. You may find that most of this can be carried out by telephone if you are good at telephoning. Some people aren't. In that case you'd better visit. In any event, don't be casual about it. Be impressive.

Besides the big jobs there will be many little ones that no one wants. They range from chairmanship of the legislative committee to making candy for the annual play. Remember to put all these in one big pile and have them ready to distribute at the psychological moment. A bit of candor helps in the distribution.

After you have parcelled out the work leave it up to them. Don't hover over your committees. Let them feel that the success of the annual luncheon is in their hands. Make them feel sure that you won't take the credit if it's a success nor the blame if it's a failure. This means that you will need to keep up with what's going on and be ready to help without giving the impression that you are ready to step in and take things over the minute something goes wrong. If you want to play the overworked president you will get most of the credit. But your club life won't be especially happy. Martyred presi-

dents may make a noble impression but they're no fun to work with.

Speech-making. A note about making speeches. If you are one of those who begins to lose weight ten days before you have to make a ten-minute talk on flowering shrubs, don't make them. You can still be president. There are plenty of people in any community who enjoy making speeches. You can get one of them to make yours. All you need to do is preside with dignity and introduce correctly. Write down half a dozen announcements on a piece of paper along with a brief introduction. It is the president's privilege to read from notes, but don't abuse your privilege. Make it as short as possible and let's get on to the program.

If you must rise to the occasion with a brief talk, remember this: speech-making is an insidious poison. After one or two you'll begin to enjoy it. Only the first one or two are really difficult unless you simply refuse to prepare them well in advance. A brief talk written down, word for word, and lived with for ten days has less power to make you apprehensive than a few vague ideas on the subject. If you can, be clever, if you can't, come to the point. In this, as in other affairs of office, the best thing you will learn as president is to take the buck firmly by the horns, look it analytically in the eye, and pass it, with a persuasive smile, into the hands of the proper chairman.

—From the Garden Club Exchange.

A wise man reflects before he speaks. A fool speaks, and then reflects on what he has uttered.
—French Proverb.

A farmer received a crate containing some fowls. He wrote to the sender, informing him that the crate was so badly made that it had come to pieces when he was taking the hens home with him and they had all escaped, and, after much searching, he had only succeeded in finding eleven of them. In due course he received the following reply:

"You were lucky to find eleven hens, because I only sent you six!"

A Call To Garden Clubs

Mrs. Francis King, New York

FOR many months past I have had what the Quakers call a "concern." Below is what I would say to all garden clubs.

From now on, I think all garden clubs should allow a mere fringe of flowers in their gardens. Most of their energies should be devoted to the study, planting, care and preservation of vegetables and fruits. Here is a vast field in which to work, one which can be very beautiful as well as provident and one also full of interest in matters of horticultural study. Who except those who have tried them and not found them wanting is familiar with the new fruits of the New York fruit testing station at Geneva? Who has ever before tasted grapes as good as the Sheridan, Portland, or Buffalo? Who has seen such a picture of rich beauty in fruits as the crab-apple Dolgo in full bearing? Does the average gardener grow the King horticultural pole bean with its wonderful texture and delicious flavor? Or that rewarding corn, Whipple's Early?

Just now one who works here said to me, "Mrs. King, are you expecting a hard winter?" "No," I said; "Why?" "Because the cellar shelves are so loaded with filled cans," was the reply. There is no more warming sight than shelves with rows of saved vegetables. The idea of waste is not there, but rather a prophecy of plenty.

Keep your perennials. Increase them by division. Raise annuals from seed; raise perennials, too, with seed sown a year ahead. Grow fruit, flowers and vegetables together in the French manner if the garden is small. If the garden is large, have flower borders around your vegetable garden in the Scottish and English way and in the way of almost every farm garden in this

land. Grow dwarf fruit trees in the little garden, to satisfy the eye as to scale; festoon your grapes from tree to tree, for beauty and space-saving, as in Italy where grapes hang from olive to olive in garlands.

Grow tiny vegetables and herbs as edgings. There are endless suggestions for the enchanting use of all these things together; and such pictures are already being made here.

Start fruit and vegetable committees in every club. Set to work now to replan your garden with the idea of thrift and more food raised at home. Then, with the experience of beauty in flower gardening, beauty which admits of a large use of fruits and vegetables, you will give your garden a new atmosphere, a new loveliness in spring, summer, autumn, with a sound basic idea beneath all.

In *Horticulture*.

LILIES FOR OUR GARDENS

I WONDER if you have had the same experience I had in attempting to grow lilies? After purchasing the best bulbs from reliable sources, I planted them under apparently good conditions, well drained, good soil, only to find that some of them never came up and others, after they came up, had sickly looking foliage or, if the foliage was pretty good, had poor blooms; or possibly they came up all right but after a year or two disappeared.

According to a recent book, "Lilies for American Gardens" by George L. Slate, much of the difficulty we have been having with lilies has been due to bulbs having mosaic disease. This disease, which is internal, may not show in the bulb itself when you purchase it; in fact, usually it

does not show at all. It is indicated after planting by the weak growth, and the foliage being mottled light and dark green.

What can we do about this? Plant healthy bulbs! But how are we to get them? One way to get healthy bulbs is to grow them from seed. This takes time and patience. Some, like *Lilium tenuifolium*, *formosanum*, and *concolor*, will bloom when they are a year old. One difficulty, however, is that some lily seeds, such as *Lilium superbum*, if sown in the spring will not develop leaves until the following spring. Others of this same type are *L. auratum*, *canadense*, *japonicum*, *rubellum*.

Experimentation at the Boyce Thompson Institute, Yonkers, N. Y., has shown that the above lily seeds and probably others have to have three to six months of at least 68 degrees to develop roots, and then a low temperature (below 40 degrees) for six weeks to twelve weeks before the leaves will develop. Lily seed of this type then should be sown not later than July to secure leaf development the following spring.

The seed of the easily germinated lilies can be sown in the spring as early as desired—or in August. In either case they should be well mulched over winter. Lilies included in this group are *Regal*, *tenuifolium*, *formosanum*, *concolor*, *umbellatum*, *candidum*, *henryi*, and *willmottiae*.

The other method of obtaining healthy bulbs is to avoid Japanese grown bulbs (which are not available until late November) and to demand that the nurseryman guarantee all lily bulbs to be free from mosaic. Also insist that lily bulbs have roots on the bulbs. All of this is the advice of Mr. Slate in his book "Lilies for American Gardens."

By Victor Ries, Ohio.

Let no man presume to give advice to others that has not first given good control to himself.—Seneca.

Wisconsin Garden Club Federation News

Mrs. Charles H. Schuele, President
247 Woodland Lane, Oconomowoc
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H. J. Rahmlow, Cor. Secretary,
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Mrs. E. L. White, Rec. Secretary,
Route 2, Jefferson
Mrs. C. H. Braman, 1st V-President,
Waupaca
Mrs. Frank Quimby, 2nd V-President,
1422 Blaine Blvd., Racine

PRESIDENT'S MESSAGE

"FOR the earth which drinketh in the rain that cometh oft upon it and bringeth forth herbs meet for them by whom it is dressed, receiveth blessing from God." (Heb. 6:7)

January thought: SIMPLIFY ORGANIZED EFFORT WITH FEWER AND BETTER PROJECTS.

All clubs are planning activities for the coming year. Last year was one of which we are justly proud. The inspiration coming from a National convention will carry us far on our course in 1940. Also the unselfish contribution made by your past president, Mrs. E. A. St. Clair will be felt by the Garden Club Federation for many years to come. It is indeed a standard set high for her successors and follows Isaiah's admonition, (62:10) "Lift up a standard for the people."

As good garden club members these achievements should spur us on to renewed service as we weigh the past and plan the future. The strength of the Federation lies in its roots, not its top. It is the grand total of the local clubs efforts which will make Wisconsin "glad for them and rejoice and blossom as the rose."

Our clubs are looking forward to the coordinated program extending over a period of years, on native plant material to be used in the home garden, on the highways, in the parks and for the preservation of scenic beauty in each section of the state.



We are indebted to Mrs. W. D. Cammack, Little Rock, Arkansas, for the idea and information about the program. Under her leadership, first as state Educational chairman for two years, then as state president for two years, and now as state program chairman, the Arkansas Federation is on its fifth year of study in learning how to work,—what to work for and where to work in its unified state-wide program. Their gardeners are "no longer content with the mere routine of gardening but are enriching their lives with the joy a knowledge of plant life brings."

Mrs. Cammack believes in "better bread for programs" and says "Florida (whose Mrs. Robert Morris Seymour originated the program) and Arkansas are working toward a new kind of 'States Rights'—the right to be beautiful." We are happy to register Wisconsin as a state also working toward this goal.

Plants have natural homes and cannot live without the light, soil, temperature and moisture existing in their zones. If it be true

that those who know how to explore their district know how to explore the world, then UP and FORWARD, Wisconsin's 82 garden clubs, and in January trek with Mr. Kenneth L. Schellie of the State Planning Board, through Wisconsin's natural areas or homes of plant life. As we go, observe the highways whose Landscape Design Mr. R. L. Williams of the State Highway Department will discuss in February.

—Mrs. Chas. Schuele.

GARDEN CLUB PROGRAMS

**Over WTMJ, Milwaukee Station
On Saturdays at 4:15 p.m.**

MRS. R. H. MALISCH of Hales Corners, chairman of the Radio Committee of the Wisconsin Garden Club Federation, announces the following radio programs have been arranged over the Milwaukee Station WTMJ, on Saturdays at 4:15 p.m. as listed below.

- January 13. Junior Garden Clubs. Miss Mary Lowerre, Delafield. The Children's Forest. Mrs. Frank Quimby, Racine.
- January 27. Whitnall Park Arboretum. Mrs. Clifford Mathes.
- February 10. New Things for our Gardens. Mrs. Chester Thomas, Milwaukee.
Iris. Mrs. W. F. Roecker, Milwaukee.
- February 24. Planning and Planting the Back Yard. Mrs. Ralph R. Hibbard, Wauwatosa.

The "Blue Star" Record Books

JANUARY is the beginning of a new year, the time to start new things. Record books are the latest thing for 1940.

In the November issue of Horticulture, Mrs. Schuele outlined the aims of the Record Book. I wonder how many persons have that outline pasted on the inside of their record book, as is required in the contest?

An idea has been given me and I think it worthwhile passing on to you. A member is filing all the garden club news under the tab-name BULLETIN. She is not cutting up the sheets at all, but follows this procedure: Filed under tab-name STATE she has a page with this notation; "President's Message, p. 72, November Horticulture," and this; "Annual Convention Business Meeting, p. 76, November Horticulture." Under the tab-name PROGRAM, she has, "Garden Club Program, p. 74, November Horticulture," etc.

Each month she will go through each Horticulture and under the tab-names file the page number and the month of the articles of interest to her record book. At the end of the year she will have a complete index of the year's articles in Horticulture at the tip of her fingers.

However, it is the books themselves, not the contents we would like to have standardized. The price of the **three-ring black** notebooks vary from 25c for the limp leaf covers, to 85c for the heavy board. And tabs run from 10 to 25 cents a box. The Arco Grip Insertable Tabs are transparent and are 35c a box. This same company has ring books with the indexed sheets with tabs on them and come in assorted colors and can be used again and again.

These are only suggestions. Although the covers are the same,

what is put inside them is up to the clubs and the members themselves.

I would like to know how many clubs are going to enter this contest and whether they are furnishing the books as property of the club, to the officers and committee chairmen.

Miss Mary Martin, Martin Road, Fond du Lac, Record Book Chairman.

SLIDES AND FILMS FOR YOUR GARDEN CLUB PROGRAM

THE Wisconsin Conservation Department, State Capitol, Madison, has some excellent slides and motion pictures which garden clubs will find helpful for their program. A postcard will bring you their bulletin entitled "Visual Aid Material." The films and slides are sent free of charge. We list here a few that are available. The following are 16 mm. films. There are 6 on wild animals including bear, coons, beaver and fur animals, 3 reels; also deer. There are 4 on wild birds such as geese, game birds of many nations, and Wisconsin game birds.

There are 6 on fish including Bass Waters, Detrimental Fish, etc.

Three films are available on Forestry.

The films on plants would be of special interest to garden clubs. They are Mushrooms of Wisconsin, Fall Wild Flowers of Wisconsin, Spring Wild Flowers of Wisconsin, and Summer Wild Flowers of Wisconsin. All are in full color.

Then there are four films on recreation and scenery. Three Rivers of Wisconsin, a canoe trip

on the Flambeau, Brule and Wolf Rivers is very good.

A number of 16 mm. sound films are also available.

Three sets of 2x2 inch Kodachrome slides have been made this past year as follows: Game Birds, Waterfowl, and State Fur Farm.

Then there is a long list of 3¼x4 inch hand colored slides, including wild flowers, Future Forests, State Parks, etc.

First Stranger (at the party): "Very dull, isn't it?"

Second: "Yes, very."

First: "Let's go home."

Second: "I can't. I'm the host."

If you would have friends, be one.

AMAZING!

MIRACLE-WORKING!

... are the words used in *Better Homes & Gardens* magazine in describing this ROOT TONIC and GROWTH STIMULANT

Vitamin B₁

—For Plants and Flowers

Users report bigger flowers; stronger, healthier plants. Invaluable for transplanting. Everyone interested in gardening should have a supply. . . **Special Offer:**

50 MILLIGRAMS of B₁ crystals—enough for 1300 gallons of watering solution—and complete Home Gardener's Kit, all for only **\$1.00**. Make splendid Christmas gifts.

Send dollar for your supply TODAY.

JEAN MACLEAN

519 Paramount Bldg. DES MOINES, IA.

SAVE YOUR TREES

Pruning—Fertilizing—Spraying
Cabling—Cavity Treatment
Removals—Large Tree Moving
Complete Insurance Coverage

Lakeside 2907

Wisconsin Tree Service
2335 N. Murray Ave. Milwaukee

WISCONSIN GARDEN CLUB FEDERATION

Report of the Treasurer for 1939

PERMANENT FUND

Permanent balance of ----- \$250.00

SPEAKERS FUND

Balance on hand Dec. 1st, 1938 ----- 104.63

Receipts:

Contributions from 23 clubs ----- \$ 37.00

Balance from 3 Dorothy Biddle Clinics ----- 158.19

Total ----- 195.19

Total Receipts ----- 299.82

Disbursements:

Animated Cartoon ----- 15.00

Balance on hand Nov. 27, 1939 ----- 284.82

GENERAL FUND

Balance on hand Dec. 1st, 1938 ----- 73.33

Receipts:

Dues from 2,388 members in 81 clubs ----- 1,257.90

Convention Fund balance ----- 85.00

Total ----- 1,342.90

Total Receipts ----- 1,416.23

Disbursements:

Dues to Horticultural Society ----- 780.60

Dues to National Council ----- 90.25

Garden Club of Illinois for Lincoln Memorial ----- 25.00

Expenses:

5 Board Meetings ----- 64.48

3 Regional Meetings (mileage) ----- 10.24

Summer meeting expenses ----- 14.00

Allowance for delegates to Denver Meeting ----- 35.00

Conservation Chairman Allowance ----- 15.00

Nominating Committee Expenses ----- 3.21

Sample Placard ----- 2.00

Flower Show Premiums ----- 1.50

Expenses of Secy.-Treas.:

Allowance ----- 15.00

Bond ----- 5.00

Stationery and office supplies ----- 25.05

Postage ----- 7.64

Total ----- 1,093.97

Balance on hand Nov. 27, 1939 ----- 322.26

Victoria Gordon Kartack.

GARDEN CLUB PROGRAM

THE program of the garden club is the backbone of the club. So says Mrs. Randall D. Warren, Chairman of the Program and Lecture Bureau of the National Council. Speaking of programs which will keep up the interest of the members, she writes in the December Bulletin:

"Two striking contrasts presented themselves very recently. A president of a club of over a hundred members wrote in to ask for suggestions. She rather querulouly asked for something brand new so that her members would be interested. It developed that this club had for some time had programs that consisted of a talk by a speaker from outside; the members sat and listened. When a bulletin on Conservation or Roadside Development or Horticulture happened to come to the chairmen of committees, they were read at the next meeting, if the chairman thought of it. The attendance was dwindling, and no wonder. The club was dying of anemia, and the Program and Lecture Bureau was expected to give a blood transfusion. The other instance was a club of thirty-eight members. This club has a horticultural study group, a flower arrangement study group, regular exhibits of especially fine and unusual specimens from members' gardens, lectures, three flower shows a year, and a competition for the best note books kept by members on their garden work and on the programs presented through the year. Not every member takes part in every activity, except, perhaps the flower shows, but every member has a chance to follow the line she prefers, because of the well-thought-out program of a good leader.

"Have a plan for your year's work that means something in relation to the needs and interests of your members. Don't be like the president who wrote, 'Our first meeting of the season is next Tuesday. I have been too busy to arrange for it, so should like you to send me something at once. Anything will do.'"

1940 CONVENTION TO BE HELD IN MADISON

THE annual convention of the Wisconsin Garden Club Federation for 1940 will be held in the city of Madison next October. This was voted by the Board of Directors of the Federation at their meeting in Milwaukee on December 1.

ASHLAND CLUB ORGANIZED. JOINS FEDERATION

THE Chequamegon Garden Club of Ashland has been reorganized and has voted to affiliate with the Wisconsin Garden Club Federation and Horticultural Society.

We are especially pleased to find that more clubs are being organized in the northern part of the state.

Officers of the Chequamegon Club are as follows: President, Mrs. Walter J. Hodgkins, 722 Ninth Ave., W.; Secretary, Geo. A. Bassford, 1118-7th Ave., W.

Native Plant Materials

Major Native Plant Associations of Wisconsin Represented by
Natural Areas of Special Interest

K. L. Schellie

FOR at least 20,000 years in the northern United States, and for a much longer time in the southern part, the species comprising the flora of the country have been competing for position, settling themselves little by little into their respective ecological niches and associations. On any given area of ground there has grown a succession of associations of plants which, as they have contributed to the gradual modification of the soil (or rock), on which they grew, have eventually been replaced by plants of a different association. After sufficient time, an association of plants has appeared which, under the existing environmental conditions appears to be the best adapted to the area. This group is often known as a climax, and although it is recognized that a completely stabilized environment never exists, the climax regions for the country have been more or less accurately established.

Associations of grasses are considered to be the climax for the Plains region; certain climax associations of deciduous trees appear in the eastern part of the country; evergreen trees constitute a climax for the western coastal region; and there is an association of succulents and leathery species that forms the climax in the deserts of the Southwest. **It should be kept clearly in mind that every plant association, whether climax or preclimax, is the outcome of long ages of natural selection.**

Geographically, Wisconsin is situated on the boundary between the forest and prairie regions of North America and consequently many kinds of plants representa-

The suggestion has been made that Wisconsin garden clubs make a special study of native plant material during 1940. We here present an article by Mr. K. L. Schellie of the State Planning Board, on the native plant materials in the various districts of the state. We suggest that garden clubs make a special study of this material.

tive of both regions are to be found in the state. A wide variety of land forms, both in physical qualities and topography, causes many variations in the types of plants to be found in those regions. For example, both the white pine, a truly northern plant and the cacti, a type usually associated with the southwestern part of the country, occur naturally in the south central portion of the state, as products of their environment.

Wisconsin Trees

The tree growth of Wisconsin may be divided into two major types, that in the southern section being composed largely of hardwoods, and the northern section being made up of mixed hardwood and coniferous trees with some isolated pure stands of white and red pine.

Since geography and topography play such important roles in the distribution of plant life, it is only natural that the typical plant associations within a region where environmental conditions are similar should be similar. For that reason the geographical provinces of the state may well be made the basis of selection for grouping certain

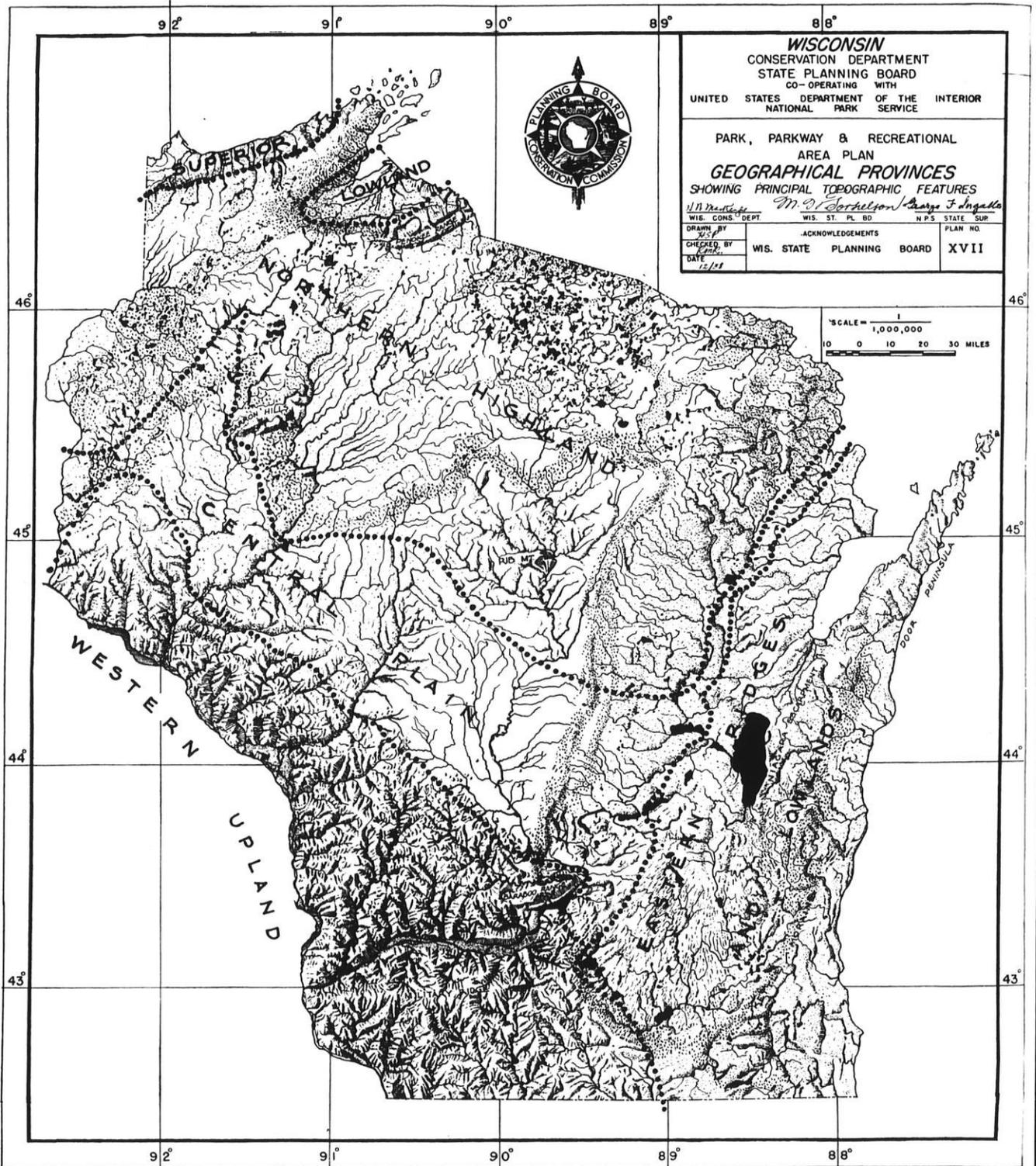
typical native plant associations throughout the state. (See map on facing page) These associations with a short description of the physical characteristics of the provinces and a natural area of special interest representative of each of the provinces follow:

Eastern Ridges and Lowlands

1. Eastern Ridges and Lowlands make up the eastern part of the state and include the belted lowlands and cuetas formed by the action of erosion on the inclined strata of alternate weak and resistant character.

The lower part of this province is known as the Southern and Southeastern Prairie Area, and the principal trees and shrubs of this section are hard maple, white oak, American linden, hawthorn, crab apple, gray dogwood and prairie rose. The white ash, burr oak and American elm also occur rather frequently. A natural area of special interest in this section is the Kettle Moraine Area in the vicinity of Eagle, Waukesha County.

The upper or north part of this province, the Lake Michigan-Green Bay Area, is best typified by the paper birch, American arbor vitae, American elm, hawthorns, serviceberry, leatherwood and the high bush cranberry. Some white pine and hemlock are also to be found in this section. Natural areas of special interest illustrating these native plants are the Peninsula State Park, Door County, and the Terry Andrae State Park,



—Cut Courtesy State Planning Board and State Conservation Commission.

THE GEOGRAPHICAL PROVINCES OF WISCONSIN

This map, reproduced from A Park, Parkway and Recreational Area Plan published by the Wisconsin State Planning Board, shows the principal topographic features of the State and its geographical provinces. The determination of the provinces is based on a study of bed rock geology, glacial geology and soils which, in general, are similar within the established boundaries of each province.

Sheboygan County, together with its contiguous area.

Western Upland

2. The Western Upland is a limestone capped plateau, which in most places has been thoroughly dissected or cut into valleys by streams, thus causing a very rough topography.

In the southern portion of this region (below LaCrosse County), the Southern Mississippi and Southwestern Prairie Area, the typical trees and shrubs are the hard maple, burr oak, white oak, black walnut, river birch, hawthorn, American hazel, chokecherry and the gray dogwood. A natural area of special interest possessing most of these native plants is the Wyalusing State Park, Grant County.

The north part of this province, the Northern Mississippi Area, is best represented by the paper birch, burr oak, American elm, serviceberry, staghorn sumac, nannyberry and the downy viburnum. These typical native plants are to be found in Perrot State Park, Trempealeau County, a natural area of special interest.

The Central Plain

3. The Central Plain is a lowland floored in the weak Cambrian sandstones. In some places it is flat and level; in others it is covered by gently rolling sandy glacial drift. Near Camp Douglas the Plain is interrupted by mesas and buttes of sandstone which give the area a type of scenery similar to that found in the semi-arid western United States.

The lower and middle portion of this province, the Southern Sand Area, is typified by white pine, red oak, paper birch, crab apple, pin and sand cherries and the

meadow rose. Several spectacular areas of natural interest in this area represent its character and plant life—Rocky Arbor State Roadside Park in Sauk and Juneau Counties, and the Camp Douglas area in Juneau County.

The Northern Sand Area is also partly contained within this province and is best represented by the red pine, red oak, paper birch, ironwood, jack pine, pin cherry, downy viburnum and sweet gale. Natural areas of special interest illustrating native plant life in this region are the Menomonic Indian Reservations in Shawano and Oconto Counties and county forests in Oconto and Marinette Counties.

The Northern Highland

4. The Northern Highland, by far the most extensive of any of the provinces, is an area whose general elevation is higher than that of the rest of the state. It is underlain by crystalline rock of the old penneplained mountain range, and is for the most part covered by glacial drift.

Two portions of this province, one in the lakes region in Vilas, Oneida and Price Counties, and the other a comparatively narrow strip extending from southwestern Burnett County nearly to the Bayfield peninsula, are similar to the Northern Sand area described under "3. The Central Plain." Natural areas of special interest in these regions are the Northern State Forest in Vilas County and the Chequamegon National Forest in Bayfield County.

The remainder of this province, the Northern Loam Area, is dominated by the following native plants: hard maple, red maple, red oak, white pine, red pine, jack pine, paper birch, aspen, American

mountain ash, American viburnum and the common hazel. In this extensive region several natural areas of special interest should be cited: the Chequamegon National Forest in Taylor County; the Nicolet National Forest in Forest County; the Pattison State Park at the northern rim of this province in Douglas County.

Lake Superior Lowland

5. The Lake Superior Lowland comprising the basin of Lake Superior, was once a part of the Northern Highland. However, a great block of the earth's crust was down faulted, that is, dropped below the elevation of the highland, thus forming the valley in which Lake Superior now lies.

This province, making up the Lake Superior Clay Area, contains the paper birch, white spruce, white pine, mountain maple, serviceberry, ironwood, honeysuckle and raspberries in dominant form. The Copper Falls State Park in Ashland County lies on its southern rim and is a natural area of special interest. The La Pointe Indian Reservation in Ashland County also contains much of interest illustrative of this province.

No description of the dominant native plants of the state would be complete without mentioning those plants which are found in the special areas throughout the state. Extensive bogs and swamplands are probably the most important of these and are typified in the southeastern part of the State by tamarack, in the central Lake Michigan region by white cedar, and in the north by tamarack and the black or swamp spruce. In each of these swamp areas exist shrubs, herbs, reeds, rushes, grasses, and other plants in association with the dominant types.



Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Walter Diehnelt, Menomonee Falls,
President
S. P. Elliott, Menomonee,
Vice-president

OFFICERS

H. J. Rahmlow, Madison, Cor. Secy.
Louise Diehnelt, Box 60, Menomonee Falls,
Recording Secretary-Treasurer

DISTRICT CHAIRMEN

S. P. Elliott, Menomonee
N. E. France, Platteville
Geo. Jacobson, Kaukauna
Ivan Whiting, Rockford

Report of 1939 Apiary Inspection Work

C. D. Adams, Chief Apiary Inspector

THE apiary inspection work during the summer of 1939 was quite satisfactory in spite of the lack of funds. All of the veteran inspectors were employed and a few of the newer ones were employed in special cases. The question of picking out the counties in which to carry on work was decided by taking the ones that had appropriated money for inspection work in years previous to 1937. Money was allotted to the other counties in proportion to their respective needs so far as the funds were available.

No Disease in Two Counties

For several years Pepin was the only county having a fair bee population in proportion to its size with no disease. In 1938 it was dropped back when one diseased yard was discovered, but it came back this year when the inspector failed to find a single case of American foul brood. This year for the first time, Wood county was found apparently free from bee disease and immovable frame hives. Next in interest probably is the number of counties with five or less diseased apiaries, and these are: Buffalo, Marathon, Ozaukee, Sheboygan and Trempealeau with five AFB yards each. Clark county had three diseased yards and two were found in Lafayette and two

in Rusk counties. We did not count the counties that had comparatively few inspections.

The five counties in which the largest number of inspections were made are Waukesha, in which 442 apiaries were inspected, 17 of which were infected with American foul brood; the Dane county inspectors inspected 394 apiaries, 20 of which were diseased; in Jefferson county 391 apiaries were inspected, 15 of which were diseased; 262 apiaries were inspected in Milwaukee county, 19 of which were diseased; and in Buffalo county 249 apiaries were inspected, out of which 5 apiaries were diseased.

Many Beeless Apiaries

A total of 5,842 apiaries with 42,981 colonies were inspected during the 1939 inspection season. The immovable frame hives continue to be a problem and were found in 406 yards. It was surprising to note the number of apiaries with equipment only. There were 2,111 of them. While Webster's dictionary defines an apiary as a place where bees are kept, we define an apiary as a place where bees or used bee equipment is kept. Our records show that a bunch of used bee hives often develop into a bee yard even after several years of idleness. Several hundred of these

previously beeless apiaries had bees in them in 1939.

The Future

The prospects for next year are not very encouraging so far as funds are concerned. The Legislature cut our annual appropriation from \$31,000 to \$19,000. Considerably more than half of this amount has been spent during the first six months of the fiscal year, starting July 1. From the remainder the Emergency Board has found it necessary to cut \$900 with the possibility of more cuts in the future. Apparently we will have some occupational tax money to help out.

Up to the present time we have reports of nine counties that have appropriated a sum of \$1,300 for bee inspection work. We would like to hear from several more.

HEATING HONEY IN TANKS

I RECENTLY ran across a simple and inexpensive way of heating honey in a tank in the honey house. This beekeeper used an ordinary rubber garden hose. He coiled it in the honey tank, attached the hose to a kettle spout and ran steam through it until the honey was heated. Hot water should be run through the hose first in order to remove all traces of talcum which is usually coated over the rubber when the hose is made. The coiled hose did the work of heating this tank of honey.

J. H. Sturdevant, in *The Beekeepers Item*.

SUCCESS WITH PACKAGE BEES

MR. ROBERT KNUTSON, Ladysmith, President of the Rusk County Beekeepers Association, reported at their meeting in November, that he had excellent results with package bees this past season, and is in favor of the plan of killing all the old bees in the fall, and buying packages in the spring to replace them. He buys over 200 packages each year.

Mr. Knutson reports his crop is just as good as from bees wintered in his section. Most beekeepers who buy packages for increase in the spring, report that the over-wintered colonies do the best. One wonders at the reason for this.

The difference in results is no doubt entirely a matter of availability of pollen in the spring. When Mr. Knutson gages his bees in the early fall, his hives are full of pollen. These hives are kept over winter, and in the spring packages are established in them. Having pollen present, the packages may be purchased earlier than if he had to wait for pollen from the field. Broodrearing starts at once and the colony builds up fast.

On the other hand, beekeepers who buy extra packages in the spring usually establish them on empty combs and feed sugar syrup. If they get them a little too early before pollen is available from the field, broodrearing will stop.

Those who kill their bees in the fall usually cage the queens three weeks before that time in order that the brood will all be hatched out before the bees are killed. Consequently, considerable pollen is brought in which is not used. If we could all supply our packages with such broodnests, we could then get the packages earlier, and would have much stronger colonies.

BUSINESS TRANSACTED AT THE ANNUAL CONVENTION

THE following items of business were transacted at the annual convention of the Wisconsin Beekeepers Association held in Ripon.

The following motions were made, seconded and carried:

1. To discontinue the use of the 10 lb. size label for 10 lb. pails, using instead the 5 lb. size for both 5 lb. and 10 lb. pails. Sufficient 5 lb. labels were ordered printed to carry the Association through the year.

2. It was decided to continue the present set-up of having Mr. Walter Diehnelt, Honey Acres, handle the pails, glass, and labels for the Association.

3. A committee consisting of Mr. A. E. Wolkow, Hartford, Mr. A. H. Seefeldt, Kewaskum, and Mr. C. D. Adams, Madison, was appointed to investigate means of securing a new state label.

4. It was voted to contribute \$25.00 to the American Honey Institute.

5. It was voted not to try to change the present bee tax, but to allow it to remain as it is now.

6. It was voted to request that the State Inspection Department have a hearing on the burning of A.F.B. infected honey. On a secret ballot taken among those present as to their preference of enforcement or modification of the present law, 22 favored enforcement, and 18 favored modification of the law.

7. It was voted to have an annual summer meeting for Western Wisconsin Beekeepers at Menomonie, in the S. P. Elliott Apiary, and a meeting for the Eastern half of the state at Menomonee Falls at Honey Acres.

Appreciation and thanks for their valuable services in making the convention a success were given to Mr. Arthur Schultz, and Mr. Fred Schmitz, Ripon; the Fond du Lac County Beekeepers Association for arrangements; to the officials of the city of Ripon; the Ripon Advancement Club; the I.O.O.F. for the use of their hall; the First National Bank for the use of its hall for the ladies; Ripon Foods, Inc., for giving space for the honey exhibit; the Barlow Seelig Manufacturing Company for the ladies tour; and to all the speakers who contributed to making the convention a success.

The heartfelt sympathy of the Association was extended to the Diehnelt Family and Mr. Voigt on the death of Mrs. Ernestine Voigt, former secretary-treasurer.

Folks who never do any more than they get paid for, never get paid for any more than they do.—Elbert Hubbard.

HONEY WANTED

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

We help others when we go ahead, and we are helped when others go ahead; that's why we should always take a constructive view of things.

NEW DRIPLESS SERVER

Retails at 50c

Just the thing to increase honey sales.

We allow 40% discount to beekeepers in lots of 1 dozen.

We have \$1.00 Dripcuts, and \$1.00 Fiesta Dripcuts at 40% discount in lots of 1 dozen.

Prices F.O.B. Menomonee Falls

HONEY ACRES

Menomonee Falls, Wisconsin

1940! A PROSPEROUS NEW YEAR

More profits for you if you buy the best Beekeeping Supplies. Remember! All beekeepers need good supplies. Good Supplies can be obtained from us with no advance in prices.

Our section sales of the past few years have shown an ever increasing demand for comb honey. To supply this demand you need the best Sections. The best Sections are LOTZ SECTIONS!

Let us supply you now. A complete line of Bee Supplies will be found in our new 1940 Catalog. If you are not on our Mailing List, write for your free copy.

AUGUST LOTZ COMPANY
Boyd, Wisconsin

FINANCIAL REPORT FOR 1939
Wisconsin State Beekeepers Association

General Fund

Balance in General Fund December 15, 1938.....\$ 44.32

RECEIPTS SINCE DEC. 15, 1938

100 Individual Memberships at \$1.00.....	\$100.00
250 County and District Memberships at 75c.....	187.50
1 Membership at 40c40
3 Memberships at 35c.....	1.05
Total.....	\$288.95
Paid Horticultural Society 350 Memberships at 40c.....	140.00
Balance of Dues in General Fund.....	148.95
7% Commission Paid to Ass'n for Glass and Pails sold.....	59.49
Profit on Stationery	7.75
Banquet Tickets Sold.....	85.45
Total Net Receipts	301.64
Amount in General Fund.....	\$345.96

EXPENDITURES

Office Supplies:

1,000 Membership Cards.....	\$ 3.00
Stamps	15.00
Filing Cards and Box Files.....	1.34
2,000 Large Envelopes at \$5.05.....	10.10
1,000 Small Envelopes	3.84
Bond for Secretary-Treasurer.....	5.00
Refreshments at Jackson District Meeting.....	1.18
Prof. V. G. Milum—Speaker summer meeting.....	5.00
College of Agriculture, refreshments for meeting.....	7.02
Flowers for Mr. Sass.....	3.00
Flowers for Mrs. Voigt.....	3.00
Salary for year—Mrs. Voigt.....	25.00
Convention Tags and Tickets.....	2.00
Grand View Hotel—Meals.....	15.95
S. P. Elliott—Convention Expenses.....	8.45
Walter Diehnelt—Convention Expenses	4.63
American Honey Institute	25.00
1st Ev. Lutheran Church—Banquet.....	81.75
C. L. Farrar—Convention Expenses	8.62
Mrs. H. Grace—Convention Expenses.....	2.90
Total Expenditures	\$231.78
Balance in General Fund.....	114.18
Balance in Label Fund.....	250.63

LABEL ACCOUNT

Amount in Label Fund 1938.....	\$204.62
Received for Labels Sold 1939.....	95.51
Total.....	300.13
New Label Stock Printed 1939.....	49.50
Amount in Label Fund 1939.....	\$250.63
Received for Labels sold.....	95.51
Value of Labels sold.....	62.95
Profit on Labels.....	32.56

AMERICAN HONEY PRODUCERS LEAGUE ELECTS OFFICERS

OFFICERS for the American Honey Producers League were elected at the National meeting in Sacramento, California, early in November. The officers for the coming year are as follows:

President: T. C. Burlison, California

Vice-president: John Holzberlin, Colorado

Secretary: Louis Hines, Omaha.

NATIONAL LADIES AUXILIARY ELECTS OFFICERS

MRS. T. W. BURLESON, Waxahachie, Texas, was elected president of the National Ladies Auxiliary, at the Sacramento, California, meeting.

THE HONEY MARKET

U. S. Dept. of Agriculture Report for November 15

HONEY is still selling rather slowly, though inquiries appear to have been heavier during this period in a number of important areas. Local sales have been less brisk than normal. Prices show little change, though as a rule there appears to be an undercurrent of slightly increased strength. Often beekeepers are holding their honey in the hope that market prices may strengthen as the season advances. If this strengthening occurs it will be primarily because of improved business conditions generally rather than to export demand because honey is still one of the food products that is considered by European countries as either a contraband of war or one which requires a separate license for each import transaction.

Practically no import licenses have so far been granted, and American beekeepers will, it seems, have to depend upon American markets for the disposition of the present crop.

BEES IN JANUARY

UP until the Christmas holidays, Wisconsin enjoyed unusually warm weather. Bees wintered outdoors could fly on a number of days, which should greatly reduce the danger of dysentery.

Dysentery, however, seems to be a minor problem in southern Wisconsin. If we have strong colonies so that proper conditions can be maintained inside of the hive, it is very rarely found. In fact, with the present price of honey as compared with the price of sugar, it will be far less work and cheaper to give each colony two hive bodies as a brood chamber, and so manage the colony that the fall honey will be stored in the brood nest for winter stores.

The editor has had bees for twelve years near Madison and so far has not seen a single case of dysentery. Now and then however, a case is reported but before we can explain just why, more must be known about such cases to determine their cause. Dysentery is caused by too much moisture in the honey, granulated honey with thin liquid in between the crystals on which the bees feed, or probably by sour honey. In weak colonies the amount of food eaten per bee will also be larger than in strong colonies. Dr. Farrar reports feeding colonies with honey dew experimentally without any dysentery resulting.

We would like to hear from beekeepers in southern Wisconsin who have had experience with their bees having dysentery.

od of boring an auger hole just under the hand hole in the front of the top hive body in which the bees are wintering. This top entrance seems to be valuable in case the lower entrance becomes clogged or blocked up with dead bees. It also provides additional ventilation during heavy snowfall. During the summer these holes may be closed with a cork or plug of wood.

Dr. C. L. Farrar of the Central States Bee Laboratory, Madison, has been using this idea for a number of years and likes it.

COUNTY BEEKEEPERS MEETINGS WELL ATTENDED

EXCELLENT attendance marked County Beekeepers Association meetings in December. The best attended meeting was that of the Sheboygan Association at Plymouth on the evening of December 6th, when 70 beekeepers, their wives and friends attended.

The meetings held were as follows: Waushara County, Poy Sippi, December 4; Sheboygan County, December 6; Racine-Kenosha Counties, December 12; Washington County, December 13; Milwaukee County, December 14.

Beekeepers were greatly interested in the discussion of the value of pollen for winter brood-rearing and its effect upon a colony in the spring, and in the motion picture on how beekeepers pack their bees for winter as presented by H. J. Rahmlow of the State Horticultural Society. Discussions of bee population and its

effect on the production of honey, introduction of package bees, and swarm control, brought out many questions. At the Washington County meeting, beekeepers were still asking questions at 10:45 p.m., when the president announced it was time for everyone to go home.

At the Sheboygan County meeting, Mr. L. L. Pierron, President of the Association outlined the value of bees to Sheboygan County farmers. The Washington County Association held its annual meeting at this time, re-electing their officers which are: President, A. H. Seefeldt, Kewaskum; Vice-pres., Frank Wilkens, West Bend; Secy.-treas., Miss Clara Jones, West Bend.

At the Milwaukee County meeting, labor saving devices in extracting for small apiaries were discussed, which created considerable interest. With relatively inexpensive equipment, lifting of tons of honey can be eliminated.

All Associations excepting Racine County reported success in obtaining an appropriation for A.F.B. control from their County Boards.

AMERICAN HONEY INSTITUTE ELECTS OFFICERS

THE following officers of the American Honey Institute were elected at the meeting in Sacramento, California, early in November.

Chairman: L. W. Parks, Watertown, Wisconsin.

Vice-Chairman: A. G. Woodman, Grand Rapids, Michigan.

Secretary - Treasurer: M. J. Deyell, Medina, Ohio.

VENTILATION FOR BEES IN WINTER

THE idea of top entrances for bees wintering outdoors came as the result of a desire to have better ventilation and to keep the bees dry during cold weather.

Now we find a number of beekeepers who are using the meth-

ASSETS AND LIABILITIES

Assets:	
Label Stock	\$144.59
Office Equipment	27.15
Cash on hand.....	16.94
Cash in bank.....	347.87
<hr/>	
Total Assets and Net Worth.....	\$536.55
Liabilities: None	

Sisson's Peonies

PEONIES—

International reputation. If it's a peony wanted we have it.

TYPEWRITERS—

All makes including portables rented \$1 month. Largest rental service in the state. We teach "Touch Typewriting" through booklet in your home.

Write—

SISSON'S
ROSENDALE, WISCONSIN
Hi-ways 23-26 Intersection

HONEY PAILS GLASSWARE LABELS

Prompt Service and Lowest Prices

* * *

By buying your supplies from the Wisconsin Beekeepers Association, you are helping the Association carry on its program of work.

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Wisconsin *L* Horticulture



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Wisconsin Horticulture

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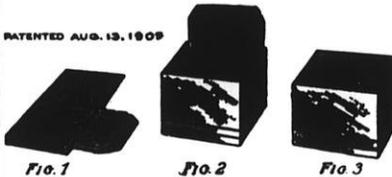
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PLEASE DO NOT SEND STAMPS

Wisconsin Horticulture

Cover Crops In Bearing Orchards

By Clarence E. Baker, Purdue Experiment Station

WHAT about cover crops in the bearing orchard? Can ordinary cover crop growth be counted upon to maintain the organic matter destroyed by cultivation over a long period of years? An experiment at Purdue University, now in its twenty-fifth year, gives us a partial answer to this question. The crops used included the winterkilling non-legumes, millet and buckwheat; the winterkilling legume, soybeans; a hardy non-legume, rye; the hardy legumes, crimson clover and winter vetch, and a weed plot on which any weeds that volunteered were permitted to grow. These crops were sown in late July or early August each year following clean cultivation from early spring. One plot was seeded to rye in October after apple harvest.

Nitrogen Lost

Soil analysis for total nitrogen on these various plots at the beginning of the experiment and at the end of 23 years indicate that none of these cover crops has maintained the amount of nitrogen present in the soil at the beginning of the 23-year period. Some crops have permitted the loss of greater amounts of nitrogen than was lost from clean cul-



tivated check plots on which no cover crop was grown. Millet, early seeded rye and vetch have been most effective in maintaining the organic matter, but even these have permitted the loss of approximately 20 per cent of the original nitrogen during the 23-year period. Soybeans and crimson clover were especially poor crops in the mature orchard because of the difficulty of securing a good stand or good growth under shady orchard conditions.

These figures are recorded not as applying to all orchards on all types of soils but as an example of what frequently happens over a long period. Too much faith undoubtedly has been placed in the ability of cover crops to main-

tain the organic matter under orchard conditions.

Cultivation Depleted Soil

In another Purdue experimental orchard, planted on a rather poor soil, one plot grown continuously under cultivation with a fall-sown rye or wheat cover crop became so unproductive after 12 years that the fruit produced had insufficient commercial value to justify harvesting it. Where nitrogen was added, more fruit was produced, but it was equally small and of even lower quality. It was impossible to grow a good cover crop after the orchard was about eight years old either with or without nitrogen. A plot of similar trees located immediately adjacent to the cultivated ones and grown from the third season after planting in blue grass sod to which nitrogen was applied, is producing abundant crops of large, high-quality fruit and the trees are much more vigorous and healthy than the cultivated ones.

Many cultivated orchards are falling off in growth and production more rapidly than is being realized. If the soil is of a high state of fertility when the orchard is set, its productive life, of

course, will be longer than if the soil is less fertile. Any signs of declining growth and production should be taken as a warning that a change in soil management may soon be necessary.

Condensed from the American Fruit Grower.

GRASS MULCH VALUABLE IN THE ORCHARD

"A NATURAL grass mulch stimulated by heavy nitrogenous fertilizer has proven as good as more expensive mulch material hauled into the orchard. Very heavy applications of apple pomace have been definitely harmful."

This statement appeared in the New York State Fruit News and is the conclusion of work done at the New York Experiment Station at Ithaca.

Apple growers all over the country are becoming more and more interested in the value of mulching material in the orchard. If we can produce our grass mulch in the orchard with the use of fertilizer, it will be the least expensive and the least amount of work. To do this then we should study our soil and our trees. The nitrogen fertilizer should be spread uniformly throughout the orchard so that a good cover crop or grass mulch would grow. This grass mulch should not be removed from the orchard or even pastured. It should either be cut, rolled or forced down with heavy iron drags. A. K. Bassett of Baraboo uses heavy iron beams drawn by a tractor to lay down the grass and weeds in the orchard.

"Rastus," said the judge, "your wife complains that you never work. How about it?"

"Dat woman's crazy, judge," replied Rastus. "Ask her what Ah was doing de second Toosday in July last yeah."

Wettable Sulfur Sprays For Scab Control

By D. H. Palmiter and J. M. Hamilton,
New York Experiment Station

S CAB is our most common and destructive disease of apples. The disease can be controlled by spraying with lime-sulfur which both prevents and eradicates infection, but the spray may be very injurious to both foliage and fruit.

The wettable sulfurs, which are strictly preventive in nature, are preferred because they cause **no injury except** during periods of high temperatures. These wettable sulfurs have been successfully used in this State in recent years by **growers who understand the principles behind scab spraying.** They may be ineffective in controlling scab, however, where there is abundant carry-over of infection on the old leaves from the previous year or where the sprays are not properly applied.

Results in Severely Infested Orchards

Careless growers with severely infested orchards have been observed to fail in controlling the disease with wettable sulfurs thru lack of thoroughness or insufficient applications, and all growers in similar circumstances can jeopardize their crop by poor timing. Data are available comparing orchards that are heavily infested with scab with those that are relatively clean under comparable conditions. In 1937 unsprayed trees in two such McIntosh orchards had 100 per cent and 88 per cent scabby fruit, respectively. Trees in these two orchards sprayed with Magnetic-Spray 3-100, a wettable sulfur used at the rate of 3 pounds to 100 gallons, had 55 and 5 per cent scabby fruits, respectively, while others sprayed with the same ma-

terial 6-100 had 16 and 1 per cent, respectively.

Similar experiences were encountered in McIntosh orchards during 1938. An orchard with 1 per cent of the old leaves supporting fruiting bodies of the scab fungus (perithecia) had only 1 per cent of scabby fruit on trees sprayed five times with flotation paste 4-100, while trees in an orchard with 38 per cent infected old leaves had 8 per cent scab after seven applications of the same material used at the rate of 6-100.

The obvious answer is that wettable sulfur cannot be used nonchalantly to control scab if there is too much primary inoculum under the trees. Even the more intensive spray program in the heavily infested orchard did not reduce infection to the level of the lightly infested one. It is evident that lower concentrations and fewer sprays may be used if the carry-over of scab can be reduced to a minimum.

From Farm Research, New York Exp. Station.

SPUR BLIGHT OF RASPBERRIES

S PUR blight (purple spots on the canes around the buds, particularly on red raspberries) is on the increase in New York. This disease will be noticed more often in plantings which are over four years old. While a severe spur blight attack will kill the canes, a small amount of the disease will make the canes more susceptible to winter injury. In some plantings, 100 per cent of the canes have been infected with spur blight.

From Farm Research, New York Exp. Sta.

Crate-Packing vs. Ring-Packing

By Arthur J. Tuttle

I HAVE ring-packed apples for so many years that it is an old story to me. I think the ring-pack is outmoded and should be allowed to die a natural death.

Unfortunately, the ring-pack is being boosted back into prominence by specifications of the government on the welfare orders. Ring-pack does not improve the quality of the fruit, but only the appearance of the basket. In fact, I claim that in packing it this way the fruit is bruised and injured. The welfare specifications are written with the idea of "educating the producers to pack higher quality," so they tell me. By so doing, they are putting producers to an extra expense.

While ring-pack on the day it is done is the best looking package the farmer can prepare, yet I am not in favor of it.

My notion is that the ring-pack bruises the apples; the round basket is not economical of space in storage, it is not convenient for stacking one on top of another, and that adds to bruising too, and the very fact that it does cause bruising makes the package unattractive when it reaches the consumer. If it is necessary to re-sort late in the year because some of the apples decay, then there is the necessity for ring-packing all over again with additional bruising.

I doubt if in ten years from now there will be as many ring-packed apples on the market as there are today.

The Coming Package

I believe that the coming package for the practical producer and consumer is the crate of good

appearance, lined with colored paper which will protect the apples, and large enough so that it will contain a full bushel and still permit another crate to rest on top of it without bruising. This makes a beautiful package, it makes a practical container,

and it can be re-sorted if necessary with the minimum of time and bruising.

Condensed from Ilgenfritz Orchardist, Michigan.

Editor's Note: Are any Wisconsin producers in favor of the ring-pack? Let us hear from you.

**Fruit Growers
GET
THIS - FREE
Magazine**



FRUIT growers—are you receiving "Ilgenfritz Orchardist?" If not, we want you to have it, with our compliments. This publication is receiving much favorable comment from fruit growers all over the country.

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Important articles on up-to-the-minute developments in fruit culture, varieties, and merchandising, make the "Orchardist" of special value to every one in this business. Readers say they would not be without it. Write today!

We are also glad to have your comments on the contents of the publication, and requests for covering of any special subject in which you are interested.

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In the Orchard

APPLE TREES ON MANCHURIAN ROOTSTOCK AVAILABLE

IN the October issue we reported on the trip of the Fruit Testing Committee of the Wisconsin Horticultural Society to the Andrews Nursery of Minnesota. The committee saw one-year old apple trees which had been topworked on Manchurian crab rootstocks. These trees were more uniform in size and larger than similar varieties on common rootstocks.

The Society has reserved a few of these trees, topworked on Manchurian stock in the following varieties: **Cortland** and **Hibernal**.

The Society will pay a large portion of the cost of from one to four trees to a member of each variety, plus the postage. The cost to our members will be as follows:

1 tree 25c; 4 trees 90c.

Send orders direct to the Society. Remember—1 year old trees are whips and not large.

The Hibernal trees may be allowed to grow for one or two years and can then be topworked to such varieties as Red Delicious, Yellow Delicious and others.

The object of this test is to determine whether these trees, topworked on Manchurian rootstocks, will do better in Wisconsin than trees commonly grown here. A test in different parts of the state should be valuable.

Orders should be sent during February and as soon as possible as the supply of these trees is limited.

EXPERIENCE WITH CORTLAND

THE Cortland apple is appearing in the local stores now for the first time this season. A customer who had greatly enjoyed

a bushel of our growing, tried those in the store and said they lacked both color and flavor. We noted the same thing a year or so ago. We have a cold cellar for apple storage. The Cortland are sound inside to the core but skin is shriveling. We like them best before December 15th.

Our Delicious are very sound and firm except that the riper ones are getting mealy at the core. I was greatly surprised to find that the late picked ones without much color were preferred at our house over the red ones. They kept more crisp.

The Haralson are fairly sound yet. About 1/8 of them developed black spots in and under the skin.

Virgil Fieldhouse, Dodgeville, Wis.

The prices of wheat and corn go up and down, but the price of wild oats will always remain the same.

MILWAUKEE COUNTY FRUIT GROWERS MEET

COLD weather hampered the attendance of the annual meeting of the Milwaukee County Fruit Growers Association. The meeting was held in the Farm Extension Building in Wauwatosa. A number of ladies attended the meeting and served an excellent luncheon during the noon hour.

Speakers were Conrad Kuehner, and H. J. Rahmlow, Madison.

Considerable business was transacted by the organization. Plans were made for an orchard contest for 1940.

Officers elected were as follows: President, Albert Schreiber, Milwaukee; Vice-pres., Allen Guenther, So. Milwaukee; Secretary-Treasurer, Alfred Meyer, Hales Corners.

ORCHARD FOR SALE

FOR SALE—The A. W. Lawrence Orchard at Sturgeon Bay.

One of the finest in Door County; desirable location, best of soil, in excellent state of cultivation and fertility. 1,700 apple trees, 2,200 cherry trees; more land ready for planting. Good water system. Packing house adequate for storing fruit and housing pickers. Underground storage of 3,000 bushel capacity; keeps fruit in good condition until spring.

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Growers Need New Models

By H. B. Tukey

THE other day it was my privilege to be seated next to a manufacturer of a nationally advertised product. I asked him what he would do if someone introduced a better and a lower priced article than he was producing. Would he under sell him? Would he put on an advertising campaign? Just what would he do? He replied, "I'd work first to produce something better than he was producing!"

The comparison may not be good, because surely the manufacturer is frequently dealing with a monopoly, whereas the grower of apples is dealing with what looks to many people like more apples than the consuming public cares about. Still there is just enough truth in the comparison to merit a little sober thought.

Consumers Discriminating

In the first place, as one reviews horticultural development in America over a period of 150 years he cannot help but be impressed by the fact that the consuming public is in the long run sharply discriminating. It **may use Ben Davis for a while, but not when it can get something better.** It wants an even better product, and it wants it at a lower price if it can get it—"a better article at a lower price."

New Models

And that is where half the trouble starts, because the fruit industry does not find it so easy to shift overnight to meet the new competition. An automobile manufacturer can put out a new model in a short while, but a fruit tree takes years to come into bearing, to say nothing of the countless other long-time factors involved in production. Accordingly, an old fruit section

or an established line of industry goes "out of production" for a while when a better section, a better variety, or a better product comes into the market. The old section may come back again with young trees, with a new variety, or with an improved pack—a new model, if you please, to suit the new demand. Or, the

old section may find new markets for its old product which have been lost to the new competition. We have all seen it. It is happening today just as it has been happening in the past.

Henry Ford might have been satisfied with the old Model T

(Continued on page 153)



Half-Starved Trees Cannot Produce Good Fruit

YOU may be short on cash — but you can't let your trees be short on Nitrogen — if you want good fruit.

Money shortage has caused neglect in many orchards. Already the fruit is poor in quality. Further neglect will injure the trees.

GRANULAR 'AERO' CYANAMID feeds Nitrogen (21%) to the trees and cover crop, and its Lime (70%) sweetens the soil.

If You Want a Quality Crop Next Fall, Order Granular 'Aero' Cyanamid Today.



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Can Apple Dropping Be Controlled By New Spray?

AN article in a recent issue of this magazine on results of experiments using one of the new "Growth substances" to stop the dropping of apples just before harvesting created considerable interest.

At the meeting of the American Association for the Advancement of Science, held at Columbus, Ohio, Dr. F. E. Gardner, Paul C. Marth, and L. P. Batjer of the U. S. Horticulture Experiment Station described the new method as follows:

Growth substances, such as naphthaleneacetic acid and naphthaleneacetimide, when applied in the form of a spray **promise to prevent to a large degree the dropping of apples immediately before harvesting.**

Growth substances came into practical use a little more than three years ago when it was discovered that root cuttings which were difficult to root could be induced to produce growing shoots when soaked in a solution containing the substance. Two years ago the same substances were used in sprays to produce parthenocarpic fruit.

In carrying out the experiments for the first two uses, the Bureau scientists report, they observed that petiole stubs remained attached to the cuttings abnormally long. In a similar manner, the parthenocarpic fruit showed a persistence in staying on the plant. These and other experiments, served as a background for starting experiments to prevent dropping of apples.

The tendency for apples to drop is, in general, a characteristic of early varieties. It is also a frequent occurrence with midseason and late varieties. As the fruit approaches the proper maturity and color for harvesting, the

danger of loss from dropping increases. Each day that the apples remain on the tree to attain these desirable market qualities becomes more of a gamble. With some varieties, such as Stayman Winesap, a disastrous drop may occur overnight. On the other hand, McIntosh, a notorious dropper in many fruit sections, may fall steadily for several weeks prior to harvest time or in some cases drop very suddenly.

How Spray Was Applied

The experiments were conducted on an orchard scale during the past summer and fall. Power equipment was used and the trees were sprayed thoroughly, using from 7 to 8 gallons of spray for small trees and as much as 25 gallons for large trees carrying 20 or more bushels of fruit. Some individual fruits also were sprayed with hand atomizers. Some 21 different varieties were included in the study.

Using various strength sprays, it was found that .0005 per cent of the growth substance was sufficient. This amounts to one part of the substance to 200,000 parts of water, or about one-half teaspoonful to 100 gallons of water. Some better results were noted when $\frac{1}{8}$ of 1 per cent of oil was added to the spray. No ill effects were noted when the spray was applied with the codling moth spray of lead arsenate and lime, which suggests the possibility of combining the anti-drop treatment with the regular spray program in the case of early varieties.

Results

As examples of effectiveness of the sprays, when 8 Stayman Winesap trees were sprayed with a .0005 solution the average drop

18 days after the spray was applied amounted to 23.4 per cent. On unsprayed trees the drop came to 61.4 per cent. With York Imperial under the same conditions, the sprayed trees dropped only 14.1 per cent compared to 40.7 per cent for the unsprayed trees.

On most varieties effect of sprays persist for two or three weeks. With the McIntosh variety, however, the effect diminishes after 8 or 9 days. Best results were obtained with this variety when the spray was delayed until drop started. Then, a second spray can be applied when the first runs out.

Timing Spray

With most varieties, the best results were obtained when the spray was applied just as the drop begins. This utilizes the greatest period of effectiveness. The effectiveness also is influenced by the thoroughness of the spray, and to some degree, by the temperature immediately following the spray. The spray takes effect more readily under warm temperatures.

There is no visible residue left on the fruit, and tests with laboratory animals prove that the spray material is not toxic even in large amounts.

"The only observable effect on the fruit," said the scientists, "is the excellent color developed which is so notable that it leads one to wonder if there may be some more direct color effect than can be explained by the fact that the fruit hangs longer on the tree."

Editor's Note: This article is published for the information of our members only. No recommendations are implied.

THE FRUIT SITUATION

By the U. S. Department of Agriculture

ALTHOUGH January 1 total stocks of apples are indicated to be slightly smaller than a year earlier, exports of apples in the first half of 1940 are expected to be reduced materially, and the quantity of apples made available for the domestic market in the first half of 1940 probably will be at least one-fifth larger than that made available in the first half of 1939. Because of this situation the Federal Surplus Commodities Corporation is continuing to purchase apples for relief distribution.

Apples

Cold storage holdings of apples on January 1 totaled 26.2 million bushels as compared with 31.0 million bushels on December 1 and 26.6 million on January 1, 1939. The out-of-storage movement during December totaled

about 4.8 million bushels, or somewhat more than the 4.3 million bushels moved out in December 1938 and also more than the recent 5-year average for December of 4.2 million bushels.

GROWERS NEED NEW MODELS

(Continued from page 151)

and might have spent his time trying to sell the model of 1914 or insisting that the public was all wrong in not appreciating what he was giving them and in not giving him "cost of production." But if he had, other manufacturers would have had the field to themselves. Likewise with the fruit industry, it is well and good to say we are entitled to a fair price and all that, but if we face the facts and are honest with ourselves we will have to admit that the world in general does not care a Continental about the grower and his problems. We must do it ourselves. If we mere-

ly sit and grumble, some other variety will step in and take the market from us.

From New York State Fruit News.

When God created man, He gave him two ends—one to sit on and one to think with. Ever since then, man's success or failure has been dependent on the one he used most.

FRUIT GROWERS

Startling New Information

Comparative trials reveal great difference in trees grown on different root stocks—shows why some orchards are successful—others are failures.

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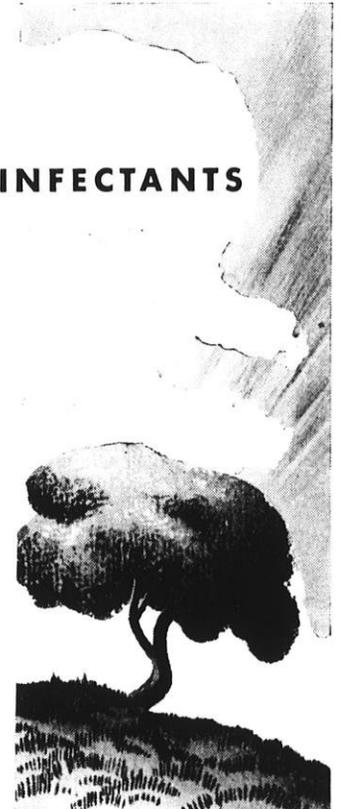
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- Corona Merko . . . For Corn Seed
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CORONA CHEMICAL DIVISION
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In The Berry Patch

IRRIGATION FOR STRAWBERRIES

OUR overhead irrigation was very useful in November for wetting down the straw mulch so it would not blow off the strawberry rows. After we received the copy of Wisconsin Horticulture for December, we were careful not to **soak the top soil** where strawberries, perennials or other shallow rooted plants were growing.

We hauled water to a young orchard planted a year ago, made circular depressions around the trees and filled these a few times. They had been planted late in the fall with peat moss in the holes. Out of forty trees we had not lost one. We thought it would be advisable to soak up the moss again this fall.

Virgil Fieldhouse, Dodgeville.

STRAWBERRY CROP REPORT

By U. S. Department of Agriculture

THE production of strawberries in Florida, the earliest shipping State, is indicated to total 540,000 crates this season compared with 765,000 crates produced in this area last season and with 589,000 crates the recent 10-year average production. Although yields are indicated to be slightly below those of last season, most of the reduction in production this season is due to a 20-per cent decrease in acreage available for harvest. Only a few shipments have been made to date from the 1940 crop, and market prices in mid-January averaged about one-third higher than a year earlier.

The acreage intended for harvest in 1940 in the other early States (Alabama, Louisiana, Mississippi, and Texas) is indicated to total 25,850 acres, or the same as that of a year earlier.

TEST THE DRESDEN STRAWBERRY

Plants Available to Members of the Society

LAST spring several thousand strawberry plants were brought to Wisconsin from the New York Fruit Testing Association. These plants however, were shipped during a period of very hot weather, and many of them died.

This year more plants are available at a lower price. We therefore propose that a wider test be given to this very promising variety.

The Prices:

- 25 Dresden plants-----30c
- 50 Dresden plants-----50c

These are the prices of the plants to members of the Wisconsin Horticultural Society. The Society will pay the balance of the cost and the postage. Prices are by parcel post prepaid. Send the money to the Society as soon as possible to reserve your order. Only a limited number have been reserved from the growers.

The Dresden made an excellent growth last year. The plants looked very vigorous and a large number of runners formed on the plants which survived. At the New York Experiment Station at Geneva, Dresden is said to produce even heavier than Catskill, which is showing up very well in Wisconsin.

The Society recommends that this variety be tested in various parts of the state on a small scale in order to determine what it will do under different soil and climatic conditions.

If you think politics easy try standing on a fence while keeping one ear to the ground.

STRAWBERRY GROWING EXPERIENCES

THE extremely rank green crop of soy beans that we **plowed under** in October 1938, was still green this spring. The strawberry rows planted there last spring only have half as many runners as those where gladiolus had been grown and then a good coat of rotted manure had been applied. We used some nitrate fertilizer in July and watered moderately, but realized about August 1st that we had not done enough along either line where the soy beans had been, to rot the green crop and get plenty of nitrogen to the growing plants. After this we shall try to grow one cultivated crop preceding strawberries.

A state nursery inspector told us that we had the best stand that he had inspected this year, so there must be a light stand, in the southwestern part of the state at least.

The **North Star** plants were set out first and on the ground having rotted manure, but there are very few runners. We will fruit them here for a few years; but if it does not make runners enough with the care it gets here, it surely cannot be recommended for commercial planting.

The **Dresden** plants were put in last and on the land where the green crop has been plowed under, and the growth was as good as **Catskill** or **Premier**. When we use our own plants next year, there should be more runners on the Dresden.

Virgil Fieldhouse, Dodgeville, Wis.

Wife to husband inquiring why they never have any money. "It's the neighbors, dear. They're always doing something we can't afford."

THREE GOOD GRAPES

Opinion about Portland, Ontario, and Fredonia
Expressed by New York Horticulturist

RECENTLY we asked Prof. Richard Wellington, Chief in Research, New York Agricultural Experiment Station, Geneva, New York, his opinion on the relative merits and value of three of the New York Station grapes which are becoming quite popular in Wisconsin. These varieties are **Portland, Ontario, and Fredonia**. The first two are white grapes which are sweet, excellent for table use. More of these grapes will be grown in this state in the future because there is a demand for a table grape which is not met by such low quality varieties as Concord.

Fredonia is a blue grape with a much higher sugar content than most of the blue grapes we have been growing. It is also earlier than Concord and will develop to full maturity here.

The following is the letter received from Prof. Wellington:

"The Portland grape is very sweet and has a distinct foxy flavor. People who like this flavor probably would prefer the Portland to the Ontario. We who like a grape that lacks the distinctive foxy aroma prefer the Ontario. Both are good grapes and it is difficult to say which is the better, for much depends on personal preference.

The Fredonia, along Lake Erie, has not been bothered with mildew, but at Geneva and in some other localities where air drainage is not good, or the humidity is higher, it has mildewed. In fact, in my own yard at Geneva I have had some difficulty, but an early spray just before the blossoms open has checked this trouble. One year I sprayed with Bordeaux **when the green berries were the size of BB shot, but it was too late**. One spray was all that I needed last year, but possibly it would be **safer to spray**

before bloom and again when the grapes are the size of BB shot, that is if mildew has been serious."

TRY NEW GRAPES

Three New High Quality Early Grapes Available

THE three early new black grapes introduced last year by the New York Experiment Station and recommended for trial by our Fruit Testing Committee, are available again this year. We were only able to get a few plants last season, and therefore feel that the introduction of these grapes should be continued this year.

The varieties are **Eden, Athens** and **Buffalo**. They ripen the first part of September, are considered hardy in New York, and very productive.

The **Athens** parentage is Hubbard x Portland. The flesh is sweet and good quality.

Eden is very promising because of high quality and good keeping quality. Flesh is juicy, meaty, and recommended for table and wine use.

Buffalo is early, suitable for dessert and wine. Very productive, juicy, sweet, and pleasing quality.

We recommend them for trial wherever black grapes are wanted because of their earliness and quality. They should be covered in the fall until hardiness is known.

Prices

The Society will pay half the cost plus the postage on one plant of each variety, or a total of three plants for any of our members desiring to test them.

The price will be 40c per plant, which should be sent to the Horticultural Society direct. Send orders early; the supply is limited.

STRAWBERRY PLANTS

Strawberry plants for spring delivery. Warfields, Dunlaps, Beavers, Premiers, Fairfax, Dorsett, Catskill. Priced to sell. Order early. Mrs. John Jensen, Warren, Wisconsin.

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Growers of 20 acres of strawberries. Place your order now for spring delivery of strawberry plants. Improved Beavers, Premiers, Catskill. Priced to sell. Discounts on large orders.—Reylea Dahlia Gardens, Taylor, Wisconsin.

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Growth Substance vs. Controlled Temperature For Rooting Evergreen Cuttings

By K. D. Brase, New York Experiment Station

SINCE the first appearance of synthetic growth substances, much work has been done to determine the most effective way to use them. The treatment of cuttings with such substances must be simple and economical of time, yet if solutions are used different species demand different concentrations and different length of immersion. The recent introduction of so-called "hormone powders" has been an attempt to simplify treatments, the powders being more easily applied and less likely to produce injury to the cuttings.

Now the question arises as to how effective the powders are. To help answer the question, cuttings from a number of **Taxus cuspidata** seedlings, outstanding for their distinctive foliage and growth characters, were used. Plants of this type would be of real value to the trade as new horticultural forms provided they could be propagated readily by such means. Cuttings

ed. The two remaining lots were kept as checks against the powder—one being planted in the heated bench and the other in the bench without bottom heat. The rooting medium in every case was a mixture of two parts of washed sand and one part of granulated peat, and the cuttings were taken on the 15th of October.

As seen from the table any treatment employing a synthetic growth substance increased rooting only slightly, whereas a constant temperature (68 to 70° F.) in the rooting medium increased decidedly the rooting both of cuttings which had been treated with a synthetic growth substance and those which had not. It appears, therefore, that in the rooting of some plants a constant temperature (around 70° F.) may be often more important than a synthetic growth substance.

From New York Nursery Notes.

Rooting of *Taxus cuspidata* cuttings

Treatment	Per cent rooted	
	5 months	8 months
Check -----	2.73	9.0
Growth substance -----	3.0	12.36
Controlled temperature (check)---	14.64	24.68
Controlled temperature plus growth substance -----	19.92	29.46

were divided into four lots. In one lot the basal end of each cutting was dipped into a powder containing naphthalene acetic acid and then placed into a propagation bench in which the rooting medium was kept at 68 to 70° F. by means of an electric heating cable. The other lot was also treated with the powder, but no bottom heat was provid-

Diner: "I beg your pardon, but why do all these girls stare at me?"

Waitress: "I'm not supposed to tell you, sir, but we got some of our food from the school of cookery and home economics, next door, and if you get sick after that omelet you've just eaten, those girls have all failed in their examination."

WISCONSIN NURSERYMEN'S ASSOCIATION PLANS A LARGE PROGRAM FOR CONVENTION

Schroeder Hotel, Milwaukee, February 7-8

A TWO-DAY meeting is being planned for the 23rd Annual Convention of the Wisconsin Nurserymen's Association. This year it will be held in the Schroeder Hotel, Milwaukee, February 7-8. Appearing on the program will be Mr. W. G. McKay, nurseryman from Madison; N. O. Eckley, Agricultural Instructor, Fort Atkinson; E. L. Chambers, State Entomologist, Madison; H. J. Rahmlow, Secretary of the State Horticultural Society, Madison; Eugene Wendert, the Isaac Walton League; Roy Fairbrother of the State Board of Vocational and Adult Education, Madison; D. L. Wachtel, Tree Service Company, Milwaukee, and officers of the Association. A tour of the Milwaukee Public Museum is scheduled for the forenoon of February 8.

PLUMS FOUND PROFIT-ABLE

OUR plum sales from a closely planted plot of about eighty trees totaled \$95.00, besides \$10.00 worth given to a local hospital. We would have had many more choice plums, if we had not had the hard luck to spray burn the leaves of the later varieties and thinking that the injury was caused by disease.

While the sum received is not particularly impressive, the fact that 220 customers came here for plums, shows a strong demand. We grubbed out almost all of our Waneta this month, and replaced them with Ember, Superior and one Surprise tree for pollenization. We were unable to buy any Goff plum trees so highly recommended for this purpose.

Virgil Fieldhouse, Dodgeville, Wis.

The Boysenberry In Michigan;

A Preliminary Report

R. E. Loree, Michigan State College

DURING the last two years unusual interest has been manifested by gardeners and fruit growers in the new Boysenberry. This new berry was first introduced to the public by a California nurseryman in the spring of 1935, and since that time it has been well disseminated throughout the eastern United States. It was named the Boysenberry in honor of Rudolph Boysen, who is said to have developed it by crossing the loganberry, raspberry and blackberry. However, the exact origin of the variety is probably not definitely known.

In general, the growth of the Boysenberry plant is similar to that of the common dewberry. The vines are trailing in habit, and, therefore, must be trained to some form of trellis or support. They are very vigorous, the new shoots or first-year canes making a growth of 12 to 15 or 20 feet during the season. It is very productive. In winters when the vines are protected with a covering of snow they seem to be hardy, but in the colder sections of the state or in localities where the snowfall is light they should be mulched with straw or similar material or lightly covered with soil to prevent winter injury. The canes are beset with many large spines, which makes the harvesting of the fruit and the handling of the plants rather disagreeable.

The berries begin to ripen early in July and continue to ripen over a period of two or three weeks. They are very large, dark purple in color, juicy, with a rather tart, pleasing flavor. When well ripened, which is necessary to develop the best dessert quality, the fruit is rather soft and does not withstand

shipping well. They make good jellies and pies and are one of the best berries for freezing purposes.

Suggestions for Culture

The best time to set the plants is early spring. They should be set as early as the ground can be worked, and the plants grow best in fertile well-drained loam soils. In the home garden the plants may be set as closely as 6 feet apart in the row, but in the commercial plantation they should be spaced at least 8 feet apart each way. The vines should be allowed to grow on the ground the first summer and the canes tied to a two-wire trellis, 4 or 5 feet high, before the leaf buds start to open in the spring. As the new canes grow during the summer they should be pushed back in line with the row to facilitate cultivation.

In the second-year after the crop has been harvested the old canes which have borne fruit should be cut off close to the ground and burned. The new canes should be allowed to grow on the ground until the following spring and tied to the trellis as before. The vines are susceptible to anthracnose and for that reason they should be sprayed each spring after the canes have been tied to the trellis, with 1:10 lime-sulphur solution.

If the vines are growing in fertile soil, no fertilizer may be necessary. Poor soils should be well enriched with poultry or barnyard manure. If manures are not available, the application of sulphate of ammonia or a ready mixed complete garden fertilizer at the rate of one-fourth to one-half pound per vine may be beneficial. During dry weather the vines should be well irrigated, if

possible. The soil should be kept rather moist, especially during the picking season, if the best results are to be obtained.

Growing Only a Few Plants

The Boysenberry can be recommended for the gardener who desires to grow enough fruit for home use. A half-dozen plants should be sufficient to supply an ordinary family with enough berries for canning, preserving, and table use. The extensive commercial planting of the variety in Michigan is not to be recommended. The market demand for the fresh fruit has not been well established, and the well ripened fruit is too soft for distant shipping. The chief outlets for the fruit at the present time are in the form of juice, or as frozen fruit for sale to commercial pie bakers, canners and preservers. Small trial plantings should be made to determine the value and desirability of the Boysenberry in a given locality before attempting to grow it on a commercial basis for fruit production.

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Gladiolus Gleanings



By the WISCONSIN GLADIOLUS SOCIETY

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Disease Resistance Varies In Gladiolus Varieties

AT the meeting of the Michigan Gladiolus Growers' Association held at East Lansing recently Dr. Ray Nelson, of the botany department, Michigan State College, discussed gladiolus diseases and their control. He declared the fusarium yellows disease, also frequently known as core rot, is the most serious and most threatening of any of the diseases at the present time. He presented the following list of varieties, indicating their susceptibility or resistance to this disease:

Very Susceptible

Anna Eberius
Blue Admiral
Christobel
Danny Boy
Excellence
Edith Robson
Golden Chimes
Jersey Cream
Joerg's White
J. S. Bach

King George
Mammoth White
Polar Ice
Queen of Bremen
Roy Albert
Schwabens Girl
Splendorra
Star of Bethlehem
Sunrise
Yellow Emperor

Susceptible

Benedict
Bill Sowden
Betty Coed
Blue Domina
Early Peach
Gold Eagle
Joyful
King Arthur
Margaret Fulton

Marmora
Mrs. E. J. Heaton
Phyllis McQuiston
Recovery
Rosemarie Pfitzer
Shirley Temple
Streak of Butter
Van Tienhoven

Resistant

Aflame
Albatros
Bagdad
Berty Snow
Debonair
Duna

Miss Bloomington
Mother Machree
Nancy Hanks
Paradise
Picardy
Primate

Flaming Sword
Helen Wills
Janet
Lady Marie
Lotus
Maid of Orleans
Mauve Magic

Red Phipps
Rideau
Senorita
Smiling Maestro
Sunshine Girl
Tiffany
Wasaga

The following varieties showed slight susceptibility in 1939, but need further testing for final classification: Aida, Beauty Wave and Dr Moody.

Dr. Nelson pointed out that in the development of new varieties, only the resistant ones should be used for parents.

Some of the other diseases that become troublesome include blunt bud, supposedly a virus disease, which causes the buds to develop with a thick, short shoot during storage. If planted, these bulbs will never bloom. Culling out and destroying diseased bulbs was the only cure recommended for this.

Dry Rot

Dry rot, which has also been known for a long time, is perhaps more troublesome than scab. A calomel treatment, used 1 to 80, gives satisfactory results for the treatment of this disease. The bulbs need only to be submerged in it and need be left only a few minutes. This same treatment, according to Dr. Nelson, will control the basal rot which is frequently found in commercial plantings today. The speaker recommended a double

treatment of corrosive sublimate—1 to 1,000, followed by a dip in calomel, 1 to 80—to control scab, dry rot, basal rot and certain other diseases.

Condensed from The Florists' Review.

GERMINATING HIGH PRICED BULBLETS

By R. B. Gorham, Salt Lake City

THE following method of bulb-let germination is the result of a consolidation of ideas taken from different articles in the N. E. G. S. publications.

Thirty days before time to plant bulblets, I placed just enough of them in fruit jars so that there would not be more than one layer when the jar was placed on its side. I then placed the jars in a sunny south basement window for thirty days, occasionally stirring bulblets so that sunlight would be more evenly distributed over them. At the end of the thirty days I peeled all the bulblets. The shells were so dry that a slight pressure between thumb and forefinger would crack them as easily as a peanut. I then mix the peeled bulblets with moist fine sand and place them (in quart fruit jars) in a room where the temperature averages 75 to 78 degrees and as they sprout I plant them

“WHY DO WE DO IT?”

Edwin H. Ristow, Oshkosh

WHY do the originators of new varieties constantly put varieties of inferior merit on the market? Why are so few really worthwhile? One of the main reasons in my opinion is because they fail to test them out properly. They place too high a value on what the mother seedling bulb has produced, and will not acknowledge the inferiority of an introduction until it is too late. An originator who has won fame throughout the country for the quality of his origination, has adopted the policy of first testing out his origination in many sections of the country. He really gets somewhere in this way, because he is not depending on his own judgment of this seedling, but the criticism of growers throughout the country, who really want to see better varieties introduced.

Not all varieties do well in all sections of the country. Some varieties just can't stand up during the extreme heat we have in August, about the time we have our Gladiolus Show. If they were planted to bloom during the cooler weather, they may prove to have been the best new thing in your garden.

Just what do we see in our own seedlings that we select out of thousands grown? I watched one of the best growers in the state (he wins a lot of ribbons) gaze at one of his seedlings like a father looks at his son. It was just ordinary. Similar to an old timer, but there was something about the flower that attracted him. I feel kind of funny myself when some of my pets don't seem to make the grade at the show. Some that I think are just ordinary get the awards.

It is my belief that some quality in a seedling intrigues us to the extent that we lose sight of the flower as a whole. They have some qualities that can be used for future hybridizing, but are not worthy of introduction. To be worthy of introduction coming from an amateur they must be able to “knock them all cold” at the show.

As far as I am concerned I will continue to use my “pets” to develop better Glads for the future. My standard for judging the qualities of a seedling are based on their ability to equal the best in their respective color class, with the hope that time will prove that they have more all around good points than the present standards. To spend time with anything less than this is useless, except to have them for cut flower purposes.

outside same as you would onion sets.

With this method I received 100% germination from the following high priced bulblets:

- 4 Tunia's Triumph
- 7 Shirley Temple
- 6 Rewi Fallu

They were all sprouted by the 6th day except two Rewi Fallu, one of which sprouted on the 15th and the other on the 21st day. This spring I planted a total of 710 bulblets of approximately 37 varieties using the above process. 96% of the 710 had sprouted when on the 25th day I had to leave home for a number of days. I therefore discarded the balance.

Another feature of this method is the early germination, 300 or 42% were sprouted on the 3rd day, and 77% of them had sprouted before the 15th day. I realize

this method may be too complicated for any large number of bulblets. However with the higher priced bulblets this method insures nearly 100% germination.

From The Gladiolus, Published by the New England Gladiolus Society.

GLADIOLUS SOCIETY NEWS

PLANS are in progress for the annual spring meeting of the Wisconsin Gladiolus Society. Tentative date is March 17th. President Chester Harrison is anxious to have a good program and would welcome suggestions from members as to speakers and place for the meeting. Hartford has been suggested as the most central place.

An urgent invitation has been received from the Lake Geneva

Gardener's Association to hold the annual Gladiolus Show in Horticultural Hall, Lake Geneva, next August. Will this location suit our exhibitors? Write Mr. Harrison.

Motion pictures have ruined a lot more evenings than they have morals.

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Editorials

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HARDY CARPATHIAN WALNUT SEEDS NOT AVAILABLE THIS YEAR

FOR the first time in about four years the Wisconsin Horticultural Society will not have any of the hardy Carpathian English walnut seeds for sale for trial purposes.

Rev. P. C. Crath of Toronto who made the trips to the Carpathians of Ukraine, selecting the hardy trees from which these nuts were taken, was very anxious to go again last September because the winter in the Carpathians a year ago was a very severe one. Rev. Crath felt that any trees which survived this cold winter without injury must be hardy and had planned on collecting nuts from such trees. However, the war broke out and Rev. Crath was not able to go and it is now impossible to import any seed.

NEW FRUIT MAGAZINE AVAILABLE

IN this issue there will be found the ad of I. E. Ilgenfritz Sons Company, Monroe Nursery, Monroe, Michigan, offering to send Ilgenfritz Orchardist, a new fruit growers magazine, to fruit growers on request, free of charge.

Fruit growers who are interested should drop a card to the Monroe Nursery at once.



COMING EVENTS

MARCH 9 to 16. Milwaukee spring flower show, Milwaukee Auditorium, Milwaukee, Wisconsin.

March 11 to 16. International flower show. Grand Central Palace, New York.

March 23 to 31. Detroit flower show, Convention Hall, Detroit, Michigan.

March 30 to April 7. Chicago flower show, Navy Pier, Chicago.

5,000

LITTLE did we think some ten years ago that we would ever reach the 5,000 mark in any one issue of Wisconsin Horticulture. Yet that is exactly the number ordered printed for this month. Somewhat over 100 copies, of course, are used as reserve copies, which means that our membership today is very close to the 4,900 mark, and going up slowly but surely.

It is now some six or seven years ago since we adopted the principle that an organization to

be successful must work for its members, and if this is done, the membership will take care of itself. At that time we stopped entirely all efforts to obtain new members, with the conviction that if a good job is done of giving members more than their money's worth old members will continue to renew and new members will join.

A total of 105 local and state organizations are now affiliated with the Society. We appreciate the loyalty and cooperation of these organizations, and hope that the Society may continue to serve all of them satisfactorily.

NON-COMPETITIVE JUDGING SUCCEEDS IN NEW YORK

“NON-COMPETITIVE judging proves very successful,” writes Marian Thomas, editor of the Garden Club Page of “Flower Grower,” in the January issue. Reporting on a successful show held in Rome, N. Y., she states, “The staging of this show was especially happy as many arrangements were made under the class called ‘Home Arrangements.’ These were placed in locations in the rooms in which they would be appropriate; porch arrangements were on the porch, hall ones in the hall, and so on. Competitive judging would have been almost impossible in these classes because the exhibits were so scattered as to make comparison impossible.”

VITAMIN B₁ FOR NURSERYMEN

AT the Ohio Short Course held recently for nurserymen and flower growers, the question of using Vitamin B₁ was discussed. The following opinion was expressed as a result of recent experiments as condensed in the Florists' Review for January 18th:

"Much undue publicity has been given vitamin B₁. Roots will not grow unless they have vitamin B₁, which they do not make themselves. However, in most plants the supply coming from the leaves, where it is formed, is sufficient. It has been found that in acid soils the organic matter usually contains enough B₁ to promote growth, but in alkaline soils low in organic matter, stimulation of growth may result from B₁ treatment. A wide use of Vitamin B₁ for florists' crops is not recommended, because of the adequate amount of organic matter already in the soil."

From the above it can readily be seen that soils in certain sections of the country might be deficient in Vitamin B₁ and spectacular results be obtained from its application. Furthermore, certain slow growing plants, evidently slow growing because of slow root development, might be stimulated. As a rule, such plants are grown in a limited way in the middle-West, and most of our soils have humus containing vitamins.

WE THANK YOU

A LETTER from W. A. Sisson, Rosendale, in which he enclosed his check for advertising, states, "I want to tell you again that I appreciate the Society's very good magazine. It has a wonderful backing throughout the state and is pleasing most people, I feel sure. We have run our advertising in every issue of the magazine and I want to assure you that it has paid us well."

THE KOREAN CHERRY AVAILABLE

Small Fruiting Shrub May Be Desirable in Our Gardens

DURING the past two years we have mentioned several times the Korean cherry (*Prunus Japonica*), which was being tested by the Minnesota Fruit Breeding Farm. Out of several thousand seedlings, about three varieties proved to have very high quality fruit.

The Andrews Nursery Company, Faribault, Minnesota, is listing this year, two numbered varieties, No. 60 and No. 20. Prices, 18-24 inches, parcel post prepaid, 75c; 2-3 feet, 90c each.

This shrub grows about three feet tall, would make a good hedge plant wherever a dwarf hedge is desired, and the fruit would be almost as good in quality as the common cherry. The shrub is quite ornamental, although we think that it will require annual pruning to keep the wood young after it becomes established. The shrubs bear fruit quite heavily. Those who are interested should write direct to the Andrews Nursery Company, Faribault, Minnesota.

A test of a few of these shrubs in Wisconsin would be desirable.

BOOKS OF INTEREST TO TAXPAYERS AVAILABLE

THE Wisconsin Taxpayers Alliance, 908 Tenney Building, Madison, announces publication of two new books of interest to all citizens. The book "Taxes" is a brief explanation in question and answer form of all state and federal taxes levied on individuals and corporations in Wisconsin. It includes all changes in tax rates made by the last sessions of the legislature and Congress. It also includes a complete schedule of automobile fees and truck taxes, and a brief description of the federal income tax changes

which will become effective in 1941. Price, 25c per copy.

Another book, "Summary of 1939 Wisconsin Laws," is also available. It is a digest of all laws passed by the 1939 session boiled down to a concise summary and stated in plain language. It contains a complete index, making the new laws easy to find and easy to understand. Price, 50c per copy.

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Home and Garden

Mrs. C. E. Strong

A THOUGHT

Please clear away unsightly
trash
And plant some flowers or
tree
Along your drive beside the road,
Where all who pass may see.
'Twill lift the hearts of those
now sad
And weary with life's load
If you will plant Magnolia trees
Some place beside the road.



WE don't believe the nurseryman from whose catalog we took this little verse would mind in the least if you substituted Flowering Crabs, Lilacs, Hawthorns, Flowering Plums, Red Bud, Japanese Cherry—any or all of the lovely flowering trees or shrubs. He was just trying, as many of us are, to interest us in making our bit of this world more beautiful to the passerby.

We Need More Beauty

In nearly every town there are spots along the traveled road that are really eyesores. No one seems to be interested in them but if the Garden Club or Clubs decided **they** would do what they could to improve the appearance of these spots, how soon there would be something to admire. The traveler would say, when he heard the name of the town, "Oh, that's where all the yards have Flowering Crabs planted in groups," or, "the school yards with unusual shrub plantings," or "a steep railroad bank planted to shrubs, trailing roses, and flower trees." There is nothing in the world that helps a Garden Club grow like doing something worth while, something for somebody else.

We have ruthlessly destroyed our thickets of crab and plum, our beautiful Amelanchier Canadensis (Juneberry), the bush Honeysuckles, many of which were as beautiful as some of the Azaleas we travel miles to see. Viburnum Opulus, our native Highbush Cranberry, is very fine as a specimen shrub. Why not plant it as a thicket in rather moist spots in bloom and in fruit? It is worth while driving miles to see.

New Plants in the Catalogs

Not all the catalogs have come as yet, but they are fascinating with the many new shrubs, bulbs, annual and perennial plants. For a hot, dry spot, a collection of Yuccas might prove interesting when in bloom. They would be much admired. They have added a red Yucca this year which should be striking, along with our old favorites Yucca Filamentosa and the one with green and yellow striped leaves. Remember that Yuccas like to be left alone. Do not dig up and transplant because they do not bloom the first or second year. Leave them alone. They will bloom when firmly established. The many new varie-

ties of hardy asters give you pleasant visions of borders filled with bloom when chilly days come. These new asters are much different than the older varieties—real aristocrats for the garden. More and more of the newer hardy Chrysanthemums. Make out your lists **now**, if you want that glorious show of color way up to Thanksgiving time.

Angels Trumpet

For a showy plant—try some of the double white **Datura. (Angel's Trumpet)**. Our grandmothers grew them as a pot plant and called them Brugmansia. They like a sunny spot and not too heavy soil. Start early, March or April. Very fragrant.

Miniature **Golden Cosmos**, is a rather new variety growing about 18 inches high, good for cutting as well as for show. **Cosmidium Orange Crown** is a new old flower that blooms all summer if not allowed to go to seed.

The newer varieties of hybrid **Dianthus** in the double sorts are specially fine for use in the perennial border, because of their constant bloom.

Pentstemon Sensation if started in March in a cold frame, will glorify that part of the garden to which they are transplanted. They make nice pot plants also.

Golden Cleome is really a tender perennial but is grown usually as an annual. Can be grown quite crowded if you do not care for tall branching plants. Is attractive in the garden as is the rose colored **Cleome**. Sow seeds early.

Salmon Glory Phlox was a lovely clear color, worth trying

again. It was really too pretty to drop with one trial.

Cynoglossum Firmament has a very good habit of growth—compact flowers a fine shade of blue. Lasts well as a cut flower if picked early in the morning.

Aquilegia Crimson Star is a fine flower to add to your collection of Aquilegias. Grown in semi-shade the flowers are very large and striking in color. Seems quite strong and hardy.

Can you imagine a **blue Dianthus**? They say they have found some in Japan. Lavender-blue, blossoms in July, August and September. Blue Pinks—that's what the children used to call the wild Phlox.

STORING DAHLIA ROOTS PROPERLY

DAHLIA growers have long debated the question of storage. Some have advocated the storage of the tubers in sand, others have been equally in favor of sawdust, while still others have extolled the merits of peat moss and various other materials. Now, Dr. R. C. Allen has, at last, settled the question once and for all. He found half-damp peat moss to be, unquestionably, the best medium in which to store dahlia tubers over winter. Further, he states that if the tubers are coated with a thin layer of paraffin they will also come through the winter much better. The loss in weight caused by drying is severely retarded by such treatment. In addition, he found that if they are stored in a room with a temperature remaining between 35 and 50 degrees they will keep in better condition, particularly if the relative humidity can be kept between 80 and 85 per cent.

From January 15 Horticulture.

CLUB LEADERSHIP SCRUTINIZED IN NEW BOOK

ORGANIZATION leadership has been scrutinized in a new book entitled "Leadership for Today's Club Women" by Edna Waldo. (Rugby House, New York.)

Mrs. Waldo states, that many organizations are dropping affiliation with district, state and national bodies. She says, "I know a forty-four year old group which once included in its membership district and state presidents. It is no longer federated. Why? Because the members were weary unto death of red tape and petticoat politics, and of paying dues without getting tangible returns.

"Board domination, taxation without representation, wearysome, deadly programs," are given as reasons.

As a cure she mentions greater democracy within organizations, and greater adaptation to times and needs.

What does Mrs. Waldo mean by "weary unto death of red tape and petticoat politics?" Officers of organizations, and members too, should think this over carefully.

Obviously the duty of the state organization or a district organization is to give service to its members. Failing in this, dissatisfaction gradually builds up. We must learn to serve the individual who pays the dues as well as the machinery of the organization.

SAFE LANDSCAPING

THE planting of trees and shrubbery along the highway must not only be done with an eye for its beauty but for its safety. Plantings should not be made where they will obstruct the view of persons, especially children and drivers, from seeing oncoming automobiles, or in any way to hide the vision of driv-

ers. Curves on the highway may make beautiful vistas but they also cause many accidents.

AMERICAN IRIS SOCIETY ELECTS OFFICERS

THE American Iris Society has elected the following officers for the coming year: President, Wm. J. McKee, Worcester, Mass.; Vice-president, D. F. Hall, Chicago, Illinois; Secretary, H. R. Watkins, Washington, D. C.; Treasurer, J. P. Fishburn, Roanoke, Virginia; Editor of the Iris Bulletin, F. W. Cassebeer, New York City.

The 1940 mid-summer meeting will be held in Chicago. Pilgrimages to Nebraska, Iowa, Illinois and Indiana will be held.

SLIDES AVAILABLE ON CONSERVATION

EVERY Wisconsin garden club should write the State Conservation Commission, State Capitol, Madison, and ask for a list of free lantern and motion picture films available on various topics on conservation. These are sent free of charge. However, they should be reserved some time in advance in order to be sure to get them when desired.



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OLDS' SEED BOOK 1940

All-America Awards for New Annuals

THE All-America flower selections for 1940 have been issued by W. Ray Hastings, Chairman of the All-America Selections Council, Harrisburg, Pa. The availability of seed stock of all selections have not as yet been completely verified, so that this is a preliminary report.

Silver Medals

Petunia Silver Glow. Entered by T. Sakata & Co., Yokohama, Japan. It is a dwarf, compact, ball-shaped variety, hybrida nana compacta, of bright rose red with lighter throat. Extremely free-flowering all season, of rich coloring, true and a wonderful variety for garden and commercial uses.

Petunia Cream Star. Entered by W. Atlee Burpee Co., Philadelphia. Highest-pointed variety in 1939 trials. Like the above, hybrida nana compacta variety, extremely free bloomer all season, true and absolutely distinct. Flowers are a soft creamy white, bluntly star-shaped and with a star of cream coloring on the white flowers.

Ageratum Midget Blue. Entered by Waller-Franklin Seed Co., Guadalupe, Cal. About three to four inches tall, low, compact plants covered with small true azure-blue flowers. Truest and most compact dwarf ageratum so far seen, according to trial reports.

Petunia First Lady. Also a hybrida nana compacta variety. New color of light pink, slightly larger flowers, but not so many as Glow and Cream Star. Considered clearest pink petunia, lightening with age, but always pretty. Lower half of throat white and upper half with brownish-violet marking. Fine for garden and commercial purposes.

Sweet Pea Spring-flowering Rose Pink. Entered by Ferry-Morse Seed Co. An entirely new class of sweet pea, maturing between the early flowering and Spencers and believed to be more heat-resistant than either. Also forces well, to follow the earlies. Grows tall, with long stems for cutting; has large waved flowers of rose pink and white ground. Should be valuable in extending the sweet pea season, indoors and outdoors.

Bronze Medals

Sweet Pea Spring-flowering Blue. Similar to the Rose Pink variety except in color. It is a marine blue, about the shade of early-flowering Mariner.

Antirrhinum Rosalie. Rust-resistant, majus grandiflorum type, of topaz rose or intense rose pink, with deeper center and gold suffusion. Vigorous, showing ten to thirty lateral spikes, besides large central spike.

Scabiosa Heavenly Blue. A distinct and lovely azure-blue variety, early-flowering and exceptionally free. Plants are dwarf, eighteen inches, bushy and loaded with rather short by wiry-stemmed, high crowned, double flowers, suitable for bedding and lower cutting arrangements. Unique and worthy.

Marigold Limelight. A new color, of pale primrose yellow or deep cream, in the Dixie Sunshine or incurved chrysanthemum-flowered type. Early-flowering, stronger-growing than Early Sunshine and darker green foliage. Not odorless. One and one-half to two and one-half inches in diameter, free flowering and coming quite true.

Honorable Mention

Aster Rose Marie. Early Giant wilt-resistant variety of bright

rich rose; heavy, long, clean-stemmed, basal-branching plants. True and floriferous.

Salvia Royal Blue. Annual farinacea variety, growing erect and of more intense color than Blue Bedder. Fine bushy plants, long spikes for cutting, and true.

Convolvulus Lavender Rosette. An attractive wild flower from North Africa for rock gardens. Quite dwarf, 6 inches high by 15 inches across, bearing a cluster, or rosette, of 1¼-inch blue flowers, only a few open at a time.

Marigold Yellow Pygmy. Light lemon yellow, Lilliput French double, growing only 8 inches tall and compact.

Sweet Pea Spring-flowering Lavender. Similar to the Rose pink variety except in color, which is lavender, the shade of early-flowering Memory.

DO YOU WANT GARDEN BOOKS?

SEVERAL garden clubs have recently inquired where they could get good garden books. Our suggestion has been that they write the Free Traveling Library, State Capitol Annex, Madison, Wisconsin, stating the topics about which they would like one or more books, and ask that these be sent them. The Library is very cooperative and will send such books on request which may be kept for three weeks, the borrower paying only the return postage. It is advisable always to inquire at the local Library before writing, as the State Library is only supposed to be a supplementary Library to City Libraries.

The Free Traveling Library has a large number of excellent books which will be of help in preparing garden club programs.

WISCONSIN ROADSIDE COUNCIL ORGANIZED

A FORWARD step was taken on January 18th when preliminary arrangements were made for the organization of the **Wisconsin Roadside Development Council**. Representatives of six state organizations of Wisconsin responded to the call issued by the Wisconsin Garden Club Federation to organize the Council.

Charter members of the organization are: 1. Wisconsin Garden Club Federation; 2. Wisconsin Federation of Women's Clubs; 3. Wisconsin Business and Professional Women's Clubs; 4. American Legion; 5. American Legion Auxiliary; 6. Friends of Our Native Landscape.

Mrs. Chas. Schuele, president of the Wisconsin Garden Club Federation, acted as temporary chairman of the meeting.

The session opened with a brief review of the problems confronting the state and suggestions for their solution by members of the advisory committee which had been set up to help the organization get underway.

Prof. Franz Aust of the Horticulture Department, Wisconsin College of Agriculture, outlined the history of roadside development in Wisconsin and other states. He emphasized that roadsides must be left to look as if the scenery had not been disturbed and to have a restful appearance. "Let us not build for the present alone," was the key note of the meeting.

Mr. R. L. Williams, landscape engineer of the State Highway Department, stressed the need for organizing a Roadside Council, and in this way only can the work be coordinated so that we will get somewhere.

Mr. C. L. Harrington, State Forester, emphasized the need for careful planning. "We must be careful where we plant," he

said. Avenues of trees have sometimes been embarrassing because later they had to be moved. All planting along the highway should be planned through the proper office of the State Highway Department. The work must be put upon a sound basis. We can't pass the hat for highway development and get anywhere.

Mr. Kenneth Schellie of the State Planning Board gave an enlightening talk on the work of the State Planning Board, and outlined the progress of zoning in Wisconsin. This is the plan through which no doubt future highway development will be conducted.

Each organization working individually cannot accomplish a great deal. By working together, Wisconsin will take its rightful place in highway development in the future.

A meeting of members of all state organizations interested in this project and in the Council will be held later in the season, possibly in May, for a full-day program, with a tour of inspection to see some of the work already done.

LANTERN SLIDE LECTURES BY HORTICULTURAL SOCIETY NOW AVAILABLE

A NUMBER of garden clubs have already reserved the lantern slide lecture arranged by the Horticultural Society for their spring meetings. A list of the slides was given in our October issue. For the benefit of new clubs we are repeating the list, with the suggestion that reservations be made as early as possible, as one or two sets have already been booked up.

Each set is accompanied with a lecture which may be read by a committee member of the gar-

den club. There are questions on culture, etc., which should be asked by the committee member. If garden club members are unable to give the answers, the speaker may read the answer.

There are from 40 to 60 slides in each set. We suggest that in addition to the lecture and slides, a committee be appointed to prepare additional material in order to round out a full program of study on the subject.

The following are the titles of the sets which are available:

Set No. 1—Lilacs and Tulips for Spring Bloom.

Set No. 2—Iris and Peonies.

Set No. 3—Perennials and Annuals.

Set No. 4—Perennial Phlox.

Set No. 5—Gladiolus.

The slides and lecture will be loaned to any affiliated organization of the Society, on agreement that they will be properly returned. Only the return postage will be required. In some instances, a club may be requested to forward the slides to another garden club, whose meeting will be held a day or two later. Full cooperation will be required.

The Projector

In many communities projectors are now available for showing 2x2 inch slides. If, however, it is impossible for a committee to find such a projector, the Horticultural Society will loan a very high quality projector for a rental fee of 50c, plus transportation both ways.

These slides cannot be shown in the old type of projector adapted for larger slides. Even a "reducer" is unsatisfactory, because the large projector is unsuitable for the small slides.

A good screen is important for showing colored slides. A sheet may be used. For an afternoon meeting it is important that the room be well darkened in order that the colors may be seen.

Wisconsin Garden Club Federation

News

Mrs. Charles H. Schuele, President
247 Woodland Lane, Oconomowoc
Mrs. E. A. St. Clair, Hon. President,
2418 N. 65th St., Wauwatosa
H. J. Rahmlow, Cor. Secretary,
Madison

Mrs. E. L. White, Rec. Secretary,
Box 334, Fort Atkinson
Mrs. C. H. Braman, 1st V-President,
Waupaca
Mrs. Frank Quimby, 2nd V-President,
1422 Blaine Blvd., Racine

THE PRESIDENT'S MESSAGE

Lotta's Limerick for January

When snow's in the mountains and valleys,
Our Garden Club dillies and dallies;
We hibernate quite
And keep out of sight
And fail to show up at our rallies.

THE Madison Garden Club closes the January program announcement with the above limerick. It is so apropos I thought everyone would enjoy it.

Women are the natural conservationists, said Dr. Von Jarchow, our conservation chairman, while men are the hunters and warriors. Mrs. David Weart believes garden club members should be on park boards as this promotes an orderly procedure in City entrance beautification. "Set your alarm clock on the radio to call you to that Saturday 4:15 garden club talk over WTMJ," says Mrs. Malisch, Radio chairman. Mrs. Newell S. Boardman, State Publicity Chairman, wants you to save all garden club talks, and send a copy to her as she wishes to circularize over 1,000 small newspapers over the state and send them some good dirt gardening information. She warns that news must be "hot" not "cold."

Mr. Schellie's article on Native Plant Material Found in Special Areas in Wisconsin in the January Horticulture, has found great favor with the garden club membership. We are indebted to Mr. R. L. Williams for the second lesson this month on Landscape Design Applied to Highways. Trees will be the sub-



ject of the third lesson in March, in the state program: Landscape Gardening and Landscape Art.
Mrs. Chas. Schuele.

FOR THE GARDEN CLUB PROGRAM

DEAR Program Chairmen: Our best wishes for success to you and your club in 1940! All gardeners are looking forward to the springtime. Now is our time to outline programs of help and inspiration for our members.

Wisconsin Horticulture should continue to carry ideas and hints to the program committees. You can help by sending to me:

1. Your program outline for 1940.

2. Suggestions of material you want to see in Wisconsin Horticulture; i.e., questions you want answered; news of your club; hints for programs; topics you think might interest garden club members.

Such suggestions will be published for the benefit of all.

If there are any ways in which the State program chairman can

assist you, please feel free to call on me. Your suggestions and yearly program will be of help to us in determining what is most likely to be of interest to our members.

Won't you write me soon so that others may see your program ideas? Thank you and best wishes.

Esther A. Klussendorf,
Program Chairman
4125 Iroquois Drive
Madison, Wis.

WANTED! PAPERS PRESENTED AT GARDEN CLUB MEETINGS AND ON RADIO PROGRAMS

MRS. N. S. BOARDMAN, Publicity Chairman of the Wisconsin Garden Club Federation, is anxious to have as many of the papers on gardening given over radio stations and papers of interest on garden topics given before garden clubs sent to her for publicity purposes. Such items as are of general interest will be sent to newspapers in different parts of the state to promote garden club work. Send your papers to Mrs. N. S. Boardman, Shorewood Hills, Madison.

MARINETTE GARDEN CLUB FLOWER SHOW DRAWS LARGE ATTENDANCE

THE Marinette Garden Club reports that their flower show held in the lobby of the Marinette Hotel with 300 exhibits drew a crowd of over 1,000 people. There were visitors from almost every state in the Union.

Federation Committees Start Work

Mrs. F. K. Quimby, Gen. Committee Chairman

IN order that all committees may work together with the full knowledge of the entire Federation program is the plan which prompted us to call a meeting of the Executive Board and all committee chairmen January 11 at the Medford Hotel, Milwaukee. The entire day was given over to discussion of committee plans and it was gratifying to know that each chairman had thought through the possibilities for his department and was ready to put a work program into effect.

All new information will be sent promptly by each state chairman to his district chairmen so the latter will have full and complete information at all times. Local clubs will write their district committee chairmen for help and information and only when they fail to get adequate assistance from the district chairmen are they to make direct contact with the state chairman. The District chairman should keep the state chairmen informed of activities in the Districts which can only be done if the local clubs will send him reports of their projects and programs.

The Department of Roadside Development under the direction of Miss Lillie Kohler, Kohler, is making a study of the roadside problems in Wisconsin. This department will find out where work is being done and what we can do. If you are interested in city entrances, by passes around your city, living wind breaks, memorial spots, county zoning, control of outdoor advertising or roadside parks, the chairmen in this department are ready to advise and help you.

The Committee on Conservation is headed by Dr. B. L. Von Jarchow, Racine. His program embodies the following:

1. Complete the School Children's Forest and see to it that each county is represented with at least one acre of trees.
2. Support all efforts in the legislature which further sound conservation and appoint a liaison official of the Federation for that purpose.
3. Cooperate in the effort being made now to improve text books of conservation for children. The National Council is asking that each club raise a fund of \$5.00 for this purpose. Presentation of this fund is to be a feature of the banquet program during the annual convention.
4. Protect the great blue heron completely by legislation.
5. Protect all predatory birds by proper legislation.
6. Join the National Emergency Conservation Committee.
7. Secure and distribute wild life stamps directly to the garden clubs.

Miss Merle Rasmussen, as chairman of Horticulture has a new plan this year. In several sections of the state there are to be demonstration gardens with plantings of materials listed on the plant testing sheets. Each club should see to it that every plant listed is tested in that locality. The degree of horticultural excellence attained will be evident in the flower shows sponsored by the federation.

Mrs. Chester Thomas, Chairman of Garden Centers has a list of suggestions which will appear in the March issue of Horticulture.

Mrs. Max Schmitt, Junior Chairman will have short articles each month in Horticulture giving suggestions for the following month's activities.

Mrs. Clarence Schultz, Legislation Chairman and Mrs. Ray Sewell, Historian, are planning a year of study and research. They will welcome your assistance and suggestions.

Mrs. H. H. Persons, Chairman of Organization and Membership and Mrs. Newell S. Boardman, Chairman of Publicity are working together to publicize the work of the federation and interest people in organizing new clubs. Mrs. Boardman is especially anxious to have copies of talks or papers on garden subjects which might be published in state papers.

Mrs. E. R. Durgin, visiting Garden Chairman, plans to list only those gardens for out of state visitors which are kept by professional gardeners and are therefore ready for inspection at all times. Wisconsin people are asked to contact the president of the local club when planning a garden tour so that only those gardens which are at their best will be included.

The judging schools this year are to be planned by the districts and it is hoped their budgets will be enhanced thereby.

Mrs. R. C. Klussendorf, Program and Bulletin Chairman, is adapting the Wisconsin program to national ideals, keeping in mind the use of native plant ma-

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terial. She asks that you continue to send her questions and suggestions about your programs.

Don't forget to listen to the splendid broadcasts which Mrs. R. H. Malisch has arranged over WTMJ. See January Horticulture for schedule.

PLAN FOR THE STATE FAIR FLOWER SHOW

WITH our gardens carefully tucked in for the winter; with the holidays safely over; with a short breathing spell in which to remember last year's flower pictures, both good and bad, we look forward eagerly to the new catalogs which are beginning to appear in each day's mail. (I've had so many the postman too will be glad when spring comes.)

Of course all of us look first for the gay new annuals and the "something different" perennials. Rust - resistant snapdragons; sweet peas "larger than ever;" petunias so ruffled they look double to our covetous eyes; scarlet zinnias the size of young sunflowers; stocks with florets resembling gardenias — if we only had room for all of them!

We hope each garden club will plan to try some of these newest varieties as well as those of past year's instructions. Much interest was shown in this class at the last year's State Fair Flower Show, and we are planning a more extensive classification in this year's schedule.

So read all the glowing descriptions, select those that appeal most (even if you have to pull straws for the final choice), and plan to represent your club at the next **State Fair Flower Show**.

PLAN—PLANT—EXHIBIT.

Mrs. W. F. Roecker, Chairman, State Fair Flower Show.

SPRING FLOWER SHOW WISCONSIN GARDEN CLUB FEDERATION

May 17, 18, 19

By Dr. Carl Schwendener, Chm.

WE are going to have a state flower show—it was so ordered by the Executive Board. Our president very much desires it, and we have been talking about it for quite a few years, so why not do so. It will bring members from different parts of the state in closer contact. By all working for one project, we will bring different ideas to one central location where we can all get them and have lots of fun doing it.

The Place

Here is good news! Wauwatosa has just completed a Field House, which is almost designed for our purpose, and the Park Board has given us the use of it for our show, for a nominal charge to cover any expenses they may have in granting us the use of this building. It is one story high with an arched ceiling, good lighting with windows that lend themselves for our little gardens and terrace gardens. You can drive up to it to unload. There is parking space for all the cars and it is easy to get to from out of town. We could not get the Electric Company Building as they are remodelling it and the Auditorium is too expensive.

The date is May 17, 18, and 19, and we can start on the 16th to set up our show. The schedule and floor plans are already being worked on and will be sent to you as soon as possible.

The schedule will call for window gardens, terrace gardens with potted plants, spring gardens, door yard gardens, shadow boxes, still life with screen background, terrariums and flower arrangements, so you can start thinking about putting on an exhibit.

ASHLAND CLUB APPRECIATES LANTERN SLIDE LECTURE

A LETTER from Prof. Newton Bobb, Northland College, Ashland, who had charge of showing the lantern slides loaned the Ashland Garden Club by the Wisconsin Horticultural Society for their January meeting, writes as follows:

"The lantern slides and lecture you sent us were given at our meeting. You asked for suggestions for improving the lecture and pictures, but there is not much I can give you. As far as I can see, it is a very fine piece of work. The questions asked in the lectures add much to the meeting since they stimulated thought and discussion."

The Society is glad to know that the slides and lecture are of help to our member clubs.

NATIONAL WILDLIFE RESTORATION WEEK

March 17-23

THE National Wildlife Federation announces the third annual National Wildlife Restoration Week to be held March 17 through 23.

In every corner of our great land, men, women and children will rededicate themselves to the struggle to preserve and restore our country's natural resources.

Wildlife Poster Stamps commemorating the 3rd observance of National Wildlife Restoration Week are issued this year in sheets of 100, four blocks of 25 stamps, each block having a different key stamp, 100 stamps selling for \$1.00. The 24 stamps include 10 upland game and song birds, 5 mammals, 4 fish, 3 wildflowers, and 2 trees. A new album of 72 pages will sell for 50c.

The Wildlife stamps are being sent to the various chairmen of organizations cooperating with the movement, and will be sold by all garden clubs in Wisconsin.

Plant Material For Highway Planting

R. L. Williams, Landscape Engineer
State Highway Commission

NATIVE varieties and species of plant materials should be used exclusively in highway planting because the prime objective of all roadside improvement work is to fit the highway into its natural surroundings so that it blends harmoniously into the adjacent landscape. It is necessary, therefore, that a study be made of varieties growing in the various localities and that selections be made accordingly. In general, predominant species growing in the immediate vicinity which are of a hardy type should be used.

Wisconsin is blessed with an unusual abundance of tree and other plant varieties as compared to many other states of the Union. This is due to a wide variance in geographic, geologic, and climatic conditions in our state. We have mountainous hills, rolling prairies, swamps, outwash plains, and even desert areas with drifting sand dunes. Each of these has its individual type of flora. Many varieties which thrive in the northern counties will not grow in the southern portions of the state. Lowland trees—water birch, larch, and many other varieties—will not grow on the nearby highlands, and Jack Pine thrives on certain soils where most other varieties cannot exist.

Purposes of Roadside Plantings

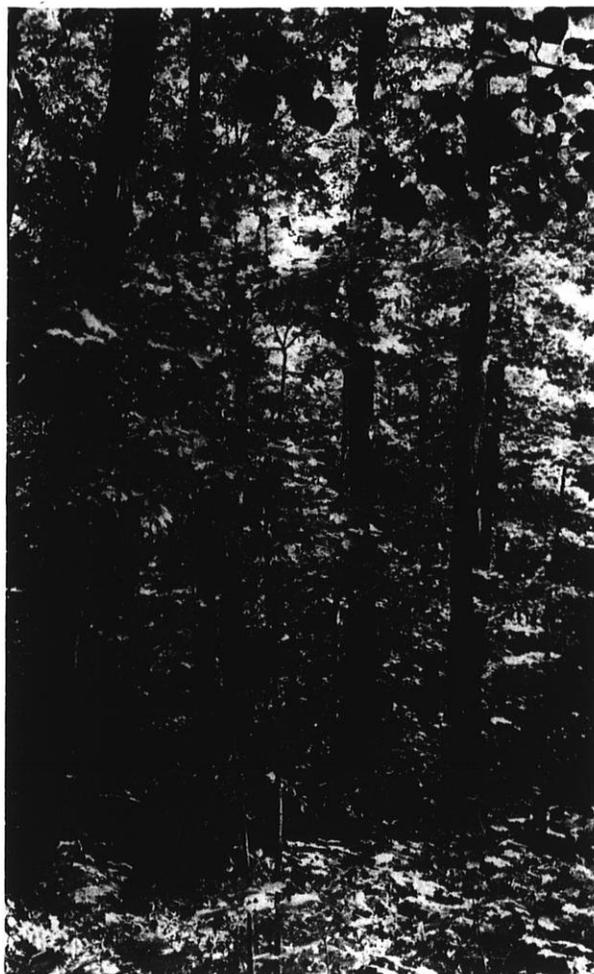
Another consideration in selecting plant material for roadside use is the purpose for which these materials are intended, such purposes including:

Screen Plantings—to hide objec-

An ungrazed hardwood forest in southern Wisconsin.

The type of trees one sees in northern Wisconsin are illustrated by our cover picture.

—Cuts courtesy State Planning Board, Wisconsin Conservation Commission.



tionable views from the road. These should be of a dense, compact character.

Informal Group Plantings—to replace trees necessarily cut during construction operations and to assimilate the surrounding landscape.

Safety Plantings—to warn night drivers of curves or sudden changes of highway alignment.

Skyline Plantings—to accentuate the natural topography and create a pleasing view of the horizon ahead.

Erosion Control Plantings—to stabilize the soil on steeply graded slopes, thereby retarding washing and other forms of slope erosion.

Structural Plantings — around bridge ends and culvert walls to soften harsh lines and make

the structure fit into the natural surroundings.

Street and Boulevard Plantings—in cities and towns where a formal planting arrangement is usually required.

Snow Hedge Planting—to create a wind barrier and snow trap to replace the wooden picket fences now in use.

List of Plants

Following is a list of the plant materials which have proved satisfactory for use in our state:

Trees

Red and sugar maples
Canoe birch
Green and white ash
White spruce
Norway and white pine

White, burr, and red oak
Wisconsin weeping willow and
laurel willow
American arborvitae
American linden
American elm

Small Trees

Downy shadblow
Cockspur thorn
Prairie crab
Wild plum
American mountain ash

Shrubs

Grey dogwood
Red osier dogwood
American hazelnut
Winterberry
Ninebark
Smooth and staghorn sumac
Meadow and prairie rose
American elder
Snowberry
Coralberry
American cranberrybush
Arrowwood
Nannyberry
Downy viburnum

Vines

Engelman ivy
Virginia creeper
Bittersweet
Virgin's bower clematis
Trumpet honeysuckle

Highway landscaping is merely an attempt to imitate nature's artistry by hiding or healing man-made scars and replacing vegetation where man has destroyed it. Plantings can be arranged in suitable combinations to produce pleasing color and seasonal effects. There is no place in roadside planting for exotic species, and it is obvious that only native varieties and those which are to be found in the immediate vicinity can be used to create satisfactory results.

Committees of the Wisconsin Garden Club Federation

- Liaison**—General Chairman—Mrs. Frank Quimby, 1422 Blaine Blvd., Racine.
- I. **Conservation.** Dr. B. L. Von Jarchow, 1601 Washington Ave., Racine.
- II. **Horticulture.** Miss Merle Rasmussen, Route 4, Oshkosh.
Flower Show, State: Dr. Carl Schwendener, 1727 North 48th St., Milwaukee.
Show at State Fair: Mrs. W. F. Roecker, 3319 N. 14th St., Milwaukee.
Show at Convention: Mrs. Carl Mohs, Shorewood Hills, Madison.
Shows at County Fairs: Mrs. Wilbur Strohhusch, Jefferson; Frederick Bullwinkel, 1111 High St., Jefferson.
Accredited Judges: Mrs. J. Martin Johnson, 529 Woodside Ave., Ripon.
- III. **Garden Centers:** Mrs. Chester Thomas, 2579 Downer Ave., Milwaukee.
- IV. **Junior Garden Clubs:** Mrs. Max Schmitt, 1912 N. 84th St., Wauwatosa.
- V. **Legislation:** Mrs. Clarence Schultz, 112 N. Commercial, Neenah.
- VI. **Roadside Development:** Miss Lillie Kohler, 606 New York Ave., Sheboygan. Mrs. Chas. L. Dean, 102 Grand Ave., Madison, Co-Chairman.
By Passes: Mrs. Erwin Wells, Oakfield.
City Entrances: Mrs. David Weart, Worthington St., Oconomowoc.
County Zoning: E. L. White, Box 334, Fort Atkinson.
Living Windbreaks: Mrs. James Livingstone, Sta. F, R. 9, Milwaukee.
Medals of Award: Miss Katherine Melcher, 108 N. 88th St., Wauwatosa.
Memorial Spots: Mrs. W. A. Peirce, 2335 Carmel Ave., Racine.
Roadside Parks: Mrs. George Snell, 414 Erie Ave., Sheboygan.
- VII. **Budget:** Mrs. E. A. St. Clair, 2418 No. 65th St., Wauwatosa.
- VIII. **Historian:** Mrs. R. Sewell, 957 No. 70th St., Wauwatosa.
Record Books: Miss Mary Martin, R. 3, Martin Road, Fond du Lac.
- IX. **Membership and Organization:** Mrs. H. H. Persons, 146 Kensington Dr., Madison.
- X. **Lectures:** Mrs. Charles Braman, Waupaca.
- XI. **Publicity:** Mrs. N. S. Boardman, Shorewood Hills, Madison.
Program: Mrs. R. C. Klussendorf, 4125 Iroquois Dr., Madison.
Radio: Mrs. R. H. Malisch, Hales Corners.
- XII. **Visiting Gardens:** Mrs. E. R. Durgin, 1815 Park Ave., Racine.
- XIII. **Rural Clubs:** Mr. Benson H. Paul, Shorewood Hills, Madison.
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Birds and Nature Activities: Miss Florence Winchester, R. 4, Oshkosh.
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Horticulture: Mrs. P. J. Portman, Forest Park, Wausau.
Flower Shows: Miss Clare Mears, 526½ Newbury St., Ripon.
County Shows at Fairs: Mrs. Wm. Blake, 158 Evans St., Oshkosh.
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Garden Centers: Mrs. Mildred Pedrick, 523 Watson St., Ripon.
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Legislation: Mrs. Thos. Mullen 311 E. Johnson St., Fond du Lac.
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County Zoning, City Entrances, and Outdoor Advertising: Mrs. S. S. Olive, 205 Howard St., Ripon.
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Horticulture: Dr. G. Alan Kriz, 806 N. 11th St., Milwaukee.

Junior Garden Clubs: Mrs. J. W. Overholt, 1979 S. 73rd St., West Allis.
Roadside Development: Mrs. Wm. Roecker, 3319 N. 14th St., Milwaukee.
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Visiting Gardens: Mrs. E. C. Haasch, Box 124, Elm Grove.

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Horticulture: Mrs. H. S. Bostock, R. 2, Madison.
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State Fair Flower Show: Harry J. Ploog, 621 Emerson St., Madison.
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Legislation: E. N. Hein, 3200 Oakridge Ave., Madison.
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Vistas: Mrs. Leo Martalock, and Mrs. E. L. Lehnher, DeForest.
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Memorial Spots: Mrs. E. R. McIntyre, 4218 Wanetah Trail, Madison.
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Record Books: Mrs. O. Axon, Lodi.
Advertising and Publicity: Mrs. Ralph Melby, 2108 Winnebago St., Madison.
Radio: Mrs. Jos. Wirka, 1408 Vilas Ave., Madison.
Visiting Gardens: Mrs. E. J. Kallevang, 4130 Iroquois Dr., Madison.

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 Vice-Chm.: Francis X. Schmidmeyer, 2220 North 11th St., Sheboygan.
 Sec'y-Treas.: Rev. A. H. Otto, 208 S. 7th Ave., West Bend.

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Conservation: Mrs. Henry Gritt, R. 1, Plymouth.
Horticulture: Joe L. Morawetz, R. 4, West Bend.
Flower Shows: Miss Lillie B. Kohler, 606 New York Ave., Sheboygan.
Judging: Mrs. L. E. Larson, 2037 N. 6th St., Sheboygan.
Garden Centers: Mrs. Warren Cooley, 605 Summit Dr., West Bend.
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Roadside Development: J. F. Garner, 419 Church St., Kohler.
Budget: Mrs. L. Rhode, 350 Stafford St., Plymouth.
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Program and Lectures: Mrs. Ida Wiebe, 324 N. 8th Ave., West Bend.
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 2nd Vice-Chm.: Mrs. E. Sorenson, Winsor St., Elkhorn.
 Sec'y-Treas.: Miss Grace Armstrong, R.F.D. 1, Whitewater.

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Roadside Development: E. L. White, Box 334, Fort Atkinson, and Frederick Bullwinkel, 1111 High St., Jefferson.
Flower Show: Mrs. Pearl Ward, R. 1, Ft. Atkinson.
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Garden Centers: Mrs. Robert McNally, Lake Geneva.
Junior Work: Mrs. Frank Ledger, Lake Geneva.
Judging: Mrs. Boyd Dickinson, Lake Geneva.
Publicity and Finance: Hannah Larson, 111 S. Prairie St., Whitewater.
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Horticulture: Mrs. Wilbur Strohbush, Jefferson.
Legislation: Mrs. Franz Tensfeld, Jefferson.
Program: Mrs. Norman Thayer, Elkhorn.
Records: Mrs. Harry Howe, 302 W. Walworth St., Elkhorn.
Liaison or Co-ordination: Mrs. Robert Alder, R. D., Elkhorn.

GARDEN PROGRAM

Over Homemakers' Hour, WHA (940 K.C.) WLBL (900 K.C.)

GARDEN programs over State Radio Stations WHA and WLBL during February at 10:00 A.M., each Tuesday, will be as follows:

Feb. 6 Winter Gardening: If You Have a Garden!-----
 -----Mrs. Newell Boardman
 Feb. 13 Winter Gardening: "Hearts and Flowers"-----
 -----Mrs. Forest Middleton
 Feb. 20 Winter Gardening: Leaves from the Flower Books-----H. J. Rahmlow
 Feb. 27 Winter Gardening: Drafting Blueprints for the Garden--Mrs. George Harbort

LIKES INDIAN SPRING HOLLYHOCK

A LETTER from Mrs. H. A. Juneau of the Superior Garden Club, states as follows: "I tried Indian Spring hollyhock last year and thought it fine; it began to blossom the last of August and continued until hard frost. Rust was very bad on all our hollyhocks last summer; I dusted and did everything I knew how to do but simply could not control it. Had it not been for that I believe the annual plants would have been very fine and as it was the blossoms were lovely."

Obliging One Another

He leaned over the garden fence and beckoned to his neighbor.

"I say, old man," he said, "I understand that you have Jones' rake?"

The neighbor nodded.

"Good," said the first, "if you'll let me borrow the rake occasionally, I'll let you use his roller whenever you want it."—Kentish Mercury.



Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Walter Diehnelt, Menomonee Falls,
President
S. P. Elliott, Menomonee,
Vice-president

OFFICERS

H. J. Rahmlow, Madison, Cor. Secy.
Louise Diehnelt, Box 60, Menomonee Falls,
Recording Secretary-Treasurer

DISTRICT CHAIRMEN
S. P. Elliott, Menomonee
N. E. France, Platteville
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Ivan Whiting, Rockford

THE HONEY CROP DEPENDS UPON THE BEE POPU- LATION

THE relation of the bee population to the honey crop is so important that the facts cannot be repeated too often.

Dr. C. L. Farrar has given us the figures that if a colony of 15,000 bees produces 1 lb. of honey per 1,000 bees, then a colony of 30,000 bees will produce 1.35 pounds per 1,000 bees. A colony of 45,000 will produce 1.45 pounds per 1,000, and 60,000, 1.52 pounds. Working this out on the basis of pounds per colony, we find that the following number of pounds of honey may be produced under similar conditions during a season by colonies of different strength.

15,000 bees—	15	lbs. honey
30,000 bees—	40½	lbs. honey
45,000 bees—	65	lbs. honey
60,000 bees—	91	lbs. honey

This makes it easy to see why some apiaries produce more honey than others.

There is a similar relation between the amount of brood colonies of different strengths will produce. A strong colony in the spring will produce much more brood and build up faster than a weak one.

Since the number of bees in the spring has a close relationship to broodrearing in mid-winter, beekeepers will have to be very careful about removing any pollen from the hives during manipulation to control swarming. In other words, the honey house is no place to store pollen. It



should be in the broodnest right now.

A good recommendation would be for beekeepers to purchase queens from different queen breeders to requeen any poor colonies this spring. Then keep a careful record of what the colonies will do during the next year or two, in order to find the best strain of queens. The first year's results may not count if the queen is given to a weak colony of poor stock.

BEEES WINTERING WELL IN WISCONSIN

REPORTS from different sections of Wisconsin indicate that bees are wintering well so far. S. P. Elliott of Menomonee, writes. "So far the bees are wintering fine and we see no reason why we should have any winter loss. We have about 6 inches of snow and it was rather cold early in January.

SOUTHERN DISTRICT BEE- KEEPERS MEETING

THE Southern District of the Wisconsin Beekeepers Association will hold an annual meet-

ARE YOUR BEES RAISING BROOD THIS MONTH?

NOW is a good time for beekeepers who are skeptical as to whether or not bees raise brood in mid-winter, to prove it.

On a mild sunny day, open up a colony and pull out a frame from the center of the cluster. Do it quietly and gently, and look to see how much brood is present, and in what stages. Sealed brood, of course, is several weeks old, showing that egg laying started several weeks previous to that time. If only eggs are present and no well grown larvae, it may be an indication that there is no pollen available. In this case it might be desirable to slip in a frame of pollen taken from the outside of the hive body where it is not available in cold weather. On a day when it is warm enough for the bees to fly we might insert a frame of pollen which may sometimes be found among the extracting combs in the honey house.

At any rate, make a written record of the colonies examined, and then inspect them again in April to see how the colony with brood in February compares with the one that did not have brood.

Beekeepers with many frames of pollen in the honey house should consider changing their system of management so as to leave the pollen in the brood nest.

ing in the Janesville Y.M.C.A. on Saturday, February 17th, beginning at 10 a.m. All southern Wisconsin beekeepers are invited. There will be a good program.

QUEEN SUPERSEDURE

FOR many years beekeepers have been discussing the probable causes for queen supersedure, especially in package bees. If the cause were a simple one such as "manipulating the colony too soon after installation" or "giving too many combs," we would no doubt have reached the solution long ago.

The Central States Bee Laboratory, Madison, has given us a new angle on this problem. All beekeepers should read Circular E-473, entitled, "A Preliminary Report on the Influence of Stock on Supersedure or Loss of Queen Bees."

Quality of Stock Major Factor in Queen Loss

Putting it bluntly, the report states that the **quality of the breeding stock is the major factor in contributing to queen loss.** A large number of tests with packages from different shippers located in seven southern states point to this conclusion.

The circular states, "Certain lines of stock were definitely inferior to others in quality and quantity of brood and in the amount of honey produced."

Improving a strain of bees by breeding is of course far more difficult than improving strains of livestock because of the fact that we cannot always control the quality of the drone used. Furthermore, we probably have not known just where the best stock is until the Central States Bee Laboratory undertook this work of comparing different stock.

It is very interesting to note the wide difference in the amount of surplus honey produced by the best strain of bees as compared with the poorest strain. After deducting 60 pounds of honey required for wintering, the bulletin reports that in 1938, the best

colony produced a surplus of 250 pounds of honey, while the poorest one produced—30 pounds, or 30 pounds less than enough for wintering.

Dr. C. L. Farrar reported at our convention at Ripon in October that the tests conducted by the Laboratory this past year with 13 lots of package bees, 10 packages in each lot, showed results similar to those reported above. The best group of 10 packages gave an average production of 160 pounds of surplus honey, with no loss of queens. The average production of the next two best lots was 150 pounds of surplus.

The poorest lots of 10 packages, averaged 55 pounds of surplus honey, with a loss of 4 queens. The next two poorest lots produced 65 pounds and 85 pounds of honey respectively.

In the best group, all 10 packages produced above the average. **In the three poorest groups, all colonies produced considerably below average.**

Available Pollen Important

Lack of pollen is no doubt the second most important reason for failure of package colonies. Unless we have combs of reserve pollen which we can give the bees on introduction, it is best not to have packages shipped until pollen is available from the field. The queen will start to lay eggs soon after introduction, and a few bees will be matured by the colony even if pollen is not available, probably from body re-

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Mr. E. R. Root, Medina, Ohio, of the A. I. Root Company, has indicated he will be pleased to attend and speak at the summer convention of the Wisconsin Beekeepers Association, to be held in July.

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serve. However, without pollen, broodrearing soon stops and there is a gradual reduction in population. If pollen is not available for two or three weeks, the colony becomes weak and may not recover in time to produce a crop.

Stock Improvement

Since the work of testing stock is now going on under Government supervision, northern beekeepers will agree that every queen breeder should have his stock tested. If a breeder finds his stock is inferior, he should immediately cooperate with the Bee Laboratories and improve his stock. In this way the entire industry will benefit.

How Can We Get Good Stock?

What can Wisconsin beekeepers do in order to improve their bees? With the knowledge that the Southern breeders are beginning to improve their stock, we can buy from reliable breeders with more confidence. However, as Dr. C. L. Farrar suggested at our convention, it would be well to buy packages and queens from several different breeders at the same time, and compare them in our own apiaries. If, for instance, we wish to buy 50 packages this spring, we might well buy 10 packages from each of 5 well known breeders. Establish them at the same time, under the same conditions. By fall we should know which stock is the best, as there is often quite a wide difference between stocks.

H. J. Rahmlow.

WESTERN DISTRICT BEE-KEEPERS MEETING

THE Western District of the Wisconsin Beekeepers Association will hold a meeting at Menomonie on March 26th. Watch for details in our March issue.

HONEY MUST BE DISPLAYED TO SELL WELL

THE manager of a large Super-Service Grocery Store recently made this important observation for beekeepers. "Honey must be displayed in order to sell well." He stated further that if his display of honey went down to where there were only one or two jars or pails left on the shelves, these sometimes stayed there for quite a while. Just as soon as the shelves were filled again, making a large display, the honey began to move faster.

That is probably one reason why the new self-help stores which display large quantities of goods sell much more honey than smaller grocery stores. The small stores often do not have shelf room to display anything but goods which moves rapidly. Since they have found that honey isn't one of the fastest sellers, they are reluctant to give it prominent display room.

Possibly one way to overcome this difficulty is to put on periodic sales. The beekeepers could arrange with the grocerymen to make a large display in a prominent place in the store on a certain Friday and Saturday, charging only for the goods sold and whatever stock the grocerymen wishes to keep following the sale. The price during the sale should not be reduced very much. Calling attention to honey will increase the sales.

Beekeepers have found that there is a period between Thanksgiving and about the middle of January when honey sales drop, due perhaps to the interest of the consumer being diverted to holiday goods.

WANTED! INFORMATION ABOUT DYSENTERY IN WISCONSIN

WE would like to hear from beekeepers who have observed any dysentery this winter. It would seem that there

should not be any dysentery, in southern Wisconsin at least, this winter because of the dry season which enabled the bees to ripen the honey well. However, if dysentery does occur, an examination of the conditions which may have caused it would be of interest to all beekeepers, and would help in learning how to prevent it in the future.

Write the Wisconsin Horticultural Society, 424 University Farm Place, Madison, in case you observe dysentery, giving all the facts.

NEW EDITION OF ABC AND XYZ OF BEE CULTURE

THE A. I. Root Company, Medina, Ohio, announces a new edition of this valuable book. The last edition was printed in 1935. Since that time considerable new information has been added to the fund of bee knowledge. Mr. E. R. Root has been working for several years to include in the new edition all of the latest and most accurate information available. The book is in fact, an ABC and XYZ of Bee Culture, and today it is the most valuable book available to the beekeeper.

FOX RIVER VALLEY DISTRICT BEEKEEPERS MEETING, APPLETON, TUESDAY, APRIL 2

THE regular meeting of the Fox River Valley District Beekeepers Association, which has been so popular during the past few years, will be held in Appleton on Tuesday, April 2. It will be an all-day meeting.

Speakers will discuss timely topics of interest to beekeepers in spring and summer. Arrangements are being made by Cornelius Meyer, Appleton, Vice-chairman of the district, and Leonard Otto, Forest Junction, Secretary-Treasurer. Further announcements later.

THE BEE CENSUS

WISCONSIN beekeepers are urged to help the U. S. Census enumerators this year in order that we can obtain a complete and accurate bee census.

Many times we have heard that the estimate of the number of beekeepers, the number of colonies, and amount of honey produced is largely guess work. Perhaps it is. In 1940 a U. S. census will be taken. Enumerators will be required to ask the farmer:

1. The number of bees kept on his farm belonging to people living elsewhere.
2. Number of hives of bees owned by him on his farm or elsewhere.
3. Number of pounds of honey produced by his bees in 1939.

Other questions will be asked. We understand that census takers are very busy and have a great deal of information to ask for, and that there is a possibility that they will slide over the questions about bees. Every beekeeper should therefore impress upon the enumerator the need for a careful census of bees and honey.

Speak to your census taker about it.

Chicago Market Report

Comb honey, supplies light; demand slow. Central western White Clover, cellophane-wrapped, few sales at \$2.50 per case.

Extracted, supplies moderate; demand slow. Sales to bakers and other large users in cases of 2, 60-lb. cans, Centralwestern, Mixed clovers white, 5½-6c per lb. Light amber, 5-5½c per lb. 5-lb. pails mixed clovers white, \$4.50-\$4.75 per doz. Few at \$5.00.

Beeswax, market slightly stronger. Dealers paying 23-25c per lb. Few best lots 25c delivered Chicago.

Review Of The 1939 Season

By the U. S. Department of Agriculture

THE 1939 season was featured by the exceptionally spotted nature of the crop and the unusually warm weather, with lack of precipitation, which contributed to the irregular yield of honey but which also aided in allowing bees to fly almost to the end of the year.

Early in the season, with plant prospects generally encouraging over a wide area in the North, an average crop of honey was anticipated. Yet as the season advanced widely unfavorable weather conditions and insects reduced the hoped-for output of honey in many areas, and the crop is reported by the trade as being at least 15 per cent smaller than that of 1938.

Abnormally hot weather during the summer, with lack of rainfall, sharply cut the early prospects for a crop of White honey in the White Clover Belt, ranging from New York southwestward through Ohio, Indiana, and Illinois. The same conditions, with the addition of countless millions of grasshoppers and alfalfa weevils, were effective in reducing the yield also of Sweet clover—Alfalfa honey in the Intermountain States. California, normally the leading producing State in the country, had one of the shortest crops in years, especially in the southern part of the State, where the crop of Orange honey was perhaps 30 per cent of normal and the White Wage output even less. The heaviest crops of honey this season were apparently produced in the eastern portion of the Plains States. Many beekeepers in Iowa, Eastern Nebraska, and Eastern Kansas, for example, reported yields of White Clover and White Sweet-clover ranging 100-200 pounds to the colony or more, and occasional beekeepers in Michi-

gan and other leading States also reported high yields. The spotted nature of the crop is illustrated in the fact that in the central and western portions of some of the Plains States that yielded so well along the eastern border, some beekeepers secured almost no surplus.

Good Care Paid

Giving careful attention to the colonies was a profitable undertaking. Even in areas where the aggregate yield was below normal, numerous individual beekeepers reported a good crop of honey. It is noticeable that good yields in such areas were usually in the yards of beekeepers who took especially good care of their hives and brought them to full strength early in the season. Even in the Plains States the highest yields of honey were reported by beekeepers whose bees were ready to gather in nectar at the very start of the season.

Producers of package bees and queens had their most disastrous season in years. Domestic beekeepers made fewer inquiries for package bees and queens than usual, though Canadian beekeepers bought packages freely. In spite of the rather unfortunate season, however, a million package bees and nearly 200 thousand queen bees were sold last season.

The carryover of old crop honey into the 1939 season was heavier than normal, especially in the Pacific Northwest and in portions of the Mountain States and the Upper Clover Belt. This old crop honey continued to sell at low prices even after new crop honey came on the market, and although the crop of 1939 was relatively short the market for new honey was affected by the honey carried over and the prices at which it was moving.

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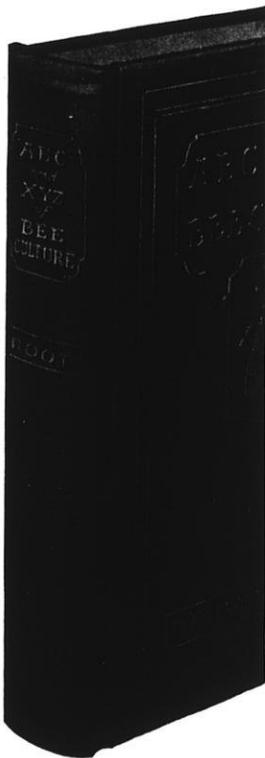
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Wisconsin *Horticulture*



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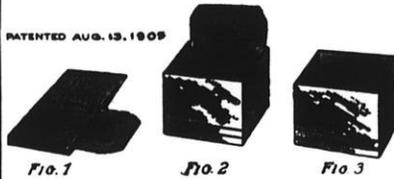
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PLEASE DO NOT SEND STAMPS

Wisconsin Horticulture

Dormant Sprays for Insect Control

Recommendations Especially for Door County Orchards

John H. Lilly

THE problem of dormant sprays for use in Wisconsin is attracting more than usual interest for this time of the year. There is a three-fold reason for this: (1) Certain species of insects, especially aphids, were particularly injurious in 1939. (2) Some of our experimental materials gave very promising results last year. (3) The manufacturers of certain of these products are actively promoting their sale.

Insects Involved

The first consideration in choosing a dormant spray is the pests to be controlled. In Door County we have four of them, and no single treatment that we know of will satisfactorily check all of them.

The four insects or groups of insects found in Door County which are subject to control by dormant sprays are: (1) Aphids or plant lice, including the apple-grain and green apple aphids on apple and the black aphid on cherry. (2) Leaf rollers, of which there are two common species on apple. (3) The cherry case bearer which attacks both apples and cherries, but principally the former. (4) The bud moth which similarly attacks both apples and



Left: Case bearer on leaves.
Right: Case bearer on blossom buds.

The case bearers penetrate and injure young unfolding leaves and blossoms. Flower ovaries are destroyed.

cherries but which is primarily an apple pest.

Materials Available

Dormant spray materials which have been or are now in common use in Wisconsin fall into three general groups: (1) **Dormant oils** of various compositions used at concentrations varying from 4 to 8 per cent. (2) **Dormant strength lime sulphur** which gives excellent case bearer control when applied in late fall. (3) A group of "new" insecticides containing certain chemicals that make them effective in the dormant pe-

riod at comparatively low concentrations.

Where leaf roller control is the main problem a **petroleum oil emulsion** at about 6 per cent concentration is recommended. This treatment is also effective against the cherry case bearer. Several satisfactory brands of oil sprays are commercially available, all of which should be used according to the manufacturer's directions.

New Materials Tested

One phase of our research program involves the comparative testing of new dormant spray products before or as soon as they appear commercially. Certain very promising ones were tested in 1939 and these and some others will be further tested this season.

The "new" material with which we have had the most experience is **Dowspray Dormant**. This is an oil spray in which a toxic salt called "DN" is dissolved. This material gave good control of both apple aphids and the cherry case bearer when used at 2 per cent in two experimental orchards last year. Furthermore, it has been giving similarly promising results in our tests for the past two or three years. It appears to be partially effective against leaf rollers when used at 3 per cent, but this and higher concentrations are ordinarily to be avoided under our conditions.

The makers of Dowspray Dormant are now experimenting with the toxic DN salt in powder form, with the aim

of letting the growers themselves combine it with whatever oil they choose. Some of these powders were tested with promising results in 1939, but we are not yet advocating their use generally.

Elgetol Attracts Interest

Another new product which gave good results last year is sold under the trade name of "Elgetol." It gave excellent control of apple aphids and the cherry case bearer when used at 1 per cent in two experimental orchards and in two other blocks where it was applied by the growers themselves. Another experimental application at ¼ per cent seemed to be just about as effective against these pests. Apparently this material is ineffective against leaf rollers and its efficiency against the bud moth is questionable.

The Elgetol plots were slightly superior to those treated with Dowspray Dormant, but it must be remembered that all of our results with Elgetol were obtained in one year. Dowspray Dormant is the cheaper of the two materials. Elgetol is not an oil spray and its combination with oil is not advocated until such combinations have been carefully tested under our conditions.

Insect Surveys

Under present conditions it is impossible for us to conduct the late fall and early spring insect surveys that we would like to make. A considerable number of apple and cherry orchards were visited on November 17 and 18, 1939. Almost all of them had a few egg-laying aphids present at that time. They had laid only a few eggs on those dates and we have no accurate information as to the subsequent egg-laying activity. We think that, in general, Door County cherry orchards are infested with aphid eggs to about the same extent as last year, and that the apple orchards have far fewer eggs than in 1939. Whether or not these comparatively light infestations will do serious damage depends primarily on weather conditions during the growing season. Hence any dormant treatment for their control is really a precautionary measure.

Some insect populations tend to follow cycles and show trends up or down from year to year. The cherry case bearer has been on the upgrade for the past two years and is apt to continue this increase for a time. On the other hand leaf roller and bud moth populations are now quite low in this area. Apparently most of the dormant treatments used this year will be directed primarily against aphids

or case bearers or both. Hence such combination treatments as Dowspray Dormant or Elgetol should be favored this season.

There are two important points to keep in mind when using any dormant spray. (1) Practically all of these formulae are decidedly toxic to foliage and their use must be confined to the dormant stage, before even the most advanced buds show any exposed green tissue. (2) These sprays kill by contact with the eggs or insects to be destroyed and only thorough coverage can possibly give satisfactory control.

PRAIRIE SPY NEW NAME FOR MINNESOTA NO. 1007 APPLE

MINNESOTA No. 1007 apple is to be called Prairie Spy, according to information from the Minnesota Fruit Breeding Farm. This variety was recommended for trial in the **Central sections of Wisconsin** by the Fruit Testing Committee two years ago. A number of trees have been planted and a number of cions have been top-worked on other varieties. The committee now deems it advisable to wait until some of these plantings come into bearing before making any further recommendations.

LIKES PEAT IN ORCHARD AND RASPBERRY PATCH

A LETTER from Wm. Verhulst, Franksville, states. "A year ago I mulched my young apple trees with peat. The weather was very dry last summer and I think that peat held the moisture very well and certainly made the grass grow.

"I also put peat in our black raspberry patch about three inches thick several years ago. Our plants would generally dry up during the hot weather, but last year we picked a fair crop and I think the peat moss helped a great deal."

Promising Pears

A new pear called Bantam, formerly Minnesota No. 3, is small in size but of quality equal to any pear, though the skin is a little bitter. The fruit is good for cooking and preserving and the tree is very hardy.

Minnesota No. 1, now called Parker is considered equal to or better than Bartlett for Minnesota.

APPLE TREES

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Route 3

Favorite Apple Varieties

Wisconsin Growers List Their Choice for Planting

ABOUT seven years ago the Secretary of the Southeastern Fruit Growers Co-op reported requests from growers for the purchase of more than 60 different varieties of apples.

Variety popularity has changed today and leading growers are listing not over seven or eight varieties which they care to grow. This indicates a tremendous change in the variety situation in this state. New varieties are gradually becoming popular. Some of them are bound to replace many of the older kinds as their value is proven.

Very fortunately, growers have been slow to make any substantial plantings of the new varieties until they have been thoroughly tested. Consequently, few have made mistakes.

Varieties Planted During the Past Few Years

Growers from the leading apple growing sections of Wisconsin were asked to send the following information to the Society. 1. What varieties did you plant during the last few years? 2. If you are planning to plant more apples this spring, what varieties will you plant?

From Bayfield

Dawson Hauser, Bayfield, reports in that section of northern Wisconsin they are planting Wealthy, McIntosh, and some Haralson because they are the best varieties they know of. They are also testing the Canadian McIntosh crosses, Lobo and Hume.

Wealthy, according to Ed. Betzold of Bayfield is a profitable variety in that section, where it becomes a rather late apple.

From Southeastern Wisconsin

In the Southeastern part of the state we find McIntosh leading in popularity. R. L. Marken of Kenosha, President of the Society, would plant apple varieties in the following order of preference: McIntosh, Starking, Jonathan, Cortland, and Snow.

Charles Patterson of Franksville, Racine County, likes the McIntosh,

Snow and Kendall. He states that he intends to plant a few Melba and Beacon as early apples, and also Secor because they seem to do well in that locality.

Wm. Basse of Waukesha planted 100 trees in 1937 of the following varieties: Northern Spy, Wealthy, Tolman Sweet, Milton, Melba, Wolf River, 40 McIntosh, Snow, Cortland, Kendall, Whitney Crab, Golden Delicious, and Red Delicious. He states that he intends to plant more Macoun because he likes them, and he will also plant a few more Melba and Milton as early varieties for which he has a market.

Swartz Orchards of Waukesha state that they have a good demand for the Swartz strain of McIntosh, Red Delicious, and Wolf River, as well as Wealthy.

Ralph Irwin of Lancaster considers McIntosh and N. W. Greening the safest varieties to grow, and has been planting Jonathan, Red Delicious and Macoun.

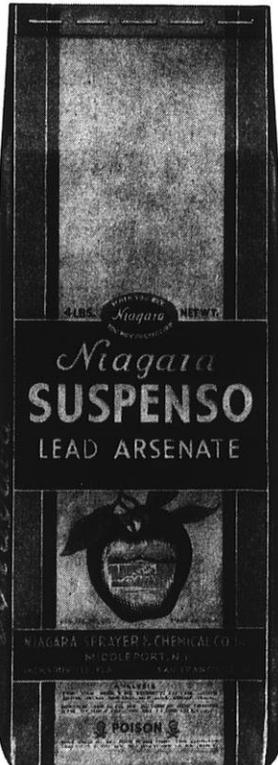
Central Wisconsin

Arno Meyer of Waldo is planting McIntosh, Snow and Cortland, using some of the newer varieties as filler. He will plant Virginia Crab for top-working to Red Delicious and Starnard.

Joseph Morawetz of West Bend planted Macoun, Red Delicious, Cortland, Milton, McIntosh, Tolman Sweet and Northern Spy. He intends to plant more Macoun, Red Spy, and will substitute Minnesota No. 1007 for N. W. Greening.

Rudolph Schultz of Lake Mills has been planting McIntosh, Snow, N. W. Greening, and a few of the older early varieties. He intends to plant Milton, Secor, and test some of the new Minnesota kinds. He thinks possibly Red Delicious might be good for fillers as they are short lived.

Carroll Krippner of Fort Atkinson has been planting Cortland, McIntosh, Starking and Jonathan. He thinks Jonathan is good as a filler. He likes these



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varieties because they are of good quality, red in color, and sell well.

Wm. Leonard of Fort Atkinson has been planting Cortland, Stark's Delicious, Kendall and Jonathan. He says Jonathan is one of the best sellers, and is always in demand.

Alfred Meyer of Hales Corners has been planting McIntosh, Snow, Wealthy, Cortland, and Duchess. He intends to plant in the future, Macoun, Cortland and McIntosh. He thinks Macoun has possibilities.

From Door County

Our Vice-President S. S. Telfer, writes, "Three years ago I planted McIntosh, Cortland, Jonathan, Kendall, and Wealthy. Five years ago I planted McIntosh, Cortland, a few Snow and Delicious." He thinks he would plant the same varieties now, but less Jonathan because it is liable to lack in size and color in that locality.

Don Reynolds of Sturgeon Bay states that they have been planting McIntosh, Snow, Cortland and Wealthy. He intends to plant more of these excepting Wealthy which they will not plant.

Mr. D. E. Bingham states, "Planting in the last several years of commercial orchards has been McIntosh, Cortland, Wealthy, with a small percentage of Delicious. We should not overplant of any one kind, and always remember the harvest time. Production should be equalized so that at no particular time should there be more than could be handled in ten days with the facilities available.

Kurt Stock of Fish Creek writes McIntosh is doing very well there. He plants a few Jonathan for Pollinizers.

John H. Miles, Sturgeon Bay, writes that he has been planting McIntosh and Hyslop Crab apples. In the future he will plant McIntosh and some of the newer red varieties such as Cortland or McIntosh crosses, which seem to have a better market price and are more consistent bearers in that locality than some of the older standard varieties.

Ozaukee County

Martin Wiepking of Cedarburg writes that he has been planting in the past, McIntosh, Wealthy, Red Delicious, Golden Delicious and Snows. In the future he intends to plant Milton and Melba as early apples for which he has a market, Cortland, McIntosh, and Secor because he considers them good marketable apples.

Ervin Tuma, Cato, Manitowoc County, has been planting Red Delicious, Snow, McIntosh, Jonathan, Early McIntosh, Melba, Milton and Cortland. In the future he will plant Red Delicious, McIntosh, Milton and Cortland. He says red apples take the eye.

Fox River Valley

N. A. Rasmussen of Oshkosh has been planting McIntosh, Greenings, Delicious, both Red and Golden, Cortland, Wealthy, Dudley, Wolf River, and Tolman Sweet. In the future he will not plant Wolf River, Dudley or Tolman Sweet.

New Apple Varieties

What Growers Think of Them

IN 1931 the Wisconsin Horticultural Society adopted the project of testing new varieties of fruits throughout the state. All fruit growers recognize that varieties differ greatly in their requirements, so that a test in all sections of the state, rather than in any one section, is important.

Fortunately this plan has resulted in a conservative policy and to date not a single one of the varieties which have been tested have been planted to any large extent. However, the information made available by the growers themselves, as to what they think of the varieties, will help any grower to determine whether he should or should not increase his plantings of any variety under his conditions.

During the past eight years the number of varieties being planted in Wisconsin has greatly decreased. Emphasis on quality has resulted in the planting of only high quality varieties by most growers, which will result in better markets for the future.

Growers who began testing apples in 1931-32-33 were asked to report on the varieties they are testing. The following are their answers.

The Melba

The Melba, an early apple, a McIntosh cross from the Ottawa, Ontario Experiment Station, has been the most widely tested of any new variety. Reports from all growers praise this variety as one of the best early apples tested.

The report of Virgil Fieldhouse, Dodgeville, is typical: "It is our first ripe apple, ripening the last week in July. Almost all the apples are off the tree by August 10th. It has very fine quality. We know of no better variety in this season. We recommend it for planting wherever early varieties are desired. The tree is good, bears regularly, and does not make heavy growth. It is an annual bearer. It is not a good keeper, but no early varieties are."

Gilbert Pieper, Oakfield, states that Melba ripens with him August 5-10.

The quality is very high, and he thinks it is the best early variety. The tree is of the McIntosh type, very good, and appears to be an annual bearer. He states, "Melba appears to be our best early apple, and we are happy to have it."

W. H. Steele, Pewaukee, states that he likes Liveland Raspberry better than Melba. The tree is an upright grower, the apples do not scab badly, and do not drop badly.

Some growers like the Melba because the tree is very hardy and is suitable for some of the colder sections of the state.

Secor

The Secor apple has been quite widely tested. It is a cross between McIntosh and Yellow Transparent developed by the New York Experiment Station at Geneva. It matures just before Wealthy.

Gilbert Pieper, Oakfield, writes, "Milton is an excellent apple for dessert or cooking. It drops somewhat, but sells on sight. It is beautifully colored, and is the best eating apple of its season. It ripens the last week of August up to September 1. It is the best cooking apple we have ever had the pleasure to use. Sauce, pies, apple fritters, etc., made from Milton are delicious. The tree is strong, and an annual bearer with us. We planted Milton to replace Wealthy and are thankful to have them."

Other growers report that Milton dropped some, sells very well, has good color, is a fine early fall apple of good quality, and sells readily.

Growers with roadside markets report that they like it because it sells well on the fruit stand, and can be picked at intervals of three or four days. It does not ripen uniformly, which is an advantage for the roadside stand, but a disadvantage as a commercial apple. It is not a good keeper and is not recommended as a commercial apple. It does, however, meet with favor as an apple for home use, for the roadside stand, and for local markets on a small scale. The apples do not keep very long.

Early McIntosh

The season for Early McIntosh (another McIntosh-transparent cross) seems to be from August 10-15, a little later than Melba. Reports from growers indicate that it is not as good an apple as Melba. The following are some of the reports.

Quality fair, poor keeper. It drops early and one bad point is that it clusters too much and the fruit is inclined to be small. Some growers consider it biennial. The tree grows erect like the Transparent, and the Whitney.

Arno Meyer, Waldo, states that it clusters and must be severely thinned. They can be picked over a period of

two weeks at three-day intervals. We can sell any quantity at good prices.

One grower reports some blight in the Early McIntosh.

Orleans

While the Orleans (a Delicious cross from New York) seems to meet with some favor, its quality has been a disappointment to many growers, who were rather looking for quality equal to that of Delicious. The quality is rated by growers as fair, it bears annually for most growers, has good size and color. The apples seem to be well spaced on the tree, and sell satisfactorily. Some growers report it bears only fair, and has only fair size and color. Some state they would not plant any more until it has been tested further, and like the Newfane better because it has better quality. Where Delicious can be grown well, no doubt the Orleans will not continue in favor. In sections where the Delicious is a failure, Orleans might be tested further.

Secor

Considerable interest seems to have developed during the past year or two in the Secor because of its performance as the trees have come into bearing. It is a cross of Jonathan and Salome from the Iowa station.

G. U. Kappel of Whitewater writes. "Secor matures well in our locality and the family thinks it is the best quality apple we have. They keep very well—we still have some in February—it has good color, and sells well. It seems to be an annual producer. My trees so far have been very vigorous growers."

Several growers wrote in February that the Secor was the best apple they had for eating at that time, and their family and friends liked it very well as to quality.

W. H. Steele, Pewaukee, however, thinks that its size is somewhat against it. It seems to run small for him. It has good color if not picked too soon. He would recommend going slow in planting it until it has been tested further.

Secor is a late apple and some reports seem to indicate that in the central part of the state it does not get good color when picking time comes unless it is left hang. It must not be picked too early.

Joseph Morawetz, West Bend, writes he likes Secor very well, but he says it has one bad point, it is not an early bearer.

Macoun

The high quality of the Macoun seems to be its greatest asset. Some growers consider it superior in flavor to McIntosh. It is a late season McIntosh cross from New York. A majority of growers reported that it hangs better than McIntosh. The general opinion about Macoun has been that it is a shy bearer, and especially that it does not bear young. There seems to be a difference of opinion in regard to

this however among the growers reporting.

Arno Meyer of Waldo states, "Trees the same age as McIntosh have not borne nearly as well."

Robert Ward, Fort Atkinson, states, "It is a good producer. In fact it may produce too heavily and require thinning."

Gilbert Pieper, Oakfield, states. "We believe it will be a heavy yielder." All growers rate the quality of Macoun as excellent with attractive appearance and high color. In maturity Macoun is about ten days to two weeks later than McIntosh. It will bear watching.

In fact, Macoun and Secor seem to be the most promising of the later varieties for the southern part of the State.

Kendall

Kendall is being widely tested but is a newer variety. It should be grown a few more years before our opinions will have real value.

Plums

Two new plums, No. 218 and No. 17 look promising at the Minnesota Fruit Breeding Farm. The latter is a regular bearer, freestone, ripening in mid-season. No. 177 and No. 101 are both large red varieties of high quality.

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New Fruit Varieties For Testing

Grapes

AS announced in our February issue, three new varieties of grapes from the New York Experiment Station are recommended for trial—Eden, Athens and Buffalo. Prices for testing are 40c per plant, the Horticultural Society paying the balance.

Dresden Strawberry Plants

The Dresden strawberry plants will be available for testing this year, at the following prices:

25 Dresden plants-----30c

50 Dresden plants-----50c

The Society will pay the balance.

Carpathian English Walnuts

As announced elsewhere in this issue, we have a few Carpathian English walnut trees for members of the Society only at \$1.00 per tree.

Raspberries

We recommend for further trial, the Taylor raspberry. This may now be purchased from many nurserymen. If your nurseryman does not have it, let us know and we will help you find plants.

White Grapes

We recommend for further testing the Portland and Ontario white grapes—high in quality and sweet. Many nurserymen have them, but if you are unable to find them, write the Horticultural Society.

Apple Trees on Manchurian Rootstock

As explained in our February issue, page 150, we have reserved a few Cortland and Hibernial apple trees, one year old whips, on Manchurian rootstock for trial in Wisconsin. Prices are: 1 tree 25c; 4 trees 90c. The balance will be

paid by the Horticultural Society. The Hibernial trees are recommended for topworking to such varieties as Red Delicious. The object of this test is to determine the value of the trees topworked on Manchurian crab rootstock.

WHAT KIND OF BLUE GRASS FOR THE ORCHARD

QUESTION: I wish to sow some Blue Grass in my orchard this spring. In the seed catalogs I notice listed the Kentucky Blue Grass and the English Blue Grass. Which shall I use?—R.O.H., Racine.

Answer: The Agronomy Department of the Wisconsin College of Agriculture tells us that the English Blue Grass is known in this state as Meadow Fescue. It is a tall, rank growing grass and not as adapted to orchard use as is the Kentucky Blue Grass.

In the shade of the trees the department suggests seeding Rough Stalk Meadow Grass which is resistant to shade, and might do very well there.

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The Cortland Apple

What Wisconsin Growers Think of It

A NUMBER of apple growers in Wisconsin were asked to give their impression of the Cortland as a commercial apple. These growers have the variety in their orchards and have had several years of experience with it. They have also observed the variety on the market.

For the Door County section, our Vice-President Mr. S. S. Telfer, gives the following opinion. "Cortland seems to be doing very well in Door County. I do believe, however, that it can easily be overplanted. It has much to recommend it—good size and color and the fruit hangs on well. The tree is apparently hardy and strong."

R. L. Marken, our President, Kenosha, says. "I think it's the best new variety produced."

N. A. Rasmussen, Oshkosh, says. "We are growing Cortland and think it will prove its merits and be an asset in commercial orchards in Wisconsin."

Martin Wiepking, Cedarburg, thinks it a very good apple for marketing.

D. E. Bingham, Sturgeon Bay, thinks Cortland has not been fruited in Wisconsin long enough to be sure of its worth. It has some very excellent points. He thinks the trees will need a lot of pruning.

Wm. Leonard, Fort Atkinson, writes. "So far it looks like it would be an all-purpose apple. Many families want an apple for both cooking and eating."

Jos. Morawetz, West Bend, says. "It is a good apple in this section. It colors well, hangs well, needs no thinning and keeps fairly well."

Arno Meyer, Waldo, states. "It is a beautiful, large apple and should sell well in the stores. However, its quality this year did not appeal to me."

Ralph Irwin, Lancaster, on the other hand states that the Cortland has been a disappointment to him. It is a shy bearer and lacks color.

Swartz Orchards, Waukesha, state that they have no call for the Cortland and so do not plant them.

Wm. Basse, Waukesha, thinks it is a very fine apple because it hangs to the tree well, compares favorably with Snow and McIntosh as an eating apple, is a fine cooking apple, and has an attractive color.

OZAUKEE COUNTY FRUIT GROWERS HOLD ANNUAL MEETING

THE Ozaukee County Fruit Growers Association held its annual meeting in Cedarburg on February 13th. Considerable interest and discussion centered around improved methods of storing apples. Nieman Brothers of Cedarburg reported that their new cold storage plant is serving their purpose very well. They keep their apples at 35 degrees and reported that Cortland held up excellently until February.

Mr. J. G. Blank, Cedarburg, reported that his cold storage plant kept his apples in very good condition, as did also Mr. Frank Eickstedt of Cedarburg.

Plans were made for a meeting of the Southeastern Fruit Growers Association in Ozaukee County next fall.

The following officers were elected for the coming year: President, Martin Wiepking, Cedarburg; Vice-president, B. J. Otting, Cedarburg; Secretary-Treasurer, Arnold Nieman, Cedarburg.

The outside speaker at the meeting was Mr. H. J. Rahmlow, Secretary of the Horticultural

Society, Madison, who talked on new things in fruit growing, illustrated with motion pictures and colored slides.

JEFFERSON COUNTY FRUIT GROWERS HOLD MEETING

THE Jefferson County Fruit Growers Association held their annual meeting in Fort Atkinson on February 23. The meeting began at 10 a.m. and the program never lagged in interest. There was a large crowd present.

Speakers were C. L. Kuehner and H. J. Rahmlow, Madison. Following the showing of motion pictures and slides on fruit topics, the chairman requested showing a motion picture film prepared by the Horticultural Society on Methods of Beekeeping, in which much interest was shown.

Officers elected for the coming year are as follows:

President: Wm. Leonard, Fort Atkinson
 Vice-Pres.: Frank Guttenberg, Jr, Jefferson
 Sec'y-Treas.: Carroll Krippner, Fort Atkinson

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Popular Strawberry Varieties

Beaver Still Leads as the Best Commercial Variety

STRAWBERRY growers in the principal commercial growing sections of Wisconsin were asked to name the varieties of strawberries most popular in their locality in the order of their preference.

The Beaver strawberry leads all others by a wide margin.

Premier is a close second to Beaver, and Catskill runs third. This, of course, is to be expected because Catskill is still a new variety and really has not been sufficiently tested to have taken its place as a commercial berry. Tests this coming year will either establish it as a rival of the other two in favor, or it may be discarded for a better variety as has been done with many others during the past.

Why Growers Like Beaver

Reasons given for preference of the Beaver variety may be summarized as follows: 1. Make an excellent stand of plants; 2. The berries keep best for shipping; 3. They produce well; 4. The Beaver will stand all kinds of weather conditions better than others tried, especially in sections such as Alma Center, Warrens and Sparta.

Rex Eberdt states, "The Beaver has fine shape, size, color and texture. Premier does not have as firm a texture. Dorsett is good, but not as high a producer. Catskill is very large, a beautiful berry, and a good producer, but we are not sure of it as a shipper as yet."

N. C. Jacobs, Sturgeon Bay, says he "makes more profit from Beaver than other varieties. They are cheaper to grow than Premier, and can be shipped better."

Premier Ranks Second

While about three-fourths of the growers reporting gave as second choice Premier, very few gave any reasons for that choice, simply stating why they preferred Beaver. However, Premier is an old standby and most growers continue to plant a small portion of their fields to that variety.

Catskill

Catskill is rated in third place by a majority of the growers reporting, and a few growers give it second choice.

R. E. Harris, Warrens, states in regard to Catskill, "This is one of the newer varieties and is a good producer, inclined to be soft when over-ripe. The first berries are large and good for the fancy trade. Makes a good row of large plants."

Ralph L. Otis, Sturgeon Bay, states, "Catskills are very thrifty and easy to grow. They produce a crop of high quality and sell well on the market."

B. F. Lennertz, Bayfield, states, "I harvested my first Catskill last year. They were very good and I am planting mostly Catskill this coming spring."

Dorsett

The Dorsett variety is rated in third place by several growers, and in first place by one. Most growers, however, state that it does not produce satisfactorily, but those who prefer it, like it because they have a special market for a nice appearing, high quality berry.

Other Varieties

None of the growers reporting place such varieties as Senator Dunlap, Warfield, Fairfax, and others higher than fourth place,

and most growers did not mention them at all. However, it must be considered that the growers reporting here are all from the commercial growing sections of Warrens, Sparta, Alma Center, Tomah, Bayfield and Sturgeon Bay. Senator Dunlap is still popular on many farms in the home garden strawberry patch.

DRESDEN STRAWBERRY LOOKS PROMISING

THE following letter was received by Mr. George L. Slate of the New York Experiment Station at Geneva, in regard to the Dresden strawberry.

"The Dresden strawberry continues to look promising. The berries are large, attractive, and the variety is a heavy yielder. I am inclined to think that the plants that you got from the Fruit Testing Association last year had been winter injured. About fruit time we examined the field from which the plants were taken, and they were definitely lacking in vigor. On cutting open the crowns we found that the centers were browned in varying degrees. The grower also did not put on very much mulch, and it was applied rather late in the fall."

As we announced in our February issue, the Dresden strawberry plants will be available to members for testing this year thru the Society. Prices are as follows:

25 plants	-----	30c
50 plants	-----	50c

Orders should be sent at once.

"Pick 'em fat, boys" advises a man who claims to know. "It's a lot easier to live with 200 pounds of curves than with 100 pounds of nerves."

STRAWBERRY PLANTS IN FAIR CONDITION

Growers Reports From Various Sections of Wisconsin

STRAWBERRY growers in various sections of the state were asked to report on the condition of strawberry plants and how they are wintering. The following is a brief summary of the reports sent in.

From Alma Center—There was a fairly good stand of plants last fall—possibly not quite as heavy a row on the average as the previous fall. They are wintering fine. We have missed our January thaw and consequently there is no ice formation on the row.—By Irvin Duxbury.

From Alma Center—The stand of plants is quite spotted. Those who put extra work on thin beds have a normal stand, but neglected beds are poor. The plants went into winter in the most mature condition in years and are wintering fine.—By E. J. Randles.

From Northern Wisconsin—Bayfield—Condition of the strawberry fields last fall varied considerably, ranging from good to poor. We haven't as much snow as in other winters, but the fields are covered and I think they will come through all right. The soil is very dry.—By Ben F. Lennertz.

Bayfield — Condition of the plants is fair. On the whole, somewhat below average. Early frost induced early maturity and we have enough snow to protect the plants.—By J. L. Brautigan.

From Central Wisconsin

Sparta—The stand of strawberry plants was fair. We had cold weather early in the winter so there may be some damage to the plants.—By R. H. Eberdt.

Taylor — We have a heavy growth of strawberry plants and they are well matured. They went into the winter in first class condition and are wintering well.—By Relyea Dahlia Gardens.

Tomah—The stand of plants was fair here. The condition was excellent in the fall. We think they are wintering very well.—By Lynn Reynolds.

Warrens—Stand of plants last fall very good to poor. Some patches had many plants not rooted. Condition should be good except for lack of moisture and dryness is probably our worst factor for wintering. Most fields have some covering of snow, but light on the average.—By R. E. Harris.

Warrens — Early set plants made a good row, but plants set later did not do so well as the weather was too dry. Plants are wintering in good condition and good shape as most growers mulched early.—John J. Olson.

Sturgeon Bay—The stand of plants was good last fall, though not as heavy as in 1938, but the spacing is better. Plants are wintering fine so far—By D. W. Reynolds.

Sturgeon Bay—Due to dry weather in late summer, strawberry plants did not produce as many runners as expected, but they are wintering fine.—By Ralph L. Otis.

Sturgeon Bay—The stand of plants is fair and the condition was good last fall. The wintering conditions are very good.—N. C. Jacobs.

LIKES CATSKILL

Ed. Betzold, Bayfield, writes he likes strawberry varieties in the following order: Catskill, Beaver, Premier. He has fruited Catskill for two years and states, "It has good growing qualities, good flavor, long picking season. Beaver is good if the berries are allowed to get red all over before picking. If picked too soon it has too many green tips."

He prefers new soil for strawberries. Otherwise manure in early spring, or planting on a heavily manured field the year before. He applies a light top-dressing of nitrogen fertilizer as soon as the leaves are out in the spring.

THE GROWERS MARKET

STRAWBERRY PLANTS

Strawberry plants for spring delivery. Warfields, Dunlaps, Beavers, Premiers, Fairfax, Dorsett, Catskill. Priced to sell. Order early. Mrs. John Jensen, Warren, Wisconsin.

STRAWBERRY PLANTS

Growers of 20 acres of strawberries. Place your order now for spring delivery of strawberry plants. Improved Beavers, Premiers, Catskill. Priced to sell. Discounts on large orders.—Reylea Dahlia Gardens, Taylor, Wisconsin.

FOR SALE

Strawberry Plants. Fall covered. Beaver, Premier, Catskill, Dunlap, Latham raspberry plants. Alfred Isaacson, R. 4, Menomone, Wisconsin.

STRAWBERRY PLANTS FOR SALE

Beaver, Premier, Fairfax, Dorsett, Dunlap and Warfield.

Write for special prices on large orders. State inspected and mulched heavily.

John J. Olson,
Box 115 Warrens, Wis.

FOR SALE

Catskill, Beaver, Premier, Grand Champion, Fairfax, Dunlap and Gem strawberry plants. Evenly graded and well trimmed. No small plants.

Hardest blackberry. Early in season.

Melba, Newfane, Red River crab, Minnesota No. 424, No. 700, No. 790, No. 1007, and No. 993 apples. Hall Nursery, Elmwood, Wis.

Will Blueberries Do Well In Wisconsin?

FOR more than 15 years horticulturists of Wisconsin have been wondering if they could grow the highbush blueberries that are so popular in the East. To date we do not know of any successful planting of the highbush blueberry in Wisconsin. They are being tested even today in various sections of the state, but we cannot as yet report any success. Eventually we may find certain places and certain conditions where they will do well, and so those who wish to continue testing them should be encouraged. However, they are certainly not recommended for any large planting.

A letter from Mr. Stanley Johnston, Superintendent of the South Haven Experiment Station, Michigan, where extensive tests have been made, writes as follows:

"The highbush blueberry, as far as I know, does not grow naturally in Wisconsin and it does not grow in Michigan north of Saginaw Bay. We have a number of test plantings in the Upper Peninsula, but it is too early to tell very much about them. I have a feeling, however, that in close proximity to the Great Lakes there may be a few places where they will grow. However, even though they grow, there is some question as to how well the highbush type will bear in that region due to the shorter growing season. We can give you more information on this in two or three years.

"We have moved many lowbush blueberries from the Upper Peninsula here for our experimental work. They have been hardy here, although the fruits have not been as large as where we found them in their native conditions.

"Highbush blueberry growing is probably a very hazardous undertaking. Any plantings made should be very small in number of plants."

Those who wish to try blueberries should write for the bulletin entitled, "The Cultivation of the Highbush Blueberry" from Michigan State College, East Lansing, Michigan.

WHAT IS THE BEST VARIETY OF CURRANT

WE would like to hear from growers who have had experience with growing different varieties of currants as to which variety is best under their conditions.

The Red Lake Currant was introduced a number of years ago and according to reports from growers is meeting with favor. It is said to be larger in size than the average currant; the quality is good—not so tart as some of the others, and it is a good producer.

Drop us a card as to which varieties you have found best. If you have grown the Red Lake, how do you like it?

Restrictions on Growing Currants and Gooseberries

According to E. L. Chambers, State Entomologist, Madison, currants and gooseberries may not be grown within 900 feet of a planting of white pine which is protected by the state and has been posted. There are no restrictions on growing them elsewhere. Nurseries outside of Wisconsin are required to obtain permits before they can ship in these plants in order that their destination can be checked. Wisconsin nurseries have maps showing restricted areas.

A wise old trainer asked for advice on winning races, said: "The thing to do is to get out in front at the start and improve your position from there on."



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 Easy to operate with a **BOLENS** garden tractor cultivates, hoes, seeds, furrows or pushes lawn mower. Larger models for plowing, harrowing, disking, mowing, fertilizing, spraying, pulley for belt work, etc. Prices from \$79.50 up. F. O. B. Factory. Write Gilson-BOLENS Mfg. Co., 3021 PARK Street, Port Washington, Wis.



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Walking or Riding Types
 Viking Twins Handle a Full 10 Inch Plow They Harrow. Seed. Cultivate — Pull Loads and Do All Small-farm Work.
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Wisconsin Beekeeping

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Geo. Jacobson, Kaukauna
Ivan Whiting, Rockford

Have Bees Enough Pollen Or Shall We Feed A Supplement?

SOYBEAN flour may be used as a **supplement** for pollen this spring, but is not successful as a **substitute** for pollen, in the opinion of the Central States Bee Laboratory at Madison.

April is the month during which there should be heavy broodrearing if we are to have strong colonies at the beginning of the white or alsike clover flow in June. If the weather happens to be bad during the first part of April so that bees cannot obtain pollen regularly from the field, they will soon exhaust all the reserve pollen in the hive and then stop broodrearing.

Tests at the Central States Bee Laboratory have shown that soybean flour will stimulate broodrearing for a short time. Therefore in late March or early April when pollen collection is light or intermittent, soybean flour can be fed to enable colonies to continue broodrearing without interruption.

How to Feed Soybean Flour

The Central States Bee Laboratory, Madison, has successfully fed a mixture of one part of pollen and three parts of soybean flour to colonies, and such colonies raised brood normally and about as actively as those fed entirely with pollen. However, most beekeepers will not have pollen to mix with the soy-

bean flour. Therefore, to feed the soybean flour alone, we should wait until just before pollen is coming from the field. Then mix with the soybean flour a sugar syrup made of one and one-half parts of sugar to one part of water. Stir in enough flour to make a **moist** dough-like cake which will not run.

We fed about a cupful with a large spoon directly on the frames over the broodnest last year. Replace the cover and look again in one week. If the colonies have not taken the flour down in that time it should be removed as it becomes hard and then cannot be used. It can also be made into little cakes about one-half inch thick and covered with waxed paper. A cake about the size of a man's hand is sufficient for one colony. If at the end of one week they have used all of the flour, and pollen from the field is still not coming in well, another cake may be fed. As soon as pollen comes in quite freely, the soybean flour will not be used. Colonies that do not use the cake may be queenless and should be examined.

Remember these points. Soybean flour is not recommended as a substitute for pollen, only as a supplement, and only where there is some pollen available in addition to the flour.

The soybean flour may be obtained from the Southeastern

Wisconsin Fruit Growers Association, Waukesha, Wisconsin, Route 3, Lester Tans, Secretary. This flour is used by fruit growers as a sticker for spray materials. It may also be obtained from the Archer Daniels Midland Company of Milwaukee. See ads in this issue.

HONEY PROGRAM

"HONEY for Breakfast" will be the slogan of a campaign sponsored by American Honey Institute for the week beginning Easter Sunday morning. The American Honey Institute suggests that honey combines well with citrus fruit and cereals in sales promotion and on the breakfast table.

Streamers for Store Windows

Two attractive window streamers advertising "Honey for Breakfast" may be had from the American Honey Institute at 25c per dozen or \$1.00 per 100.

Honey Utilization Committee

At a recent meeting held in Sacramento, California, a committee on Honey Utilization was formed with George Walton, Associate Chemist. Serving on Mr. Walton's committee are: M. G. Dadant, Hamilton, Illinois; E. R. Root, Medina, Ohio; Mrs. Ethel Krebs, Sacramento, California; Harriet M. Grace, Madison, Wisconsin.

FOX RIVER VALLEY BEE-KEEPERS MEETING

NEW CITY HALL, APPLETON
(Old Lincoln School—Oneida St.)

Tuesday, April 2, 10 A.M.

PROGRAM

10 a.m. A labor saving one-man extracting outfit, illustrated with colored slides. The pollen question and its effect on strong colonies. H. J. Rahmlow, Madison.

How to identify bee diseases, illustrated with lantern slides. The A.F.B. eradication program for 1940. C. D. Adams, Madison.

12:00 M. Luncheon.

1:15 p.m. Annual business meeting. Election of officers.

2:00 p.m. Plans for A.F.B. Control. E. L. Chambers, Madison.

2:30 p.m. What beekeepers can do for more profitable honey production. 10-minute discussions by Walter Diehnelt, President State Association, Menomonee Falls; A. J. Schultz, Ripon; Leonard Otto, Forest Junction.

3:00 p.m. Can we use soybean flour to promote spring broodrearing. How it is done. How to paint queens. H. J. Rahmlow, Madison.

Woman's Auxiliary Meeting

The Woman's Auxiliary will have a program in connection with the above meeting. Mrs. Ann Eggleston, newly appointed Home Economics Worker with the American Honey Institute, will be the speaker. We hope all the women will attend.

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MEETING WESTERN WISCONSIN BEEKEEPERS

Court House, Menomonie

TUESDAY, MARCH 26, 10 A.M.

PROGRAM

10 a.m.—Labor saving one-man extracting outfit, illustrated with colored slides. The pollen question and its effect on strong colonies. H. J. Rahmlow, Madison.

How to identify bee diseases, illustrated with lantern slides. The A.F.B. eradication program for 1940. C. D. Adams, Madison.

12:00 M.—Luncheon.

1:15 p.m.—Annual business meeting. Election of officers.

2:00 p.m.—The A.F.B. clean-up in Dunn county. Suggestions for better beekeeping. S. P. Elliott, Menomonie.

2:30 p.m.—Problems of the commercial beekeeper. Short cuts in beekeeping work. Henry Schaefer, Osseo.

3:00 p.m.—How to install package bees. Discussion on using soybean flour for spring broodrearing. How to paint queens. H. J. Rahmlow, Madison. Illustrated with moving pictures.

SOUTHERN DISTRICT BEE-KEEPERS HAVE SUCCESSFUL MEETING

THE Southern District of the Wisconsin Beekeepers Association held its annual meeting at Janesville on February 17th. More than 60 beekeepers and their wives attended. There was an excellent spirit and much enthusiasm.

Speakers were Mr. C. D. Adams, Madison; Mr. Ivan Whiting, Rockford; and H. J. Rahmlow, Madison.

Officers for the coming year were elected as follows: Chairman, Mr. Ivan Whiting, R. 2, Rockford, Illinois; Vice-Chairman, Mr. Theo. Engen, 901 Brook St., Beloit; Secretary-Treasurer, Rev. F. T. Richardson, Beloit.

FOR SALE

70 colonies of bees and comb honey equipment in 8 frame and 10 frame hives. C. A. Wood, South Wayne, Wisconsin.

HONEY MARKETING CONDITIONS

FROM the semi-monthly honey report of the U. S. Department of Agriculture, we find that the demand for honey in small lots shows improvement. There seems to be an increased demand for honey for shipment to Canada. Perhaps if we allow our neighbors to sell something to us they will be able to buy our farm products. Canada seems to be shipping more honey to England.

Michigan reports several cars sold at 5c and 5½c per pound. Wisconsin prices reported 4½ to 5c. 60 lb. cans range from 6 to 7c.

It is in the East that we notice the prices strengthening which is natural because prices are always lower in the heavy producing sections where production exceeds local demand.

In New York City sweet clover honey is 7-8c. In Philadelphia mid-Western white honey is 8½c in 60's.

If the demand increases in the heavy populated centers and the supply gets shorter, then only will prices go up. There seems to be plenty of honey, however, still available in the middle-West.

HONEY DISPENSERS HAVE INCREASED DEMAND FOR HONEY

THE opinion of some of our largest beekeepers, those who keep closely in touch with the market, is that the honey dispensers and dripcuts which have been introduced to the public during the past few years have greatly increased the consumption of honey. Previously many people did not have honey on the table regularly because they did not have a suitable container for it. Now, however, with the dispensers they are apt to have it on the table constantly, which means increased use of honey.

Moral to beekeepers: Sell dripcuts to your customers.

WHICH IS THE BEST RACE OF BEES

CONSIDERABLE has been written and said about the different races of bees being used in the United States. The leading ones, of course, are the Italian, Caucasian, and Carniolan. In general, the different races have certain characteristics which may be outstanding and well known. For example, the Caucasians are heavy propilizers, and many beekeepers object to them on that account.

The Carniolans are reported to swarm readily.

However, it is honey gathering ability in which beekeepers are most interested, and it is on this subject that we hear reports which are often not very accurate, or are based upon very limited observation. For example, in a recent issue of a leading national beekeeping magazine, the writer states that he ordered one Carniolan queen, and then proceeds to report upon the difference between races, stating that the Carniolans did not prove as good in honey storing ability. In other words, he was basing his conclusions upon the production of one single colony to which he had given a Carniolan queen.

When we read the reports of the Central States Bee Laboratory as to the vast difference between Italian bees of different stock, we see that we have very little basis for comparison. Italian bees from one breeder may produce a fine crop of honey, while those from another breeder may produce very little. If then we were to compare good Italian stock with those of other races, we might come to the conclusion that the Italians were far better, while if we compared the poorest stock, it would be just the opposite.

What we mean to say is this. Since there is so much difference in Italian stock, our first job should be to improve our stock, before we compare races.

HONEY RECIPES

THE Schultz Honey Farm of Ripon promotes the use of honey by publishing a list of honey recipes, which are furnished consumers. It is a neat little folder and contains 14 recipes, all of which should increase the use of honey.

The following are several of the recipes in the folder.

Honey Bran Muffins

- | | |
|---------------------------------|---------------------------------|
| 1 large baking spoon shortening | 1 c. buttermilk |
| 2 tbsp. honey | 1 c. bran |
| 2 eggs | 1 1/2 c. flour |
| 1 pinch salt | 1/2 tsp. baking powder in flour |
| 1 tsp. soda | |

Put this recipe together as given and bake in moderate oven.

Honey Butter Cookie

- | | |
|----------------|-------------------------------|
| 1 cup honey | 2 tsp. soda sifted in flour |
| 3/4 cup butter | Lemon flavoring to suit taste |
| 2 eggs | |
| 3 cups flour | |

Drop in pan by spoonful. Bake.

Honey Pecan Pie

- | | |
|---------------|--------------------------|
| 1 cup honey | 1 cup ground pecan meats |
| 1/2 cup sugar | 1 tsp. maple flavoring |
| 3 eggs | 1 tbsp. butter |
| Pinch salt | |

Beat eggs, sugar and honey lightly, add salt, nutmeats, flavoring and butter. Pour in an unbaked pie shell and bake.

WISCONSIN BEEKEEPER WORKS IN THE SOUTH

A letter from Newton Boggs of Viroqua, who is spending the winter with Jensen's Apiaries, Macon, Mississippi, raising bees and queens, states, "We arrived at Macon the middle of December, and we are getting ready for our package and queen season. We have had some very cold weather here the past three weeks (January 21). The temperature went down to 5 above. However, bees are in excellent shape here with plenty of bees and honey."

He reports that the Canadian business in bees and queens is expected to be much improved due to the war. The export demand for honey to England has greatly increased recently.

HONEY WANTED

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

SOY FLOUR

We carry Soy Flour which may be used as a pollen supplement for bees, or as a sticker for spray materials for the orchard.

10 lb. bags, 65c; 100 lb. bags, \$4.90
F.O.B. Waukesha

Southeastern Fruit Growers Co-Op, Inc.

Lester Tans, Secy. Route 3
Telephone Big Bend 2821

TIMESAVERS!!

Frame Spacers

New! Space nine combs in a ten-frame super in 1/2 to 2/3 less time than by hand. Ask your local dealer for demonstration. Write for circular.

H. A. SCHAEFER
Osseo, Wisconsin

LOTZ BEE SUPPLIES!

BEST QUALITY AT
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Our new 1940 catalog, which is now ready for you, will prove this. Prices have not advanced, in fact you will realize great savings with the same high standard of quality.

If you have not received a free copy of our new catalog, be sure to write for yours at once, and SAVE!

AUGUST LOTZ COMPANY
BOYD, WISCONSIN

Editorials



CARPATHIAN ENGLISH WALNUT TREES AVAILABLE

Limited supply to be sold only to members of the Society.

ABOUT 90 Carpathian English walnut trees are available from the Wisconsin Horticultural Society to its members this spring. These trees are about two years old. They are from two to three feet tall, grown from seed imported from the Carpathian Mountains by Rev. P. C. Crath.

The price of the trees will be \$1.00 each, postpaid.

Send orders early. The trees will be delivered at planting time.

Observations by many who are now growing the trees indicate they are doing well wherever better varieties of apples do well. In sections of the state where the temperature drops lower than 20 below zero they are often winter injured. We do not, therefore, recommend them even for trial in sections of the state that cannot grow well such apples as McIntosh.

SCOUT APRICOT

New Variety Offered for Trial

ANEW apricot has been introduced by the Experimental Station of Morden, Canada. It is said to be a very fine apricot. It is called Scout. It is reputed to be extremely hardy and rust resistant. It should have possibilities for growing anywhere in Wisconsin. It seems to do well as



far North as Winnipeg. The fruit is a bronzy-gold color, often with a red blush. It is free stone, yellow flesh, smooth, tender, free of fiber, skin is thin and tender, flavor is pleasing as dessert, jam or canned.

The Horticultural Society has reserved a few of these trees for trial in Wisconsin.

The Price

Two 3-4 foot trees, parcel post prepaid, \$1.00. Additional trees \$1 each.

The above price is to members of the Horticultural Society only. It is one-half of the regular retail price, the Society paying the balance from its fruit testing fund.

Hotels in Rochester, Minnesota, home of the Mayo Clinic, have signs reading: "Please do not discuss your operation in the lobby."

REV. P. C. CRATH WRITES ABOUT CONDITIONS IN THE UKRAINE

OUR members who have been purchasing Crath Carpathian English walnuts obtained from the Carpathian Mountains of Poland and the Ukraine will be interested in a letter received from Rev. Crath of Toronto in regard to conditions there. Western Ukraine has been taken over by Russian troops and Rev. Crath reports great suffering in that section. He says, "The Russians, who for 20 years were taught by the Communists that outside of Russia there was much poverty, were amazed to see in Western Ukraine plenty of food and mercantiles which could be bought much cheaper than in Russia. The Communist soldiers and civil commissars who came with the army began to buy everything they could find in the stores and in no time the country was sacked and they left behind only worthless Bolshevik paper money. The Russian army came into Western Ukraine poorly clothed, and without food supplies. They feed on the country and put their own prices on the agricultural products which is very low. Thousands of Ukrainians and Poles were sent to the Finnish front where they were forced to go before the Russian advancing lines to cause explosions of hidden Finnish mines.

"I hope that the invaders will be satisfied to get the English walnuts from the trees and not cut down the trees.

MRS. OSCAR CONRAD HONORED

MRS. OSCAR CONRAD of Hales Corners, was honored by the Wisconsin College of Agriculture during Farm and Home week last month. Dean Chris L. Christensen in presenting the certificate of honorary recognition stated, "Mrs. Conrad, an excellent homemaker, has sensed a field of homemaking that includes not only the home, but the community and public at large."

Mrs. Conrad is a member of the Hawthorne Garden Club, and her husband, Oscar Conrad, is a member of the Milwaukee County Fruit Growers Association. Both have been members of the Wisconsin Horticultural Society for some years. The Conrads have a fine dairy herd and a fruit farm. Most of their apples and berries are sold from a roadside stand.

THE MINNESOTA FRUIT GROWERS SHORT COURSE

WISCONSIN fruit growers are invited to attend the annual Horticultural Short Course at the University Farm, St. Paul. W. R. Leslie of the Experimental Station, Morden, Manitoba, will be the principal speaker. There will be a special program on irrigation, marketing and fruit utilization on Thursday, March 28th. The course opens on Wednesday, March 27th, with a program on vegetable growing. On the 28th there will also be a section on ornamental horticulture.

The regular fruit growers program, covering cultural problems, will be on the 29th of March. For complete program, write the Registrar, University Farm, St. Paul. There is no registration fee.

Our barber looked at a young man's sleek hair and asked if he wanted it cut, or just the oil changed.

GRAFTING ENGLISH WALNUTS

IN the spring of 1938 I planted a small English walnut tree of about one-fourth inch diameter, at the base of a black walnut tree of about two inches in diameter. Late in the summer I made an inlaid graft which united with the stock. Last spring I cut off the black walnut tree above the union and the English walnut made a thrifty growth of about 3 to 4 feet.

In making walnut or any other grafts it is necessary to use cions free from winter or any other injury.

N. C. Jacobs, Sturgeon Bay.

STURGEON BAY GIRL WINS HIGH HONORS IN CHERRY PIE BAKING CONTEST

MISS PATRICIA DeFERE, 15-year old Sturgeon Bay girl, won second place in the National Cherry Pie Baking Contest held at the Morrison Hotel, Chicago on Washington's birthday.

First place was won by Nina Rose McLaren, 18-year old Springfield, Illinois, girl.

Third place went to Roberta Crane, 17, of Webster, N. Y. Fourth to Rosemary Anderson, Muncie, Indiana. Fifth to Shirley Thotland of Minneapolis, Minn.

The winner of first prize was crowned National Cherry Pie Champion and wins a trip to the White House where they will present President Roosevelt with a cherry pie.

WISCONSIN NURSERYMEN HOLD SUCCESSFUL CONVENTION

THE 23rd annual convention of the Wisconsin Nurserymen's Association held at the Schroeder Hotel, February 7-8, was conceded by all present to have been one of the most successful in the history of the organization. Twelve new members were added

to the membership roll. The change to a two-day convention was appreciated by members present.

A mid-summer meeting will be held this coming year, time and place to be announced later.

The following officers were elected for the coming year: President, James Livingstone, Milwaukee; Vice-president, Oscar Hoefer, Kenosha; Secretary-Treasurer, H. W. Riggert, Fort Atkinson.

THE STATE-WIDE MUSEUM PROJECT

FEW people in Wisconsin appreciate the possibilities for educational help, especially along horticultural lines, available from the Wisconsin State-wide Museum project at 191 N. Broadway, Milwaukee. Educational material is available to public institutions such as libraries, schools, county agents, and in fact, any public department or worker at only the cost of the material used. It is sponsored jointly by the Milwaukee Public Museum, the University of Wisconsin, the State Department of Public Instruction, and the City of Milwaukee. It is supported by Federal funds as a relief project.

In our next issue we will have more detail as to how this service can be utilized in an educational way.

WAR

GIVE me the money that has been spent in war and I will clothe every man, woman and child in the attire of which kings and queens would be proud. I will build a school-house in every valley over the whole earth. I will crown every hillside with a place of worship consecrated to the gospel of Peace.—Charles Sumner.

Few things count after you are gone, but those few count for everything.



Gladiolus Gleanings



By the WISCONSIN GLADIOLUS SOCIETY

Chester Harrison, Waldo, President

Dr. Geo. Scheer, Sheboygan, Vice-President

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

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

Regional Vice-Presidents

Frank Blood, Stevens Point

Fred Hagedorn, Sheboygan

Edwin Ristow, Oshkosh

Ben Robinson, Kenosha

Gladiolus Thrip Control

Noel Thompson

IT may not be true, as is sometimes reported, that cats, especially alley cats, have nine lives. And of course, it is not a fact that Gladiolus thrips have three lives. However, since many treatments for this pest are said to be 100% effective and yet fail for one reason or another it may be best to suppose that the thrips has three lives and therefore needs to be "killed" three times. One good grower of my acquaintance "kills" his thrips five times, but this, I think, may not be necessary.

How to Use Naphthalene

No doubt all of you have eliminated all thrips from your corms by storing them at a temperature of 45° or less for the last several months. This is a safe method, and I am convinced, will kill all thrips. You should also have killed them by fumigation. Naphthalene flakes are most commonly used for this. If you used this material, you can be sure all the thrips are dead again. It is now time to make sure that you do not also kill the corms. The greater part of the flakes should be removed from the corms and ventilation increased before there is any possibility of root growth. Naphthalene flakes seldom injure dormant corms but may injure them in the fall or in the spring when they are breaking dorm-

ANNUAL SPRING MEETING WISCONSIN GLADIOLUS SOCIETY

Hartford, Municipal
Building

Sunday, March 31

10 A.M.-4 P.M.

—Good Program—

ancy. Therefore, now is a good time to remove most of the flakes.

Final Treatment

So far, we have only "killed" the thrips twice this winter. To make sure that they are dead, soak the corms in a solution of Bichloride of Mercury, one part by weight to 1,000 parts of water. This should be for 12 hours or more and is usually done just before planting. Do not use metal containers. Enameled or glass containers are best. With small lots, fruit jars are convenient. With larger lots, crocks may be used, or wooden barrels. It is best to use a fresh solution for each successive treatment. Treat all your glads, cormels as well as corms, and do not put the treated ones back near the untreated. Then burn everything that is left. If this is done care-

fully, you should be able to kill the thrips for the third time.

Treat Purchased Corms Again

Don't neglect the corms you bought this winter. Probably all the thrips on them were "killed" once by the grower, but be sure you kill them again before planting. These corms should be soaked in the Bichloride solution along with your own. It might also be well to assist your neighbor in treating his corms.

MANITOWOC ORGANIZES GLADIOLUS CHAPTER

MR. G. H. THOMPSON of Manitowoc, arranged for a meeting of gladiolus fans in Manitowoc on March 8th. At a previous get-together meeting, ten members signed up to organize a Chapter, and about 25 members signed up at the meeting on March 8th.

Fine work Manitowoc! Now let's organize more Chapters in other cities.

The Sheboygan Chapter held a meeting at Waldo on February 22nd. Thirty-nine attended. The slides of the Wisconsin Horticultural Society on gladiolus and annuals and perennials were shown.

At the Waldo meeting growers donated bulbs which were sold at auction resulting in the sum of \$18.00 for the treasury.

**ANNUAL SPRING MEETING
WISCONSIN GLADIOLUS
SOCIETY**

Hartford, Sunday, March 31

PROGRAM

10 a.m. Business meeting. Selecting site for 1940 Gladiolus Show. Discussion of favorite fertilizers for growing glads by growers.

12 M. Noon luncheon. Separate meeting of Board of Directors. Exhibit of colored pictures of leading gladiolus varieties from the New England Glad Society.

1:15 p.m. Continue program. Motion picture film on how to prune shrubs and evergreens; how to repair the lawn; how to graft. Discussion of new things in gardening. H. J. Rahmlow, Madison.

2:00 p.m. Report of judges on the gladiolus corm show. What constitutes good corms?

2:30 p.m. The latest in the control of gladiolus diseases and insects. Noel Thompson, Madison.

3:30 p.m. Glad varieties I will grow this year. Discussion of favorite varieties. Walter Krueger, Oconomowoc; Walter Miller, Sun Prairie; A. S. Haugen, Stoughton; Ben Robinson, Kenosha; Edwin Ristow, Oshkosh; Dr. Geo. Scheer, Sheboygan; Fred Hagedorn, Sheboygan.

Gladiolus Corm Show

Rules: Bulbs in each class must be of one variety. The show will be staged during the forenoon and up until 12:30 p.m. Judging will begin at 1 p.m.

Classes

- Class 1. 3 No. 1 corms.
- Class 2. 3 No. 3 corms.
- Class 3. 3 No. 3 corms.
- Class 4. 5 No. 4 corms.
- Class 5. 5 No. 5 corms.
- Class 6. 5 No. 6 corms.
- Class 7. Largest single cormel.
- Class 8. 5 cormels.
- Class 9. Heaviest corm.
- Class 10. Corm with highest crown.
- Class 11. Corm with widest diameter.
- Class 12. Most perfect corm. Separate entry not required.

No horse can go as fast as the money you bet on him.

FOR GLORIOUS GLADS AT GLAD TIME

Walter C. Krueger

THE time of New Year resolutions is past, but every one who plants but a single dozen of gladiolus, or more, should make a promise to himself now, and that is to plant not a single glad bulb, no not one, unless it has received a dip in a solution capable of destroying Mr. Thrip and his eggs. If this is done it will be only a year or so and plant spraying will not need to be done. Too many people may make such a resolution, but when planting time is at hand they do not carry it out, and trouble in the garden is a foregone conclusion.

Do It Well

The usual error is to dip about 90% and omit that last dozen. Why go through with all the work and then spoil it by failing to complete it. The old saying "if a task is once begun, never leave it till it's done, be the laborer great or small, do it well (all) or not at all," should be followed.

Then too, some people, through lack of scientific training, or because they are careless, vary formulas or alter conditions which result in no thrip kill after going through all the motions, and they think the dip no good!

What dips may be used? Many may be used. Here are a few: Corrosive Sublimate, Semesan, Rototox or Lethane 440. If you cannot obtain the formula, I will be pleased to answer specific requests.

So save up some sugar or salt sacks, some discarded ladies hose or some other container in which varieties may be kept separate. Do it now, and when glorious glad time is at hand carry out your resolution and "dip 'em" according to directions—don't over-

dose, nor underdose, nor cheat on the time—and plant them. Don't forget the precautionary weekly spraying to overcome the ill results of the fellow who **thought** he would but forgot to "dip 'em."

Such a resolution carried out will insure glorious glads at glad time!

**HOW TO TREAT GLADIOLUS
CORMS**

Use Solution Only Once

TESTS made by the U. S. Bureau of Entomology and Plant Quarantine as stated in the report of the Chief for 1939, gives us the following information about treating gladiolus corms in mercuric chloride.

"In tests to determine the quantity of mercuric chloride (corrosive sublimate) that is absorbed by the gladiolus corms when they are soaked in a solution of this chemical in the spring (Continued on Page 197)

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Home and Garden

Mrs. C. E. Strong

TESTS OF VITAMIN B₁

I WAS rather more amused than interested when those first articles on Vitamin B₁ came out. Daffodils as large as sunflowers really did not appeal to me, but the statement that it prevented the wilting of plants during transplanting was something quite different. Just imagine if we could eliminate the wilting of plants when transplanting. Why, the garden of our dreams would become a reality. Is the garden club coming to view our borders? Are there many vacant places? That's nothing to worry about, just rush to market or nursery and buy blooming plants to fill the spaces. Soak the roots in a Vitamin B₁ solution, plant and water. Presto! Everything is lovely. Just imagine how smugly we would listen to the awed and admiring comments of those club members on the unbroken expanse of bloom in our garden.

Seriously, however, I was interested, and decided to try some of this B₁. Not being at home, was somewhat hampered in the experimenting. However, my sister had some house plants that were at a rather sad stage, so we decided I really could not make them look much worse. When the Vitamin B₁ arrived, a Solution was made up. First we transplanted a part of an Oxalis in the usual way without B₁. Then another was planted with the Vitamin, placing both plants in a sunny window. The one without the one was not quite dead, but al-Vitamin promptly wilted and stayed in that condition for several days—many of the leaves turned yellow. But the Vitamin treated plant stood up as fresh



"The winds of March clearing away the debris before April can appear." — Cole

as though it had never been moved. Though all the soil had been shaken from the roots, none of the leaves turned yellow.

Results on Roses

Two rose bushes in pots were next chosen. Both looked as though they would not mind anything that could be done to them. Both had only a few sickly green leaves. One was watered with the Vitamin — one with just water. In about ten days the Vitamin treated rose began to send out thrifty red-green shoots and at the end of six weeks was a healthy looking bush. The other most.

Several Begonias were tried out in the same way. The results were about the same, plenty of good foliage and quite a bit of bloom. We gave all the Cactus doses of the Vitamin B₁. They seemed to pick up almost at once, making new growth, as well as giving promise of bloom. Their root growth was remarkable.

Six weeks is not long enough to tell much about what this Vitamin B₁ can do, but it was an interesting experiment, and one that I want to carry on, especially along the transplanting line, with shrubs and plants, as well as

with seedling plants of annuals and perennials.

Have seen no evidence of plants growing so rapidly that they took possession of the house! Perhaps my habit of digging up plants to see how they grow may have hindered a more rapid top growth. But you see, that is how I knew the cactus were making such a nice root growth.

By the way, do you know that cactus will make wonderful root growth in a mixture of peat and sand? Cuttings of cactus, rooted in this mixture, then planted in pots filled with the same, grew to be large sized plants in a very short time.

If You Have Room, Try These

Amelanchier Canadensis, (June Berry) A graceful tall shrub, with drifts of snowy white bloom early in spring, very hardy, one of Wisconsin's very best native shrubs.

Redbud or Cercis — its small rosy lavender blooms appear before the leaves literally covering the branches. Well worth growing.

Years ago the **Smoke tree** was a favorite in many gardens. When in bloom its tiny feathery flowers covered the bush—they looked like clouds of smoke. Had almost forgotten how attractive it was, until at a Flower Show the seed heads were used with the seed sprays of the yellow Clematis for a winter arrangement. This was so lovely, it brought memories. Why do we not grow this very attractive shrub? And lo—I found it listed in a 1940 catalog. It likes a dry sunny location.

The Christmas Rose

This spring will be the time to plant *Helleborus Niger* — the Christmas Rose, so you may have its beautiful white flowers from November through February. It likes a sheltered spot, shaded from the hot sun in the summer, but likes sunshine in winter when it blooms. It likes a rich soil.

To brighten your garden late in the season, plant the dwarf as well as tall growing Hardy Asters. The newer varieties are very much improved.

Hardy Mums

Do not forget to make your selection of Hardy Chrysanthemums also, if you desire plenty of bloom this fall. They appreciate plenty of water when buds start—also fertilizer. We are advised to divide our plants—and it's a very good plan. But—I like to leave a few large plants undisturbed, they really make a grand show the second year.

Do you know seedlings from weedlings? One firm puts out flower seeds in packets with small pen and ink sketches, which make the identification of the true seedlings a simple task.

Chrysanthemum flowered **American Beauty Marigolds** give you the same show in the garden as do the older varieties—but are much more graceful, they really look like a Chrysanthemum.

If you have been having trouble growing Snapdragon—Ask for the rust proof varieties.

The tree or bush **Balsams** are a great improvement over the old fashioned sorts. The flowers, very large and very double, can be used for very charming and unusual table decorations.

“Can I lead a good Christian life in New York City on \$15 a week?” a young man once asked Dr. S. Parkes Cadman.

“My boy,” was the reply, “that's all you can do.”

HOW TO TREAT GLADIOLUS CORMS

(Continued from Page 195)

to combat any thrips that may be resident thereon, it was found that from **37 to 69** per cent of the chemical was removed from a 1 to 1,000 solution, in the presence of temperatures of 60° and 70° F., respectively, when the gladiolus corms, encased in burlap bags, were immersed in the liquid for a period of 17 hours.

“No significant differences could be detected between the results obtained at the two solution temperatures.

“Attempts to use the solutions for a second bath of corms, by recharging with approximately one-half the original quantity of the chemical, by weight, resulted in the production of solutions of varying strength which could not be relied upon to kill gladiolus thrips on the corms.

“It was concluded, therefore, that to obtain a satisfactory reaction from the mercuric chloride treatment **a fresh solution should be prepared for each batch of corms to be treated.**”

TUBEROUS ROOTED BEGONIAS DOUBLE—SEPARATE COLORS

1 1/4 to 1 1/2 inch size
85c per dozen \$6.00 per 100
1 1/2 to 2 inch
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\$1.50 per doz. \$11.00 per 100
Gloxinias 1 1/2 to 2 inches
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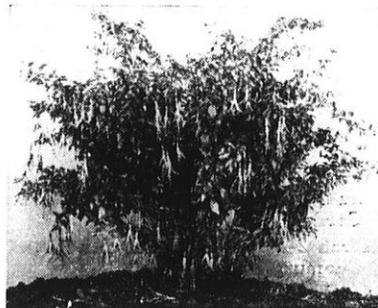
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Hardy Fuchsia riccartoni Scarlet Beauty blooms from “June till frost,” always laden with lovely bell-shaped flowers set in foliage of glossy holly green.



OVER 5000 BLOOMS FROM ONE PLANT by

actual count last summer—had 200 to 100 entrancing ruby pendants at all times during a 17 week period. You need some for your garden.

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Wisconsin Garden Club Federation News

Mrs. Charles H. Schuele, President
247 Woodland Lane, Oconomowoc
Mrs. E. A. St. Clair, Hon. President,
2418 N. 65th St., Wauwatosa
H. J. Rahmlow, Cor. Secretary,
Madison

Mrs. E. L. White, Rec. Secretary,
Box 334, Fort Atkinson
Mrs. C. H. Braman, 1st V-President,
Waupaca
Mrs. Frank Quimby, 2nd V-President,
1422 Blaine Blvd., Racine

STATE FLOWER SHOW

Auspices Wisconsin Garden Club
Federation
MAY 17-18-19

Field House—Wauwatosa

AFTER a lapse of a number of years the Wisconsin Garden Club Federation will again stage a State Flower Show with all garden clubs in Wisconsin invited to participate.

An ideal location for the show has been secured by the committee, of which Dr. Carl Schwendener is chairman. It is the Athletic Field House near the Milwaukee Railroad depot in Wauwatosa. This is a large building with ideal accommodations. There is plenty of parking place, and the building has large doors so that trucks may drive in.

The schedule of classes calls for some interesting exhibits. There are four classes of little gardens, and roadside stands. Dinner tables will consist of outdoor garden tables, formal tables, period tables consisting of Russian, French and English, and also luncheon tables.

There will be still life pictures of Wisconsin scenes in horizontal niches. There will be 15 niches or shadow boxes of silhouettes, etchings or flower pictures.

Screen arrangements will feature flowers of a state or nation.

A new class, "entries for men only, let your conscience be your guide" is one which should bring out some new things and test the ability of the men.

There will also be classes for indoor gardens and outdoor window boxes as well as flower arrangements and specimen bloom.

The schedule of classes will be published in the next issue of Wisconsin Horticulture.

Woman (in subway): "I wish that good-looking young man would get up and give me his seat."

Six men got up.



COMING EVENTS

- March 9-16—Milwaukee Florists Spring Flower Show, in connection with the Home Show, Milwaukee Auditorium.
- March 9-17—St. Louis Flower and Garden Show, in the Arena, St. Louis.
- March 11-16—Boston Spring Flower Show. Mechanics Building, Boston.
- March 11-16—International Flower Show, Grand Central Palace, New York.
- March 11-16—Philadelphia Flower Show. Commercial Museum, Philadelphia.
- March 23-31—Detroit Flower Show. Convention Hall, Detroit.
- March 30-April 7—Chicago Flower Show, Navy Pier, Chicago.

GARDEN PILGRIMAGES

- March 2-23—Natchez, Miss. Ninth annual Pilgrimage of the Pilgrimage Garden Club.
- March 2-April 7—Laurel, Miss. Annual Chemurgic Trek.
- March 16-31—Woodville, Miss. Woodville Garden Club Pilgrimage.
- March 17-30—Laurel, Miss. Laurel Garden Pilgrimage.
- March 24-April 7—Natchez, Miss. Ninth annual Pilgrimage of the Natchez Garden Club.

DOROTHY BIDDLE CLINICS April 20-22-23-24

DOROTHY BIDDLE, Pleasantville, New York, well known lecturer on flower arrangement, table setting and color, editor of Garden Digest, will give four lectures in Wisconsin, under the auspices of District Garden Club organizations as follows:

- Sheboygan, Saturday April 20
- Wausau, Wausau Club Ballroom, Monday, April 22
- Oshkosh, Trinity Guild Hall, Tuesday, April 23
- Madison, Woman's Bldg., Wednesday, April 24

All meetings will begin at 10 a.m. and close at 4 p.m. A noon luncheon will be served in connection with each meeting.

Miss Biddle's talks will cover the following points. 10 a.m. Brief review of principles of flower arrangement. The use of color in the home.

At 1:30 p.m. there will be a 30 minute program by local speakers, which will be followed by Miss Biddle's talk on table setting, with demonstrations.

Admission to all meetings will be 50c. All profits remain in the District treasuries to promote garden club work in the district. Further details will be given in our April issue.

Neighbor: "Where's your brother, Freddie?"

Freddie: "Aw, he's in the house playing a duet. I finished my part first."

SPRING FLOWER CLINIC

Tuesday, April 2nd, 1940
Milwaukee Gas Light Company
Auditorium—626 E. Wisconsin Ave., Milwaukee

- 9 a.m.—Staging a successful flower show. Mrs. Chester Thomas, Milwaukee.
 - 9:30 to 12 M.—Selection and growing of plant material for exhibition purposes. Maud R. Jacobs, Kentucky.
 - 1 p.m.—A few things exhibitors should know about color. Emma Schipper, Milwaukee.
 - 1:30 p.m.—Judging flower show exhibits. Maud R. Jacobs.
 - 3:00-3:30 p.m.—Judging artistic arrangements. Mrs. J. Martin Johnson, Ripon.
- Admission: 50c for the entire day.

Miss Maud Jacobs is a nationally known lecturer and author of several garden books.

All members are urged to attend.

ALFRED HOTTES TO LECTURE AT WAUWATOSA

THE Ravenswood Garden Club announces that Alfred Hottes of Better Homes and Gardens, Des Moines, Iowa, will lecture at the Wauwatosa Woman's Club on Monday evening, April 1st, under the sponsorship of the Ravenswood Club. Admission will be 50c.

KENOSHA GARDEN CLUB TO HEAR ALFRED HOTTES

THE Kenosha County Garden Club invites all garden club members to attend their meeting on the evening of April 3rd in the Lecture Room of the Kenosha Historical and Art Museum. Mr. Alfred Hottes of Better Homes and Gardens will be the speaker. His topic will be "The Garden's Answer to Our Quest for Happiness." The lecture will be free.

WHAT IS A GARDEN CENTER

Mrs. Chester Thomas, Chairman

WHAT is a Garden Center? is very likely to be a question in your minds.

It is a place where gardeners or those who want to become gardeners can go to get facts and information concerning and relating to any and every phase of gardening.

Such a place should have a reference library, which would consist of books, periodicals, magazine articles, garden club papers, which would furnish such information and knowledge to gardeners.

At the height of the planting season a person who is well informed in the art of gardening should be in attendance to give first hand information and advice.

It should be a meeting place where everyone—non-members as well as members of garden clubs can come for information and inspiration.

School children could be interested in the Center and taught to use it to learn about conservation of plants, birds and beauty spots.

As the Garden Center chairman, it is my ambition to establish one or more Garden Centers in each district in the state.

It is not necessary to have an elaborate set-up. You can start with a table in a library or department store, having a question box, a bulletin board, reference books and magazines, with members of your club in charge.

Garden Centers can be established in different ways—sometimes by a single club, sometimes by a group of clubs in adjacent communities working together.

Garden clubs could be of great assistance to the Garden Center by furnishing copies of their papers written by club members.

If each garden club would give a book or a year's subscription to a magazine, think what a good library could be built up in a short time for the Garden Center. For more information about Garden Centers, write Mrs. Chester Thomas, 2579 Downer Avenue, Milwaukee, Wisconsin.

"Dear Mr. Editor: Will you please read the enclosed short story carefully and return it to me with your candid criticism as soon as possible, as I have other irons in the fire."

"Dear Sir: Remove irons and insert short story."

TO JUNIOR GARDEN CLUB COUNSELORS

I will appreciate suggestions at any time from junior workers throughout the state. Write me if I can be of help to you.

The following are a few suggestions for our junior garden club meetings.

1. A short meeting is always advisable because children's interest is held for only a short time, on one subject. Meetings should be for not more than one-half hour.

2. A child remembers what he sees longer than the things he hears. Therefore use pictures whenever possible. The motion picture film, "Once Upon a Time" from the Bureau of Visual Instruction, University of Wisconsin, Madison, is good. Also films and slides from the Conservation Department, State Capitol, Madison.

3. Children are interested in Indian lore. Any public library has books on this subject.

4. Make scrap books during the meeting. A picture to represent each lesson may be of help.

I would suggest the following subject for March, which is Wild Life month. Show the new Wild Life stamps and explain their purpose, and urge children to buy them. Let the children name and discuss the animals and birds pictured on the stamps.

5. Use old seed catalogs and have members pick out flowers that they know. Then point out some they should know. Encourage them to select flowers they should grow, and purchase the seed.

The Children's Flower Mission, 5700 Detroit Avenue, Cleveland, has penny packets of seeds.

Let us hear from you.

Mrs. Max J. Schmitt, 1912 N. 84th Street, Wauwatosa, Junior Chairman.

See list of plants recommended for trial on page 200.

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Plants For Testing

Recommendations of the Horticultural Committee
Merle Rasmussen, Chm.

OUR PLANT TESTING PROJECT

THE varieties listed below have been chosen as the outstanding varieties for our plant testing project in 1940.

The selections were made by the Horticulture Committee, Miss Merle Rasmussen, Chairman.

The varieties may be purchased from a number of leading nurseries. The Rasmussen Nurseries, Oshkosh, Route 4, has reserved a supply of the plants and orders may be sent there. Price lists will be sent out by the Plant Testing Committee on request.

Early ordering is advisable as the stock is limited on some of the new introductions.

CAMPANULA BLUE GARDENIA

This new Peachbell (*C. persicifolia*) growing 30 inches tall has large flowers like a Gardenia in form and of a beautiful blue. The plant has 5 to 8 flowering spikes with flowers gracefully arranged on the stem, individual flowers are 2 to 3 inches in diameter. The foliage is dark green and somewhat leathery. Grows well in any average garden soil with average drainage; is extremely hardy and is insect free. A good cut flower; June to July flowering.

DELPHINIUM—PINK SENSATION

Introduced 1938; by Ruysii of Holland.

The first clear pink Delphinium in perennial variety; excellent for border and for cutting. The plant is vigorous, mildew free, and grows to a height of about 4 ft. It resembles the Belladonna type in appearance of foliage and flower habit. The flower spike has many laterals and thus the display is enhanced and longer blooming period results. The flowers appear in early June and repeat almost continuously until frost. The flowers are about an inch in diameter, of light rose pink color and of good substance. The plants are hardy having lived perfectly through three years under observation. Propagation is by division as the variety does not produce true from seed. Any well drained garden soil is satisfactory to growth; some plant food should be supplied to poor soil; water should be given during blooming period; protect with usual winter covering. The removal of old flower stalks should be practiced as it makes for stronger plant and repeated bloom.

LILY—BROWNII

Lily Brownii is a very beautiful plant and might well rank with the half-dozen most beautiful lilies. A trumpet lily with handsome, large, well-formed flowers of good substance; opening to creamy-white somewhat tinged rosy-purple on the reverse; fragrant. An excellent cut flower as flowers last well when picked; June to July flowering. The plants grow three to four feet tall; the leaves are attractive glossy dark green, long and narrow. Plant about 8 inches deep as it is stem rooting; fairly easy to grow, it prefers a loam soil and light shade. Relatively free from mosaic. Winter covering of any material that does not mat is desirable; good drainage is of course necessary as with all lilies.

LILY—SHUKSAN

This is a *L. Humboldtii* x *L. pardalinum* hybrid. The flowers are of the Martagon type—at opening they are star-like, then the petals reflex and roll back when in full bloom. The color is a soft buff-yellow, faintly flushed with red near the apex; widely spaced brown dots mark the petals. Shuksan is a vigorous grower, about 5 ft. tall; flowers are borne in open heads with 15 to 20 to a stalk. Leaves are whorled, the margins rough to the touch. A healthy plant not subject to mosaic or other common diseases of the lily. Plant about 6 to 8 inches deep, as to soil conditions; sparsely stem-rooting. Good garden soil and good drainage with the usual winter protection are all that is required as to growth.

PENTSTEMON—GARNET

A hardy, large-flowered variety introduced from Europe. Somewhat spreading in habit, the plants carry a succession of flower spikes throughout the season, from June to frost. The gloxinia-like flowers are a rich garnet color, are gracefully pendulous on stems about 18 inches tall. An excellent cut flower as they last well in water. During a three year test period it has come through the winters with but little protection. Good garden soil with a sunny situation is all that is required.

HOLLYHOCK—INDIAN SPRING

Introduced 1939.
Winner of a silver medal this year annual proved exceedingly popular.

Blooming from July or August until frost it fits in nicely in the garden. Growing to about 4 ft. the plants will fit in various sections of the border; are pleasing in groups of three or four or in larger mass planting. The flowering stems are freely produced and if the old stalks are cut almost continuous bloom results. The flowers are semi-double and fringed, in shades of pink; the centers being darker, the light edge gives a very dainty effect. Growing in light shade the color held well though stalks were not as tall as in open garden; against a background of dark green the effect was excellent. Indications that it may be a half-hardy plant merit such trial; easily grown from seed. If started indoors early and transplanted to pots and then to open garden a long period of bloom results.

PETUNIA—CREAM STAR

Silver medal.

"The best white so far introduced" is the comment of many plantmen who had this Petunia in trial plots. Dwarf bedding type with bush habit, growing 12 inches high and 12 to 15 inches across; neatly rounded plants covered with flowers over the sides and top. The flowers are 2½ inches in diameter, shaped like a five pointed star and are a soft creamy white deepening toward the throat to a golden yellow. Very free blooming, of uniform habit and absolutely true as to type it is an excellent plant for the bordering of beds; the soft coloring will blend well with all colors.

ROSE SONIA

This perpetual flowering rose is a Horvath hybrid, an intercross with *R. multiflora* and *R. canina* parentage. The flowers are glowing cherry-red with orange center, with 30 to 36 petals and of good size; very profuse blooming, flowers are borne singly and in clusters the entire summer. The plant is of rugged habit, a strong grower, and is seldom affected by the usual rose maladies; foliage is a glaucous green and healthy. Growing to 24 or 30 inches, rather spreading in habit—to 2 ft. across, it is adaptable to bed or border planting.

ROSE—WORLD'S FAIR

Dedicated to the 1939 New York World's Fair this rose was most popular with the many people who saw it in the beds there; was awarded first

in the All American Rose Selection for the floribunda type; introduced 1939.

Ideal, bushy plants just about hide themselves under clusters of large velvety blooms of deepest scarlet, the fragrant petals surrounding a glowing mass of golden stamens. In the rose bed or in the border it furnishes a continuous display of color from June until frost. Plants are of medium height with good habit of growth; foliage glossy green with attractive new growth. The floribunda type is noted for relative hardiness, disease resistance and continuous bloom; plants are sturdy and are excellent specimens as well as pleasing in mass planting for color effect.

ARONIA MELANOCARPA ELATA

Glossy Chokeberry

Having many features that recommend it for numerous situations the Aronia melanocarpa is not used to the extent that its beauty, easy growth and hardiness warrant. Excellent where a good showing of flowers, foliage and fruit is desired. Besides its use as a specimen it is fine in border plantings combining well with evergreens as well as other shrubs. This shrub is often recommended for roadside plantings and is satisfactory in Wisconsin as to climatic conditions and soils.

Usually growing to medium height the Glossy Chokeberry is covered with clusters of white flowers, tinged with pink, in early spring. An attractive feature in autumn is the red berries, ripening in September and persisting late into winter. The berries together with the dense, clean foliage, which turns yellow and red in the autumn, present vivid color in the autumn landscape.

PACHISTIMA—CANBYI

A useful ground cover, edging to flower beds and borders and as border for evergreen plantings. Growing to about 8 inches in height it forms a dense carpet; individual plants spread to about 18 inches; may be trimmed or left natural. Growth is compact; does well in sun and light shade; any well drained soil satisfactory; the trailing branches root at the nodes. Hardy as it withstands temperatures 20 degrees below zero. Foliage of good color; leaves relatively small, narrow-oblong in shape. Flowers are reddish but inconspicuous. The evergreen foliage holds its color in winter not being subject to burning.

SYMPLOCOS PANICULATA

Asiatic Sweetleaf.

"A plant so hardy and so beautiful

is deserving of a place in every garden" is the comment of Mr. E. H. Wilson of the Arnold Arboretum in his writings. Mr. Wood writes, "A plant that has good form, foliage, flowers and fruits; should be used as often as possible."

Sweetleaf is a striking and handsome plant that will arouse considerable attention and comment from those who see it. It has a compact, rounded habit of growth, and its spreading branches bear bright green leaves; seldom grows over 10 ft. and is well adapted to border plantings. The month of May finds this shrub completely covered with a blanket of creamy-white flowers borne in clusters two to three inches long. The berries are a clear sapphire blue and remain on the branches long after the leaves have fallen. This unusual color in a shrub makes an excellent addition to any planting.

HONEYSUCKLE GOLDFLAME

Large, showy clusters of trumpet-shaped flowers; the fragrance of this variety is most pleasing. The outside of the petals is flame-coral, and the inside a creamy golden yellow. The foliage is dark blue-green of good substance and adds to the charm of the vine. Beautiful, hardy and versatile, it is a plant that may be used in many gardens. Without shearing Goldflame will climb a trellis as the other Lonicera vines, if pruned or sheared it may be grown as specimen shrub or can be trained as a hedge. Blooming freely from spring until frost the plant always carries some flowers; as a cut-flower this variety is superior to many of the Honeysuckles, the foliage also being attractive.

FORMER FEDERATION SECRETARY ENJOYS HONOLULU

A CARD from Mrs. R. E. Karkack of Baraboo, formerly Recording Secretary - Treasurer of the Wisconsin Garden Club Federation, states that she is enjoying a trip to the Hawaiian Islands. She says, "It is lovely here in this place of almost perpetual sunshine and balmy breezes. The time passes all too swiftly."

It is interesting to note that the postcard reached Madison from Honolulu in just 9 days.

THE GARDENING GUIDE FOR PRACTICAL GARDENERS

ALFRED HOTTES has again come to the aid of gardeners. He has just finished the 1940 edition of "Gardening Guide" published by Better Homes and Gardens, Des Moines, Iowa, and sells for 50c. It is a book of 194 pages, packed full of practical information. We highly recommend it for every garden club member as a real guide and help in solving gardening problems.

The book covers such interesting topics as Planning the Garden, with diagrams; How to plant; How to make lawns; Foundation planting plans; Garden Lighting; Garden soils; Seed sowing; How to prune; Varieties of flowers for the garden; Shrubs, evergreens, and vines; Garden accessories; and a discussion of special plants such as begonias, lilies delphinium, peonies, phlox, etc. It closes with 18 pages on "What to do Each Month."

HARDY PLANTS FOR WISCONSIN GARDENS

The Newer and Improved Varieties as well as the Standard Kinds

Complete line of Nursery Stock

Trees, Shrubs, Roses, Evergreens and Perennials in all varieties Fruit Trees and Small Fruits

WRITE FOR LISTS

RASMUSSEN'S Fruit Farm & Nurseries OSHKOSH, WISCONSIN

GOOD ANNUALS FOR YOUR GARDEN

G. Wm. Longenecker

A LARGE number of varieties of annuals and perennials were tested in the trial garden of the Horticulture Department, Wisconsin College of Agriculture, during the past few years.

The varieties listed below were given ratings of very good or good, based on their performance during 1939. Many other varieties were tested, but we are listing here only those that rated highest.

Snapdragons

VERY GOOD VARIETIES. *White Spire* 24-30 ins. Clear white spikes, good size. *Guinea Gold* 18 ins. Salmon to gold; flowers well; constant bloomer; short.

GOOD VARIETIES. *Golden Glory* 24-30 ins. Light lemon yellow color. *Opal Queen* 18-24 ins. Pink tinged yellow; heavy bloomer; strong plants. *Swing Time* 24-30 ins. Clear pink tinged white; good spikes.

Marigolds

VERY GOOD. *Golden Sunshine* 3 feet. Chrysanthemum type. Light yellow; free flowering. *Incurved Chrysanthemum Flowered* 3 feet. Deep golden yellow. Like Golden Sunshine. *Golden Crown Tom Thumb* 1½ feet. Like Guinea Gold; shorter; excellent bedder. *Harmony* 12-15 ins. French dwarf type. Yellow with maroon. Very good. *Burpee's Red and Gold Hybrids* 12-24 ins. Golden yellow to bronze red. *Guinea Gold* 2½-3 feet. Bright golden orange carnation type. Good foliage.

Zinnias

VERY GOOD. *Scarlet Queen* 3 feet. Large flowers; clear scarlet. *Rose Queen* 3 feet. Deep rose; brighter coloring toward center. *Illumination* 3 feet. Dahlia flowered. Shade about like Rose Queen. Flowers larger. *Zinnia Desert Gold* 3 feet. (Crown of Gold). Good yellow. *Zinnia Pumila Canary Yellow* 18 ins. Canary yellow. Good for cutting and bedding. *Valencia* 1½-2 feet. Lilliput type. Good orange with terracotta tinge. *Halo Mexicana* 1½-2 feet. Deep yellow. Good bedder. *Tiny Tim-Cupid* 18 ins. Good scarlet red flowers. Plants uniform height.

Hunnemannia

VERY GOOD. *Hunnemannia Sunlite* 18



ins. Buttercup yellow; Grayish-green foliage.

Nierembergia

VERY GOOD. *Nierembergia hippomanica* 6-8 ins. Flowers orchid fading lighter. Forms miniature mound 6 inches high.

Ageratum

VERY GOOD. *Ageratum Riverside* 8 ins. Best of ageratums. Free flowering; uniform height.

Petunias

VERY GOOD. *Elks Purple* 18 ins. Flowers iridescent purple. *Black Prince* 18 ins. Rich deep velvety red with black sheen. *White Queen* 18 ins. Similar to Snow Storm but does not produce flowers as heavily. *Snow Storm* 18 ins. Better as a bedder than White Queen because of heavy blooming habit. *Petunia Lady Bird*. Glowing rose scarlet. Compact in habit. *Topaz Rose* 18 ins. Deep rose. Good bedder. *Celestial Rose* 12 ins. Heavy producer of medium sized rose-pink flowers. *Salmon Supreme* 18 ins. Clear salmon pink. New color; worth growing.

Vinca

VERY GOOD. *Vinca Rosea* 18-24 ins. Good rose colored flower. Shiny foliage.

Scabiosa

VERY GOOD. *Scabiosa Orchid Blue* 24 30 ins. Good blue scabiosa.

Pentstemon

VERY GOOD. *Pentstemon Sensation Pink Shade* 2-3 feet. Excellent spikes pink flowers.

Rudbeckia

VERY GOOD. *Rudbeckia My Joy* 18-24 ins. Clear yellow petals, dark brown

center. *Kelvendon Star* 18-24 ins. Petals yellow; maroon toward center disk.

Verbena

VERY GOOD. *Verbena Floradale Beauty*. 12-18 ins. Good rose pink verbena.

GOOD. *Verbena Bonariensis* 3 ins. Flowers orchid. Good for cutting. *Verbena Royal* 8-12 ins. Flowers purple with white eye. Flowers good size. *Blue Sentinel*. Clear purple without eye. Plant weak. *Verbena Crimson Glow* 6 ins. Good deep crimson.

Carnation

VERY GOOD. *Carnation Suttons Vanguard Mixture*. Mostly double flowers.

Dianthus

VERY GOOD. *Dianthus Salmon Queen*. Flowers salmon pink, double.

Gaillardia

GOOD. *Gaillardia Indian Chief* 18 ins. Brick to maroon red. Heavy flowering.

Phlox

VERY GOOD. *Stellata Splendens*. Clear scarlet with white eye. *White* 12 ins. Excellent clear white. *Salmon Glory*. Salmon-pink. Flowers dark.

GOOD. *Leopoldi* 12 ins. Pink to rose with white eye. *Daybreak* 12 ins. Light pink with dark eye. *Carnea* 12 ins. Delicate light flesh-pink to white. *Rosea* 12 ins. Rose with white eye. *Salmon-Rose* 12 ins. Rose-pink like Daybreak but has dark pink center. *Purple* 12 ins. Good purple in most cases; some variation in depth of color.

NATIONAL WILDLIFE RESTORATION WEEK

March 17-23, 1940

DURING the Third National Wildlife Restoration Week, from March 17-23, we will again have the opportunity of spreading the word about our rapidly diminishing wild life and natural resources to the public.

In each county there is a chairman of Wildlife stamps who will distribute them to all organizations in the county. For further details, write C. J. Ballam, 1819 Helena Street, Madison, Wisconsin.

TO GARDEN CLUB PROGRAM CHAIRMEN

DID you notice the list of lantern slides on gardening topics available free of charge to any Wisconsin garden club affiliated with the Horticultural Society, as listed on page 165 of the February issue of Wisconsin Horticulture?

We also suggest to program chairmen that they send for a copy of the slides and motion picture films available from the Conservation Commission, State Capitol, Madison. The Bureau of Visual Instruction, University Extension, Madison, Wisconsin, also has a list of slides and films. Good programs can be built around these pictures.

It might be well for garden club presidents to send the names of their program chairmen to the office of the Horticultural Society early in the year so that we can send them sources of program material. In spite of having published the list of slides twice in Wisconsin Horticulture, —October and February issues—program chairmen still write us, "Where can we get slides?"

FUCHSIA SCARLET BEAUTY

A NEW herbaceous-shrub type of fuchsia is available this year. It is said to have sufficient hardiness to withstand our northern winters.

Fuchsia Scarlet Beauty was originated by Mr. George C. Lodge of northern Ohio. After experimenting for years, he finally succeeded in finding a single plant which survived the most severe winters in his locality.

The plant will attain a height of two feet and it blooms continuously from June until frost.

The plant freezes to the ground each winter after the manner of the Butterfly Bush. In the spring it comes up from the eye which forms below the surface of the ground.

MILWAUKEE GARDEN CLUB MEETINGS WELL ATTENDED

MORE than 400 garden club members have attended the series of meetings the first two weeks in February at which the program was furnished by the Wisconsin Horticultural Society. Secretary H. J. Rahmlow presented the following program:

1. A motion picture illustrating transplanting and division of perennials; repairing the lawn, and pruning shrubs and evergreens.
2. New things in horticulture.
3. Colored slides illustrating new varieties of annuals and perennials with a discussion of their value for our gardens.

This program is being given this year by the Horticultural Society to practically all garden clubs in the state where dates can be arranged without conflict.

March Meetings

During the first week in March meetings were held at the Racine, Lake Geneva, Lake Geneva Gardeners Association, Elkhorn, Zenda, La Belle, and Menomonee Falls Garden Club. In many cases nearby garden clubs were invited to attend. During the second week in March meetings will be held as follows: March 11, Fond du Lac and Brandon. Fond du Lac Library, 2 p. m., Evening, meeting in Plymouth; Tuesday, March 12, Manitowoc Fruit Growers 1 p. m.; Evening, Manitowoc Garden Club; Wednesday, March 13, Kohler and Sheboygan Garden Clubs; evening, Cedarburg, City hall, 7:30 p. m.

Monday, April 1, Ripon Garden Clubs at 2 p. m.; evening, Oshkosh Horticultural Society; Tuesday, April 2, evening meeting Menasha and Neenah Garden Clubs; Wednesday, April 3, Iola Garden Club meeting with the Scandinavia and Waupaca garden clubs at 2 p. m.; Thursday, April 4, Winneconne and Omro at Winneconne at 2 p. m.; evening Oakfield.

Monday, April 8, Oconto Falls 2 p. m.; evening meeting, Green Bay; Tuesday, April 9, Marinette Garden Club, 7:30 p. m.

Dates for following meetings will be announced in our next issue.

GARDEN CLUBS NOT LISTED IN DIRECTORY

THE following garden clubs 1940 were not sent in: Cambridge and Lake Ripley; Elm Grove; Hawthorne; Kaukauna; Country-side; Violet, North Prairie; Ceresco, Ripon; and Waukesha County.

NEW BOOKS FOR GARDENERS

Available From the Traveling Library
By Jennie Schrage, Librarian

THE following garden books have been acquired during the past year by the Traveling Library Department, State Office Building, Madison, and may be borrowed through your local library, if you have one, or direct by mail if there is no public library in your community. The books are loaned for periods of three weeks.

- The Indoor Garden, Abbott
 - Chemical Gardening for the Amateur, Connors & Tiedjens
 - Hardy Chrysanthemums, Cumming
 - What to do with Herbs, Dennis
 - Gardening as a Hobby, Edminister
 - The World Was My Garden, Fairchild
 - Fun With Flowers, Ferguson and Sheldon
 - Flower Shows and How to Stage Them, Fisher
 - Designs for Living Out-of-Doors, Goldsmith
 - American Highways and Roadsides, Gubbels
 - The Spirit of the Garden, Hutcheson
 - Growing Plants Without Soil, Matlin
 - Gardening in the Shade, Morse
 - Garden Planning and Building, Orloff and Raymore
 - Alpine Flowers, Schroeter
 - The Small Garden, Storm
 - Fruit Crops, Talbert and Murneek
 - Lilies for American Gardens, Slate
 - The Garden Dictionary, Taylor
 - The Vegetable Growing Business, Watts
 - Within My Garden Walls, Whitman
 - Garden in Color, Wilder
 - Hedges, Screens and Windbreaks, Wynar
- The following are less practically concerned with the garden, perhaps, but will be of interest to garden lovers:
- Partner of Nature, Burbank
 - The Gardener's Travel Book, Farrington
 - Rustic Construction, Hunt
 - Book of the Broadleaf Trees, Lamb
 - The Orchid Hunters, MacDonald
 - Birds in the Garden and How to Attract Them, McKenny
 - A Book of Wild Flowers, McKenny
 - Earth's Green Mantle, Mangham
 - Suwanee River; Strange Green Land, Matschat
 - Sundials, Mayall
 - Edible Wild Plants, Medsger
 - Poisonous Plants of the United States, Muenschen
 - Green Grows the City, Nichols
 - Flowering Earth, Peattie
 - Stories and Legends of Garden Flowers, Quinn.

Wisconsin Wild Flowers Protected

WISCONSIN WILD FLOWERS PROTECTED

THE following in condensed form, is the present Wisconsin law protecting wild flowers.

Any person who shall wilfully cut, root up, injure, destroy, remove or carry away from public property or public waters, or from the property of another, without the written permission of the owner, any **American lotus**, **trailing arbutus**, any species of **lady'slipper** or any member of the orchid family, **trillium**, **American bittersweet**, **pitcher plant**, or **wood lily**, is subject to a fine or imprisonment.

This law shall not prevent licensed nurserymen from selling or otherwise disposing of any of said plants or parts thereof, when the plants have been officially inspected and certified by the State, and to which there has been attached a proper nursery certificate.

An Error in the Law

It is interesting to note that there is some confusion in the naming of the lilies which should be protected. In paragraph (2) of Chapter 343.442 the law states—"or any American bittersweet or any pitcher-plants (Turk's caps) or any wood lilies." A little further on the names are repeated as follows: "American bittersweet, Turk's caps or wood lilies."

In the first statement it looks as if Turk's caps refers to the name pitcher plants, while in the second statement it looks as if Turk's caps and wood lilies are the same, which is not the case.

The term Turk's cap lily is usually applied to either *Lilium superbum*, *Lilium martagon*, *Lilium chalcedonicum*, or *Lilium pyrenacium*. Wood lily is a term com-

monly applied to *Lilium philadelphicum*. The latter has erect cup-shaped flowers of orange shading to scarlet. It is not a Turk's cap lily. The law, of course, will have to be changed and clarified. It illustrates how easy it is to become confused when common names are used for plants instead of the universally recognized scientific names.

WILD FLOWER TIME

PROGRAM CHAIRMEN: Why not have your garden club study wild flowers at one of your spring meetings? Perhaps these thought-provoking questions may help plan a program:

1. What wildlings are native to our region? How are they reproduced?
2. Which ones are protected by law? Why?
3. How may wild flowers be happy in my yard?
4. How may I obtain them?
5. What other sections of Wisconsin have different species? Why?
6. How may we interest our own boys and girls in the love of our native plants?

As we learn about our plants we appreciate them more. Won't you help make our Wisconsin Gardeners "native plant conscious?" We do not destroy what we have learned to appreciate.

A splendid article on Wild Flowers by Mrs. E. J. Kallevang of Madison will appear in the April issue of Horticulture. In May we shall be privileged to read excerpts from Dr. Fassett's book (not yet from the publishers) on "Ferns."

Mrs. R. C. Klussendorf, State Program Chm.

PLANT TUBEROUS ROOTED BEGONIA BULBS NOW

MARCH is the month in which to plant tuberous begonia bulbs. If they are planted at once, they should be ready to bloom in May, and we will then have these beautiful flowers every day until frost. Of course the bulbs may be planted at any time, but a delay in planting means a delay in blooming.

The bulbs should be planted in flats or pots in regular florists soil. If you do not have good soil, we suggest you purchase some from your local florist or nurseryman.

Cover the bulbs with not over one-half inch of soil. To determine which side of the bulb is the top, look for the old stem from which the shoot was broken last year. Keep well watered and at a medium temperature. The green leaves will appear in from two to three weeks and so until that time the plants need not have any light, but as soon as the leaves appear they should be placed in a lighted window. During the spring months when it is cool, sunlight will be beneficial, but not during the hot months of mid-summer when the plants must have shade.

Look for ads in this issue for tuberous rooted begonia bulbs for sale.

RADIO PROGRAMS

State Stations WHA-WLBL

Tuesday, March 12—Concerning Garden Clubs. Mrs. R. C. Klussendorf, Madison.

Tuesday, March 19—Newer Annuals for 1940. H. J. Rahmlow, Madison.

Tuesday, March 26—Herbs for Your Garden. Mr. and Mrs. W. A. Toole, Baraboo.

Tuesday, April 2—Hardy Bouquets for Early Spring. L. G. Holmes, Madison.

Tuesday, April 9—Gourds Grow in Favor. The Edgerton Garden Club.

GARDEN CLUB DIRECTORY FOR 1940

DIRECTORY FOR 1940

ANTIGO GARDEN CLUB

President: Mrs. Wenzel Neuburger,
412 Second St.
Vice-Pres.: Mrs. M. L. Locksmith
Sec'y-Treas.: W. E. Everest, 821 Sixth
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Rec. Sec'y: Miss Hilda Lukas.

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Secretary: Geo. A. Bassford, 1118-7th
Ave., West

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President: Miss Sarah Williams
Vice-Pres.: Mrs. Chas. Tank
Secretary: Mrs. Wm. Henker
Treasurer: Miss Lorena Sherwin
Meeting: 3rd Friday of month at
homes of members.

CEDARBURG GARDEN CLUB

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Vice-Pres.: Mrs. E. S. Stark
Sec'y-Treas.: Mrs. John Rasmussen,
46 Columbia Ave.

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Secretary: Mrs. Leo Martalock
Treasurer: Mrs. Chester Kelsberg
Meeting: 1st Monday of month in
Wisconsin Power & Light Co. Bldg.

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Secretary: Mrs. A. Ratzlaff
Treasurer: Mrs. W. Fagerstrom
Meeting: 4th Wednesday of month
in afternoon at homes of members

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FOND DU LAC COMMUNITY GARDEN CLUB

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Division St.
Vice-Pres.: Miss Mary Martin

Secretary: Mrs. U. F. Ammell, 440 S.
Park Ave.
Treasurer: Mrs. O. J. Dorr
Meeting: 4th Friday of month at
2:30 p.m. at homes of members

LEDGEVIEW GARDEN CLUB Fond du Lac

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Ave.
1st Vice-Pres.: Miss Charlotte Venne
2nd Vice-Pres.: Mrs. Elmer E. Homuth
Sec'y-Treas.: Mrs. H. C. Grautman,
270 Rose Ave.
Meeting: 3rd Tuesday of month in
homes of members

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Vice-Pres.: George Hausz
Secretary: Mrs. J. R. Venning, 109
Shirley St.
Treasurer: Charles Vosburg
Meeting: 4th Thursday evening of
month in homes of members

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2nd Vice-Pres.: Ray Heilgendorf
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Cor. Sec'y: Miss Emma Duerrwachter
Treasurer: Edwin Helm
Meeting: 2nd Monday of month at
8:15 p.m. in the Germantown In-
surance Company Hall.

GREEN BAY GARDEN CLUB

President: Mrs. E. P. Barnard, R. 6
Vice-Pres.: Mrs. J. R. Minahan
Secretary: Miss Jean Cady, 721 Emilie
St.
Treasurer: Mrs. Sandy Duket
Meeting: 1st Monday of month at
7:30 p.m.

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HALES CORNERS GARDEN CLUB

President: Mrs. W. R. Oelschlager
Vice-Pres.: Mrs. R. A. Stratby
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Hales Corners

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Secretary: Mrs. Glen Davis, R. 2
Treasurer: Mrs. Rob. Schulz

HAYWARD

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2
Vice-Pres.: Mrs. Victor R. Solberg
Sec'y-Treas.: Mrs. Alvin M. Johnson
Meeting: 3rd Wednesday of month
at 2:30 p.m.

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Sec'y-Treas.: Mrs. J. L. Larson, R. 3

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Vice-Pres.: Clarence Frohmader
Sec'y-Treas. Mrs. W. S. Kispert
Cor. Sec'y: Mrs. A. H. Moen
Meeting: 1st Monday of month in
Public Library at 7:30 p.m.

KENOSHA COUNTY GARDEN CLUB

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Vice-Pres.: Mrs. Carl Namur
Cor. Sec'y: Mrs. Raymond Toft
Rec. Sec'y: Mrs. Paul Vigansky, 6518-
29th Ave.
Treasurer: R. J. Austin

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1st Vice-Pres.: Mrs. F. W. Epling
2nd Vice-Pres.: J. F. Garner
Secretary: Mrs. Albert L. Treick, 435
Church St.
Treasurer: Walter Ring
Meeting: 3rd Tuesday of month at
Waelderhaus

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President: Mrs. D. O. Coate, 410 So.
14th St.
Vice-Pres.: Mrs. O. J. Oyen
Sec'y-Treas.: G. C. Ellis, 234 So. 20th
St.
Meeting: Monthly, on call of presi-
dent

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1st Vice-Pres.: Miss Emmeline Church,
Walworth
2nd Vice-Pres.: Mrs. Allen Peacock
Rec. Sec'y: Mrs. Matt Patton
Cor. Sec'y: Mrs. A. E. Bergman
Treasurer: Mrs. Alice Curtis

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Vice-Pres.: Mrs. Leonard Steele
Sec'y-Treas.: Mrs. George H. Irwin

MADISON

LITTLE GARDEN CLUB Madison

President: Mrs. Charles S. Kintzel,
2407 Norwood Place
Vice-Pres.: Mrs. Peter Schroeder
Sec'y-Treas.: Mrs. Joseph Wirka, 1408
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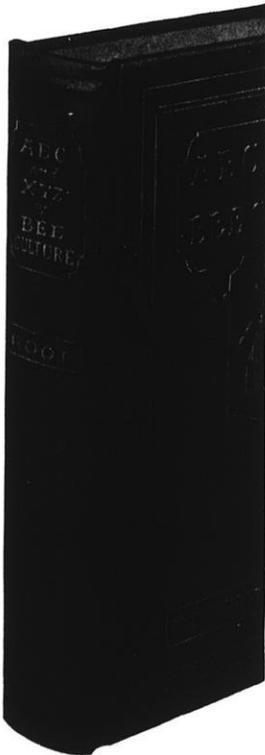
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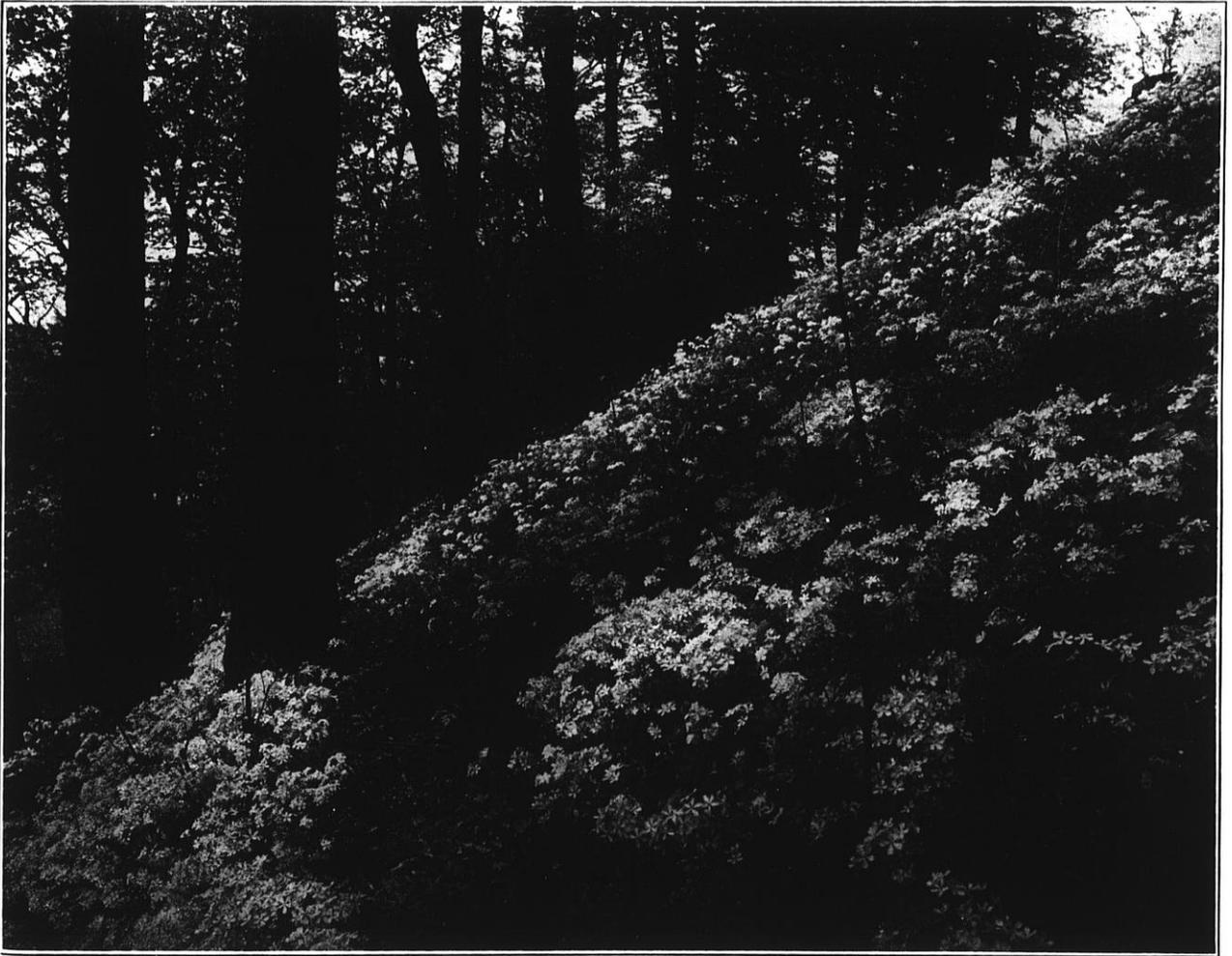
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Wisconsin *Horticulture*



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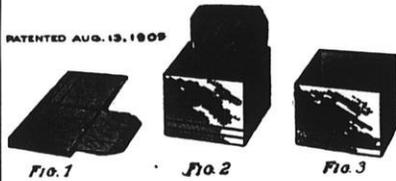
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PLEASE DO NOT SEND STAMPS

Wisconsin *Horticulture*

What Is The Best Orchard Cover Crop

THE question, "In your opinion, what is the best cover crop for the orchard?" was submitted to fruit growers in various sections of Wisconsin this spring. The following report is based on their replies.

There is considerable difference of opinion in regard to the type of cover crop which is best, which probably means that there are a number of crops which may be used satisfactorily.

Alfred J. Meyer of Hales Corners states, "We have a self-seeded June-grass cover crop of about six acres that is very satisfactory. Trees are ten years old. The first six years we rotated cultivated crops and then seeded to alfalfa, but did not sow cover crop during the first six years. Alfalfa is not satisfactory."

A majority of the growers reported in favor of Kentucky blue grass or June grass, with clovers mixed in.

Walter Schultz, Lake Mills, states that he has seeded his orchard to alfalfa, but he uses straw and manure as a mulch around the trees. His land is hilly.

A number of growers state that quack grass has long since taken possession of their older orchards. It needs no attention and



D. E. Bingham likes sweet clover sown early. Left: C. N. Clayton with Mr. Bingham.

refuses to be even interfered with.

Swartz Orchards, Waukesha, write "As the buffalo hopper lives in clover and alfalfa, we have June grass, quack grass and Timothy in all our orchards. We never remove any of the grass."

A number of growers are beginning to use a mulch for the young trees.

Winter vetch is mentioned as

one of the desirable cover crops. Kurt Stock of Fish Creek and N. A. Rasmussen, Oshkosh, write that they like vetch.

Mr. Rasmussen states, "I like vetch and as the seed drops it comes back and reseeds itself for a number of years."

John Miles, Sturgeon Bay, states that he likes vetch but it is rather expensive. He thinks a good cover crop is a mixture of

grass and clover, so that if the season is not favorable for one, the others will develop.

D. E. Bingham, Sturgeon Bay, however, states that he likes sweet clover sown early. Vetch is very good if sown by July 1st. Rye is okay if sown quite early in the fall so it will mat thoroughly, but sweet clover gives the largest amount of humus.

S. S. Telfer, Ellison Bay, writes, "With plenty of moisture we use sweet clover, but this may be rather dangerous as it uses a great amount of water. For this reason red clover, alsike and white clover might be safer."

GROWS BLUEBERRIES SUCCESSFULLY

Allan Troemner, Friendship

I ENJOYED reading the article in the March issue entitled "Will Blueberries do Well in Wisconsin." I have had seven plants on trial here for four years. They made very vigorous growth the last two summers. They are moderately winter hardy if given ample protection.

The varieties I have are Rubel and Adams. Two of the Rubel plants bore a quart of berries last summer. The fruit averaged larger than our native wild lowbush blueberry.

Layering appears promising as a means of propagation where not too many new plants are desired.

Should Pear Trees Be Used As Fillers In The Orchard

AT the suggestion of one of our members, the question, "For the state of Wisconsin, do you think it profitable to use pear trees as fillers when planting a young apple orchard?" was submitted to a number of growers in various sections of the state.

Answers to the question varied in their recommendation. Kurt Stock of Fish Creek writes. "Pears are subject to fireblight. Otherwise they are all right. The universal drawback with fillers is that you do not have the nerve to remove them in time."

N. A. Rasmussen of Oshkosh states that they use a few, but that he does not think pears are hardy enough in their locality to be profitable.

Several growers think it would be advisable to plant more pear trees because there is a good market for them. This is especially true in the Ozaukee and Milwaukee county section.

John Miles of Sturgeon Bay states he does not see any ad-

vantage in planting pear trees as fillers, but believes that pears can be raised profitably in Door County.

D. E. Bingham, Sturgeon Bay, states the Bartlett pears could be used, as the spray program for them is the same as for apples. He states that fillers can be used instead of crops which is considered most profitable and convenient.

Don Reynolds of Sturgeon Bay, however, says no to the question. He says, "Plant them separately." He doesn't like the fillers system.

S. S. Telfer, Ellison Bay, states, "I see no reason for not using pears as fillers. I am of the opinion that in some instances apple trees have been set too close in large commercial orchards.

"Many orchardists in Door County who have planted apples 25 by 25 feet are now finding themselves confronted with a serious problem of making more room for the trees. Removing every other tree gives too much space and 'fanning,' or cutting back the branches extending out too far, on either every tree or every other tree is not very satisfactory. The solution might be the use of pears as fillers in planting."

Walter Schultz, Lake Mills, says that the Lincoln pear has been his best pear so far. It is hardy and relatively free from blight.

Swartz Orchards, Waukesha, states, "Pear trees don't pollinate the apples so we do not plant them."

R. L. Marken, Kenosha, is opposed to the plan. He states that if everyone planted pears in the orchard we couldn't sell all the pears. There is great danger of fireblight.

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Route 3

FRUIT INSECT CONTROL

Questions Answered by C. L. Fluke

QUESTION: In buying used bushel baskets at this time of year, is there any danger of bringing in any trouble by using them in the orchard next fall? A. J. M., Milwaukee.

Answer: Naturally, some codling moth larvae may be found in second hand bushel baskets. The number of larvae, however, will not be serious enough in my estimation to be of serious consideration. If there is considerable saving in the purchase of the baskets, I think they should be used.

Deformed Apples

Question: In this section we sometimes have a branch that has small, deformed apples. What is the cause and treatment? D. H., Bayfield.

Answer: There are many things, of course, that can cause small deformed apples and it would be impossible to give an answer to this question without seeing the tree and the branches concerned. It might be due to insects which have injured the individual branch such as tree hoppers, scales or many other types. It may be due to some physiological condition which might be cured by proper pruning.

Buffalo Leaf Hopper

Question: What could be done to hold down Buffalo leaf hopper injury in 4-year old apple trees in alfalfa sod? A. J. M., Milwaukee.

Answer: About the only way to control Buffalo leaf hopper is to clean cultivate. If alfalfa sod is continued in the orchard, there is bound to be trouble from this insect. There is no control for it after the eggs are once placed in the twigs of the trees. In certain sections of Wisconsin it is impossible to grow legumes and young apple trees in the same soil.

Control Plum Aphids

Question: Can white aphids or plum lice be controlled with lime sulphur spray? J. L. M., West Bend.

Answer: Lime sulphur is a very poor control for aphid eggs and it will seldom kill off the young lice. It is better to treat the opening buds with nicotine sulfate or one of the newer sprays such as Elgetol at $\frac{3}{4}$ per cent strength. You will find this material discussed in the March issue of Wisconsin Horticulture. The article is under the name of Dr. John H. Lilly.

Washing Apples

Question: Would you consider

it necessary to wash apples after they have gone through the full spray program? A. P. P., Oshkosh.

Answer: The question of washing apples is one that we have tried desperately to avoid in Wisconsin. Generally speaking, apples that have had three cover sprays of lead arsenate will not have to be washed providing the last application is made not later than three or four weeks before picking. Any more cover sprays than three will usually cause an excess of residue. If more than three covers are necessary we generally recommend that the last application consist of one of

(Continued on Page 214)



Comparative sizes of sulphur particles in well known sulphur sprays. The smallest above represents KoloFog.

The effectiveness of any sulphur spray is correlated with its fineness.

NIAGARA KOLOFOG has proven its superiority over other sulphur sprays, because it—

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- (2) Makes a uniformly effective spray.
- (3) Spreads evenly over fruit and foliage.
- (4) Insures bigger, cleaner and more profitable crops.
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POINTS ON GRAFTING

MANY Wisconsin orchardists are adopting the practice of top working both Red and Golden Delicious onto hardy rootstocks, such as Virginia Crab. Grafting of cions of new varieties on branches of older trees has been adopted as one way of obtaining fruits of new varieties for testing in a short period of time.

When to Graft

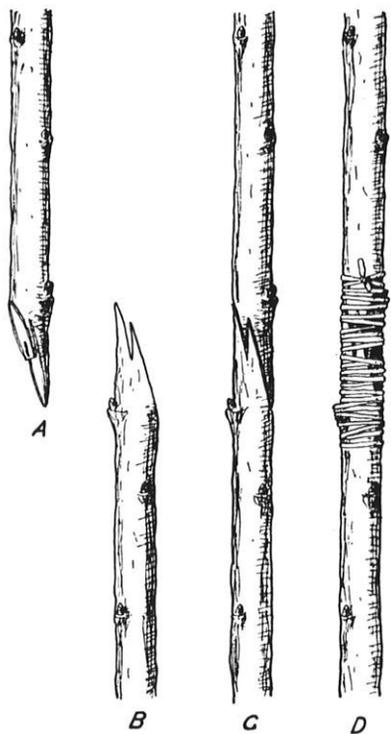
Most growers are of the opinion that the best time to graft is just as late in the spring as possible before growth starts. In fact, when the sap begins to flow and the bark "slips" is the time when the cambium cells are the most active.

Cions may be cut when the grafting is being done. In fact, the sooner cions are used, the less chance there is for drying out. There seems to be no real reason for cutting cions early and storing them, although this practice has been recommended in the past.

Cion wood should be of good diameter. Growth of about the size of a lead pencil is best. Spindly cions dry out easily and success with them is more difficult. Water sprouts make splendid cion wood.

How to Cut the Cions

The cions should be cut so that they contain three buds. Also cut the top about one-fourth inch above the top bud. Next, make a long sloping cut on the lower end of the cion as shown in the picture and then cut down through the center to make a wedge. This is called the whip graft and is used on smaller branches.



Whip Grafting

Stock and scion should be about the same diameter. Make cuts smooth, not "dished." At least one side must be in perfect contact as at C.

Wrapping the Graft

Grafting tape may be purchased from any orchard supply house. However, many successful orchardists who have done a great deal of grafting (including the late Peter Swartz of Waukesha), favor the use of electrician's rubber tape. This tape makes an air-tight and waterproof covering. It is easily applied and need not be cut in the late summer or fall to prevent girdling, because it decomposes. Painting the covering and the entire cion with liquid grafting wax or low melting point paraffin such as is used in canning, may help in preventing drying out and aid in successful grafting.

Cleft Grafting

In cleft grafting, care must be used in selecting the proper branches on the tree. Only good scaffold branches which are properly spaced should be used. Limbs should not be more than $2\frac{1}{2}$ inches in diameter and should be cut at a point where the wood is straight grained and free from knots.

Saw the limbs square and smooth with a fine tooth saw.

Cions are cut wedge shaped and slightly beveled so that the outer side is a little thicker than the inner edge. Open up the stub with a screw driver or grafting iron and carefully set the cions in place, one in each side. Care must be used that the cambium layer of the stock and cions match. The cions may be tilted slightly outward to insure contact of the cambium layers.

After the cions are in place, it is very important to cover the opening carefully with grafting wax or some material such as Tree Seal. Final success will depend largely upon how carefully the cut surfaces are waxed to prevent drying out. Also wax the tips of the cions.

FRUIT INSECT CONTROL

(Continued from Page 213)

the non-lead arsenate sprays such as nicotine bentonite. This question of washing is one that each grower will have to work out for his own particular conditions. Generally speaking, we do not consider it necessary in Wisconsin.

McINTOSH APPLE SELLS WELL

A LETTER from Mr. Hugo Wunsch, Sheboygan farmer and fruit grower, states: "I appreciated the interesting articles on the different varieties of apples in the last issue of Wisconsin Horticulture.

"We were successful in disposing of the biggest crop of apples we ever had. The prices were somewhat lower than in other years, but we could have sold many more. We are equipped with underground storage for about 500 bushel.

"The McIntosh is our best seller. Just last week a small grocer near here offered us \$2.00 per bushel for Jonathan and Red Delicious apples. They are now selling New York apples, but he told me he prefers the apples he bought from us. This shows the excellent prospect for growing good apples in Wisconsin."

SECOR AN EXCELLENT KEEPER

SAID a Wisconsin Fruit Grower about the middle of March this year: "The Secor apple is the best keeping apple of high quality I have even seen. I had some in common storage in which most varieties such as McIntosh, Delicious, etc., will not keep later than the first of the year, and the Secor is still in fine shape the middle of March, and will keep longer."

We saw and tasted these apples the week of March 18th. They were in fine shape and of high quality.—Editor.

fully as good or a little better than Stayman. The fruit is not quite so susceptible to cracking and it colors somewhat better under the conditions at New Brunswick, N. J. However, it has an appearance which is more like Mammoth Black Twig or Paragon and the wax of the skin is more "greasy" than Stayman. The cooking quality is good, but the edible quality is not equal to Stayman. The flesh is not so firm and juicy as Stayman. Turley is one of those varieties which is too good to discard and yet not quite good enough to recommend as a commercial variety for the future.

Prof. M. A. Blake, New Jersey Experiment Station, in N. J. Hort. Society News.

THE TURLEY APPLE

THE Turley apple is now being recommended as superior to Stayman in parts of the Middle West. It has been fruited at the New Jersey Station for a number of years. The tree grows

USED SPRAYER WANTED

Would like to buy a good second hand sprayer for small orchard. Frank Viney, R.F.D. 1, Evansville, Wisconsin.



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FRUIT DISEASE CONTROL

Questions Answered by G. W. Keitt and C. N. Clayton

FOR the after-blossom sprays in apple scab control, which will give us the best results for the price, reduced concentrations of lime-sulphur or some of the undissolved sulphurs now being used? R. I., Lancaster.

No single spray program for the after-blossom sprays can be recommended as the best for scab control, for the sprays to be used should be chosen to meet the conditions of the individual orchard as the season develops. Many factors must be considered in selecting the fungicide to use. The choice will be determined chiefly by the need for scab control on the one hand and the danger of spray injury on the other. Of the three main types of sulphur sprays to choose from, lime-sulphur is the strongest from the standpoint of scab control, but it is the most liable to cause injury. Reduction in concentration of lime-sulphur does not solve the injury problem, though it may somewhat lessen it. The very finely divided sulphur sprays such as Flo-tation Sulphur paste or Mike Sulphur are intermediate in effectiveness for scab control and for danger of injury. The coarser wettable sulphurs are somewhat less efficient fungicidally and less liable to cause injury. In situations in which the need for protection against scab seems to outweigh the risk of injury, lime-sulphur should be used.

Strength of Lime Sulphur

How weak can I mix my lime-sulphur solution for the pre-pink sprays and still control scab and not burn the young tender leaves? C. P., Franksville.

A concentration of 1 to 50 is about as dilute as one would wish to use in the pre-blossom sprays. That solution may give some leaf burning but that is to be preferred to poor control of scab.

How weak a solution of lime-sulphur will control scab? Will this weak solution be as effective where there is infection of several days standing? D. H., Bayfield.

A concentration of 1 to 75 is about as weak a solution as can be safely relied on to control scab. That weak solution is not as effective in burning out scab infection as are the stronger solutions.

In an orchard heavily infected with apple scab during last summer and fall, would it be advisable to use a stronger lime-sulphur solution than 1 to 40 in the green tip, pre-pink and pink sprays this spring? A. F. N., Cedarburg.

No. The 1 to 40 concentration is sufficient.

Use of Ground Spray

In a section of the orchard where apple scab was so bad last fall that it did not pay to harvest the fruit, would you recommend a lime-sulphur ground spray with the regular spray program? A. F. N., Cedarburg.

No. However, other materials as ground sprays in experimental tests have shown promise in supplementing the summer spray program for scab control. The materials have not yet been sufficiently tested under orchard conditions to warrant recommendation for widespread use.

Bordeaux for Apples

Would home-made bordeaux mixture be better for the first three sprays, or would it rust the apples? C. P., Franksville.

Lime-sulphur is more effective than Bordeaux in burning out scab, and is preferred for the sprays mentioned.

Plum Brown Rot

How thorough a spray schedule is needed to control brown rot on plums? R. I., Lancaster.

The fruits should be kept free from curculio since brown rot can enter the fruits through the injuries caused by the insect. Three applications of a finely particulate sulphur should give brown-rot control: (1) about 10 days after petal-fall, (2) 2 or 3 weeks later and (3) about 3 weeks before harvest.

Bordeaux for Cherries

Have any of the basic copper sprays surpassed Bordeaux in effectiveness or in economy for cherries? D. R., Sturgeon Bay.

No. The Bordeaux program is the most effective and economical one yet tested in Wisconsin.

Cherry Mildew

What causes the white spots on cherry leaves in the last part of July? J. L. M., West Bend.

The spots were probably mildew caused by a fungus that grows on the leaves. Spraying for leaf spot ordinarily controls mildew, also.

If a McIntosh orchard has sweet clover grown in it could that cause scab on the apples? J. L. M., West Bend.

Sweet clover in an orchard cannot directly cause scab on apples. However, by affecting the vigor of the trees or by affecting the moisture conditions surrounding the trees it may indirectly tend to make conditions more favorable for scab development.

Cherry Leaf Spot

What is a good spray program for the control of cherry leaf spot? A. P., Oshkosh.

Bordeaux mixture made with 3 lbs. copper sulfate plus 4 lbs. hydrated lime to 50 gals of water. Apply (1) when three-fourths of the petals are off, (2) 2 weeks later, and (3) just after harvest.

ANNUAL BEARING OF WEALTHY

QUESTION: What practice should I follow to prevent 10-year old Wealthy apple trees to become biennial bearers? A. J. M., Milwaukee.

Answer: Wealthy apples cannot ordinarily be prevented from becoming biennial. They can be somewhat delayed by keeping the young bearing tree from accumulating any worn-out fruiting wood. If the weaker branches which have borne a few crops are pruned out when the tree is 8 to 12 years of age, it tends to keep the trees regular in bearing.

Can Bloom be Delayed

Question: Would a heavy sawdust or shaving mulch delay blooming on plums to prevent freezing in this locality? A. J. M., Milwaukee.

Answer: Mulching of the ground will not delay blossoming to any appreciable extent as the start of top growth is determined by air temperatures. This can be illustrated by the fact that a branch of a tree introduced into a warm room through the window will bud out even when the rest of the tree is in freezing temperatures.

Questions answered by Dr. R. H. Roberts, Professor of Horticulture.

VIRGINIA GROWERS ADOPT UNIFORM APPLE BOX

THE bushel apple package committee of the Virginia Horticultural Society met recently and recommended a 1½ bushel box to take the place of many types and sizes of so-called bushel packages now being used in the state.

The recommended package is 11"x13"x17", inside measurements, with capacity of 2431 cubic inches, with a solid bottom, and light, springy top, to be packed only with sufficient bulge to hold the apples firmly in place without the press-bruising so common in the Northwestern type of box, and that so often results from an over-tight pack in baskets and types of boxes now in use.

Chairman of the committee was T. B. Byrd.

MANITOWOC FRUIT GROWERS HOLD ANNUAL MEETING

THE Manitowoc County Fruit Growers Association held its annual meeting on March 12th in the Court House. The attendance was excellent—one of the largest in the history of the organization, there being more than 60 growers in attendance.

The speaker was H. J. Rahmlow, Secretary of the State Horticultural Society, who showed moving pictures and lantern slides on fruit topics, and talked on new things in fruit growing.

At the annual business meeting, the following officers were re-elected: President: Ed. Klesig, Cleveland; Vice-Pres.: John Bruhn, Two Rivers; Sec'y-Treas.: Ervin Tuma, Cato.

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How To Plant Strawberries

Questions from Growers—Answered by H. H. Harris, Warrens

QUESTION: How far apart should be plant different varieties of strawberries?

Answer: As soon as we get our ground well fitted we mark the field, first the long way of the field, in the direction we want our strawberry row to run; then we mark it across the field, with the same marker. The runners of the marker are four feet apart. We set the plants of varieties such as Beaver, Catskill, Dorsett, Dunlap, or the new Dresden, all of which varieties make many and long runners by planting the long way of the field. We set the first plant of each row on the first cross mark and the second plant two-thirds of the way to the second mark, then jumping over that mark the third is set one-third of the space to the next mark and the fourth comes in the third mark. In this way the plants are 32 inches apart.

With varieties such as Premier which usually make fewer and shorter runners, the plants are set in every cross mark and half way between, 24 inches apart.

Avoid Close Planting

We divide the field into two sections—planting Premier on one end of the field and such as Beaver on the other end. Our experience tells us we are just as likely to have good fruiting rows, with plants set these distances apart as when set twice as close together, and not so liable to have plants too close together at fruiting time.

Question: How early should strawberries be uncovered?

Answer: Examine the covered plants as soon as the snow is gone and if growth has started, or old foliage looks as though it was bleaching, I would uncover the rows.

Plants will start growth under the covering soon after the sun warms up the covering, or nearly as soon as those not covered. Of course we should be governed somewhat by the weather. We cannot tell how early by the calendar either when to plant or when to uncover. I have set strawberries April 1st, ground in good condition, and I have walked to Town meeting the first Tuesday in April on crust that would hold me up on top of more than a foot of snow.

Set Plants Early

Question: How early should plants be set out?

Answer: I think most growers around Warrens try to set their strawberries as early as possible. Some are anxious to get their oats in first. My own experience says **set strawberries as early as ground can be prepared in good condition.**

Care in not exposing plants to the sunshine or cold wind is always advisable, for after the new feeder roots and foliage have started they are most liable to be injured in the necessary handling.

Question: Do you think it will be of value to use ammonium sulphate on the bearing bed as soon as it is uncovered in the spring?

Answer: My one and only experience with ammonium sulphate on strawberries did not show any benefit on our oak ridge soil, but the same experiment on the more sandy soil seemed to show improved leaf growth and darker color to the foliage.

Question: How do you rate the June raspberry in comparison with Latham?

Answer: I chose the June red raspberry instead of the Latham after growing both at the same time, as the June stalks were free from briars (perfectly smooth) where most other varieties were more or less prickly to handle. The fruit of both are large and of bright color. The Latham is grown by other growers in our section and seems to make and maintain a better row, and may be more productive.

EXPERIENCE WITH FRUIT VARIETIES

Stanley Hall, Elmwood,
Pierce County

WITH us we find that Catskill is still the best of the new varieties of strawberries we have tried. It produces well and berries are large and attractive in appearance.

We have tried many of the new black raspberries but find most of them are lacking in the qualities they are supposed to possess.

We find the Patten No. 5 Pear most resistant to blight here with Tait second. In the nursery rows we find Parker blights rather badly and Minnesota No. 3 shows some blight.

The Manchurian Apricots grow fast but grafted on plum roots they seem to have a poor union which many persons discovered. Some advise planting them deep, which encourages them to root above the graft.

The new Red Lake Currant we have are just as good as the claims that are made for them.

The Carpathian walnuts grow twice as fast as the black walnuts here. Naturally we are looking forward to the time they bear a crop.

Preparing The Soil For Strawberries

Growers Report on Their Choice of Fertilizers

STRAWBERRY growers in various sections of the state were asked to give their choice of the best way to fertilize and prepare the soil in preparation for strawberry planting. The following are the reports.

Prefers Manure

"We prefer to plant strawberries on potato ground. Plow in fall, top dress with barnyard manure during the winter. The following winter I top dress with manure on top of the straw mulch, and then rake off with the straw in the spring. It helps."—Irving Duxbury, Alma Center.

Barnyard manure is preferred by most growers in the commercial growing sections. J. L. Brautigan, Bayfield, reports that on new soil, he thinks 150 pounds of nitrate of soda applied right after setting is best. On old ground he would apply another 100 pounds about September 1st.

R. H. Eberdt, Sparta, recommends fertilizing the soil before planting a crop to be plowed under for humus, which is no doubt an excellent idea.

Relyea Dahlia Gardens, Taylor, state that they like to apply a heavy coating of barnyard manure and plow under a heavy stand of soybeans the year before planting the strawberries.

Lynn Reynolds of Tomah thinks we haven't found the best way to fertilize strawberries yet. Manure gives the best results. He can see no beneficial effect from applying a nitrogen fertilizer.

R. E. Harris, Warrens, says that manure is best, and in general, a well fertilized cultivated crop should precede the planting of strawberries. He has had good results by applying a light coating of hen manure on top of the

mulch for the second year.

Recommends Ammonium Sulphate in Spring

D. W. Reynolds, Sturgeon Bay, advises an application of manure before planting, and then carefully sprinkle 100 to 125 pounds per acre of ammonium sulphate immediately after the straw mulch is removed in the spring. This past fall he tried fertilizing some just before the mulch was put on.

N. C. Jacobs, Sturgeon Bay, recommends plowing under a heavy crop of green manure, preferably a legume crop, the year before the plants are set. On peat soil it is also advisable to apply several hundred pounds of phosphate and potash fertilizer per acre. He applies this with a garden seeder on both sides of the rows soon after planting.

From the above reports it can be seen that growers have not generally found commercial fertilizers to be of noticeable value to strawberries, but that humus as supplied by manure and plowing under green cover crops, is very essential. Strawberry plants are shallow rooted and suffer easily from drought. Humus enables the soil in holding moisture and stimulates increased root development of the plant. Manures also furnish all the necessary plant food elements.

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STRAWBERRY PLANTS

Strawberry plants for spring delivery. Warfields, Dunlaps, Beavers, Premiers, Fairfax, Dorsett, Catskill. Priced to sell. Order early. Mrs. John Jensen, Warren, Wisconsin.

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Growers of 20 acres of strawberries. Place your order now for spring delivery of strawberry plants. Improved Beavers, Premiers, Catskill. Priced to sell. Discounts on large orders.—Reylea Dahlia Gardens, Taylor, Wisconsin.

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Strawberry Plants. Fall covered. Beaver, Premier, Catskill, Dunlap, Latham raspberry plants. Alfred Isaacson, R. 4, Menomone, Wisconsin.

STRAWBERRY PLANTS FOR SALE

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Box 115 Warrens, Wis.

STRAWBERRY PLANTS—FRUIT TREES

Beaver, Premier, Grand Champion, Catskill, Dunlap, Gem strawberry plants. Extra large rooted plants. Hardest Blackberry, pears, new fruits. Hall Nursery, Elmwood, Wisconsin.

Watch For Raspberry Anthracnose

WHILE 1939 was a dry year and raspberry anthracnose was not as severe on the old canes as in 1938, nevertheless, it is well to watch the disease closely. There was considerable loss in 1938. If we have a wet season this spring, the disease will again spread and may cause serious damage next fall and winter.

Prune

Pruning is an aid to control of anthracnose. The dead canes and badly infested canes should be removed and burned. Prune before growth starts and again after harvest.

Spraying

Spraying protects the new growth from the anthracnose spores which are splashed up from the cankers on the stems by the rain.

There are two kinds of spores. Those that overwinter in the cankers on the canes are shot into the air and spread by the wind. The second kind are produced on cankers in the summer time and are spread by wind and rain. Splashing water from rain is the most potent way of spreading the disease.

The greatest danger from anthracnose is the damage done on the small shoots or petioles supporting the fruit.

How to Spray

Liquid lime sulphur spray is recommended. A spreader or sticker added to it has great advantage.

The first spray should be a dormant spray, applied after a few leaves have unfolded. (See picture) The strength should be **one part of lime sulphur to ten parts of water**. In case powdered lime sulphur is used, follow manufacturer's directions for dormant sprays.



Cumberland Black Raspberry. Above stems unsprayed showing anthracnose spots.

Below: Healthy stems. Result of semi-dormant spray and pre-blossom spray with lime sulphur. Stem on right shows time for 1st spray.

The second spray should be applied about a week before blooming period, using one part of lime sulphur to four parts of water, the same as for spraying apple trees.

In making new plantings be sure and cut off the old cane handle from the young plant roots, thereby eliminating a source of infection.

Many a husband thinks he's the head of the house when he's really chairman of the Ways and Means Committee.

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April Work In The Bee Yard

NOW is the time to examine our hives to see if there is plenty of food present for the colony. Due to the warm fall we had last year, considerable honey was consumed and colonies may be much lighter than we realize. Having successfully wintered them thus far, it would be most unfortunate if they were starved now, or failed to build up rapidly.

Field bees which will bring in our honey from alsike and white clover beginning about the middle of June, must be raised during April and the first part of May. It is very important therefore that our colonies build up rapidly from now on.

An Easy Way to Feed Sugar Syrup

In the early spring an easy way to feed sugar syrup is with the sprinkling can. A warm syrup of one part of sugar and one part of water will spray quite easily through the nozzle of a sprinkling can and this spray will go to the bottom of the cells of the comb. We can therefore feed with less disturbance by sprinkling the syrup into the combs than in any other way. Simply remove about two empty combs and spray the cells full of syrup. Replace them and close the hives.

Feeding sugar syrup out doors is a very questionable practice. Heavy colonies will get as much

syrup as the light ones and many bees will be lost by carrying in this feed.

Unite Weak Colonies

A weak colony in April will not build up in time to produce a honey crop this year. It may, therefore, be just as well to unite it with a stronger colony, either as a two-queen colony, or united after killing the poorer queen.

HOW TO PAINT QUEENS

LAST spring we painted over 100 queens with an acetone paint without the loss of a single queen. We find that the painted queens are easier to find in the colony; we can in that way keep a record of their age and also determine if they have been superseded or not.

How to Make the Paint

The paint we are using is made of acetone in which has been dissolved enough colored celluloid to give it the consistency of thin paint. This paint has been used by the Bee Culture Laboratories for a number of years with excellent results.

The acetone may be purchased from your druggist and if you do not have a colored toothbrush or cannot get a cheap one at a dime store, perhaps the druggist

can provide some pieces of colored celluloid.

Acetone dries extremely fast. That is its chief value in painting queens. By the time the queen is replaced on the frame, the the paint is perfectly dry and without odor.

The paint should be kept in a small vial tightly closed with a cork. In the cork we place a small nail with a rounded point which is used as a dauber. The queen is held firmly in the fingers, and the thorax is painted with either one or two colors. The colors we like best are red and yellow. Combinations of these two can be used to denote different ages of queens.

Enamels may not dry fast enough and consequently smear. Occasional reports from beekeepers to the effect that queens have been balled after having been painted might indicate that such paints do not lose their odor quickly enough. Using the acetone paint we have not seen a single case of queen loss.

Beekeepers who find it difficult to hold the queen carefully enough to avoid injury should not attempt to paint them. Practice on drones first.

WANTED TO BUY

4 or 6 frame honey extractor.
Haas Bros., South Milwaukee,
Wisconsin, R. 1.

FOOD SHORTAGE BIGGEST PROBLEM WITH BEES THIS SPRING

SEVERAL reports have come in of bees starving this winter. Evidently because of warm weather in fall and early winter there was heavy brood-rearing resulting in strong colonies which require more honey than usual. Evidently, too, the bees consumed more honey during the warm season than if it had been steadily cold.

Now is the time to examine every colony to see if it has enough honey for spring broodrearing. A convenient way to feed sugar syrup in the spring is to spray it into the combs with a sprinkling can. Lukewarm sugar syrup should be used of equal parts of sugar and water. Simply lift out a frame and sprinkle both sides. If the sprinkler works well, the syrup will fill the cells readily without waste. As soon as a frame is filled it can be replaced, the hive closed and the job is done. Some colonies of course will need several frames of syrup.

SPRING FEEDING

ARE you planning on stimulating your bees this spring by feeding a little sugar syrup daily or weekly? We agree with Mr. Floyd Markham, a well known beekeeper of Michigan, who writes in the Michigan Beekeeper for March, "We burned a lot of Alexander feeders this year. They were good when it was thought good practice to feed all colonies a pint of syrup daily to stimulate them. **It was not good practice**, but it did stimulate the bees to fly out regardless of the weather, hover around cracks in the hives and try to pick a fight with any colony they thought they could lick. If a colony is short of stores feed them all they need at one time and forget them."

We agree with Mr. Markham that if the colony has a good queen and plenty of feed and pollen it will raise brood as fast as it can. The percentage of young bees in the colony and the size or strength of the colony are most important.

Now we know too that if there is no pollen available no brood will be raised to maturity.

SHALL WE REQUEEN IN APRIL

WHAT shall we do if we find a colony without a queen when we examine it in early April?

Whether or not we should send to a queen breeder for a new queen to head such a colony, will depend entirely upon the condition of the colony. If the old queen died last fall, then the colony will be in a rather bad condition at this time, and it would hardly pay to requeen. If, however, the colony appears strong and active indicating possibly that the queen has been dead only a short time, then we can save the colony by requeening. This should be done as early as possible.

At this time it is also well to look for drone layers. Every beekeeper should become familiar with the actions of the bees having a drone laying queen. If the colony is strong, a new queen should be introduced at once after killing the old queen.

It is a very good idea to make up several nuclei in the near future. Purchase several queens and introduce them to one frame of brood with possibly two frames of bees and keep these nuclei on hand for requeening colonies as soon as it is noticed something has gone wrong with the old queen. Many colonies can be saved in this way.

Queens can be introduced more successfully early in the season, before heavy broodrearing than later.

COLONIES LOOK STRONG

BEES had a good flight today (March 17). The colonies all look strong and those I have opened have some brood and considerable pollen. Our trouble this coming summer is going to be a shortage of honey plants and moisture. The winter moisture

here was 2 to 3 inches on a very dry soil, which is now bare or nearly so. The other day I pulled up some Dutch clover which had heaved. Sweet clover however looks good as yet, but will need lots of moisture.

—Ivan Whiting, Rockford.

ENGLISH BEE JOURNAL PUBLISHES PAPER GIVEN AT WISCONSIN CONVENTION

THE BEE WORLD, of Horsham, Sussex, largest bee journal in the British Empire, published in its February issue an article on "Honey In Infant Feeding—Jars and Labels," written by Clarence Tontz, Ripon, from talks given at the annual convention of the Wisconsin Beekeepers Association.

The article mentions especially the lecture given by Dr. J. Martin Johnson, Ripon, on the use of honey in baby feeding. Dr. Johnson said babies brought to him because of loss of weight through improper food, were put on a formula of equal parts of warm water and evaporated milk with seven per cent of extracted honey. The babies always did well.

The talk given by Mrs. J. Martin Johnson was also referred to. Quoting her statement, "Most housewives want a jar that will stack well on the shelf and is easy to clean. So many of the 'fancy' jars have curves and frills and make for difficult cleaning when the jar is emptied. Jars with smooth shoulders are preferred. The brand name of the honey should be the most outstanding word on the label. When a housewife gets a pleasing jar of honey from her grocer, she wants to be able to specify from memory what brand she desires when she again orders honey."

"There isn't much to be seen in a little town, but what you hear makes up for it."

HOW TO INSTALL PACKAGE BEES

HAVE you ordered your package bees? If not, it should be done at once. Since there is such a wide variation between the quality of stock in package bees, the suggestion that we purchase packages from several different breeders is a good one—in order that we may compare their quality. They should be established in the same yard and given the same treatment.

Wisconsin beekeepers who have tried the new method of installing package bees by the spray and direct release method, suggested by Dr. C. L. Farrar, are very much satisfied with it.

Bulletin No. E-427 entitled "New Recommendation for Installation of Package Bees" can be obtained by writing the Department of Entomology, College of Agriculture, Madison. It gives complete directions for this new method.

Briefly, the method is as follows: First, it is necessary to have a low pressure sprayer of the knapsack type with three or five gallon tank. Spray the packages as soon as received with a sugar syrup, one part of sugar to one part of water, through the screen with a coarse spray. The spray should be warm. Apply on all sides of the package several times so as to gorge them with feed.

Next, take the packages to the yard where the hives have been set up and prepared. Take out five combs to allow space for shaking in the bees. Do this when there is no danger of robbing. Spray the bees again to quiet them. Next, cut the wire screen of the package with a knife along three edges of one side and remove the queen cage. Then pour the bees into the open hive, jarring all the bees out with a sharp

blow of the fist or a hammer. Next, spray the queen with sugar syrup, rip off the screen on the cage, and shake her down among the bees. Replace all combs, being careful not to crush the queen or any of the bees, give a very small entrance and then of course plenty of sugar syrup or honey for feed. If pollen is not coming in plentifully from the field, a little soybean flour added over the top of the frames will help in broodrearing.

We feel it will pay every beekeeper who buys packages or who does uniting of colonies, to purchase a knapsack sprayer. Best results cannot be obtained without it.

FINDS BROOD IN EARLY MARCH

MR. OSCAR RITLAND, Elroy beekeeper, writes on March 7th, "I examined two outdoor wintered colonies in early March. One had pollen and three frames of brood (patches of brood about 8 inches across). In the other I saw no pollen and no brood. There were some eggs and a few larvae."

We are very glad that beekeepers are beginning to observe their colonies. The next step is to watch these colonies to see how they come out in the spring and how they compare in honey production. Those colonies that started broodrearing early will of course use up more honey as food, but they will have many more young bees when real broodrearing starts in April and May. These young bees should greatly increase broodrearing during the spring months and the colonies should be in prime condition for the honey flow in June.

HONEY WANTED

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

SOY FLOUR

We carry Soy Flour which may be used as a pollen supplement for bees, or as a sticker for spray materials for the orchard.

10 lb. bags, 65c; 100 lb. bags, \$4.90
F.O.B. Waukesha

Southeastern Fruit Growers Co-Op, Inc.

Lester Tans, Secy. Route 3
Telephone Big Bend 2821

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New! Space nine combs in a ten-frame super in 1/2 to 1/2 less time than by hand. Ask your local dealer for demonstration. Write for circular.

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Top Quality Material . . . Glossy Polish . . . Smooth Dovetails . . . Oval V-Grooves . . . Accurate Dimensions . . . Fine Workmanship . . . Reasonable Prices . . .

These important features are demanded by every beekeeper. Any size section can be furnished. Why not place your order at once?

Write for prices on quantities and special size sections, and also your free 1940 catalog.

AUGUST LOTZ COMPANY
Boyd, Wisconsin

Editorials



CARPATHIAN ENGLISH WALNUT TREES STILL AVAILABLE

AS announced in our March issue, we have a number of Carpathian English walnut trees, two years old, available for sale to members of the Horticultural Society this spring. The trees are about three feet tall and grown from seed imported from the Carpathian Mountains by the Rev. P. C. Crath.

The price of the trees is \$1.00 each, postpaid.

We might mention that the price of these English walnut trees from commercial growers is \$2.50 per tree of about the same size.

We are not at all certain that we can obtain any more of the seed of the English walnut because of the war in Europe. We recommend them for trial anywhere in Wisconsin where good varieties of apples do well.

FLOWER POSTS IN A MAINE CITY

THE custom of hanging baskets of flowers from certain posts or windows is very attractive and not too expensive to be practiced more commonly. I want to call attention to the city of Camden, on the beautiful coast of Maine, where this idea is carried out most effectively on each of the numerous lamp posts. There are double baskets where geraniums, ivy, and lobelia grow all summer, causing exclamations of admiration by the thousand,



from tourists. I think that sometimes we overlook the beautiful things close at hand.

—Maud M. Hill, Milton, Mass., in Horticulture.

WORK OF THE WISCONSIN STATE-WIDE MUSEUM PROJECT

MEMBERS of the Horticultural Society should visit the Wisconsin State-Wide Museum project at 191 North Broadway, Milwaukee. They will be amazed at the amount of work being done to preserve and prepare various types of materials for educational purposes.

The project has been divided into 27 units under ten departmental classifications as follows: 1. Photographic; 2. Botany; 3. Geology; 4. Taxidermy; 5. Lower zoology; 6. Weaving; 7. Reproduction; 8. Cataloging; 9. Box manufacture; 10. Construction.

Botanical Specimens Available

Botanical specimens native to the state of Wisconsin are collected, dried, and mounted for use either for exhibition purposes, or as material for classroom use. Specimens in all their aspects are available, such as flowers, foliage, seeds and winter buds.

Reproduction Department

Of interest to members in this department might be the models and castings of reproductions of flowers and plants in celluloid or wax, and in color. The form and texture are exceedingly natural in appearance. Dioramas showing flowers and plants in their native habitat are made.

In the Box Department are made many types of display boxes, mounts, and envelopes for displaying materials for educational purposes.

In the Construction Department, museum display cases are made. Mounts of insects, common insects and flies native to the state of Wisconsin, Herbarium sheets, reproductions of flowers and plants of Wisconsin are made.

Environmental groups of birds, insects and reptiles are custom built

The products and services of the project are available to tax supported institutions.

Information may be obtained by writing Mr. A. C. Abraham, Wisconsin State-Wide Museum Project, at 191 N. Broadway, Milwaukee.

A Chinese student at the University of Michigan who memorized phrases from an etiquette book had his first opportunity to try them out at a reception given by president Ruthven. When a cup of tea was handed to him, he solemnly responded: "Thank you, sir or madam, as the case may be."

Vegetables Varieties For Wisconsin Home Gardens

O. B. Combs—Department of Horticulture

NO single phase of home vegetable production is more essential to success than the careful choice of varieties. It is fortunate, therefore, that the choice of varieties is one of the more interesting and less tiring aspects of home gardening. New varieties, or at least new names, annually appear in our seed catalogs. The true gardener not only gets genuine enjoyment from observing the performance of these varieties in his own garden but he also revels in the persistent feeling that the new will sometime prove superior to the old. Experience and judgment, of course, have long since shown that varieties of known performance must be used for the bulk of the crop.

As gardeners we differ considerably in our likes and dislikes, but the wide range of varieties available of almost every vegetable crop enables even the more finicky individuals to satisfy their desires. It is well to remember, of course, that vegetables are grown primarily as a source of food so that varieties which contribute most toward health, economy and enjoyment should be used. Varieties which fulfill these requirements must be potentially superior in table quality, food value and productivity.

In the following list, names separated by a comma refer to varieties which are more or less distinct. Where "or" appears between names, the varieties or strains in question are considered to be essentially the same or at most distinguishable by only slight differences. Names accompanied by an asterisk (*) indicate varieties resistant or tolerant to fusarium yellows.

Beans: green-podded, bush snap: Stringless Green Pod, Giant Stringless Green Pod, Tendergreen, Bountiful.

wax-podded, bush snap: Round Pod Kidney Wax, Pencil Pod Black Wax, green-podded pole snap: Kentucky Wonder.

wax-podded pole snap: Kentucky Wonder Wax.

bush lima: Baby Potato or Baby Fordhook, Henderson.

Beets: Early Wonder, Crosby's Egyptian, Perfected Detroit.

Broccoli: Italian Green Sprouting.

Cabbage: Early: Jersey Wakefield (Jersey Queen*), Golden Acre (Resistant Detroit* or Racine Market* or Resistant Golden Acre*).

second early: Copenhagen Market (Marion Market*), All Head Early (All Head Select*), Glory of Enkhuizen (Globe*).

late: Danish Ballhead (Wisconsin Ballhead*).

red: Mammoth Red Rock (Red Hollander*).

Chinese or celery: Chihili.

Carrots: Nantes, Red Cored Chantenay, Imperator.

Cauliflower: Early Snowball, Super Snowball.

Celery: Golden Plume, Golden Self Blanching.

Chard: Large Ribbed White, Lucullus.

Cucumbers: slicing and dill: Early Fortune, Straight Eight.

pickling: National Pickling.

Eggplant: Black Beauty.

Kale: Dwarf Green Scotch.

Kohl-rabi: White Vienna, Purple Vienna.

Lettuce: leaf: Grand Rapids, Simpson, butter-head: May King, White Boston.

crisp-head: Imperial 44 or Imperial 847.

cos: White Paris.

Muskmelons: Honey Rock, Milwaukee Market, Hearts of Gold, Pride of Wisconsin.

Onions: from or for sets: Ebenezer or Japanese, Bottle Neck or Golden Globe or Golden Marvel.

from seed: Early Yellow Globe, Southport Yellow Globe, Southport Red Globe, Southport White Globe. from seedlings: Riverside Sweet Spanish.

Parsley: Moss Curled.

Parsnip: Guernsey or Hollow Crown.

Peas: dwarf: Thomas Laxton, Little Marvel, Improved Stratagem.

tall: Alderman.

Peppers: mild: Harris' Early Giant, Ruby King, Early California Wonder (Harris' Wonder or Oakview Wonder or Calwonder).

pungent: Red Chili.

Pumpkin: summer "squash": Straight-neck; fall "squash": Table Queen.

pie: Small Sugar, Winter Luxury.

Radish: Early Scarlet Globe, White Icicle.

Salsify: Sandwich Island.

Spinach: Long Standing Bloomsdale, King of Denmark, Giant Nobel, New Zealand "spinach."

Rutabaga: American Purple Top.

Squash: Golden Delicious, Buttercup, Kitchenette, Green Hubbard, Golden Hubbard, Blue Hubbard.

Sweet Corn: standard: Golden Gem, Golden Sunshine, Extra Early Bantam, Golden Bantam.

hybrid: Seneca 60, Marcross 6.13, Seneca Golden, Tendergold, Golden Cross Bantam.

Tomatoes: Valiant, Bonny Best, Stokesdale, Pritchard, Rutgers.

Turnip: Purple Top White Globe.

MEN'S GARDEN CLUB STAGES HUMOROUS FLOWER SHOW

THE San Francisco Business Men's Garden Club recently staged a humorous flower show which attracted a great deal of

attention. The chairman of the show stated that the men were trying to make the home folks forget the screaming war headlines, as well as to show up the lady flower arrangers. The show drew over 6,000 people.

Hat fashions were shown on wax faces borrowed from a department store. One featured a 4-inch flower pot with a piece of Rochea protruding at a cocky angle. Another consisted of a pumpkin cleverly decorated with nuts.

The effect of Vitamin B₁ was shown in a "before and after" arrangement. It showed a small chrysanthemum blossom and a giant sunflower, the first being "before" and the second "after" using Vitamin B₁ tablets.

Good luck to you men gardeners. A little humor will help keep our feet on the ground.

ENLIST

enlist

in the Women's Field Army of the American Society for the Control of Cancer, and help in the intensive war against this disease.

educate

yourself and others to recognize early symptoms that may indicate cancer.

save

some of the 150,000 who may die this year unless promptly treated. Early cancer can be cured.

join your
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now!

or send your
enlistment fee
of \$1.00 to

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Gladiolus Gleanings



By the WISCONSIN GLADIOLUS SOCIETY

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Planting Gladiolus

Geo. H. Scheer, M.D.

GLADIOLUS, planted in almost any kind of soil, anywhere, will grow, but they will produce maximum results only when the planting has been done properly.

The most important preliminary step is the preparation of the ground. This will vary somewhat, depending upon the character of the soil, but whether the soil is light or heavy, the object is to have the ground as loose and porous as possible at planting time. In light soil fall plowing or spading gives good results, and deep harrowing prior to planting will put the ground into excellent condition for planting. On heavier soils spring plowing or spading is much to be preferred since such soil is left dense and heavy through the action of the customary heavy fall and spring rains, a condition that requires that the ground be thoroughly broken up by plowing and very thorough, deep harrowing.

After having seen a Rototiller at work, I am convinced that it surpasses by far any other tool or device, or any combination of them, for putting the ground into ideal condition for planting but, unfortunately, few small growers can afford to buy this machine. In any event, no matter what method is used, no attempt should be made to work up the ground in the spring until it has

become sufficiently dry to allow it to be broken up thoroughly for, the more loose the ground, the easier will be the job of planting and the better the root growth.

And now for the actual planting. For convenience in cultivating and weeding, gladiolus are routinely planted in straight rows. In the small garden and in small plantings, where the cultivating is done with small hand implements, small intervals between rows are the rule and, since such plantings are usually made in beds narrow enough to allow easy access from either side, the spacing of the rows may be as little as 6-8 in.; in larger plantings, where the cultivating is to be done with either horse or motor tractor, the distance between rows must naturally be sufficient to avoid injury to the plants in the rows in cultivating. No matter whether the planting is large or small, a little extra care at planting time to see that the rows are perfectly straight will be amply repaid when the time for cultivating arrives.

Planting Depth

Gladiolus are best planted in trenches, the depth and width of the trench depending upon the character of the soil and the planting method to be used. As a rule, the lighter the soil the deeper should be the planting, sandy ground requiring the deepest planting of all. Too deep planting should be avoided—there is no advantage in planting as deep as 8-10 in.,—6-7 in. is deep enough in the lightest soils and in heavy soil 4 in. is usually deep enough. Where a spade or hoe is used in making the trench, all ground being thrown to one side, it is a simple matter to get the exact depth of trench desired, but where a shovel plow or similar tool is used as

is usually the case where tractor or horse power is employed, it is much more difficult to gauge the depth accurately because the loose ground on each side of the trench makes the trench appear much deeper than it actually is so that, unless the actual depth is carefully checked, the planting will be much shallower than was intended.

Fertilizers

The open trench affords an excellent opportunity for applying a suitable fertilizer, both economically and effectively, where the use of such a fertilizer is contemplated. Sheep manure, commercial fertilizer, sludge from sewage disposal plants, or well rotted compost are all suitable. I usually use a commercial fertilizer low in nitrogen—not over 4%—which is applied at the rate of about one one-pound coffee can to 75-100 feet of trench; this I work thoroughly into the ground at the bottom of the trench while loosening the soil with a hand trowel.

With the ground thus prepared, the actual planting of the corms becomes a very simple task as one need only to watch the spacing and to press each corm far enough into the loose soil to insure that it will not be dislodged or moved when the trench is covered. It is a good practice, especially where very large corms are being planted in heavy soil, to tilt the corms slightly in order to allow the water to run off the top in case of very hard rains. Likewise, in extremely heavy soils, the glads will do better if a layer of sand is run over the trench bottom prior to planting but that is practical only in small plantings.

Spacing

The matter of spacing is of considerable importance. When planting for the purpose of raising exhibition spikes, the interval between corms should be

considerably greater than when growing for purely commercial purposes. For raising exhibition stock, most growers prefer large No. 1 or even jumbo bulbs, sometimes even removing all eyes but the strongest one, and space the corms 8-10 in. apart in order to insure that each plant shall have an ample supply of nourishment. Ordinarily, spacing the corms 1½-2 times their diameter is considered sufficient. Considerable space may be conserved by planting double rows in the trench in which case they should be staggered. Obviously, the smaller the corms, the closer they may be planted.

Very small bulbs — the so-called planting stock which consists of sizes from No. 5 or 6 down—and bulblets are usually just sown into the trench, very much the same as seeds, but these are usually planted somewhat shallower than the larger sizes.

It is quite important, especially on sunny, warm, windy days, to cover each trench just as quickly as the planting is completed to prevent too much drying out of the loose ground.

Avoid Deep Planting

In closing, it may be of value to inexperienced growers to state that deep planting usually results in reduced bulblet production and that therefore it is advisable, especially in the case of rare varieties where as rapid increase as possible is the aim, to make sure that too deep planting is avoided.

FOR GLADIOLUS BLOOMS IN JULY

Chester Harrison, Waldo

TO those who would like to have some flowers especially early, I will give an experience. I collect one pound butter or land paper cartons and plant one bulb in each carton. Last year I planted only late varieties—varieties that require one hundred days or over to bloom, such as Solveig, Betty Nuthall, and a few other late varieties, also Picardy, Heritage and some small Shirley Temple, and Miss New Zealand. These were planted from the first to the fifteenth of April. Solveig and Betty Nuthall which normally bloom in late September bloomed August 15th. The Picardys bloomed July 26th, and the small Shirley Temple and Miss New Zealand which would have bloom-

ed very late, if at all, bloomed August 25th. The Heritage was the Grand Champion bloom at the State Fair.

In planting the bulbs, I open the end of the pasteboard cartons. Tie a string or rubber band around the box to keep it together, and then with a knife punch two or three holes through the bottom and sides to allow for air and watering. Plant the bulbs about three inches deep, and set the boxes in a pan of water for an hour or so. I never water the bulbs from the top, but just allowed the soil to draw up the water from the bottom. In this manner the ground does not get oversoaked.

I left the bulbs in the basement until the fifteenth of May, watering them about once a week, then transplanted them to the garden. Some of the glads were six inches high at this time. When I planted them I made the trenches the same as for planting other bulbs, cut the strings around the boxes so they opened and set the plants in the ground very carefully. Every bulb continued to grow very nicely, and I did not lose a single one. This year I expect to have quite a number of early gladiolus.

MANITOWOC CHAPTER ELECTS OFFICERS

THE following officers were elected by the Manitowoc County Chapter of the Wisconsin Gladiolus Society:

President: G. H. Thompson, 930 S. 18th St.
 Vice-Pres.: L. W. Markwardt, 1610 Wisconsin Ave.
 Sec'y-Treas.: H. H. Groth, 1615 Wisconsin Ave.
 Directors: Mrs. Ruth St. John West, Joe Pitsch, and Henry Groth.

There was a good attendance at the March meeting and the next meeting will be held on April 12th when the slides of gladiolus by the Horticultural Society will be shown. Twelve members of the Chapter have joined the State Society.

We understand that there is considerable interest in other communities in organizing City or County Chapters.

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Home and Garden

Mrs. C. E. Strong

"To make the path a little plainer for other feet; to add a little to the light that is battling with the gloom; to make the world a little better, cheerier and happier for our presence in it—this is the debt we owe the world."—Found in an old scrapbook.

A FEW questions I have been asked to answer on this page.

About Hemerocallis

Question: What are some good varieties of Hemerocallis or Lemon Lilies, not too expensive? How should they be planted?

Am so happy this question was sent me—for I consider the Hemerocallis family one of the standbys of the perennial border. They are not at all fussy in their requirements—thriving even under neglect—but responding gratefully to care, water and some fertilizer.

In the following list prices vary from thirty cents to one dollar, and will give bloom from May through August. **Flava**, the old fashioned Lemon Lily, very sweet scented. **Bay State**, a pure rich yellow. **Cinnabar**, bronzy red suffused yellow, gold. **D. D. Wyman**, large orange three center petals marked bronzy red. **Gipsy**, deep orange shaded fulvous red. **Goldeni**, deep golden. **Hyperion**, very large, pale lemon yellow, a very free bloomer. **J. A. Crawford**, large, broad petals of clear gold. **Ophir**, very free blooming, tall stalks of large golden yellow flowers. **Mrs. W. H. Wyman**, round flower, clear gold. The **Gem**, medium sized flowers of clear gold. **WauBun**, one of the largest, light cadmium yellow, sprinkled fulvous red. **Fulva Kwanso**, orange shaded crimson, double.



Some of the newer Hemerocallis come in deep velvety reds, some almost rose shades, ashy tones with pinkish shadings, but these are as yet—in the three to ten dollar class, because they are still very new. However, you will find this list will give you a fine show of flowers all through the season—and in spite of the seeming similarity of color—there is really a marked difference in growth, foliage and bloom. Even large beds of Hemerocallis are never stiff or too formal, the foliage is graceful, the flower stalks seemingly arranged in the most pleasing manner.

You may plant Hemerocallis in your borders around pools, in sunny dry spots, as well as in partial shade, apparently they have no insect enemies. All are very hardy.

Roses

Question: What are some good varieties of Roses for my garden?

Answer: This is rather a hard question to answer—for the writer gave no information as to the size of her garden—but for the average garden, the **Floribundas** are a good choice. The catalogs list them as the "Glorious Flori-

bundas" perfect blossoms of hybrid tea size, persistent heavy bloom throughout the summer, give a striking and permanent effect. You may plant them in beds, in groups in front of shrubbery, or in your perennial borders.

There is a long list to choose from. The following varieties I have met and admired—**Betty Prior**, red changing to pink. **Summer Snow**, looks like a snow bank, **Smiles**, salmon pink. **Carillon**, flame coral. **Rochester**, golden yellow with orange carmine reverse. **Anne Paulsen**, brilliant scarlet. **Donald Prior**, deep red.

In climbing Roses, **New Dawn** is a free blooming soft rose color. **Paul's Scarlet Climber** is very showy, with long lasting blooms, and usually gives a second crop of blooms in late August or September. **Doubloons**, golden yellow, hardy vigorous grower, good foliage. **Dorothy Perkins**, very old, very good, always lovely.

Hybrid Teas: **Edith Nellie Perkins**, salmon pink, shaded copper pink. **President Herbert Hoover**, two-toned orange and maroon, free bloomer, strong grower. **Rev. F. Page Roberts**, copper red buds open to large yellow flowers. **Souvenir De Claudius Pernet**, unfading yellow, one of the tried and true kinds. **Victoria Harrington**, rich red, long pointed buds, large blossoms.

Austrian Copper is a fine Briar Rose, can be used in the shrubbery row, or border, where it adds a striking note.

Tree roses are not grown in the majority of gardens, but they are very beautiful and worth the trouble of caring for. Frau Karl Druschki, Golden Dawn, Presi-

dent Herbert Hoover, are three quite hardy varieties.

Hybrid Perpetuals are many, but **Frau Karl Druschki**, white, **Georg Arends**, pink, **Henry Nevada**, velvety scarlet, are a very good choice.

When to Plant Annuals

Question: Which Annual flowers can be planted out doors,—and when can I sow them? Which kinds had better be sown in flats in the house?

Answer: We really should have several extra pages for this question alone, but will try to answer as briefly as possible. Seeds which germinate more readily in cool damp weather—such as annual Larkspur, Calendula, Snapdragon, Poppies, Dianthus, Sweet Peas, Phlox, Petunias (single) Cosmos, Siberian Wallflower, Annual Chrysanthemums, Salpiglossis, Centaurea, etc., etc., can be sown outside as early as the ground can be cultivated.

Verbenas, Celosia, Pentstemon Sensation, Double Petunias, Dahlias, Annual Campanula, Ageratum, Gourds, Yellow Cleome, Double Nasturtiums, Heavenly Blue Morning Glory, etc., are some of the seeds that like a warmer soil in which to germinate, most of them need a fairly early start in order to give a satisfactory amount of bloom in the garden, and should be planted early in April, March would be better—in flats in the house. Later they should be transferred to a cold frame to be hardened off. **If seeds are rolled in Semesan**, there will not be so much danger of wilt.

Information clerk: "Madam, this train goes to Omaha and points West."

Madam: "Young man, I want a train to Oshkosh, and I don't care which way it points."

AIDS IN LANDSCAPE DESIGN

THE attention of those interested in landscape design is called to the series of five study aids in this field, prepared under the WPA Study Aid Project, by the Department of Horticulture and the Extension Division (Department of Debating and Public Discussion), University of Wisconsin. These study aids are available at 25 cents each to Wisconsin residents and at 40 cents to others. Detailed information will be supplied upon request to Almere Scott, Extension Division, Madison.

The subjects are:

- The Home Landscape
- Building the Home Landscape
- Public Problems in Landscape Design:
 - Part I—Roads, Highways, Roadside Development
 - Part II—Parks, Play Areas, Parkways
 - Part III—Government Forests, Nature Sanctuaries, Wild Life Areas, Small Grounds of Civic Importance, School Grounds, Cemeteries

Those relating to public problems, profusely illustrated, are regarded as especially significant because of the wide public interest in the development of civic areas, stimulated by federal grants.

The references to the best literature on the respective subjects gleaned from a vast number of books and other material are cited for special study under each topic. References cited, as well as later publications, not available from local libraries, may be borrowed by residents of Wisconsin from the Department of Debating and Public Discussion, University Extension Division, Madison, Wisconsin. Many of the books supplementing the local library resources are available to residents of Wisconsin from the Traveling Library, State Office Building, Madison, Wisconsin.

HOW TO GROW ANNUALS FROM SEED

Questions Answered by Prof. R. E. Vaughan, Madison

QUESTION: I planted both vegetable and flower seeds in flats early last spring for starting indoors. I found that only a small percentage of the seeds grew. Parts of the flats had no plants at all. What was the trouble, and what can I do this year to overcome it?

Answer: The trouble with your flats was either the lack of vitality in your seed, or the presence of damping off fungi. To prevent the reoccurrence of similar trouble you can possibly secure higher grade seed and treat your seed before sowing with "Semesan" or "Cuprocide." The Semesan is a mercury disinfectant while the Cuprocide is a copper compound. These materials tend to prevent the fungi in the soil or on the seed surface from getting a hold on the young sprout before it gets out of the ground. Use a soil that has plenty of sand to prevent holding too much water around the seed.

Question: Last spring I grew a number of annual flowers from seed in flats indoors. When the little plants were about one inch tall I noticed that the stems had a blackened area near the surface of the soil, which appeared to be strangling or pinching the stem. What is the cause of this and how can it be prevented?

Answer: When your young plants get black on the stem near the soil surface it is a symptom of the damping off trouble. It is caused primarily by fungi working under favorable conditions for their development, i.e. too little light or heat or too much water. The best controls are to kill the fungi on the seed by seed disinfection and then make conditions so good for the plants that the chance fungi in the soil will be prevented from doing damage. This means: 1. Don't plant too thick, and thin plants as soon as possible after they are up. 2. Have the temperature neither excessively hot or cold during the germination process. 3. Be careful about watering so that water does not stand around the young plant stems. 4. In case damping off starts it is well to water sparingly with a solution of Semesan made up according to recommendations of the manufacturers. 5. Use a soil that has plenty of sand in it and possibly cover the drill row with sand instead of soil. This promotes drainage and takes the water away from the danger spot.

INTRODUCING "SCARLET BEAUTY"

COLE'S 1940 SURPRISE—unsurpassed in extraordinary beauty—in short, the perfection of ever-blooming loveliness. Hardy *Fuchsia riccartoni* Scarlet Beauty blooms from "June till frost," always laden with lovely bell-shaped flowers set in foliage of glossy holly green.



OVER 5000 BLOOMS FROM ONE PLANT by actual count last summer—had 200 to 1000 entrancing ruby pendants at all times during a 17 week period. You need some for your garden. **Write for Colored Folder THE COLE NURSERY CO. Mentor Avenue Painesville, Ohio**

Wisconsin Garden Club Federation News

Mrs. Charles H. Schuele, President
247 Woodland Lane, Oconomowoc
Mrs. E. A. St. Clair, Hon. President,
2418 N. 65th St., Wauwatosa
H. J. Rahmlow, Cor. Secretary,
Madison

Mrs. E. L. White, Rec. Secretary,
Box 334, Fort Atkinson
Mrs. C. H. Braman, 1st V-President,
Waupaca
Mrs. Frank Quimby, 2nd V-President,
1422 Blaine Blvd., Racine

SPRING FLOWER SHOW

Wisconsin Garden Club Federation—Wauwatosa Recreational Bldg., May 17-18-19

To the Neenah Garden Club goes the honor of making the first entry in the Wisconsin Garden Club Federation Flower Show, to be held at the Wauwatosa Recreational Building, May 17-18-19. By this time, all garden clubs have received the schedule. Additional schedules may be secured from Mrs. E. A. St. Clair, 2418 No. 65th Street, Wauwatosa.

The plans for the show have all been made, and we should have a beautiful show. Start talking about the show now. Two thousand members doing this, especially among other organizations throughout the state, can give us a lot of publicity. We would like to have you put tickets on sale in hotels, clubs, etc.

We hope that garden clubs at a distance from Milwaukee will organize tours to visit the show. Remember we must sell about 1,000 tickets to cover the cost. Please notice that there is a poster contest, poster to be used in advertising the show. The State is divided into five districts. A first, second and third prize will be given in each district, and a grand prize of \$2.50 for the best poster in the contest.

Mrs. Max Schmitt, Chairman of Junior Garden Clubs, 1912 N. 84th Street, Wauwatosa, is in charge of this contest.

Please notice that the correct name for the building is the Wau-

watosa Recreational Building, so the Wauwatosa Park Board has informed me. This should be stated on the posters.

Dr. Carl Schwendener, Chairman, State Flower Show.



COMING WISCONSIN FLOWER SHOWS

MAY 17-18-19, Wauwatosa. State Flower Show, Auspices Wisconsin Garden Club Federation, in Wauwatosa Recreational Building.

May 18-19. Town and Country Garden Club of Lake Geneva Flower Show. To be held in Horticultural Hall. Opens 12 M Saturday May 18.

June 8. West Allis. Annual Flower Show by Hillcrest, Juneau Heights and West Allis Garden Clubs and West Allis Recreation Department. Gymnasium of West Allis High School.

Dates for flower shows sent in by the 15th to 18th of the month can be published in the next month's issue of Wisconsin Horticulture.

REGIONAL COMMITTEE CHAIRMEN MEETING HELD IN MILWAUKEE

An interesting meeting, under the auspices of the Milwaukee District of the Wisconsin Garden Club Federation, was held at the City Club, Milwaukee, on March 19th. More than 50 interested State and District committee chairmen from the Milwaukee, Sheboygan, and Southern Districts were present. The principal matter of business was a discussion of plans for the State Flower Show to be held in the Wauwatosa Recreational Building on May 17-18-19.

Each committee chairman presented a brief report of progress, and the chairmen then consulted with the State President Mrs. Chas. Schuele in regard to further plans.

Workshop for Flower Show Judges

Mrs. J. Martin Johnson, 529 Woodside Avenue, Ripon, suggested a workshop for flower show judges to be held the latter part of April. Anyone interested in such a workshop should write Mrs. Johnson. If enough are interested, the school will be held.

Plan to Attend National Convention

Mrs. G. E. Snell, 414 Erie Avenue, Sheboygan, was appointed chairman of the committee to plan a tour to the annual convention of the National Council of State Garden Club Federations, which will be held at Portsmouth, New Hampshire, on June 18-19-20. Anyone wishing to make the trip, possibly sharing expenses in an auto, should contact Mrs. Snell.

Roadside Development Institute

The Wisconsin Roadside Development Council will cooperate with the Department of Horticulture, Wisconsin College of Agriculture, in a Roadside Development Institute, as follows:

UNIVERSITY OF WISCONSIN,
MADISON

Wednesday, May 1, 9:30 a.m.

An excellent program with outstanding speakers, both from within and outside of the state are being planned. Everyone interested in roadside problems is invited to attend.

Mr. Wilbur Simonson, landscape architect, Public Roads Administration, Washington, has been invited to speak. A luncheon and dinner will be arranged with interesting features.

Dorothy Biddle Clinics

April 20-22-23-24

A LARGE attendance is expected at each of the Dorothy Biddle clinics to be held by four garden club districts, April 20, 22-23-24. Miss Biddle proved her ability as a speaker on the subject of flower arrangement last year, and those who heard her are anxious to hear the new topic which she will discuss this year on color in the home and table setting, in addition a review on flower arrangement.

At the Wausau meeting Miss Biddle will devote most of the time to discussion of the principles of flower arrangement because she did not speak in that district last year. At the other meetings, however, her talks will be entirely new.

Meetings will be held as follows:

Saturday, April 20, Sheboygan.
Grace Church Guild Hall, 7th Street & Ontario Avenue.
Luncheon in Church Hall.

Monday, April 22, Wausau. Wausau Club Ballroom. Buffet luncheon at Club.

Tuesday, April 23, Oshkosh. Trinity Guild Hall, Corner High and Light Streets, 1 block west of Athearn Hotel. Luncheon in Trinity Guild Hall.

Wednesday, April 24, Madison. Woman's Bldg., 240 W. Gilman Street. Luncheon in Woman's Bldg.

All meetings will begin at 10 a.m. and close at 4 p.m. The noon luncheons will be served for 50c at each meeting.

The admission price for the entire day, covering the three topics will be 50c. Luncheon reservations should be sent to the following persons:

Sheboygan: Mrs. F. W. Eppling, 238 E. Park Lane, Kohler.

Wausau: Mrs. Peter J. Portman, Forest Park, Wausau.

Oshkosh: Mrs. A. J. Doule, 225 Hazel St., Oshkosh.

Madison: Mrs. Newell S. Boardman, Shorewood Hills, Madison.

A postcard reserving a luncheon reservation will be appreciated by the committees.

In purchasing tickets in advance, it would be helpful to make a luncheon reservation with the ticket seller.

ROADSIDE DEVELOPMENT COUNCIL MEETING

THE organization meeting of the Wisconsin Roadside Development Council will be held as follows:

SENATE PARLORS, STATE CAPITOL, MADISON

Friday, April 12, 10:00 a.m.

The Nominating Committee will report, officers will be elected, and a program of work outlined.

ADDITIONAL GARDEN CLUB OFFICERS

Cambridge and Lake Ripley Garden Club

(Cambridge)

President: Mrs. Josephine Potter
Vice-Pres.: Mrs. Hattie Westphal
Sec'y-Treas.: Mrs. Hattie Thronson
Meeting: 3rd Tuesday of month in homes of members.

Elm Grove Garden Club

President: Mrs. Geo. Schroeder, P. O. Box 69

Vice-Pres.: Mrs. Carl Isaacson
Sec'y-Treas.: Mrs. Wm. Chappie, Box 268A, R. 5, Waukesha.

Hawthorne Garden Club

Hales Corners

President: Mrs. R. H. Malisch
Sec'y-Treas.: Mrs. W. Ben Hunt, R. 1, Box 522

RIPON

Ceresco Garden Club

Ripon

President: Mrs. Meta Albright
Vice-Pres.: Mrs. Harold Somers
Sec'y-Treas.: Mrs. F. W. Schlueter, R. 2

Meeting: 2nd Tuesday of month at 7:30 p.m. in homes of members.

Wisconsin Rapids Garden Club

President: Mrs. Don Waters, 1241-3rd St. So.

Sec'y-Treas.: Mrs. S. A. Tate, 431-8th St., No.

ADDITIONAL STATE COMMITTEE CHAIRMEN

Wisconsin Garden Club Federation

Rural Clubs: Mrs. George Harbort, R. 54, Madison.

Outdoor Advertising: Mrs. Martha Lowry, Lakewood, Madison.

AN INVITATION

You are invited to visit Burr Oak Flower Gardens during the blooming season of Iris and Peonies, late May and early June.

E. L. White, Box 334, Fort Atkinson, Wisconsin. On highways 26-89 at north city limits.

TUBEROUS ROOTED BEGONIAS

DOUBLE—SEPARATE COLORS

1 1/4 to 1 1/2 inch size

85c per dozen \$6.00 per 100

1 1/2 to 2 inch \$7.00 per 100

2 inches and up \$11.00 per 100

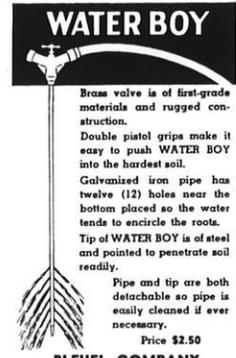
Gladiolus, Picotee, Salmon Pink

No. 1 bulb, \$1.50 per 100

KLINGBEILS NURSERY

2435 North Sixth Street MILWAUKEE, WIS.

Water Roots WITH A Water Boy



WATER BOY

Water Boy WITH A Water Roots

ATTACH GARDEN HOSE. PUSH WATER BOY INTO GROUND. TURN ON WATER. WATER THOROUGHLY.

Brass valve is of first-grade materials and rugged construction. Double pistol grips make it easy to push WATER BOY into the hardest soil. Galvanized iron pipe has twelve (12) holes near the bottom placed so the water tends to encircle the roots. Tip of WATER BOY is of steel and pointed to penetrate soil readily. Pipe and tip are both detachable so pipe is easily cleaned if ever necessary. Price \$2.50

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Pruning—Fertilizing—Spraying
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COUNTY ZONING

Its Use in Roadside Improvement

J. M. Albers—Wisconsin State Planning Board

ZONING is an activity which counties may undertake by virtue of the authority granted in the Statutes. It may be stated in a few words substantially as follows: a county may restrict and determine the areas within which agriculture, forestry and recreation may be conducted. It may regulate the use of land and buildings, the size of open spaces, the density of population and may establish setback building lines. It may also set up districts in which specific uses of land and buildings may be prohibited. There are now twenty-eight such county zoning ordinances in effect. Twenty-four of them are in the northern cut-over area and the other four are Milwaukee, Dane, Jefferson and Walworth. In addition to these, the county boards of Marathon, Door, Waukesha, Kenosha, Washington and Sauk are considering the adoption of similar regulations.

By the use of this enabling legislation, Wisconsin counties have designated areas in which specific uses of land are set up. The number of districts established in any specific county vary with the existing conditions which it may be desirable to regulate. It has been found desirable to undertake such legislation for the reason that the rapid development of the rural areas has been such and is now proceeding at a rate which makes it a sound practice, economically and socially, to establish minimum standards to act as a guide for future development. Space here is too limited to go into any detailed discussion of any of these county zoning ordinances, but it may be said that their form and effect is much the same as will be found in a city zoning ordinance and

the purpose is identical. However, conditions in the rural areas vary so that regulations are drafted to fit such conditions rather than those commonly found in urban communities.

Planning Board Gives Aid

The Wisconsin State Planning Board has acted as consultant to the counties which have undertaken this work within the last four or five years. This is in accord with the statutory instructions to the State Planning Board that it shall cooperate with all bodies interested in the objects of planning. Any county, upon request to the Director of Regional Planning, can secure the specialized assistance which is necessary in drafting so complex an instrument. Such an ordinance is based upon broad and comprehensive studies of the existing conditions within the county. These studies consist largely of maps showing: the present use and location of all buildings; a generalized soils map which distinguishes between the good, fair and sub-marginal agricultural lands; the areas covered by forest; tax delinquent areas; a topographic map and a complete series of air photographs of the county. By the use of these and other studies, it is possible to determine what is the general trend of development at the present time and the zoning ordinance is so drafted as to preserve and enhance the desirable aspects of the community and to gradually correct the less desirable or injurious factors.

Protect Beauty Spots

One important feature of all county zoning ordinances is the

establishment of building setback lines on all highways. These vary from a distance of one hundred feet from the center line to as little as sixty feet, depending upon the present and future use of any highway. Another feature having to do with highway improvement is the establishment of commercial districts which will have the effect of gradually concentrating all future rural business in previously selected areas. It can readily be seen that such regulations, reasonably determined and strictly adhered to, will have a decided effect upon future roadside development. By keeping the buildings back a sufficient distance, the highway is made safer, its future development is not interfered with by buildings too close to the right-of-way line and the haphazard location of commercial buildings, dumps, automobile wrecking yards and like undesirable uses can be controlled. It should be emphasized here that under such zoning ordinances, outdoor advertising is classed as a business and all structures having to do with this sort of activity will, therefore, in the future, be confined to the commercial areas, thereby freeing 95% of the highway mileage from the promiscuous location of such structures.

Once a zoning ordinance has been adopted by a county it makes it possible for that county to undertake and carry out such other roadside improvements as it may find desirable without facing the possibility of having such investments either ruined or largely decreased in value because of the fact that misplaced uses might off-set what had been done in this direction.

IN MY GARDEN

HARDY FUCHSIA. Considerable interest is developing in the new Fuchsia Scarlet Beauty, which is appearing in our flower catalogs. The Roving Gardener in **Horticulture**, Boston, states: "I had the pleasure of testing this Fuchsia last season, and was much pleased with its performance. The plants did not grow to great size, but they were covered with blossoms for many weeks." The color of the flower is indicated by the name and we have every reason to believe that this plant will prove admirable for many purposes. It will, of course have to be tested in Wisconsin for hardiness.

Insects on house plants. Lovers of house plants are constantly asking for information on how to control various insects and scale on their plants. There seems to be a feeling that in order to control insects, it is necessary to use some type of spray or dust. Our experience, however, leads us to believe that it is easier, simpler and quicker to remove and destroy the insects by the strong-arm method, or should we say, "by hand." Not many folks have so many house plants but what they can go over them occasionally with a piece of cotton and some soapy water, washing the leaves, and removing all insects and scale. We can go over a plant in this way more quickly than we can take it down to the basement and prepare a dust or spray and perhaps have to repeat the operation at frequent intervals. Furthermore, a washing of the leaves improves their appearance.

Liquid Manure. "Give the plants liquid manure" may sound all right, but it is really not as easy as it sounds. And what does liquid manure do for our plants? Really, the soluble part of the manure is mostly nitrogen. By adding one tablespoonful of ammonium sulphate to two gallons of water, we will get about the same results. Water the plants with this solution and you are providing nitrogen fertilizer which increases the growth of leaves and stems. Don't give too much however, as the plants may become "vegetative" or rank growing.

Start Dusting Early. We have recommended the duster for the flower garden because it is so easy to handle and good results can be achieved with it. The dust now in use is a mixture of sulphur and rotenone. However, the important thing is to dust at the right time. Spores of all kinds of diseases of plants live over winter on the old dead leaves. Portions of old leaves on the ground will be infested with them. Rake off all old plant material and burn it. Then when the new leaves are forming, start dusting. Dust not only protects the new growth but kills the spores that may be discharging from old leaves and stems on the soil. Dust all your plants once each week thereafter and if there should be heavy rains, dust again. A light dusting is enough. It is not necessary to be able to see the sulphur dust on the leaves.

Don't forget the lower side of the leaves.

Flowers for Shade. For the shady place in the garden where common annuals and perennials will not do well, try some of the following varieties: Tuberous rooted begonias; hardy Begonia (Begonia Evansiana); Japanese anemones; Plantain lilies; Wild Sweet William; Columbine; Hardy Amaryllis (Lycoris Squamigera); Virginia Bluebell; Lungwort (Pulmonaria).

Grapes for the Garden. Why not cover the trellis or arbor with grape vines? If planted in a sunny location grapes should do well. The leaves are large, give shade and are satisfactorily ornamental. Furthermore, in the fall nothing is better than nice clusters of good quality grapes to be eaten as we wander around in the garden.

For this purpose we would recommend the Portland and Ontario white grapes. They are sweet and of high quality. In fact, they are as high in quality as the best grapes we can buy for table use. Another advantage is that these white or green grapes are not readily seen by either birds or boys.—H. J. Rahmlow.

GARDEN CLUB MEETINGS

EXCELLENT attendance marked the March meetings of garden clubs, at which the program presented by the Wisconsin Horticultural Society was heard. Many members expressed themselves with, "We certainly learned a great deal," from the motion picture illustrating how to prune shrubs and evergreens, how to divide perennials, and how to repair the lawn, as well as the lantern slides illustrating new annuals and perennials and the discussion on new things in horticulture as presented by H. J. Rahmlow, Secretary.

April Meetings

Meetings in April at which this program will be presented are as follows: April 8, 2 p.m., Oconto Falls Garden Club; 7:30 p.m., Green Bay Garden Club. April 9, 2 p.m., Marinette Fruit Growers; 7:30 p.m., Marinette Garden Club. April 11, 7:30 p.m., Elm Grove Garden Club, Milwaukee. Wednesday, April 17, 2 p.m., Waukesha Garden Club, also Garden Study Club and Violet Garden Club, North Prairie.

April 29, 2 p.m., Wausau Garden Club; 7:30 p.m., Antigo Garden Club. April 30, 2 p.m., New Richmond Garden Club; 7:30 p.m., Hayward Garden Club.

May 1, 2 p.m., Superior Garden Club at Nelson Dewey High School; 7:30 p.m., Auxiliary No. 1, Superior at Vocational School. May 2, 7:30 p.m., Ashland Garden Club. May 6, 7:30 p.m., Jefferson Garden Club. May 9, 2 p.m., Wisconsin Rapids Garden Club.

The largest attendance during March was at the meeting of the newly organized Manitowoc Garden Club, 125 interested gardeners were present.

GARDEN CLUB OF THE AIR

Station WHA—940 K.C.

Station WLBL—900 K.C.

THE following garden programs will be given on the Homemaker's Hour of the State owned Radio Stations beginning at 10-10:45 a.m.

Tuesday, April 16. Toys for Outdoor Play, Harriett Baker. 25 Garden Questions Answered. Little Garden Club, Madison.

Tuesday, April 23. May Day and May Festivities, Geneva Amundson. An Easy Way with Garden Pests. H. J. Rahmlow, Madison.

Tuesday, April 30. What Our Homes Mean to Us! Mrs. Ralph Ammon. Our Early Gardens. Garden-Club-of-the-Air.

No man did a designed injury to another without doing a greater to himself.—Henry Howe.

These days "the house by the side of the road" is a trailer.

HARDY PLANTS FOR WISCONSIN GARDENS

The Newer and Improved Varieties as well as the Standard Kinds

Complete line of Nursery Stock

Trees, Shrubs, Roses, Evergreens and Perennials in all varieties Fruit Trees and Small Fruits

WRITE FOR LISTS

RASMUSSEN'S
Fruit Farm & Nurseries
OSHKOSH, WISCONSIN

OUTSTANDING PERENNIALS

G. Wm. Longenecker

MANY good varieties of perennials have been on trial in the Horticultural gardens of the Wisconsin College of Agriculture. The varieties listed below have been found to be among the best and are recommended for trial in our gardens.

Aquilegia Crimson Star. Center white; outside rich crimson red. A good clear color. Long spurs. Very good.

Aster Blue Bird. Very good dwarf blue aster. Compact plant covered with light blue flowers.

Aster Frikarti. Very large flowers of deep lilac blue. Grows to about 30 inches tall. A good bushy plant, well covered with large flowers.

Aster Nonae Belgi Beechwood Challenger. Very excellent red aster. The closest to a red aster yet produced. A good upright but bushy plant with good clean foliage.

Aster Novi Belgi Col. F. R. Durham. Plant very heavily covered with double and semi-double dark blue flowers. In bloom for several weeks; about 3½ feet tall.

Aster Novi-Belgi Mount Everest. Very excellent white aster. Plant covered with flowers right down to the ground. Lacks the dirty appearance of some of the other white asters.

Aster Novi Belgi Strawberries and Cream. Flowers open a deep pink then soften to a soft pink when open, giving a very pleasing combination when the plant is covered with open and partly open flowers; 4 feet tall; good foliage.

Coreopsis Golden Giant. The flower the good golden yellow of the ordinary cosmos. The flowers



of coreopsis Golden Giant however are from 3 to 4 inches in diameter, perhaps somewhat large for the small garden, but a good addition for larger areas. A good cut flower.

Delphinium Pink Sensation. A good light pink flowered delphinium. Had several periods of bloom but the plants were not as bushy as they might be. Do not know how it will come through the winter as we have had it just the past season. Well worth growing however, if the price was a little more reasonable. A new patented variety.

Phlox subulata Blue Hills. Was just planted the past spring so did not flower as well as it might. The flowers that were present however were much clearer and had better substance than the old variety Lilacina.

Phlox subulata atropurea. Few flowers this spring because it had just been moved. Flowers a deep red. Should be of value where a low growing phlox with a red flower can be used.

Phlox Harvest Fire. Large flowers of bright salmon-orange in large clusters. Foliage a good healthy green all summer. A very excellent garden phlox.

Phlox Tigress. Very large pyramid of bright orange-scarlet flowers. The flower clusters are made up of a number of long branched

laterals giving it a long period of bloom. Was in flower for several weeks.

Shasta Daisy Chiffon. Attractive frilled shasta. A light airy flower but was damaged somewhat by rain and the overhead irrigation.

Shasta Daisy Snowbank. Plant entirely covered with flowers for a long season.

Gypsophila Rosenschleier. A small babysbreath very heavily covered with double pink flowers. Flowered for several weeks. Became somewhat bedraggled by the overhead irrigation and the beating of the soil up through the plants. Should however be an excellent plant in rock gardens or in rock walls.

Hemerocallis Margaret Perry. Only one stalk of bloom this year from three plants (first year). That one, however, was almost 5 feet tall. The flowers were an attractive copper tinged crimson with a yellow base. Should make a good background plant in the large border.

NEW IDEA FOR WATERING PLANTS

WATERING plants directly at their roots is a new idea for gardeners. A hollow iron rod is attached to the garden hose. The rod is easily pushed into the soil when water comes out of the pointed end. After pushing it down into the soil about 18 inches, the water will soak up the soil at this depth where the roots really are.

So often a light rain will penetrate only an inch or two which has the tendency of drawing the roots upward toward the surface. Deep watering, therefore may be of special advantage.

Our Wild Flowers

Ethel Kallevang, Madison
Native Plant Material Study Project

WOULD it not be interesting to know how many centuries ago a cave dweller planted the first wild garden? Perhaps she only cleared away the tall plants and shrubs and gave some harebell a chance to grace the door of her cave home entrance or moved a stone to keep the children and dogs from tramping a heather to death, at any rate **then** began this flower garden business. When the tribe or family moved, some one carried along a tiny plant or seed and replanted it to remind her of home and species by species we have added to our "garden plants" since.

Survival of the Fittest

In the January Horticulture Mr. Schelle gave us the natural plant regions of Wisconsin. He starts by saying that at least 20,000 years have been required to establish the present relationship of plants to environment. This has been done mostly by the replacing of the poorly adapted ones by the more fit rather than the remaking of the plants to fit conditions. If nature with the ages at her disposal finds this method best we had better follow her example. We have not time to wait for species adaptation. Therefore the very basis of choosing native material for your garden is the consideration of the plant region in which it will be made. For example, if you live in Madison which is practically on the line separating the Eastern Ridges from the Western Up lands, you will find plants from all the former region more at home in your garden than those from a short distance west, while those from the Central Plain will often be so ill adapted that they cannot survive.

Where to Grow Them

Artistic fitting of wood flowers calls for a shady corner under a shrub where the fragile flowers of the forest floor can feel at home. They can only look like aliens in a neat flower bed or like a chain-gang in a garden row. If the home of the wild neighbor is a stony hillside you can fit it into a sunny rock garden and the artificial bog or pool side will fit those from swamp borders.

Shade and sun and water are also part of the physical setting necessary. Other physical factors are temperature range, wind, and the physical condition of the soil, as is recognized even by beginners most of whom regard leaf mold as a "cure all" for all the ills of plants. This extreme view is hardly justified but the humus content is very important and should be carefully regulated with the use of compost or peat moss and sand.

Soil Fitness

Until fairly recently the importance of chemical fitness of the soil has not been recognized by the amateur. Many of you may have watered an arbutis or a moccasin flower with your tears because it slowly died on the best food you could offer it. Now we know that certain chemical conditions spell success or failure with many of the most desired species.

In a very excellent book "Taming the Wildlings" by Herbert Durand we find soils classified according to their acidity and most of the eastern wild flowers in a similar classification based on their requirements. The first, and happily the largest, of the groups is indifferent to the element of acidity; the second (Circum-neutral) thrives in soil with less than 10 times the acid of pure water; the subacid (10 to 100 the acid of water); and the mediacid group (100 plus acid). This seems rather technical for dirt gardeners but if the groupings are kept in mind and their natural soils observed the means of reaching the needed composition can be worked out for all except the 'high-er group at least.

Varieties

In the indifferent group are many of our most loved flowers such as common blue and downy yellow violet, the wake robin, spiderwort, blue flag, crested iris, blood root, bane berries, wood geranium, yellow lady slipper, bergamont, white snake root and most of the goldenrods and asters.

The circumneutral group can be accommodated with peat moss or most leaf molds. It includes jack-in-the-pulpit, trillium grandiflora, dog-toothed violet, showy orchids, showy lady slipper, spring beauty, hepatica, marsh marigold, columbine, dutchman's breeches, toothwort, twin leaf, shooting star, wild phlox, marsh pink, fringed and bottle gentian, mertensia, Jacob's ladder, hairbell, sweet white and Canada violet and New England aster.

When one goes beyond this degree of acidity he needs to have some means of checking on the acidity of soil and of adding to it if necessary such as oak or hemlock compost or tannic acid and some water for dry times that is not so limey as that of this portion of the state. Many of these sub acid plants are very lovely and worth the extra care, such as the wood and Turk's cap lily, bird's foot violet, pipsissewa, fire weed (epilobium) wintergreen, and partridge berry. In the mediacid group are the moccasin flower, bunchberry, arbutis and others but unless you live where the natural soil supports them or are prepared to supply and maintain an artificial soil for them it is little less than murder to transfer them to your garden.

Native flowers may be obtained from professional growers at anytime or they may occasionally be rescued from before the approaching plow or equally destructive cow. In the latter case we should be sure it is a rescue not a kidnapping in that we are able to supply them with a real home.

PROGRAM FOR JUNIOR GARDENERS

TEACHING our junior garden club members how to make tray gardens and dish gardens will create much interest. The State Flower Show schedule will give an idea of types of gardens for older children. For smaller children, dish gardens, telling a favorite story can be made. The American Home and Better Homes and Gardens magazines have very good ideas. Have them make the simple kind, using toys the children already have.

A few lessons in simple flower arrangement will be of help. Do not, however, put too much stress on arrangement as it may spoil their interest in flowers. Color harmony and balance may be brought to their attention.

The boys in a group may make fences and buildings if the club has decided to make a before and after dish garden for the show. The girls may do the painting and planting.

For information on erosion get Bulletin No. 321 entitled "To Hold This Soil" from the U. S. Department of Agriculture, Washington, D. C. The price is 45c. Every club should have a copy.

—Mrs. Max J. Schmitt, Junior Garden Chairman.

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Types Of Japanese Yews

Illustrations Courtesy D. Hill Nursery Co., Dundee, Ill.

THE Japanese Yew is today our most outstanding evergreen for ornamental purposes. It has unusual merit because of its richness of color, variation of form, ease of training and pruning, thriftiness of growth, and adaptability to various soils and locations.

The Japanese Yew was unknown outside of Japan less than a hundred years ago. About 1860 they were brought to America. Since that time many new forms have been developed. These horticultural species offer the greatest opportunity for landscape development.

The Japanese Yew seems to be hardy most anywhere in Wisconsin. It can be planted in the shade on the North side of the home, and is perhaps our best ornamental evergreen for that particular location. In fact, the only locality where Yews seem to suffer badly is in the great Plain states where there are prolonged periods of severe heat and drought.



Spreading Japanese Yew

The Spreading Japanese Yew

The spreading Japanese Yew, *Taxus cuspidata capitata* is the seedling form which normally grows in a pyramidal form. The habit of growth may be influenced by early pruning and training. It has a tendency to grow with more than one stem, but trees are usually trained to one stem. It may be grown in a nar-



Dwarf Japanese Yew

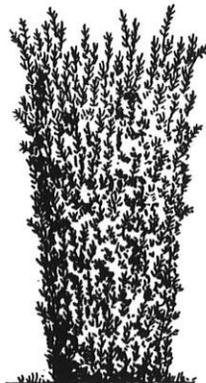
row pyramid or developed into a broad form.

Dwarf Japanese Yew

The Dwarf Japanese Yew, *Taxus cuspidata nana* is one of the oldest horticultural forms of this Yew. It is dark in color, of extremely slow growth, and forms a low picturesque outline. There are specimens 30 to 40 years old which are 15 to 20 feet in diameter, and up to 4½ to 5 feet in height. This, therefore is an ideal tree for dwarf edging because of slow growth and compact foliage.

Hatfield Yew

The Hatfield Yew, *Taxus cuspidata hatfieldi*, is a well known hybrid form developed by the late Mr. Hatfield of Massachusetts. The color is rich dark green, and the foliage heavy and luxuriant. It grows with several upright



Hatfield Yew



Hick's Yew

perpendicular stems, nearly as broad at the bottom as at the top.

Hick's Yew

The Hick's Yew, *Taxus cuspidata hicksi* or *Taxus media hicksi*, is a columnar form with branches ascending almost vertically, giving the tree an extremely columnar narrow shape. It was introduced and named for the Hicks Nursery. It is one of the most widely known of the Japanese Yew varieties and is now extensively planted and widely appreciated. It has good, rich, dark glossy green color and an entirely distinct growing habit, which may vary greatly depending upon the method of trimming.

Some nurserymen grow the Hick's Yew in a cigar shape. Others make a broader specimen.

For narrow hedges the Hick's Yew is very satisfactory.

Brown's Yew

The Brown's Yew, *Taxus cuspidata browni*, is a selected seedling of the *Taxus cuspidata*. It was developed by the Cottage Gardens, Long Island, New York, and named for Mr. Robert Brown of that firm. It has dark, heavy green foliage, is a fast grower and has a most attractive habit. The exact form may vary somewhat with trimming.



Brown's Yew

Upright Japanese Yew

The upright Japanese Yew, *Taxus cuspidata*, is usually more wide than tall. It branches out from the bottom with several stems that develop into bush form. There is considerable variation in the different strains sold under this name. Some are looser growing than others, and there may be some variation in color and rapidity of growth.

Growing Yews

The Japanese Yews appreciate good soil and plenty of water. Heavily fertilized trees make a rapid growth. In fact, they grow possibly more rapidly than other forms of ornamental evergreens.

In order to develop the form one may desire in the particular location where these evergreens are planted, they should be pruned every year.



Upright Japanese Yew

NEW ALL-AMERICA SWEET PEAS BLOOM IN HOT WEATHER

SWEET PEAS, like their edible cousins, like cool weather, and tend to stop flowering when hot summer weather arrives.

The awarding of a silver medal in All America trials for 1940 to a new strain which is both large flowered and early, comes as good news to all hot weather sections of the country.

Spring Flowering Rose Pink is the name of the new variety which won the silver medal. In the same strain are Spring Flowering Blue (bronze medal) and Spring Flowering Lavender (honorable mention). All these have the characteristics of the new strain, which are a flowering season beginning half way between the early and late Spencers, flowers as numerous and as large as the late Spencers, and a remarkable ability to withstand hot weather, prolonging their flowering season.

Sweet Peas should be sown early. If not started indoors, they should be sown in the open as soon as the ground can be prepared. It helps inoculate the seeds with a nitrogen culture, which hastens germination, and stimulates growth.

Planting Depth

The soil should be well prepared a foot deep and enriched by adding balanced plant food, about a pint to a 25 foot row. The old practice of sowing the seed at the bottom of a shallow trench, and filling in soil as the plants grow, is now frowned upon by most gardeners. They prefer to sow the seeds two inches deep, and use normal cultural methods. The vines should be given something to climb, and they should be watered regularly.

QUESTIONS ABOUT THE LAWN

QUESTION: What is a good lawn seed mixture?

Answer: A good lawn seed mixture, according to Prof. Laurence G. Holmes of our College of Agriculture, Horticulture Department, is four parts of Kentucky Blue Grass, one part Red Top, one part Colonial Bent. Perhaps you cannot buy such a mixture, so buy the seed separately and sow each kind separately instead of trying to mix them.

Question: How much seed should be used in making a lawn?

Answer: About one pound of the mixture for from 300 to 350 square feet of lawn is the usual recommendation for the new seeding. To rejuvenate the lawn requires a little less—1 lb. for from 400 to 500 square feet.

Question: What is a good grass for the shady lawn?

Answer: Rough stalk meadow grass can be used successfully if there is not too much shade.

Question: How can I fertilize the lawn?

Answer: Prof. L. G. Holmes recommends using about 30 lbs. of a complete fertilizer per thousand square feet, applying it about every four years. This complete fertilizer can be of several different formulas, such as 10-8-6, or others. An annual application of from 3 to 4 lbs. of ammonium sulphate per 1,000 square feet is recommended, applied either in the spring or in split applications, in spring and mid-summer. It must be watered well to prevent burning.

GARDENING QUESTIONS ANSWERED

Prune Roses

QUESTION: When and how should I prune my bush roses?

Answer: Early in the spring before growth starts is the best time to prune roses, although many gardeners prune them some in the fall before covering. Prune the stronger shoots the least, and the weaker shoots most severely. Moderate pruning would be cutting the branches back so as to leave only from three to five eyes on each shoot. Heavy pruning results in longer stems of new growth. Too light pruning may result in short stems with inferior quality of bloom.

Apple Varieties for the Garden

Question: We would like to have an early apple tree in our garden. What variety would you suggest that has high quality?

Answer: As a high quality early apple we would suggest first, Melba which is the earliest, maturing the first ten days in August; and second, Milton, maturing several weeks later. Both are red apples, crosses of McIntosh and good eating apples. If the garden is small we would advise purchasing trees top-worked on semi-dwarfing rootstock so they will not become too large.

Growing The Brownell Roses

THE Brownell roses give every indication of being one of the greatest advances in rose breeding on this continent. This is largely because the Brownells discarded all the old outworn types and theories and charted a new course of their own toward a definite goal.

Elegance is, undoubtedly, the best hardy yellow rose that I have ever tested. Its immense five-inch fragrant blooms with deep yellow centers and lighter outer petals are really magnificent. They do not fade. *Golden Glow*, while smaller-flowered, is a very healthy grower and its medium-sized double, golden-yellow, fragrant blooms are borne with abandon. For those who live where the winters are severe and climbing roses are a problem, this is the yellow rose to grow. It can be grown on a trellis, as a shrub or as a carpet for the ground. Where snow can be safely depended upon for a covering it winters safely even though the thermometer may sink to 30 or even 40 degrees below zero.

The Brownell "hybrid teas" that I have tested so far do splendidly. *Break o' Day* is a deep orange-apricot with lighter tones. *Stargold* produces flowers of pure golden yellow and is practically a bush form of *Golden Glow*. The gem of the group, however, is *Lily Pons*. It makes a wonderfully strong-growing and free-blooming plant. *Pink Princess*, which marks the introduction of pink shades into this class, makes a very strong-growing plant, is practically immune to all disease and bears beautiful double deep pink flowers continuously.

Unlike most of the hybrid teas, the Brownell roses get better as the years go by. While budding

enables them to be disseminated more quickly, I am convinced their inherent vigor will make it desirable to grow them on their own roots as soon as possible.

—Chester D. Wedrick, Nanticoke, Ontario, in February 15 Horticulture.

TEMPERATURES FOR FLOWER SEED GERMINATION

THE seeds of some varieties of ornamentals require high temperatures for germination. Others fail to germinate at high temperature. Some seeds require long exposure to relatively low temperature to break their rest period or dormancy. The Rose seed is one of the best examples of this. Freezing is not necessary and may be actually detrimental to the breaking of this dormancy. 41° has been found the temperature at which dormancy of Rose seeds is broken most rapidly. Freezing is of benefit in hastening the sprouting of some seeds having a heavy coating.

Some of the more common garden seeds which germinate best at a temperature as low as 55° are Larkspur, Snapdragon, Mignonette, Nemesia and Shirley Poppy.

Some which germinate best at a temperature of 70° are Anemone, Aster, Candytuft, Carnation, annual Chrysanthemum, Cyclamen, Gypsophila, Hollyhock, Lupine, Nasturtium, Pansy, Petunia, Scabiosa and Sweet Pea.

Those which germinate better at 85° are: Aquilegia, Coleus, Oriental Poppy and Torenia. Most other garden flower seeds germinate well at temperatures between 70° and 85°.

By Kenneth Post, Cornell University, in *Gardeners' Chronicle*.

THE FAMOUS WASHINGTON ELM

PROBABLY no tree in the world was or will ever be more well-known and revered than the WASHINGTON ELM, under whose spreading branches the father of our country took command of the first American army.

The Battle of Bunker Hill, which closely followed the Battle of Lexington and Concord, was the first real conflict of the American Revolution. The Patriots looked for a competent commander to lead them in the war for freedom and peace, and John Adams, a New England delegate, suggested George Washington of Virginia. Thomas Johnson, a Maryland delegate, nominated him and the confederate congress appointed him commander-in-chief of all "the Continental forces raised or to be raised for the defense of American Liberty." The Army of Boston was adopted as the army of the nation and Washington came from Philadelphia to Cambridge, where he made his headquarters.

On the morning of the third of July, 1775, under a great elm tree at the north of the Cambridge Common, near which were drawn up the Republican forces, George Washington formally assumed command of the Army.

This famous tree (*Ulmus Americana*, American Elm) undoubtedly belonged to the forest which originally covered this locality. It was a large tree when Cambridge was first settled, and the Harvard Book gives its dimensions as nearly 100 feet in height, over 18 feet in trunk circumference and 90 feet in the spread of its branches.

Since 1900, however, old age and the ravages of the leopard moth as well as the elm-leaf beetle so weakened it that it was necessary to cut down this historic American Elm—and now a man-made tablet marks the spot where the father of our country drew his sword as commander-in-chief of the American Armies.

But the WASHINGTON ELM still lives, not only in the hearts of Americans, but in trees that are its true descendants, for the late Mr. Jackson Dawson, noted horticulturist, grafted a branch of the old and dying tree and saved it for posterity. This graft was nurtured by the late Mr. T. D. Hatfield and is now a beautiful, large tree growing on the grounds of the Public Library at Wellesley, Massachusetts.

The McKay Nursery Company, Madison, announces that it secured in 1931 some grafts grown from cions of the famous Washington Elm which were planted at their nursery at Waterloo. From them have been developed a number of trees which they guarantee to be direct descendants of the famous original Washington Elm.

You will never find time for anything. If you want time you must make it.—Bixton.

Shrubs And Evergreens For Ornamental Planting and Hedges

G. Wm. Longenecker

QUESTION: What are the best evergreens to use for hedges, both tall and low hedges, and for sunny and shady locations? Which are suitable for northern Wisconsin?

Answer: The best evergreens for hedges in sunny locations in Wisconsin are the American Arborvitae and the White Spruce. The Arborvitae can be used either as a low or tall hedge, according to the method of pruning used. The White Spruce works out better as a tall hedge.

In the shade, the Canadian Hemlock and the Japanese Yew make the best hedges. The Hemlock burns rather badly in an exposed situation so that it should always be used in shade or semi-shade. The Yew, however, is quite lenient in its demands and will grow fairly well in a sunny situation. Both of these evergreens like good soils and considerable leaf mold.

Question: What is the best deciduous shrub to use for a low hedge? For a tall hedge? Which are best for the colder sections of the state?

Answer: There are a number of deciduous shrubs which make good low hedges. The Alpine Currant and the Peking Cotoneaster are two which are very good for Wisconsin conditions. Both of them will grow in sun or shade. The Alpine Currant can be held down somewhat lower than the Peking Cotoneaster. They are both valuable for backgrounds to perennial and rose gardens because they are light feeders and do not use a great deal of fertility from adjoining beds.

For a tall, deciduous hedge, I would suggest using the Tartar-

ian Honeysuckle or the Common Buckthorn.

All four of the above hedges are hardy throughout Wisconsin. The Buckthorn, however, does much better in the northern part of the state.

Question: What are the three best trees for street planting in a city?

Answer: It is hard to say what three trees are best for street tree planting because there are such varying conditions of soil, moisture, smoke, etc. The tree that has been used probably more than any other in the past is the American Elm. Other trees are being used more at present because of the damage to elms by European elm scale, elm beetle, and Dutch elm disease. The Thornless Honey Locust (*Gleditsia triacanthos inermis*) is being used more and more as a street tree because it is not bothered by insects or diseases. It is a beautiful tree and has excellent character.

The Pin Oak is another tree which is becoming more and more popular. It has the excellent character of the oaks and is easily transplanted because of its fibrous root system. It is particularly valuable on narrow streets because of its upright habit of growth. The Pin Oak is not particularly hardy in the northern part of the state and I would suggest using the Red Oak in its place where the temperatures are more rigorous.

Question: Our house faces South. We would like to plant some shrubs growing to medium height between the door and the windows. What shrubs would you recommend for this purpose? What medium size shrub will

grow well on the North side of the house?

Answer: This question is hard to answer because we do not know enough of the details. It would be easy enough to select a shrub which would stand the conditions of heat and possibly lack of moisture, but we know nothing of the type of house, so that it is impossible to select a shrub with the proper texture, flower color, fall color, and branch habit.

The Downy Viburnum (*Viburnum pubescens*) is a medium growing shrub which will withstand the above conditions.

The Gray Dogwood and Winged Euonymus are medium growing shrubs which will do very well on the north side of the house, particularly where there isn't competition with tree roots.

FOR GARDEN CLUB PROGRAMS

GARDEN Clubs throughout Wisconsin, planning their current programs, will be interested in the charming myths and legends connected with flowers and herbs presented by Dorothy Moulding Brown, the wife of the director of the State Historical Museum at Madison. Mrs. Brown has made a study of flower and herb lore, both of the Indian and of those told and loved by our grandmothers.

A student of Wisconsin and American folklore and folk ways, Mrs. Brown has been presenting informal talks on various folklore subjects throughout the state. She has prepared a special treat for all garden lovers. Any club interested in a program "delightfully different" may write Mrs. Brown for details. Address 2011 Chadbourne Ave., Madison.

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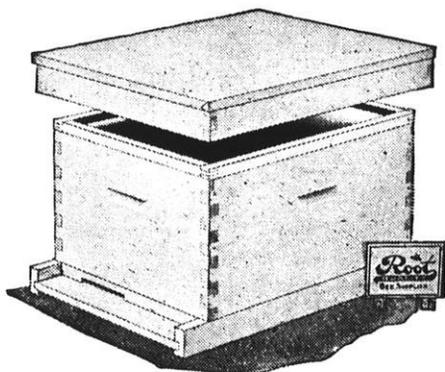
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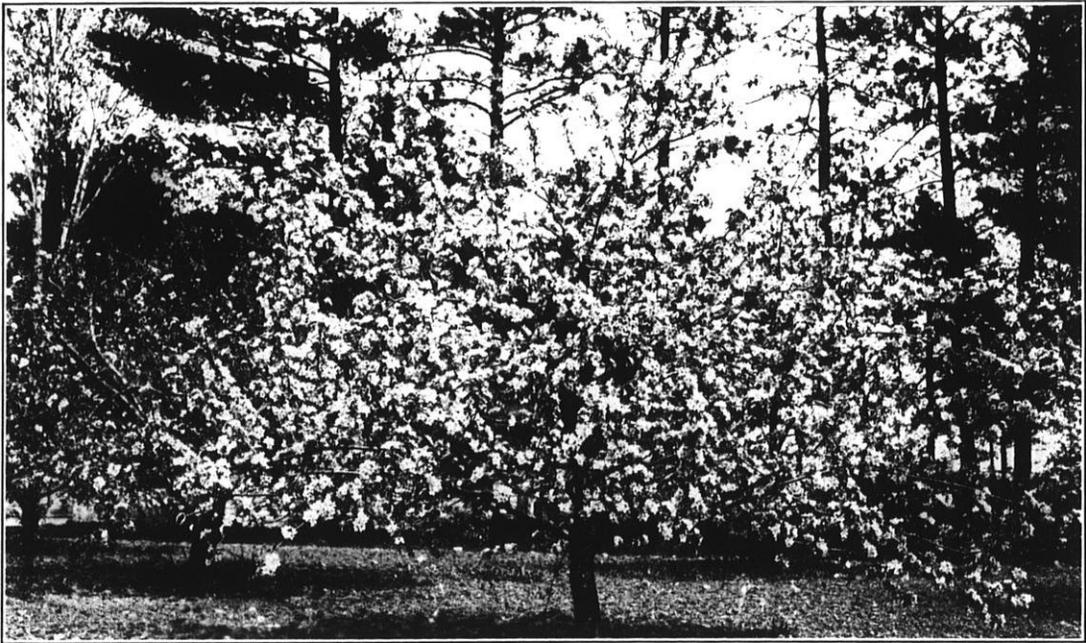


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May, 1940

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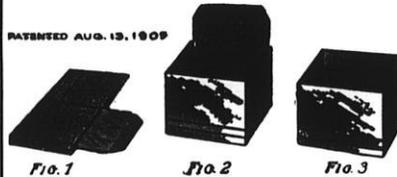
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PLEASE DO NOT SEND STAMPS

Wisconsin *Horticulture*

APPLE INSECTS OF 1940

John A. Callenbach

INSECT pests of apples will again present a serious problem to the fruit grower in 1940. The codling moth did not cause the damage in 1939 that it did in 1936 and 1937, but several factors were at work to build up a heavy infestation for 1940.

Weather Favorable for Larvae Last Fall

As has been stated in these columns before, in southern Wisconsin there is generally one complete generation and a partial second generation of codling moths. A certain proportion of the first brood always hibernates. The proportion of the second generation of worms that is able to successfully complete and enter normal hibernation depends upon the following factors: The weather during the latter part of the growing season, the time of harvest, and the care taken in disposing of wormy apples. The weather during August and September was especially favorable for late season development and a larger proportion of second brood larvae than normal completed development. While in general, the crop was removed somewhat earlier than usual, nevertheless, a considerable part



Too late for the calyx spray. The calyx lobes have already closed.

of the crop remained on the trees through the hot weather of late September and early October.

Codling Moth From the Cull Pile

Market conditions, as growers know all too well, were poor. As a result of this, many orchardists left their fruit on the trees or dumped the culls in piles throughout the orchard. The extent to which these factors will operate will vary from orchard to orchard. It seems reasonable to hazard the guess, however, that conditions being what they were, most growers were none too careful in the disposal of cull fruit and accordingly a rather

sizable codling moth population entered winter hibernation. Winter temperatures were relatively mild and little winter mortality has resulted.

The leaf roller has been increasing in numbers in southern Wisconsin and growers should be on the lookout for this pest. Aphids are not expected to be serious this year. Plum and apple curculios, and apple maggot may be serious in some localities.

Spraying

General spray recommendations remain the same as for 1939. Place special emphasis upon first brood codling moth control. Use bait pans to accurately time the sprays and then apply the sprays thoroughly. If dormant sprays for leaf roller have been applied, use lead arsenate at the rate of 2-3 pounds per 100 gallons in the codling moth cover sprays. If no dormant spray has been applied for leaf roller, and no arsenical was used in the pre-blossom sprays, use lead arsenate at the rate of 3 pounds per 100 gallons in the calyx and first cover spray, then use 2-3 pounds per 100 gallons in later cover sprays. Use 3-4 pounds of lead arsenate per 100 gallons in the pre-pink

spray—do not spray with arsenicals when trees are in blossom—then use 2-3 pounds per 100 gallons in the calyx and later cover sprays.

Honey bees have been poisoned by spraying trees in bloom during the pink spray. The arsenate of lead may be omitted in the pink spray if it has been used in an earlier spray.

If any marked changes in second brood control are recommended, notice will be given in these columns at a later date.

WHAT CAN BE DONE FOR THE APPLE INDUSTRY?

QUESTION: What is the solution to our present unorganized price-depressing apple selling program?

Answered by Mr. Stevenson at New York Horticultural Society Annual Convention. (1) Attain parity prices through further devaluation and continue by managed currency as has been done successfully by England. (2) One cent per bushel compulsory apple advertising tax (grower administered). (3) Development of a cooperative selling organization by Department of Farms & Markets for those who may desire to use it. (4) Increase consumption by (a) better employment; (b) more active private enterprise; (c) getting government out of the red. (5) Restate the feeling of growers for the past decade, that all government agriculture workers cease saying "Now is a good time to plant an apple orchard." (6) Declare an open season on all apple tree agents. (7) The apple grading and sizing law to apply to all open packages as well as to closed packages. (They do it with eggs.)

—From N. Y. Society Annual Report.

Effect of Sulphur Dust and Sprays On Apple Trees

EXPERIMENTS at Cornell University, New York, indicate that finely divided sulphur dust has relatively little influence on the rate of photosynthesis of the leaves of an entire tree. Lime sulphur, on the other hand, as a spray may seriously inhibit the food manufacturing ability of the foliage under certain conditions, even though it causes little or no apparent burning.

Results of the experiment showed what many practical orchardists have observed, namely, that though sulphur dust may cause some leaf scorch during extremely hot weather, leaf burning experienced with such material is usually less than found where lime sulphur has been used. The foliage of dusted trees remains glossy and dark green in appearance, and the fruit is likely to finish better than with the less mild material. However, it is often more difficult to get control of apple scab with the dust than with the lime sulphur.

The Effect of Dilute Lime Sulphur Sprays

At the Ohio Experiment Station it was found that dilute liquid lime sulphur sprays may cause marked reduction in the apparent rate of food manufacture in apple leaves. For three to five days after treatment, even though no visible burning occurred, when the maximum temperature reaches 90 to 100 degrees F. reduction and assimilation usually occurs regardless of the spray concentration. The rate of photosynthesis of sprayed leaves showed a reduction from the first day after treatment.

A weak dilution of 1-100 of lime sulphur may cause a marked

reduction in food manufacture when the temperature exceeds 90 degrees F. during each of the four days after the experiment.

The rate of food making should not be confused with burning. Stronger lime sulphur 1-40 will cause more visible injury to the leaves than the weaker solution.

DOES IT PAY TO GROW APPLES?

QUESTION: Will it pay to grow apples at prices received in 1938 and 1939?

Prof. De Graff: In 1938, 22 apple growers keeping cost accounts in cooperation with the college, produced apples at a net cost of 57 cents per bushel. Their average yield was 173 bushels per acre. The apples sold for 64 cents per bushel net to the farmer, or 7 cents above the cost. The apple enterprise on these farms returned 44 cents for each hour of labor used in growing, harvesting and marketing.

In 1937, with the same yield per acre (173 bushels of packed fruit), the cost account farmers produced apples at a cost of 61 cents per bushel. These apples returned the growers 46 cents, or 15 cents less than cost. The apple enterprise in that year returned only 16 cents per hour of labor, while the cost of labor was 31 cents.

1939 results are not yet available but promise to be even less satisfactory than 1937. In years such as these only growers who can get high yields at low price can make a profit.

—From New York State Horticultural Society Annual Report, 1940.

For Success With Grapes

Virgil Fieldhouse, Dodgeville, Wis.

SEVERAL amateurs have asked me lately why their grape vines do not bear much fruit. After a few minutes of conversation, I find that improper pruning is the cause. Usually they have removed all or most of the new wood, containing the fruit buds. The fact that on a grape vine a sufficient number of moderately short jointed spurs of well ripened new wood is necessary for a crop on the succeeding year, cannot be stressed too strongly. The rest of the vine above the ground is merely a supporting framework and a lifeline. The wood at the top of the trellis is always healthiest as it matures better. This causes us to select wood near the top wire and bend it outward and down to the lower wires before retying. As much as possible, the top wire should be left for the next year's growth.

Prune Every Year

It is very important to prune every year, as the new wood will be in better condition for bearing fruit, and not so far from the main trunk. The work can then be done in a very short time. When a vine has not been pruned regularly, the new wood is usually so small and short that it is overlooked. It is often down in the grass or up in a tree top. In either case, the amateur more often cuts back to second year wood, thus removing the fruit buds.

Mildew

If fruit does not set on the vines, people often complain that the grapes fall off before they mature, not realizing that mildew is the cause. Two applications of bordeaux spray or dust seem to be enough to protect our Concord rows on the average year.

The new Fredonia is susceptible to mildew and has been a failure when treated the same as ConCORDS. We had thought it would be necessary to give the Fredonia winter protection, but other growers in Wisconsin tell us that they have not found it necessary with their own vines. In the future, we are planning to spray this variety earlier and more often, hoping that it will bear good crops and that the wood will ripen better, going through the winter without protection.

The other day a driver was accused in court of wrecking a home. He drove into a trailer.

IRRIGATION FOR STRAWBERRIES

OUR overhead irrigation was very useful in November for wetting down the straw mulch so it would not blow off the strawberry rows. After we received the copy of Wisconsin Horticulture for December, we were careful not to soak the top soil where strawberries, perennials or other shallow rooted plants were growing.

We hauled water to a young orchard planted a year ago, made circular depressions around the trees and filled these a few times. They had been planted late in the fall with peat moss in the holes. Out of forty trees we had not lost one. We thought it would be advisable to soak up the moss again this fall.

Virgil Fieldhouse, Dodgeville.



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Experiments With Ground Spraying For Combating Apple Scab

by G. W. Keitt and C. N. Clayton

FOR many years the chief method of apple scab control has been repeated spraying or dusting with the aim of protecting the susceptible parts against infection. While this protectant spraying has brought great advances in scab control, it still has some important defects. It is expensive, laborious, sometimes seriously injurious to fruit or foliage, and liable to failure under some conditions. One of the most important shortcomings of protectant spraying is that it ordinarily permits enough leaf infection to enable the scab fungus to overwinter and produce an abundant supply of ascospores to start heavy infection the next spring. For several years the Wisconsin Agricultural Experiment Station has been studying possibilities of a direct chemical attack on the fungus at a weak stage in its life-history, with the aim of reducing it to such a low survival that the protectant spraying program can be made less expensive or injurious and more certain of success.

Spraying the Overwintered Leaves on the Ground

A weak point in the life-history of the scab fungus occurs in the spring before the first infection takes place. Under Wisconsin conditions the only important overwintering of the fungus occurs in the dead leaves. In the spring the fungus is, therefore, prostrate on the ground. If this destructive pest were large enough to be readily seen, it is unlikely that we should let it pass this stage unmolested. If it were as large as Canada thistle, for example, would we allow it to survive year after year on the

floor of our orchards? It is true that various recommendations have been made for the disposal of the overwintered leaves, as by raking and burning or turning them under, but none of these methods have been efficient or practicable enough to come into general use.

For several years, we have made small-scale tests of the effectiveness of spraying the dead leaves on the ground with various chemicals to kill the fungus or prevent it from maturing and discharging ascospores. Certain of the preparations tested showed a high degree of effectiveness in limiting ascospore discharge. In the past season, one of these, a proprietary preparation known as **Elgetol Extra**, was tested as a ground spray in a commercial orchard.

The floor of a 6-acre McIntosh orchard in sod near Sturgeon Bay was sprayed shortly before bud-break with Elgetol Extra diluted with water at the rate of 1 gallon in 100 gallons. It was applied by means of double-nozzle spray guns at the rate of about 450 gallons per acre, care being taken to cover the ground thoroughly and to spray more heavily where the leaves had drifted into heaps. The orchard remained uncultivated throughout the season. A small McIntosh orchard about three-tenths of a mile away, which received no ground spray, served as a check. A few trees in these orchards were left without summer spraying for comparative studies on disease development. Certain modified spray programs were used in the orchard that received the ground spray, in order to gain evidence as to whether the ground spraying aided in

scab control. Similar experiments were conducted in McIntosh, Dudley, and Wealthy orchards about 4 miles away, in which no ground spray was applied.

Results

Counts of scab infections on fruit and foliage of the unsprayed trees in the ground-sprayed orchard and the near-by orchard that served as a check indicated that, through the critical period for scab control, extending to about three weeks after petal-fall, the ground spray reduced the severe scab epidemic by about nine-tenths.

A program of 7 lime-sulphur treatments in the orchard that received Elgetol gave 1 per cent of scabbed fruit at harvest, whereas a similar 8-spray program in the experimental block of McIntosh about 4 miles away, which did not receive any ground treatment, gave 32 per cent. A 4-spray program in the Elgetol-treated orchard gave only 15 per cent scab. It is recognized that other factors than the Elgetol treatment may have played a part in producing the differences in results in the treated and untreated orchards, but the Elgetol spray is thought to have been the chief factor concerned.

The Elgetol treatment as applied in these experiments was highly effective in killing the fruiting structures (perithecia) of the scab fungus in the overwintered leaves that were wet by the spray. However, in leaves protected in the lower parts of the drifted heaps, perithecia escaped injury. Under the conditions encountered, this seems not to have prevented a high degree

(Continued on page 248)

Importance of Soil Pore Space To Newly Planted Trees and Shrubs

Recent Experiments Bear Out Old Orchard and Garden Practices That Provided Ample Oxygen Supply for Root System—Peat Moss Gives Excellent Results

by H. B. Tukey, New York

IT is well known that roots require oxygen for development. Dr. Damon Boynton of Cornell University has proposed that there may be several levels of oxygen required by roots, depending upon their activity. That is, whereas 2 or 3 per cent oxygen may suffice for survival of roots of well-established plants, perhaps a higher oxygen content is required for initiation of roots and rapid root development.

Use Wet Peat

At all events tests at this Station in which material such as a good grade of granulated peat moss has **been mixed wet** with the soil in the planting hole to lighten the soil and improve its physical condition, have shown a greatly improved stand and growth of plants—especially on heavy soils in wet seasons when the soil is likely to be saturated with moisture or “waterlogged.” Trees of apple, peach, pear, plum, cherry, oak, walnut, and elm have all responded to use of a **12-quart pail of wet granulated peat** moss for each tree, or at the rate of about 1 part to 4 of soil by volume. More recently, Mr. K. D. Brase of this Station has shown a similar benefit in shoot growth, in root development, and in flower production of roses from improving the physical texture of the soil with a good grade of peat moss, thoroughly wet when used.

Applying the Peat Moss

The more thorough the mixture of soil and peat, the better

the results. In planting a tree, it is possible to shake the wet peat moss into the tree hole as the soil is being put back; or the two materials may be mixed and then filled into the tree hole. The important point is to construct a “chimney” of open, porous material extending from the surface of the soil down to the bottom of the tree hole—not merely dumping the peat moss into the bottom of the hole.

Interestingly enough, this practice has not resulted in the roots developing exclusively in the peat-soil area. Instead, the roots have spread laterally into the adjoining soil mass to give a plant with extensive root spread and

one better able to withstand summer drouth.

Besides the improvement in aeration, this treatment has made planting easier, since the tree or plant is set tightly in a springy, spongy mass of moist material; and in midsummer the “chimney” of peat-soil mixture has seemed to catch the moisture from a light summer shower and otherwise permit better penetration of water into the soil near the developing roots.

Benefits

To summarize the case, it is thought that the wet peat moss is beneficial because (a) it permits better contact of roots with soil moisture immediately after planting; (b) improves aeration early in the season, favoring rapid root development; (c) provides easier penetration of rainfall to the area occupied by the roots and less run-off of surface moisture; and (d) makes it easier for the roots to develop because of decreased density of the mass.

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Are Bees Necessary For Cranberry Pollenization?

AT the annual meeting of the Wisconsin Cranberry Growers Association, held at Wisconsin Rapids, December 19, the question of pollenization of cranberries was discussed. Some growers have been paying beekeepers to bring in bees for pollenization. Others feel that there are enough wild bees in the neighborhood, while still others are uncertain as to whether bees are necessary. The opinion was expressed that cranberries are self-pollenizing. In order to obtain more information on the subject the editor wrote to Mr. H. J. Franklin, in charge of Cranberry Research at the Cranberry Experiment Station, East Wareham, Mass., who has been working with cranberries for many years. The following is his reply:

Bees Important Pollenizing Agent

"I do not believe that the wind is any great factor in cranberry pollenization. **Neither do I believe that cranberries are largely self-fertile.** To give you a clear picture of the situation as we see it would require a long discussion, which I am not prepared to give you just now. You will understand, of course, that however carefully work may have been done in the past, it is possible that a new approach to any subject may unearth new information, and anyone who claims that he has proved beyond any possible doubt any of the things mentioned is taking long chances.

"I am simply giving what seems to be the situation from our present knowledge and experience. I will say, however, that things that are true in one part of the country may not be true in another part.

"I have a strong impression that there are considerably less wild bees in the Wisconsin cranberry district than there are in our Eastern districts. I know that when I have been there I have been impressed by the apparent scarcity of bumble bees.

"I think I should say before closing that it is possible that other insects besides bees, particularly Syrphus flies, may do this work. They do pollenize plants to some extent, but we have not studied them in relation to cranberry pollenization yet."

SPRAY INJURY

QUESTION. We have trouble with lime sulphur burning or stunting the leaves on lower branches of sheltered trees. Can this be avoided by only spraying the tops and chancing that the drift will be sufficient cover for the lower branches? The damage has been extensive, A.M., Waldo.

Answer: Weak trees or branches and slow drying of the spray make for lime-sulphur injury. Both of these factors probably play a part in the injury you mention. Anything you can do to increase the vigor of these lower branches and open them up to freer circulation of air should lessen the injury.

It would be desirable to avoid applying a hard, driving spray. It would not be safe to rely on the drift from spraying the tops to protect the lower branches. If the injury is extensive enough to warrant it, the lower parts of the trees could be sprayed with a milder fungicide. If scab is sufficiently under control in the orchard it is possible that a milder fungicide could be used successfully for the entire trees.

IS McINTOSH OVERPLANTED

QUESTION: Prices of McIntosh are now below that of some other varieties. Does that indicate that the McIntosh variety is being overplanted?

Grower: The best answer is to try to sell McIntosh this year (1939). The Federal Surplus Commodities Corporation is taking three hundred cars a week out of western New York in order to move these McIntosh.

Mr. Vedder: I think you fellows have the biggest case of jitters I know of. Last year you thought McIntosh was wonderful because it was good to eat and the people liked it. This year there was a tremendous crop and everyone went into a tailspin. The apple is no worse than last year and the marketing possibilities are still wonderful. If you had any fortitude you would still like the McIntosh and be getting better prices for them!

Mr. Albright: I am in agreement one hundred per cent with Mr. Vedder. We have let the dealer and the consumer lead our line of thinking. If we had been out in front with a fairly good-colored McIntosh we would not be in this difficulty.

—From New York State Horticultural Society Annual Report, 1940.

EXPERIMENTS WITH GROUND SPRAYING FOR COMBATING APPLE SCAB

(Continued from page 246)

of effectiveness from the treatment. It is thought that the overlying leaves in large measure prevented effective liberation of ascospores that escaped the treatment.

While the results from this experiment are very encouraging, it should be borne in mind that ground spraying for combating apple scab is still in the experimental stage. More extensive experiments are planned.

Small Irrigation System Operates On One-Third Gallon of Fuel Per Hour

THE portable rotary sprinkler irrigation system which many Wisconsin farmers saw in operation on Farm Folks' Field Day at Madison last June 3 used only 2 gallons of low-grade gasoline on a 6-hour run that day, report H. D. Bruhn and F. W. Duffee.

From this trial it appears that the fuel cost of applying an inch of "rain" to an acre of land is about 40 cents, assuming that low-grade gasoline can be purchased free of state tax at a tank wagon price of 12 cents a gallon. The small 10-sprinkler system irrigates one-fifth acre at a time, applying half an inch of water on this area every hour with a fuel consumption of one-third gallon; therefore the fuel needed

to place an inch of water on an acre of land is about $3\frac{1}{2}$ gallons.

The purchase price of this system, capable of keeping 10 acres irrigated, is about \$300. How much the investment cost will be on the basis of each acre-inch of water applied naturally depends on how much the system is used.

Assuming the system applies 8 inches of water to 10 acres of land each season, or a total of 80 acre-inches, that the useful life of the system is 15 years, and that a 5% repair allowance is about right, then the investment cost of applying an acre-inch of water is around 45 cents.

The "price" of an acre-inch of artificial rain—considering both fuel and investment costs but

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omitting labor—is therefore in the neighborhood of 85 cents. The labor involved in starting and moving the system requires the attention of one man about 2 hours for every acre-inch of water applied.

From Bulletin 446 "What's New in Farm Science," Wisconsin College of Agriculture.

Editor's note: We understand that the irrigation system described above was listed in last year's catalog of Sears, Roebuck and Company, Chicago. A bulletin describing the system may be obtained by writing the Wisconsin College of Agriculture, Madison, Wis.

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In The Berry Patch

REMOVE FLOWER STALKS FROM STRAWBERRY PLANTS

REMOVING the flower stalks of newly set strawberry plants helps the plants to become well established and prevents a drain on their vitality. By allowing newly set plants to bloom and even produce a few berries, is a severe drain. Furthermore, during the dry summer months removing the stalks helps the plants overcome drought conditions and it also increases the formation of new runners.

Experiments have shown that removing blossoms increases the vigor of plants in both roots and shoots and reduces damage from summer drought.

In Kentucky, experiments indicated that removing the flowering stems the first year resulted in a 32% increase in the number of runners. In the same state a test with Premier showed that 98% of the plants grew when the blossoms were removed at planting in contrast to 83% growing when the blossoms were not removed.

Removing blossoms is an especially good practice for varieties like Premier which do not always make a large number of runners, so in hoeing the plants in May it is well to pick off any blossom stems when they are observed. Varieties like Senator Dunlap which have an excessive plant forming habit do not require as much attention as most other varieties.

Blossoms of everbearing varieties should be removed for from two to two and one-half months following planting, and should then be allowed to develop and produce fruit. It takes about one month from blossom to ripe berries.

HOEING AND CULTIVATING STRAWBERRIES

NEWLY set strawberries should be hoed and cultivated frequently during the summer to prevent the surface of the soil from becoming crusted and to kill all weeds.

It has been found that an acre of strawberry plants producing 4,000 quarts of fruit drew from the soil almost 3 tons of water in the berries alone. Many times this amount is also lost by transpiration from the leaves of the plants, and evaporation from the soil. Therefore, conserving soil moisture is very important for strawberries.

As the season advances, cultivation should be shallow and not close to the original plants. Deep cultivation may kill many roots and thereby damage plants. It is well known that a majority of the roots of the strawberry are within the first four inches of the soil.

In an Indiana experiment, the number of horse cultivations given a strawberry field was directly proportional to the yield. By cultivating 8 times, the yield was 60 twenty-four quart crates, and by cultivating 14 times the yield was 299 twenty-four quart crates. The number of hand hoeings showed a similar increase in yield.

Cultivation, as soon as runner formation starts and the runners are well developed, should be only deep enough to stir up the surface crust and kill weeds.

Hubby—I just can't get over that crazy - looking hat you bought for Easter, and so expensive.

Wifey—But, dear, I won't be wearing it more than a couple of weeks.

VERY RAPID FREEZING NECESSARY FOR HIGH QUALITY IN FROZEN FRUITS

EXTENSIVE tests have been made to find which variety of strawberries and other fruits are best when frozen for cold storage lockers. Some of these tests have been conflicting. We are of the opinion that we can take out of the cold storage locker just about what we put into it. In other words, strawberries of good quality will still be good quality after being frozen if they are frozen properly.

The important factor seems to be the speed of freezing. In this connection we have a letter from Mr. Rex Eberdt, President of the Warrens Fruit Growers Association. He writes as follows:

"I have made a considerable amount of inquiries since receiving your letter relative to frozen foods and I find the following: Vegetables have to be blanched at the proper temperature and for the proper length of time to freeze well and maintain color and texture and this has not been practiced properly in most of our local locker plants.

Quick Freezing Necessary

"Regarding fruits, we have found very definitely that the lack of speed in freezing has caused the lack in quality. Fruit that is frozen under a heavy air draft spread out on a screen at a temperature of 10 or 15° below zero Fahrenheit can be thawed out slowly at low temperatures and have 99% of the qualities and appearance of a fresh strawberry just picked. Whereas, slow freezing in still air and in sealed containers in efforts to hurry the thawing process on tend to harm the flavor, texture, and appearance of a strawberry.

"We are hoping this year to freeze some strawberries at the locker plant in the cold room by spreading them out on a screen and forcing an air draft over the berries by using one of the pre-cooling machines with their big motor to make the freezing as nearly continuous as possible.

"I would be glad to have this tried out in other places also as something very definite must be done to make a frozen success of the berry industry."

NEW LIGHT ON TOMATO BLOSSOM END ROT

EVERY year gardeners are faced with the problem of blossom end rot on tomatoes. Until comparatively recently this was considered a fungus disease and attempts were made to control it by spraying. However, the Connecticut Experiment Station at New Haven has been working on the subject and Dr. Horsfal states that it is caused by the excessive removal of water from the fruit and leaves.

Under ordinary conditions, a balance is maintained between the amount of water drawn up by the roots and that given off by the leaves. Anything that disrupts this balance reacts on the tomatoes. A period of hot dry weather, particularly after a rainy spell that has caused an excess of soft top growth, will produce the rot. Dr. Horsfal also found this to be true in the case of strong winds. The moisture is taken from the leaves so fast that they, in turn, draw on the supply in the fruits. The blossom end suffers most and a breakdown occurs within the cells in that region with the result that what is called blossom end rot appears.

Consequently, the one and only way to prevent this rot is to keep the plants growing slowly but steadily. To allow soft, sappy growth through over-fertilizing or watering invites trouble.
—From Horticulture.

HOW TO PROTECT BLUE-BERRY PLANTS FOR WINTER

Allan Troemner, Friendship

I have successfully wintered highbush blueberry plants for several years here at Friendship. I simply bend the bushes over and cover with straw. I am careful to avoid breaking too much of the wood. Blocks of wood or stone may be used to weight down the shoots. Straw is applied as soon as the ground starts freezing in the fall. Later, any exposed shoots may be covered with snow. So far this has worked out well in protecting plants from low winter temperatures.

THE TURLEY APPLE IN INDIANA

MR. H. D. SIMPSON, Vincennes, Indiana, one of the leading apple growers in that section, writes in regard to the Turley apple as follows:

"The quality of Turley is not as good as Stayman. It is a fine baking apple for it has size and skin that holds the flesh together when baked. It is of fair quality.

"The tree grows very fast and the limbs are heavy. It grows much like Stayman but is even a stronger grower. It bears rather early and the fruit is large. We like the trees to bear rather heavily so as to hold down the size. Here, to get the best color, we pick it three to four times, but with you the color may come on faster and one or two pickings might be sufficient. They should be sold out of cold storage by the forepart of February as they scald some."

Teacher—Johnny, now that the big nations of Europe are at war again, can you tell the class what great change occurred during the First World War?

Johnny — Yes, ma'am. Pa brought ma a new washboard.

Home is that place where part of the family wait until the others are through with the car.

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May With the Bees

ENTRANCES should now be enlarged on all strong colonies. During fruit bloom strong colonies should have the full width of the entrance if the weather is warm. Weaker colonies should have only half-size entrance, or less, depending upon the size of the colony.

Reversing hive bodies will soon be in order. Strong colonies may have one entire brood chamber filled with brood, bees and stores by this time. If we winter in one hive body, we should place a second on top of the first. If we winter in two hive bodies, we should reverse the two as soon as the top one is filled.

Ten days to two weeks after reversing the bodies the first time, strong colonies may require another reversing of brood chambers. Look through the colonies at least once each week. If the brood chamber becomes crowded, a swarming inclination is likely to develop.

Occasionally a queen of poor quality will refuse to leave her brood nest in one hive body and lay eggs in the second body given her. We have had swarming develop with one hive body almost empty of brood and the first hive body with a compacted small brood nest. In this case it may be necessary to remove a frame of brood from the first

hive body and place it in the second so that bees will be drawn into the second body to take care of such brood.

Spreading Brood

Never spread brood in the early part of the season. So many beekeepers have made the mistake of thinking that they could increase egg-laying and broodrearing by spreading the brood and placing empty frames in the center of the broodnest. While this may be all right later in the season when it is warm, it may divide the brood nest in the spring when it is cold. Bees will expand the brood nest only as fast as they can keep it warm.

Clipping Queens

Queens in outyards should be clipped. Clip only about a third of one wing. Do the work carefully and slowly. Watch the queens legs every minute to see that they do not get in the way of the scissors. Unless the work is done in April or early May, it becomes increasingly difficult to find the queen. Painting the queen, of course, helps in this respect but the two operations should be done at the same time.

Clipping the queen does not prevent swarming but it prevents the swarm from leaving while we are not in the outyard.

Making Increase Early

We do not believe that it pays to increase our colonies by division early in the season. Knowing that a small colony will not produce a crop while a large one may produce a good surplus certainly means that we cannot divide a colony and still have a large population for the honey flow. It all depends on whether we are interested in getting big crops of honey or simply having a large number of colonies. One colony of 50,000 bees will produce more honey than two colonies of 30,000 bees.

BEE DISEASE APPROPRIATION

TWENTY-THREE counties appropriated a total of \$3,800 for disease control this year, according to the State Department of Agriculture and Markets. This amount will be met by the state funds for each county.

Dane and Dodge Counties each appropriated \$300. Shawano County, \$250. Other counties making appropriations were Barron, Brown, Clark, Columbia, Fond du Lac, Kenosha, LaCrosse, Manitowoc, Rock, Sheboygan, Monroe, Marathon, Outagamie, Pierce, St. Croix, Washington, Waushara, Dunn, Taylor, and Vernon.

Why Can't American Foulbrood Be Cleaned Up In A County After Ten Years of Inspection?

E. L. Chambers

A BEEKEEPER inquires, "Why isn't it possible to clean up a county of American Foulbrood after ten years of inspection?" That is a good question and one we are glad to discuss based on our experience.

Let us consider Dane County. Our records indicate that 394 yards were inspected last summer in Dane County and 20 yards had 60 colonies infected with American foulbrood which were immediately destroyed. A total of 1,713 colonies were inspected in the yards at a cost of \$976 or approximately 52 cents per colony. The inspectors were instructed to keep their work in solid blocks in adjoining counties and to cover as much of the county assigned them as the funds allotted in the county would permit. We have in our records 657 beekeepers in Dane County and our funds permitted inspection of only 394 of these last year. To have inspected all of them would have required the expenditure of \$1,583.37, based on the cost figure above. In this work every colony of bees the inspectors could find was inspected and together with the honey the infected colonies were burned, and all infected equipment either burned or scorched out.

It would seem that we could follow up the diseased yards and those within two miles for a few years and the task would be complete. Our experience has shown that it is not so simple. In the first place, we must have a two-mile protective zone around the county, and we do establish one, which adds materially to the cost. Then we must realize it is humanly impossible for an inspector to find every colony of bees. Thus far tax assessors have only reported 82 apiaries in Dane County out of the 657 we have in our records, yet among these were nine that we apparently did not know about. These were checked by the inspector. It may be that some, or all of them, were listed under a different name than recorded in our files.

The Real Problem

Then we have those inevitable cases of bees in trees and walls of buildings and what-not that complicate the situation. Now we come to the real problem as to why we can't clean up an

area after ten years—namely, old used infected equipment stored away everywhere. Everything from a few hens nests in the chicken house made out of old supers to quantities of old supers, frames, and combs stored in garages, shops, old barns, and in the basement and attic of the home, are used. While we have records of 657 bee yards in Dane county, we also are aware that we have 6,157 farmers, many of whom have kept bees at one time or another or have in their possession used bee equipment and when a swarm of bees makes its appearance, they suddenly recall some of this old equipment that Grandpa or Uncle John had fifteen or twenty years ago and drag it out. Right there a reinfection center is brought to light. The spores seem to remain visible in old equipment almost indefinitely. Perhaps if the farmers were compensated for old bee equipment destroyed, we might get it out of circulation sooner. The inspector, of course, cannot enter a private home to search for bee equipment without a search warrant, and when the owner denies that he has any equipment in the home there can be little done about it.

We feel that we have the movement of diseased bees and used bee equipment pretty well in hand with the permit to move requirement, particularly in the areas where we have been concentrating our efforts most because here we have a fairly good check on the movement of bees and their location. It takes large sums of money over a short period of time to make any clean-up really effective. It should be borne in mind that the success of practically all of our large scale control campaigns have been due to the availability of large Federal appropriations for the work. It is doubtful if any of these could have been carried out or would have been attempted if they were dependant upon state funds alone. Two other area clean-up campaigns conducted in connection with our office, namely Barberry Eradication and White Pine Blister Rust Control, have each received over a million dollars in Federal aid during the last ten years whereas the total state money actually spent for bee disease control during that time amounts to only \$105,182.51.

CHANGE IN DIRECTIONS FOR MAKING QUEEN PAINT

IN April a beekeeper sent to us a vial of queen paint he had attempted to make following our directions in the last issue, by dissolving a toothbrush handle in acetone. The result was a thick jelly without much color. On examination we found that the toothbrush handle was not made of celluloid as instructed, but evidently of some new compound which is now being used for making toothbrush handles.

This being the case, we would advise making paint as follows: Buy some clear white celluloid (Sears, Roebuck stores have it, also some garages). Dissolve small strips of it in a vial of acetone until the liquid is fairly thick. It takes some time to dissolve the celluloid, so do it well in advance of the time it is to be used. Now purchase from a paint shop some powdered coloring or pigment which painters use. The best colors are scarlet or red and yellow. Next fill a pill vial about two-thirds full of the mixture, acetone and celluloid, and then add a pinch of the colored powder. Shake well until the powder is mixed thoroughly. If too thick, add a little clear acetone. A bottle of acetone should always be taken along to the beeyard because it evaporates and the paint must be thinned frequently.

For a dauber, use a common cork in which has been stuck a round toothpick, hard match stick, or nail with small round head. This forms a dauber to be used in applying the paint to the queen.

BEES FOR SALE

20 colonies of bees for sale. A. C. Allen, Portage, Wisconsin.

Mistress: "Did you empty the water under the refrigerator?"

Green Girl: "Yes'm, and put in some fresh."

FOX RIVER VALLEY BEE-KEEPERS HAVE SUCCESSFUL MEETING

ABOUT 70 beekeepers and their wives attended the meeting of the Fox River Valley District meeting of the Wisconsin Beekeepers Association at Appleton on April 2. Mrs. Ann Eggleston of the American Honey Institute met with the Woman's Auxiliary in the afternoon and gave them many valuable pointers on promoting the use of honey.

The program was very interesting and beekeepers expressed themselves as well pleased with the meeting.

It was voted to take part in the Eastern State meeting at Menomonee Falls on Wednesday, July 24th.

Considerable discussion centered around the plans presented by E. L. Chambers, State Entomologist, in regard to A. F. B. control for the coming season. As a result, those present signed a petition which State President Walter Diehnelt was asked to present to the Board of Agriculture and Mr. Ralph Ammon, Director of Agriculture, requesting that all county appropriations be duplicated from state funds this coming year, and that the State Entomology Department be allowed to carry on A. F. B. control work in such areas as they considered would meet the greatest needs of the beekeepers, rather than an area clean-up in a small section of the state.

The Board was also requested to aid beekeepers in obtaining a larger state appropriation from the coming Legislature so that area clean-up might be carried on throughout the state. The petition also stated that the beekeepers were well satisfied with the work and personnel of the Department of Entomology in disease control.

New Officers Elected

Officers of the Fox River Valley District for the coming year were elected as follows: Chairman, Mr. Cornelius Meyer, Appleton; Vice-Chairman, Mr. William Outhouse, Shawano; Secretary-Treasurer, Mr. Leonard Otto, Forest Junction.

The sad-looking contractor scanned the menu card with a hopeless air. "You may bring me a dozen fried oysters," he said at last.

"I'se awfully sorry, boss," the colored waiter apologized. "But de fact is, we's outer all shellfish, 'ceptin aigs."

WESTERN WISCONSIN SUMMER MEETING

Ladysmith, July 26

ASUMMER meeting for western Wisconsin beekeepers will be held by the Wisconsin Beekeepers Association at Ladysmith on Friday, July 26th. This was voted at the Western District meeting held at Menomonee in March. While it had been originally voted to hold the meeting at Menomonee, the western district beekeepers accepted the invitation of Mr. Robert Knutson of Ladysmith to hold the meeting in Ladysmith instead.

The Rusk County Beekeepers Association will be host to the western State meeting. Ladysmith is a beautiful city with a fine park for an outdoor meeting, and ample accommodations indoors in case of bad weather.

WESTERN WISCONSIN MEETING WELL ATTENDED

ABOUT 70 beekeepers attended the annual meeting of the Western District of the Wisconsin Beekeepers Association held at Menomonee on March 26th. The program proved very interesting to all who attended, many beekeepers making the statement that it was the best meeting they have ever held. Topics on disease control and spring management of bees, commercial honey production, and other topics of value for the coming honey producing season were thoroughly discussed.

At the election of officers the following were elected for the coming year:

District Chairman: Robert Knutson, Ladysmith

Vice-Chairman: H. O. Rodeske, Fountain City

Secretary - Treasurer: Geo. L. Hotchkiss, Eau Claire.

COOLER CELLAR WINTERING RECOMMENDED

MR. G. M. RANUM of Mount Horeb stated recently that he is convinced that cooler cellar wintering for bees is giving him better results at present than he obtained formerly by wintering at a high temperature of 45 degrees to 50 degrees F.

Mr. Ranum now winters at 38 to 40 degrees F. With fewer colonies in his cellar he can maintain a lower temperature. The bees are not as active and come out stronger at the lower temperature.

According to tests, the temperature inside the hive is usually about ten degrees higher than on the outside. Therefore when wintering at 50 degrees F., the temperature within the hive is about 60 degrees, which is too high for good wintering.

Mr. Ranum also thinks that his outdoor wintered colonies build up a little faster than those wintered in the cellar.

BEEES WINTERED WELL IN ROCK COUNTY

AT the Rock County Beekeepers meeting early in April, a report was made by beekeepers present of winter losses. Eleven beekeepers reported losses of 27 colonies out of 460, which is about 6 per cent. Losses were from several causes as queenless, weak, dysentery, or starved.

Last fall I made several colonies by uniting two-queen colonies. These are very strong. One colony had six frames well filled with brood the first week in April. I just received a letter from Indiana stating that losses will run 30 to 50 per cent there, with many weak colonies which will not amount to much.

A certain brand of Wisconsin honey is selling at local stores at 39c per 5-lb. pail which is bad for the beekeepers.

—Ivan Whiting, Secretary Southern Wisconsin District.

MIDSUMMER BEEKEEPERS' CONVENTIONS

Wisconsin State Beekeepers' Association

**Eastern Wisconsin Convention
Menomonee Falls, Wednesday,
July 24**

**Western Wisconsin Convention
Ladysmith, Friday, July 26**

A LARGE attendance is expected this year when the State Beekeepers' Association holds two summer conventions. The first will be held at Menomonee Falls at Honey Acres, the apiaries of Walter Diehnelt. Here we will see, during the forenoon session, much of interest in honey packing methods and will study beekeeping methods in the apiary on the home place.

Northern and western beekeepers will certainly enjoy a trip to Ladysmith where the Rusk County Beekeepers' Association will entertain us. Ladysmith is the home of Robert Knutson who each year buys more than 200 packages which, for him, produce more than wintered colonies. His methods will be studied during the forenoon and the same interesting program as at Menomonee Falls held in the afternoon.

Complete plans for the pot-luck luncheon and program will be announced in our next issue.

**50% Discount—
Stock Up Now!**

We have several hundred dollars worth of **discontinued DRIPCUT dispensers** which we are going to close out at 50% of their regular retail value. **Everything is first class merchandise.** Write for information, telling us about what quantities you are wanting. We have limited supplies only of some numbers.

Honey Dispenser Sales Co.
Box 2077, Univ. Sta.
Madison, Wisconsin

MEMBERSHIP IN WISCONSIN BEEKEEPERS ASSOCIATION MAY BE LARGEST IN NATION

IN the April issue of the Michigan Beekeeper, published at Lansing, Michigan, the editor states that last year the total membership of the Michigan Beekeepers Association was 130. To date this year there are 132 paid members and the treasurer predicts 200 for this year.

The membership in the Wisconsin Beekeepers Association is 417. The Association is divided into 26 county and 4 district associations.

Since we know that Michigan is one of the leading honey producing states we felt impelled to challenge other state organizations by suggesting that Wisconsin has the largest membership of any state in the nation. We don't know a thing about it. The challenge has been issued in an article sent to the American Bee Journal so we expect to hear from other states in the near future, if any of them have a larger membership. And so we say, "Come on Michigan, and all the rest of the states!"

We wish to make a further statement that membership in the Wisconsin Beekeepers Association is a stable membership. It does not fluctuate because we do not put on membership campaigns. We do not believe in campaigns because it results in a large membership one year and a great decrease the next year. We believe in building on a solid foundation of interest and service so that members renew automatically year after year.

Tourist: "Is the castle open for visitors?"

Attendant: "Yes, sir. I shall be glad to show you about, sir."

Tourist: "Never mind. I used to live here."

HONEY WANTED

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

SOY FLOUR

We carry Soy Flour which may be used as a pollen supplement for bees, or as a sticker for spray materials for the orchard.

10 lb. bags, 65c; 100 lb. bags, \$4.90
F.O.B. Waukesha

**Southeastern Fruit Growers
Co-Op, Inc.**

Lester Tans, Secy. Route 3
Telephone Big Bend 2821

TIMESAVERS!!

Frame Spacers

New! Space nine combs in a ten-frame super in 1/2 to 2/3 less time than by hand. Ask your local dealer for demonstration. Write for circular.

H. A. SCHAEFER
Osseo, Wisconsin

There Is No Substitute For:

**LOTZ
SECTIONS!**

BEST IN EVERY WAY:

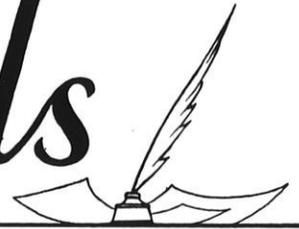
Top Quality Material . . . Glossy Polish . . . Smooth Dovetails . . . Oval V-Grooves . . . Accurate Dimensions . . . Fine Workmanship . . . Reasonable Prices . . .

These important features are demanded by every beekeeper. Any size section can be furnished. Why not place your order at once?

Write for prices on quantities and special size sections, and also your free 1940 catalog.

AUGUST LOTZ COMPANY
Boyd, Wisconsin

Editorials



WALTER J. KOHLER

ONE of Wisconsin's leading citizens, Walter J. Kohler, of Kohler, passed away suddenly on Sunday, April 21, at his home in Kohler.

Members of the Horticultural Society were greatly grieved at the loss to our state of one of our citizens who has been so instrumental in building up one of the nation's most beautiful garden cities. At our annual convention last November Mr. Kohler was presented with the honorary recognition certificate of the Society in recognition of his work in making Kohler a beautiful place in which to live.

We extend our heartfelt sympathy to the bereaved family.

IRIS PILGRIMAGE TO BEGIN AT LINCOLN, NEBRASKA, MAY 28

THE iris event of this year is the annual meeting of the American Iris Society to be held at Evanston, Illinois, the first week in June. Preceding it will be a pilgrimage beginning in Lincoln, Nebraska, on Tuesday afternoon, May 28th, at the home of Dr. and Mrs. Harry H. Everett. On May 29th the Mid-West Gardens, home of the H. P. Sass family, 40 miles east of Lincoln will be visited.

On Saturday, June 1st, the annual meeting of the American Iris Society will open in Chicago (un-



less the date is changed due to weather conditions).

The convention will last two days and will include tour to iris gardens around Chicago.

For more details, write the American Iris Society, H. R. Watkins, Secretary, 821 Washington Loan and Trust Bldg., Washington, D. C.

CHERRY BLOSSOM FESTIVAL

Sturgeon Bay, Sunday, May 26

THE city of Sturgeon Bay is making elaborate plans for a cherry blossom festival on Sunday, May 26th.

The thousands of acres of cherry trees are expected to be in full bloom at that time. In addition to the tours through the orchard section which will be most beautiful at that time, there will be many activities in the city well worth attending.

TULIP TIME

Holland, Michigan

May 18-25, 1940

MORE than one-half million people annually visit tulip time in Holland, Michigan.

Tulip time was announced to the world in 1929 and public response was far beyond expectation. It is conducted by a committee of 20 chosen by the Chamber of Commerce and the Mayor of the City.

Holland's leading citizens have formed the Dutch Hospitality Club and list all residents in the community who have spare rooms to offer guests.

The opening day, is always the Saturday nearest the middle of May, and the first event is a street scrubbing ceremony in the afternoon. Citizens by the hundred clad in costumes of their forefathers carry brooms and brushes. When the streets are deemed to have been scrubbed clean, 300 young people give a dance on the street in wooden shoes. Then come the Volks parade. Interspersed with bands are the various units representing traditional Dutch features. There are many things to be seen in Holland during tulip time. Free leaflets may be obtained by writing "Tulip Time," Holland, Michigan.

Of course the feature attraction is the wonderful planting of millions of tulips.

Wisconsin Gourd Show

Presented under the auspices of

Wisconsin State Horticultural Society

and State Radio Station WHA

Radio Hall—U. W. Campus, Madison

October 19-25, 1940

THE above announces the first Wisconsin Gourd show which will be presented as a cooperative effort between the Wisconsin Horticultural Society and Radio Station WHA. It will be open to all amateur growers in Wisconsin. There will be no entry fee.

Show Schedule

- I. Hard Shell Gourds (all varieties in natural state, waxing permitted).
 - A. Ornamental varieties: Including nest-egg, striped, warty, orange, spoon, and other small varieties.
 - B. Utilitarian varieties: Including dipper, dishrag, bottle, Hercules Club, etc.
- II. Displays (combinations of gourd specimens).
 - A. Best arrangement using gourds only (containers may be used).
 - B. Gourd strings, natural state (not to exceed 48 inches in length, other materials permitted).
- III. Show awards (any variety, fully mature).
 - A. Largest gourd
 - Longest gourd
 - Smallest gourd
 - Most beautiful gourd
 - Most unusual gourd.
- IV. Handicraft Exhibits.

In this class there will be no awards but space will be provided for displaying decorated gourds, useful articles, and novelties made from gourds. These may have been grown in previous years.

The purpose of this show is to enable Wisconsin growers to exhibit their home-grown gourds and for the public as well as the growers, to become more familiar with the various types.

The gourd hobby provides a year-round diversion and is creating considerable interest throughout the nation.

WHY PEACH BUDS WINTER-KILL

LATE in January the temperature at the Experiment Station in Jackson, Tennessee, dropped to -15 degrees F., according to Tennessee Horticulture. Peach buds, even though of hardier varieties, were killed 100 per cent. In commenting on this freeze in the South, the Experiment Station concludes that "Apparently the deciding temperature with other factors equal, was about -15 degrees F. In every case observed where official temperatures were -15 degrees F. or below, the kill was absolute."

It has been the hope of Tennessee growers that a certain degree of bud hardiness could be obtained from some of the newer varieties offered by northern breeders, but results have dimmed these hopes.

Sun Gold, reported hardy at -30 degrees, was more severely killed than Golden Jubilee an old standard variety.

That's the reason we can't grow peaches in Wisconsin. You can grow them in a location where the temperature will not go as low as -15 degrees F.

THE 1940 NATIONAL PEONY SHOW

Rochester, Minnesota, June 22-23

THE National Peony Show will be held June 22nd and 23rd in the Mayo Civic Auditorium in Rochester, Minnesota.

Rochester's Southeastern Minnesota peony shows in past years have been so well filled and staged that it was awarded the 1940 National Show.

Rochester is located in the peony belt of the U. S. and exhibits are expected from all the surrounding states and from as far as New York.

Minnesota professionals include the names of A. M. Brand, A. B. Franklin, and J. V. Edlund, known to every peony fancier and they will be present with their finest collections. Due to the many commercial and amateur growers making entries it's safe to say that no worthwhile variety will be neglected.

An iris exhibit, unusual in size and number of varieties, is being planned by the Duluth Peony and Iris Society for the Rochester show. Duluth's iris are expected to be at their prime at the time of the show. Twenty-seven classes have been reserved for the iris group.

Rochester tours, including the famous Mayo Clinic, are being arranged. Strangers entering Southeastern Minnesota in June will be amazed at the unusual beauty of its ever changing hills and valleys.

For further details write Dean R. W. Goddard, Rochester, Minnesota.

By Benjamin F. Dunn, Vice-President Minnesota State Horticultural Society, Rochester, Minn.

"Are you a college man?"

"No, a horse stepped on my hat."



Gladiolus Gleanings



By the WISCONSIN GLADIOLUS SOCIETY

Chester Harrison, Waldo, President

Dr. Geo. Scheer, Sheboygan, Vice-President

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

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

Regional Vice-Presidents

Frank Blood, Stevens Point

Fred Hagedorn, Sheboygan

Edwin Ristow, Oshkosh

Ben Robinson, Kenosha

How We Grow Gladiolus

By Frank Blood, Stevens Point, Wis.

ABOUT fifteen years ago I became interested and started to grow gladiolus. At first I purchased collections, and while they gave me some very nice blooms, still I had too many that were not to my liking. Some years ago at the State Fair we saw some real Glads and secured the names of a number which I ordered to be delivered the next spring. Ever since then I have purchased nothing but named varieties.

After growing glads a few years I began attending the State Shows and think I have only missed one in the past eight or ten years. I also joined the State Gladiolus Society and the New England Society and have received a lot of benefit and good information from both.

About three years ago I started hybridizing and expect to have some seedlings of my own this year. Have a light soil at my place and must use plenty of water and fertilizer to get the best results. In order to build up the soil I used poultry droppings and leaves. I used the leaves as scratching material for the chickens and when they were all pulverized together with the droppings it made a wonderful fertilizer. The only trouble is that you have to use it with lots of water as it is strong and liable to burn the bulbs. I also spade under all the leaves raked from the lawn. We have elm and soft maple trees and the leaves rot quickly and the soil holds moisture very well. After the bulbs are dug I sow winter rye, and spade it under the next spring which helps the soil. Since I have gone out of the chicken business, I use Milorganite with the leaves and find it gives good results.

After the ground is spaded and bulbs planted, I scatter hard wood ashes over the plot and rake it in. I have also used peat mixed with the soil and find I get better blooms and larger bulbs, not forgetting that thorough cultivation helps to produce both.

WISCONSIN STATE GLADIOLUS SHOW

AUSPICES OF THE WISCONSIN GLADIOLUS SOCIETY

Columbus—High School
Gymnasium

Saturday and Sunday,

August 10-11

Experience with Thrips

A few years back we had a very mild winter with lots of snow and bulbs that were missed at digging time grew the next spring and I did not treat my bulbs that winter and the next season I did not cut a dozen good spikes on account of the thrips. Ever since I have treated my bulbs with naphthalene flakes and soaked them in corrosive sublimate before planting and also sprayed with Tototox and the past years used Tartar Emetic with good results. Expect to use Lysol also this spring as I have read of some very good points in its favor. I also expect to experiment with Vitamin B₁ on bulbs and bulblets.

On March 20 I soaked four small bulbs of Picardy in Lysol and watered them with Vitamin B₁ water as an experiment. I planted them in a large can and am keeping them in a south window in the basement. Have had very good success with the expensive bulblets by planting them in clear sand in cans, and transplanting in the garden when weather warms up. I select a place in the garden where I can water often for the rest of the bulblets and by keeping them soaked get a nice lot of bulbs at digging time. I soak the bulblets for a day or two before planting.

GRAND CHAMPION GLADS AT FLOWER SHOW

IN our January issue we published a list of varieties which won Grand Championships at various flower shows throughout the country.

The following list was sent us by Mr. J. H. Odell of the New England Gladiolus Society, of Grand Champions at shows not listed in our January issue:

Yakima Valley G. S. 1st show, Aladdin; 2nd show, Del Ray.

Snohomish County, Washington, Red Lory.

Sioux City G. S. Miss New Zealand.

Southeastern Michigan G. S. Picardy.

Calgary G. S. 2nd show, Rose Marie Pfitzer.

Winnipeg G. S. Aladdin.

Ohio G. S. No. 7356 Pink Adly. H. O. Evans, Stella Autisdale, H. O. Evans, 1940 release.

Utah, 2nd show, Reverie.

Takoma Park G. S. (Washington) Myrna-Runner-up, Picardy.

Woodridge H. S. (Washington) Myrna.

Empire State Glad Show—Shirley Temple.

August 15-17. Michigan Gladiolus Society Annual Show, Jackson, Michigan.

August 24-25. Illinois Gladiolus Society, State Fair, Springfield, Illinois.

August 24-25. Ohio State Gladiolus Society, with State Garden Club, Sandusky, Ohio.

GLADIOLUS THRIPS CONTROL

TESTS made by the Federal Bureau of Entomology and Plant Quarantine on gladiolus thrips control, give us the following information, as stated in the report of the Chief of the Bureau for 1939.

"Tartar emetic - brown sugar sprays, whether composed of 2, 3, or 4 pounds of tartar emetic and 8 or 16 pounds of brown sugar per 100 gallons of spray, were of practically equal efficiency. On plots sprayed with 2 pounds of tartar emetic there appeared to be less residual effect of the tartar emetic than where 4 pounds was used; hence the thrips caused more injury later in the flowering season on plots where the lower dilutions were used. No injury to gladiolus foliage resulted from the tartar emetic sprays, and the degree of control achieved was equal to that obtained with sprays containing paris green and brown sugar.

"While a satisfactory degree of control was obtained with sprays containing 2 pounds of paris green and 16 pounds of brown sugar per 100 gallons of water, this spray caused moderate to severe foliage injury, the magnitude of which varied with the variety of gladiolus involved.

Sugar Necessary

"A spray containing tartar emetic alone at the rate of 4 pounds to 100 gallons of water gave no appreciable control of the thrips, demonstrating the necessity of using some type of sweet substance in the spray to obtain satisfactory results. In this connection no attempt has been made thus far to determine the comparative effectiveness of brown sugar and other easily available sweet substances that might be used in combination with tartar emetic as a spray for gladiolus thrips control."

GOOD CUT FLOWER VARIETIES OF GLADIOLUS

Recommended by Walter Miller, Sun Prairie

IN a discussion on the best cut flower varieties of Gladiolus for the flower trade, Mr. Walter Miller of Sun Prairie gave the list below as his favorites in a paper presented at the spring meeting of the Wisconsin Gladiolus Society.

White

Bob White, Maid of Orleans, Albatross and Star of Bethlehem.

Pink

Giant Nymph, Winged Beauty, Picardy, Rapture, and Catherine Coleman.

Lavender

Lavender Delight, Dr. Moody, Minuet, and Beautiful Ohio.

Smoky

Bagdad and Zuni.

Red

Excelsior, Amador, Commander Koehl, Bill Sowden, and Tip Top.

Purple

Chas. Dickens and Paul Pfitzer.

Buff or Orange

Betty Nuthall, Duna, Coronation, Wasaga, and Hercules.

Cream or Yellow

Spray of Gold, Golden Cup, Golden Goddess, Shirley Temple, Ruffled Beauty, and Ruffled Gold.

WISCONSIN GLADIOLUS SOCIETY HOLDS INTERESTING MEETING

THE spring meeting of the Wisconsin Gladiolus Society was held at Hartford on Sunday, March 31. It proved a very interesting meeting, one of the best we have had.

The forenoon was devoted to a business session and discussion of the location and time for the State Show. Two urgent invitations were received, one from Lake Geneva by the Lake Geneva Garden association and the other from Columbus by various or-

ganizations in that city. The members debated for some time as to which would be the best location and also discussed whether the show should be held the week before the State Fair or the first Saturday and Sunday of the Fair. Ballots were taken, resulting in a small majority favoring the earlier dates, August 10-11, and Columbus won out as a location by a narrow margin.

The afternoon session was devoted to talks by leading growers. A very interesting discussion developed on the papers and talks given. It shows, furthermore, that we have some interesting speakers among our growers. Several of the papers presented will be published on these pages. A number of colored slides from the Winnepeg Gladiolus Society were shown.

In the bulb show, Mr. Albert Haugen of Stoughton was the large winner, taking almost all the prizes.

We hope that in the future more of the members will attend these meetings as they are very much worthwhile. We wonder why more do not attend. Do you favor the Sunday date or would you rather have it on a week day? Why didn't you come?

Summer Meeting in Miller's Garden, Sun Prairie

It was unanimously voted that the summer meeting of the Wisconsin Gladiolus Society be held in Walter Miller's Flower Gardens, Sun Prairie. The date will be Sunday, July 28.

The Miller gardens are always beautiful and all members should attend this meeting as they will see and hear many things of interest.

AN INVITATION

You are invited to visit Burr Oak Flower Gardens during the blooming season of Iris and Peonies, late May and early June.

E. L. White, Box 334, Fort Atkinson, Wisconsin. On highways 26-89 at north city limits.

AGICIDE

TRADE MARK

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Home and Garden

Mrs. C. E. Strong

MY MOTHER HAD A GARDEN

*"My Mother had a garden, else how was I to know,
That phlox gives out its perfume in twilight's tender glow.
That mignonette is sweeter when noon-day sun is high,
Or white petunias glisten beneath a moonlit sky;
She who plants a garden, plants more than she can know,
Her children see it booming where ever they may go.
For them her springtime tulips still stand in gorgeous bloom,
Her lilacs shed their perfume forever through the room.
June weaves a wreath of roses about a grey stone wall,
In sheltered nooks and corners, your cherished plants are small.
For them her sleepy poppies shall always yield their balm;
They dream of Autumn splendor, or breathless days and calm.
Earth holds for them a treasure, secure 'neath frost and snow.
My Mother had a garden—else how was I to know."*

M. J. FINDLEY

How to Prepare the Border

Those words seem to fit the request that came a short time ago, "Will you please print a list of shrubs, bulbs, and plants, suitable for quite a long bed or border? Also a few directions on how to prepare the soil? I would like some of the old-fashioned flowers, as my mother had a beautiful garden when I was a child, and I would like my children to have the same lovely memories I have."

Answer: You may divide your space in sections, preparing the soil and planting one or more sections each year. Spade the ground deeply, at least two spades deep, throwing the first layer or top soil to one side, then spading the next layer as deeply



as possible. Work into this bottom layer as much coarse manure as you can and if it is a heavy clay soil, use a goodly amount of coal ashes also. Throw back the top soil and add to this well rotted manure, bone meal, or other commercial fertilizer, and mix thoroughly. Rake smoothly and you are ready to plant.

Shrubs for the Border

A shrub background is always attractive, both for the green foliage and the attractive blooms. None of the material will be in what is known as "the high priced class" and can be found at any good nursery. Deutzias, Lemoine and Gracilis, Forsythias, *Intermedia Spectabilis* and *Ovata*, *Kolkwitzia* or *Beauty Bush*, *Mock-oranges*, *Virginalis*, very large and very double. *Bouquet Blanc* is very fragrant. *Flowering Almond* is always found in old gardens. The *Symphoricarpos*, more simply called the *Snowberry* and *Coralberry*, add much to

the effect with the show of berries late in the season. *Summer Glow Tamarix*, with grey-green foliage and wine-red flowers most of the summer, is one of the nicest of this family.

Lilacs

There are lilacs and yet more lilacs. Persians in purple and pale lavender; French Hybrids in almost every shade, both single and double; Japanese tree with immense bunches of small white flowers, very late; Hungarian *Josikaea*, deep purple, late; *Villosa*, very late, tree shaped, flowers flesh to pink. Visit the nurseries and pick those you like while in bloom. *Viburnum Carlesi*, grey-green foliage, flat heads of rosy-pink flowers in early spring, most delicately scented like the old-fashioned clove pinks; *Kerrias*, both double and single, bloom all summer long while their striking green stems in the winter season add to the beauty of the landscape.

Our native High Bush *Cranberry* has wonderful flowers and great bunches of brilliant red berries. *Amalanchier Canadensis* is also a native of Wisconsin, and is more beautiful than many high priced shrubs with its drifts of snowy white flowers. Plant near it the *Red Bud* or *Judas tree* with every twig literally covered with tiny pea like flowers of pink. *Flowering Crabs*, especially *Bechtel's double*, and *Dolga* (the one with deep red crabs) will delight the eye in fall. They also make most delicious jelly and spiced crabs. *Blood leaf Plum* has foliage deep red, flowers double pink. *Vitex Negunda Incisia* and *Vitex*

Macrophylla are two not quite so well known shrubs but they will be for the attractive foliage and lavender-blue spikes of flowers from August until freezing time will soon win them friends.

Iris and Peonies

Iris and Peonies—early, medium, and late. Choose them as you do your Lilacs, from the fields and in the colors you like best.

I hope your choice will include some of the single Peonies. They are so satisfactory, standing up under wind and rain. When choosing Iris, start with the Iris *Pumila*, the low growing early varieties; then a slightly taller and later, the German Iris, which come in almost every shade. The Siberian Iris have foliage like thrifty cat-tails. The queen of them all is the stately Japanese. There are specie Iris also, so you see there will be a long season of bloom with the Iris and Peonies.

Phlox

Then there is Phlox. Early flowering, low growing mats of Phlox *subulata*; then *Divaracatas*, on up to the taller Phlox with their immense heads of bloom. The newer varieties are much more beautiful than the older sorts. Almost all of the magenta has been weeded out. Add peat which has been thoroughly soaked where Phlox is to be planted. You will be delighted with the result.

Perennials

In the old gardens there were only a few of the *Hemerocallis* family, of which the old Lemon Lily was most often seen. It gave a fine show early in June. Now the *Hemerocallis* bloom from May to September—dwarf, medium, and tall; orange, yellow, red, even leaning to the pink and white shades. We can grow Oriental Poppies, Bush Clematis,

Delphiniums, English, French, and Chinese, in every shade of blue, white, and yellow; Shasta Daisies, *Dictamnus* or Gas Plant, *Heuchera*; *Campanula*, *Astilbe* in variety; *Gypsophila*, both double and single; *Iberus*, the hardy Candytuft, *Aquilegia*, *Pentstemons*, *Heleniums*, *Monkshood*, *Bleeding Heart*, hardy *Alyssum*, *Arabis Alpine*, *Trollius*, looking like glorified Buttercups, and *Statice Latifolia*.

Do not forget the hardy Asters, both dwarf and tall in lovely clear colors that will make your Autumn border look like the pictures you see of lovely English gardens, especially if you add to them as many as your purse will permit of our new hardy early *Chrysanthemums*.

When fall comes tuck in early and late spring bulbs as well as Lilies, *Crocus*, *Snowdrops*, *Scillas*, *Chionodoxa*, early, medium, and late Tulips, Cottage, Darwin, Parrot and Breeders, Daffodils and *Narcissus*.

Of course you will want some roses, some of the old yellow roses and some of the new *Floribundas* which bloom all summer.

Plant Annuals

There will still be space for a few years so plant Annuals—*Four-o'clocks*, *Heliotrope*, *Petunias*, lots of white ones; then *Zinnias* in the clear shades, *Mari-golds*, both the large and very tiny dwarf *Celosias*, *Larkspur*, *Calliopsis*, *Tree Balsams*, *Asters* and many others. There are many other varieties, as you will see if you study the catalogs, but you will find this list will give you constant bloom from April to November. If you tuck in some sheltered spot a few plants of *Helleborus Niger*, you can show your friends snowy white blooms from November to March.

I have had to omit descriptions of the plants listed. Sorry, but just study the catalogs, get the nursery visiting habit and you

will enjoy getting really acquainted with whole families of plants. Your garden will be to your children as your mother's garden has been to you—a beautiful memory.

Join a garden club if there is one near you. If there is none, get a group of your friends together and start one. Visit gardens and nurseries as a group and be sure to carry notebook and pencils so you may jot down the names of plants you particularly like. You may also order plants at this time, even have them dug up and take them with you if you have room, and are willing to plant and water carefully so they will surely grow.

THE GARDEN CLUB OF THE AIR

Homemaker's Hour, Radio Station WHA and WLBL Every Tuesday at 10 a.m.

- May 7. Plans for the Roadsides. Col. R. E. Farrand.
- May 14. A State Spring Flower Show. Mrs. Newell Boardman, Madison.
- May 21. Six Thousand Daffodils and Narcissi. Mrs. Hans Reese, Madison.
- May 28. Blossomtime, Everywhere! Mrs. Ada Hotchkiss, Lodi.
- June 4. Lilacs in June. Prof. G. Wm. Longenecker, and Ed. N. Hein, Madison.
- June 11. Flowers and Hobbies. DeForest Garden Club.

CACTUS

Eleven different varieties, blooming sizes, gathered fresh as ordered. Tags with names and color of flowers, and soil instructions. 20 Cactus parcel postpaid, \$2.50; 35 Cactus parcel postpaid \$3.50. C. J. Brooks, General Delivery, Allamoore, Texas.

Wisconsin Garden Club Federation News

Mrs. Charles H. Schuele, President
247 Woodland Lane, Oconomowoc
Mrs. E. A. St. Clair, Hon. President,
2418 N. 65th St., Wauwatosa
H. J. Rahmlow, Cor. Secretary,
Madison

Mrs. E. L. White, Rec. Secretary,
Box 334, Fort Atkinson
Mrs. C. H. Braman, 1st V-President,
Waupaca
Mrs. Frank Quimby, 2nd V-President,
1422 Blaine Blvd., Racine

SPRING FLOWER SHOW

Wisconsin Garden Club
Federation

Wauwatosa Recreational Bldg.

May 17-18-19

ENTRIES for our flower show are coming in fine, and we are very much encouraged by the response we are getting. Especially gratifying is the response from the clubs away from Milwaukee—so that we can say at this time it will truly be a State Show.

The show will have a Victorian setting, the staging all arranged around the central axis of the building. This makes it possible to have a nice vista right down the center with suitable features at each end. Combined with the plantings, this will give us an interesting view from either direction. It will also be divided into two sections by evergreens and will as nearly as possible key the outdoor entries in one section, and the indoor in the other. All the entries will be so arranged around the vista and planting of the central axis to give a feeling of balance and harmony to the entire show.

We hope garden club members will exhibit horticultural specimens in Section IX. The public is interested in these and in something they can see and learn about that can be used in their own gardens, so bring as many as you can.

—Dr. Carl Schwendener, Chairman, State Flower Show.



State Flower Show Entries Made by April 17

Gardens: Terrace, Wauwatosa G. C.; Garden Path, Blue Mound G. C., Milwaukee Co.; Dooryard, Madison G. C.; Formal, West Allis; Menomonee Falls.

Roadside Stands: Blue Mound; Blue Beech.

Tables: Garden Breakfast: Blue Mound, Mrs. Henry Freudenberg; Hillcrest, Mrs. R. C. Schissler; Ravenswood; Elm Grove, Mrs. G. Allen Kriz.

Garden Tea Tables: Hawthorne; Blue Beech; Menomonee Falls, Mrs. Walter Diehnelt.

Wedding Tables: Silver, Menomonee Falls, Mrs. Arthur Triller; Golden, Elm Grove, Mrs. Pearl Johnson; Modern, Blue Mound, Mrs. Max Schmitt.

Period Tables: Russian, Art Institute; American Dinner, Milwaukee County Dental, Mrs. L. A. Wandell.

May Day Luncheon: Wauwatosa, Mrs. George Adami; Menomonee Falls, Mrs. Wm. Poepp; Ravenswood; Milwaukee County Horticultural Society, Mrs. L. G. Stewart.

Early American: Period 1750, Wauwatosa, Mrs. E. C. Haasch; Period 1800, Art Institute, Mrs. O. Fleischer.

Scenes of Wisconsin: Orchard, Art Institute, Mrs. Conrad Biebler; Northwoods, Neenah; Lake Shore, Elm Grove, Mrs. Pearl Johnson; Farm Scene, Milwaukee County Dental Auxiliary.

Niches: Silhouettes: Wauwatosa G. C., Mrs. Max Schmitt.

Etchings: City Club, Mrs. G. Allen Kriz; Art Institute, Mrs. O. Fleischer.

Tulip Pictures: Yellow to Bronze, Green Tree; Pink to Red, Ravenswood; Lavender to Purple, Milwaukee County, Mrs. Neurenberg.

Foliage: Hillcrest, Mrs. Wm. Bruhn; Wauwatosa, Mrs. Wm. Poepp; Menomonee Falls, Mrs. A. Schloemer.

Fruits and Flowers: City Club, Mrs. W. F. Roecker; Milwaukee County Horticultural Society, Miss Celia Dix; Art Institute, Mrs. Conrad Biebler.

Screens: Bermuda, Blue Mound, Mrs. E. A. St. Clair; France, Menomonee Falls, Mrs. Wm. Poepp; Italy, Wauwatosa, Mrs. Max Schmitt; Mexico, Sheboygan, Mrs. L. E. Larson; Wales, City Club, Mrs. W. F. Roecker.

Screens—For Men Only: Milwaukee County Horticultural Society, Harry Parsons; Wauwatosa, Anthony Wuchterl.

Indoor Window Gardens: Milwaukee County Dental Auxiliary; Ravenswood; Blue Beech.

Outdoor Window Gardens: Country-side.

Coffee Tables: Blue Mound, Mrs. D. Kuechli; Wauwatosa, Mrs. Howard Bast.

School Children's Picnic Table: Milwaukee County Horticultural Society, Miss Stewart; Wauwatosa, The Le Mieux Children.

In Section X, Class A, we have added:—

6. A Story Garden.

The Score Card for Junior Exhibit has been changed to:

Originality	-----30
Detail	-----25
Color Harmony	-----25
Scale	-----20

**SUMMER CONVENTION
WISCONSIN GARDEN CLUB
FEDERATION**

Eagle River, July 27-28

EAGLE RIVER and the Nicolet National Forest will be the scene of the annual summer convention of the Wisconsin Garden Club Federation this year. The meeting will be held on Saturday and Sunday, July 27-28.

The afternoon of Saturday will be devoted to a dedication ceremony for the Wisconsin school children's forest which is located about 7½ miles northeast of Eagle River in the Nicolet National Forest.

Eagle River is in the center of the resort district. Present plans include staying at some resort where recreation can be enjoyed. Our second vice-president, Mrs. Frank Quimby, of Racine, is making the arrangements. Further details will be announced in our next issue.

**TRAVEL DIRECTIONS
SPRING FLOWER SHOW**

**Wisconsin Garden Club Federation
Wauwatosa Recreational Building
May 17-18-19**

ALL cars should head for the Wauwatosa Recreational Building on May 17-18-19 for the Spring Flower Show of the Wisconsin Garden Club Federation.

The Recreational Building is in the City of Wauwatosa, not far from the Wauwatosa Railroad Depot. We suggest inquiring for directions to the heart of the city of Wauwatosa and then to the Railroad Depot, from which the Recreational Building may be seen.

Directions

Dr. Carl Schwendener gives us the following directions:

From the North: Go to Capitol Drive, which is Highway 16. Then south on Wauwatosa Avenue or County Trunk P and N. 76th Street. On Harwood Avenue turn right, and at the stop sign at the bottom of the hill, turn left on W. State St.

Coming from the West on highways 18-19-59, go to County Trunk 100 which

**NATIONAL COUNCIL, STATE
GARDEN CLUB FEDERATION
CONVENTIONS**

June 18-20. Wentworth-by-the-Sea, New Hampshire, Annual meeting. Wentworth House. Chairman, Mrs. William Champ- lin, Rochester, N. H.

October 7-9. French Lick Springs, Indiana. Semi-annual meeting. French Lick Springs Hotel. Chairman, Mrs. E. C. Cline, 207 S. Eighteenth St., Richmond, Ind.

**COMING WISCONSIN
FLOWER SHOWS**

May 17-18-19. Wauwatosa. State Flower Show, Auspices Wisconsin Garden Club Federation, in Wauwatosa Recreational Building.

May 18-19. Town and Country Garden Club of Lake Geneva Flower Show. To be held in Horticultural Hall. Opens 12 M. Saturday, May 18.

May 25. West Side Garden Club of Madison Flower Show in the garden of Mrs. S. L. Odegaard, Northwest Shore Lake Mendota, Beyond Pheasant Branch. 2 to 6 p.m.

June 7-8. Jefferson Garden Club 10th Annual Flower Show, Jefferson.

June 7-8. Sixth Annual Iris Show, Wisconsin Iris Society. Gimbel's Store, Milwaukee. Admission 15c.

June 8. West Allis. Annual Flower Show by Hillcrest, Juneau Heights, and West Allis Garden Clubs and West Allis Recreation Department. Gymnasium of West Allis High School.

June 22-23. National Peony Show. Mayo Civic Auditorium, Rochester, Minnesota.

is also U. S. 45. Turn north to County Trunk O (Watertown Plank Road) which runs into Harwood Avenue. Continue until across the railroad tracks. Turn right at stop sign onto W. State Street.

From the Southwest, Highways 15-36, also go to County Trunk 100 as stated above.

From the South on Highway 41, go to W. State Street and then directly west to 72nd Street.

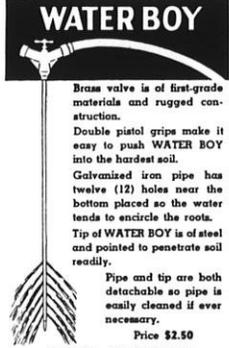
If coming by street car, take the Wells-Farwell line to N. 72nd from which it is a short walk.

WISCONSIN IRIS SHOW

THE Wisconsin Iris Society will hold its sixth annual Iris show on Friday and Saturday, June 7-8, in Gimbel's Store, Milwaukee. The show will be open from 1:00 to 10:00 p.m. on Friday and from 9:00 a.m. to 6:00 p.m. on Saturday. Admission, 15c.

The show is becoming increasingly popular each year and we hope many of our members will attend.

WATER BOY



Brass valve is of first-grade materials and rugged construction. Double pistol grips make it easy to push WATER BOY into the hardest soil. Galvanized iron pipe has twelve (12) holes near the bottom placed so the water tends to encircle the roots. Tip of WATER BOY is of steel and pointed to penetrate soil readily. Pipe and tip are both detachable so pipe is easily cleaned if ever necessary. Price \$2.50

BLEUEL COMPANY
Elm Grove Wisconsin

Water Roots WITH A Water Boy

Water Roots WITH A Water Boy

ATTACH GARDEN HOSE - PUSH WATER BOY INTO GROUND - TURN ON WATER - WATER THOROUGHLY

ATTACH GARDEN HOSE - PUSH WATER BOY INTO GROUND - TURN ON WATER - WATER THOROUGHLY

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Pruning—Fertilizing—Spraying
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THE STATE FAIR FLOWER SHOW

THE dates for this year's State Fair Flower Show will be August 17th, 18th and 19th. This is the in-between season for many gardens, so that the clubs desiring to exhibit should plan now for summer bloom.

Three gardens are again listed this year, size 8 by 12 feet with wall space. These must be kept in good condition during the week of the Fair.

A maze or knot garden is among the newer features to be shown; also a terrace with potted plants, and a green garden accented by red or scarlet flowers. All should be carefully considered when planning to exhibit, so that plants for replacement may be on hand. For the knot garden herbs, vegetables, flowers, or a combination may be used. This garden may be planted in different shades of green, or in color.

All three gardens should arouse much interest and stimulate a desire to create a lovely garden picture. You are again urged to

PLAN PLANT EXHIBIT
—Mrs. W. F. Roecker, Flower Show Chm.

DOROTHY BIDDLE SUCCESSFUL

THE four Dorothy Biddle Flower Arrangement Clinics held April 20-24 turned out to be very successful. The attendance was large and several of the districts made a substantial profit for their treasuries. Miss Biddle again pleased her audience and many expressed the desire that she return next year.

The chairmen in charge of the district clinics are to be congratulated on their efforts.

The State Federation Clinic at Milwaukee, at which Miss Maude Jacobs, Kentucky, was the feature speaker, proved very interesting. A small profit for the Federation was made.

Garden Club Districts

GARDEN CLUB DISTRICTS

THE following garden clubs have joined the various districts of the Wisconsin Garden Club Federation.

Fox River Valley District

Brandon Community; Fond du Lac Community; Ledgeview, Fond du Lac; Green Bay; Iola; Kaukauna; Menasha; Neenah; Oakfield; Omro; Oshkosh Horticultural Society; Ripon (4 clubs); Scandinavia; Waupaca; Dopp Community, Wild Rose; Winneconne; Wisconsin Rapids.

Sheboygan District

Cedarburg; Manitowoc; Plymouth; Port Washington; Sheboygan; West Bend.

Milwaukee District

All clubs in Milwaukee County which includes Hales Corners, Milwaukee, Wauwatosa, Thiensville, and West Al-

is. Also: Elm Grove; Germantown; Kenosha; Menomonee Falls; North Prairie (2 clubs); Oconomowoc; Pewaukee; Racine; Sum-Mer-Del Club; Waukesha (2 clubs).

Southern District

Cambridge; Edgerton; Elkhorn; Fort Atkinson; Jefferson; Lake Geneva; Whitewater; Zenda.

Madison District

Baraboo; De Forest; Lodi; Madison (4 clubs), Little G. C., Madison G. C., Shorewood G. C., West Side G. C.

ADDITIONAL STATE COMMITTEE CHAIRMAN

Vistas and Selective Cutting:

Mrs. O. J. Reuss, 2131 N. 62nd Street, Wauwatosa, Chairman.

**WISCONSIN GARDEN CLUB FEDERATION
TREASURER'S REPORT**

Permanent Fund, balance.....	\$250.00		
Speaker's Fund, balance on hand Dec. 1, 1939.....	284.82		
No Receipts, No Disbursements			
General Fund			
Balance on hand, December 1, 1939.....	\$322.16		
Receipts			
Federation dues:			
1506 Regular members @ 15c.....	\$225.90		
246 Contributing members @ 25c.....	61.50		
238 Honorary members @ 40c.....	95.20	\$382.60	
Total Receipts			\$704.76
Disbursements			
National Council dues		\$90.25	
Expenses:			
2 Board Meetings.....	\$ 29.49		
Regional Meetings	9.25		
President and State Chairman.....	36.70		
Children's Forest Project	4.00		
State Fair Flower Show, 1939.....	9.30		
State Flower Show, 1940.....	11.75		
Secretary-Treasurer			
Stationery	\$51.10		
Postage	6.74	57.84	158.33
Total Disbursements			248.58
Balance on hand, April 12, 1940.....			\$456.18
Wisconsin Horticultural Society dues collected and sent to Society, 1970 members @ 35c—\$689.50			

MRS. E. L. WHITE,
Rec. Sec. Treas.

SPRINKLING PLANTS IN SUNSHINE

WE have all been told that sprinkling the grass or the garden plants when the sun was shining caused burning of the leaves. It was assumed that the water became so hot that burning occurred, or that the drop of water served as a lens and focused the light to one point burning the leaf. Recently, scientists took the temperature of the portion of the leaf under such drops of water and found it was always lower than that of other parts of the leaf not covered. Such supposed burning has not been found possible. Most injury of plant leaves at higher temperature occurs because of lack of water in the tissues, causing drying rather than actual burning of the leaf because of the high temperature.

Roots Grow Best in Warm Soil

Roots of plants grow better in warm soil than in cold soil. Some gardeners are of the opinion that bulbous plants produce a better root system when the soil is just above freezing than if it is at 60° or 70°. They often go so far as to place bulbous plants at the low temperature for root growth. Experiments show that root growth of these plants **is far better at the higher temperatures.** Low temperatures may have some other effect than the stimulation of root growth.

The absorption of minerals and water from soil is closely related to temperature. Gardenias and Roses have been found to become light green between the veins of the leaves in cold soil, because the roots are unable to obtain iron. **Warming the soil has overcome the trouble.** During the past summer, the writer observed that some Chrysanthemums, placed at 50° at night, wilted each morning when they were placed in the

greenhouse at a temperature of 75°. Plants will often wilt in the greenhouse the morning after a cool night, if the temperature of the air rises rapidly and the soil is cold. The wilting, in these cases, is due to the roots' inability to absorb water at low temperatures. Cold water applied to soil has been observed to produce a similar effect.

—By Kenneth Post, Cornell University, in *Gardeners' Chronicle*.

PLANTS WINTERED WELL

Perennials Kept Dry and Warm Will Survive Our Winters

MOST gardeners report a very satisfactory winter from the standpoint of wintering perennials and plants—even those considered semi-hardy. In our garden we lost practically nothing this year. The reason is that the soil and the mulch were dry all winter long. In other words, the plants were kept dry and warm.

Last fall the weather was mild. Finally snow came and immediately after some very cold weather. However, the snow protected the plants. The snow did not thaw and consequently it remained dry and full of dead air spaces which is very much like a blanket, keeping the plants warm.

It looks as if the secret to our wintering problem lies in two things: first, keep the plants dry and second, keep them warm with a mulch. The mulch must also be dry.

We are of the opinion that many plants which we have considered semi-hardy here in Wisconsin can be wintered successfully if we develop a method of protecting them which will keep them dry and warm.

THE CHICAGO FLOWER SHOW

THE Chicago Flower Show at the Navy Pier this year featured the home garden of the average American home. There were 27 small gardens of various types around such homes as may be seen in the suburb of any city.

The Morton Arboretum brought in a century old barn and corn crib to illustrate what can be done in beautifying farm grounds. Red pine was used in back of the barn with a planting of dogwood around the barn.

A beautifully done herb garden emphasized the decorative value of grapes, gooseberries, currants and other small fruits, as well as that of herbs. Herbs were also used in a home entrance garden which had a charming dwarf clipped hedge and two copyary entrance features of Germander (*Teucrium*).

The show was again under the management of Mrs. O. W. Dynes, former president of the National Council.

HARDY PLANTS FOR WISCONSIN GARDENS

The Newer and Improved Varieties as well as the Standard Kinds

Complete line of Nursery Stock

Trees, Shrubs, Roses, Evergreens and Perennials in all varieties Fruit Trees and Small Fruits

WRITE FOR LISTS

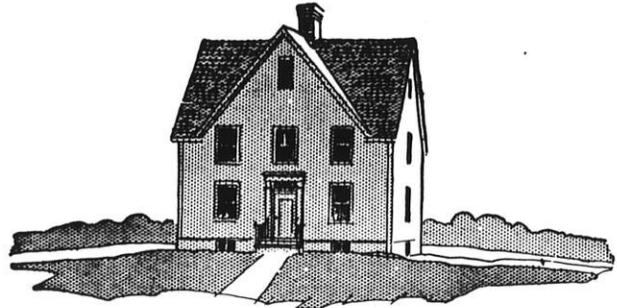
RASMUSSEN'S
Fruit Farm & Nurseries
OSHKOSH, WISCONSIN

May In My Garden

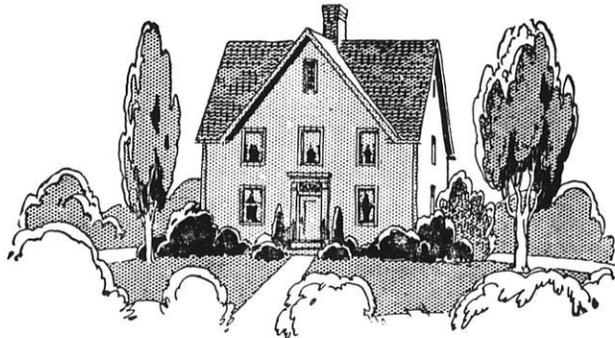
TUBEROUS ROOTED BEGONIAS. The Tuberos Rooted Begonia plants may now be set out in the garden. Set them in the coolest spot you can possibly find. The north side of the house is a good place. Give them plenty of leaf mold or peat moss and keep them well watered all summer. If they get a little sunshine in the morning and late afternoon they will do best. A great many people are becoming interested in these Begonias and are beginning to grow them.

Bran for Fertilizer. For the small flower garden we find that wheat bran has become somewhat popular as a fertilizer. It contains 2½% nitrogen, 3% phosphate, and 1.5% potash. It also contains 20 parts of Vitamin B₁ per million. Dig it well into the soil as early as possible this spring because it is slowly available. We recommend it only for the small backyard flower garden. Peat moss and mineral commercial fertilizers are perhaps best for the larger areas.

Preparing the Lawn. Now is a good time to repair bad spots on the lawn. Dig up the soil, break up lumps, remove stones and prepare a fine seed bed. Add a little complete commercial fertilizer such as 4-8-6. Rake it well into the soil. Then seed the lawn mixture which may be Kentucky Blue Grass with some Red Top, for the sunny lawn. Rake it again and firm with a roller or a board. If the weather is dry and the area small, burlap obtained by ripping gunny sacks, spread over the seeding will prevent rapid drying and washing of seed in heavy rains. In case of dry weath-



BEFORE PLANTING



AFTER PLANTING

It's Not a Home Until It's Planted

er, keep soil well sprinkled. Never let it appear dry. Be sure to remove the burlap before the grass grows through it.

A Good Climbing Vine. Mr. J. Horace MacFarland recommends very highly as a climbing vine for our gardens, the climbing Hydrangea (*H. petiolaris*). It clings and creeps and blooms and spreads he says, having a sort of two-way growth from one part of which it sends out great blooming branches with year round beauty of foliage, flowers, and winter twig tracery. It has been recommended for trial before. We hope more of our members will try it.

Grow Lilies From Seed

Because many lilies have diseases, especially yellows, and because often we get bulbs without any root system which do not do well, some of our leading gardeners now recommend that lilies be grown from seed. While it

takes a longer time, the results are quite satisfactory because we then will obtain disease-free varieties at a much lower cost. Try it.

The duster for disease and insect control. After many years of using the small hand duster for controlling both insects and diseases in our garden, we are more than ever convinced that the small backyard gardener will do a better job with a duster than with a sprayer.

The combination of sulphur and rotenone dust, mixed by the factory, ready for instant use, is the material we use. It comes under various trade names such as Kolo-Rotenone; Sul-Rote, and other brands. Start now by dusting your garden once each week and after every rain. Do not expect quick results with insect control from rotenone. It sometimes takes two days before insects disappear after a dusting.

While rotenone does not control all insects, nevertheless it

controls such a large percentage of those found in the ordinary flower garden that it is superior to other insecticides for this reason. Certain insects may require special study and treatment.

Perennials Survive the Winter Well. This has been a very good winter for perennials, is a statement we hear at many garden club meetings. Many gardeners report that this is one of the best winters we have had and that very few plants have died.

Why is this true? There are probably two important reasons. First, we had a fairly warm, dry fall. In fact, many people thought it was too dry, and then we had snow before the real cold weather came. The snow stayed on well. It did not thaw and become icy, and consequently protected the plants from the cold when it did come.

In our opinion, there are two requirements for good wintering of perennials, which includes the semi-hardy kinds such as hollyhocks, canterbury bells, primroses, foxglove, etc. First we should have dry conditions as on a raised bed which sheds water. Second, we must cover the plants well with a mulch which remains dry. The mulch must be deep enough to keep the plants warm. We know that under a good heavy mulch at least three inches deep the temperature of the soil rarely drops lower than about 27 degrees F. even during coldest weather. If, however, the mulch soaks up with moisture during a rain or melting snow and then freezes, the cold may penetrate through the ice and kill the plants.

If we can keep our plants dry and then keep them warm with a mulch, we can winter many more varieties than we have thought possible.

Zinnias Popular

This year State Radio Station WHA distributed seed given them

by the Wisconsin Horticultural Society of the Zinnia variety Illumination. The seed was sent to those who responded following an announcement over the Home-maker's Hour, Garden Club of the Air, on Tuesday, April 23rd. There is a great deal of interest in zinnias, and the variety Illumination is very popular because it is deep rose color.

In addition to the dahlia flowered or California Giants which are quite similar, there are many varieties which are equally good in smaller kinds. The little Mexican zinnias are very attractive. Zinnia linearis is a small one, excellent for an edging plant. A new one is the Navajo or Gaillardia flowered zinnia. The Fantasy type is very popular and the Crown of Gold in pastel tints are very attractive.

—H. J. Rahmlow.

DO GARDEN CLUB YEAR-BOOKS PAY?

PERHAPS this question has arisen in your organization. Let me quote Mrs. R. J. Kaiser, Secretary of the Wausau Garden Club:

"Our experience last year proved that the yearbooks are very worth while. They not only make possible a more interesting and varied program, but bring our members to the meetings prepared to profit and contribute to the day's program."

Thank you, Mrs. Kaiser, and congratulations Wausau, on your varied program for 1940.

Remember the Wisconsin Conservation Commission, State Capitol, Madison, has available splendid slides and motion picture films of interest to all members. —Mrs. E. A. Klussendorf.

Farmer Hawkes — Ephraim, does your mule ever kick you?

Ephraim—Well, boss, he ain't ebber kicked me, but he kicks quite frequent in de place whar Ah's jes' been.

SCORE CARD FOR MEMBERS

What Kind of Member Am I?

(Give yourself 10 points for each question to which you can answer "Yes.")

1. Am I a real dirt gardener, i.e., do I actually grow flowers?
2. Do I pay my dues promptly?
3. Do I attend every meeting if possible?
4. Am I on time?
5. Do I answer roll call as requested?
6. Do I cheerfully pay fines when I incur them?
7. Am I a willing and dependable worker on committees?
8. Do I refrain from destructive criticism of leaders?
9. Do I make a real effort to give a creditable performance when I am on the program?
10. Am I unfailingly loyal to the aims and traditions of my club?

I suggest that each of us sit right down and figure up our score!

—From Bulletin of National Council of State Garden Club Federations.

The saxophone is an ill wind that nobody blows good.—Ransom Sherman.

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GAN-DA-YAH, The Elves Of The Fruits and Grains

(A Myth of the Iroquois)

By Mrs. Chas. E. Brown, Madison

By Mrs. Chas. E. Brown, Madison

AMONG the fable folk of the Indian are the "Little People," who are empowered to serve nature with the same authority as the greater spirits. These little folk are divided into three tribes, the Ga-hon-ga of the rocks and rivers, the Gan-da-yah of the fruits and grains and the Oh-dan-was of the underearth shadows. The most beloved are the Gan-da-yah, for they are the little people of the sunshine who bring joy and brightness to the Indian's heart.

In the springtime they hide in dark sheltered places and whisper to the earth as they listen to the complaints of the growing seeds. When the sun bestows its full summer glow they wander over the fields, tinting the grains, and ripening the fruits and bidding all growing things to look to the sun. Their labor commences with the strawberry plant, whose fruit is a special gift to mankind. When the ground softens from the frost the "Little People" loosen the earth around each strawberry root, that its shoots may better push through to the light. They shape its leaves to the sun, turning the blossom upward to its touches and guiding the runners to new growing places. Assisting the timid fruit buds at nightfall, they direct them from the west sky, where they had followed the sun back to the east and the morning's glow. When the full fruit first blushes on the vine these guardian elves protect it from the ravages of evil insects and the mildew of the damp.

The ripening of the strawberry is the signal for a thanksgiving by the entire people. The fruit, the first grown of the year, is

greeted with songs of joy and gratitude. The Priestesses (The Company of Faith Keepers) hold meetings of praise in the darkness of the night. In their Dark dances the berry had its own joy dance and there is an especial dance and song for the "Little People," by whose fostering care the fruit has come to perfection.

There is an ancient folk tale that when the fruits were first coming to earth an evil spirit stole the strawberry plant, hiding it under the ground for centuries, until it was finally released by a spy sunbeam who carried it back to the sunny fields of earth where it has lived and thrived ever since. Fearing another captivity the "Little People" maintain special guard over their favorite fruit.

When the leaves have strewn the barren earth, and the snow has covered the leaves, and built its mounds high in the lowlands, the "Little People" are safe, folded in their shadow slumbers, and the earth knows them no more until the melting snows, and the swollen streams, and the leafing trees summon them to the season of springtime.

CONTROL IRIS BORER AND ROOT ROT

IRIS root rot is frequently caused by the iris borer, so controlling the borer may control both troubles.

Eggs of the iris borer are laid on the old tops or rhizomes near the surface of the soil in the fall of the year. When warm weather comes and growth begins, these eggs hatch into small larvae which feed for a time on the outside of the leaves until they are large enough to bore into the leaf and then downward to the rhizome. There they feed, producing a cavity which may become infected with soil bacteria, especially during a wet season, resulting in an ill smelling rot.

Start the work of controlling them at once. It may be rather late now. We would recommend rotenone dust. Dust the young shoots, the surface of the soil and the rhizomes thoroughly at least once each week, preferably every four or five days. A combination of sulphur and rotenone should be used, because the sulphur will control the iris leaf spot which is very bad in this state.

Success in controlling both diseases and insects consist largely of applying the remedy early and often.

Any decaying rhizomes should be carefully cut pruned at once. Cut away all decayed parts—down to healthy tissue.

WISCONSIN ROADSIDE DEVELOPMENT INSTITUTE

Memorial Union, Madison

Tuesday, May 28, 9:30 a.m.-4 p.m.

THE Wisconsin Roadside Development Council, cooperating with the Horticulture Department, College of Agriculture, will hold a Roadside Development Institute in the Play Circle, Memorial Union, University of Wisconsin, on May 28th, at which outstanding speakers will present plans for beautification of our highways. Speakers will include the President of the Council, Col. Farrand, Delafield; A. T. Bleck, State Highway Department; Prof. Franz Aust, Department of Horticulture; C. L. Harrington, Superintendent of Forests; W. Simonson, Washington, D. C.; M. W. Torkelson, State Planning Board; R. L. Williams, Landscape Engineer, Highway Department; and K. L. Hatch, Madison.

All garden club members and others interested, are invited to attend.

How To Control Cutworms

E. L. Chambers

PRACTICALLY all field and garden crops are subject to the attack of cutworms. The type of injury caused by these insects varies considerably with the species responsible for the damage. Usually, these pests while feeding at the ground level cut through the stem of the plant and cause it to fall over and eventually die. Climbing cutworms ascend the host plant and feed on the foliage, while other species restrict their attack to the root system.

Most cutworms are nocturnal in habit, hiding in the soil by day and emerging in the evening to feed upon their favorite hosts, although they may be active on warm cloudy days. Cutworms are dull-colored, usually greasy looking, fleshy caterpillars which show a tendency to curl their body into a tight curl when disturbed. The hairless caterpillars vary in length when full grown from 1½ to two inches. The winter is passed in different stages, varying with the species, but usually either as eggs attached to trash and plant remnants, or as partly developed larvae. To destroy these eggs and some hibernating larvae, all weeds and refuse along the margin of the garden should be burned. Fall plowing will also prove beneficial if it is done as soon as the crops are harvested.

Use Poison Bait

Poison bait, however, is the most effective remedy now in use. This is prepared as follows: **Bran—3 lbs.; Paris Green—1 oz.; Blackstrap molasses — ½ cup; water—about 3 pints, to moisten the bran.** Avoid soaking the bran so that it can be spread easily and apply very thinly at the rate of a handful to about fifty square

feet of area. For best results, apply in the evening.

With some species of cutworms, it has been found possible to predict the irregular and very serious outbreaks by noting the number of wet days in the preceding May and June. If, for instance, there are fewer than ten days in these two months when it is too wet to work in the soil, there will be an increase and probably an outbreak the following spring. If there are more than fifteen wet days in May and June, little trouble may be expected from this insect the following season.

TO AVOID WHITE GRUB INJURY

How to Apply the Lead Arsenate Treatment

LAWNS and gardens can be protected against injury from white grubs by the use of a mixture consisting of arsenate of lead and sand. The treatment consists in broadcasting five pounds of ordinary dry, powdered arsenate of lead, mixed thoroughly with a bushel of slightly moistened sand over each thousand square feet of sod to be protected. If this dressing can be applied before the grass is grown and at a time when the poison can be raked down into the soil to a depth of about half an inch, the results are even more satisfactory. However, the mere broadcasting of this poison on the surface of the turf, from whence it may be washed down into the top layer of soil, has been found adequate.

White grubs feed normally on the roots of grass just below the surface of the ground. When lead arsenate is applied on the surface and allowed to be

washed down either by rain or with the hose it does not injure the grass and the grubs, when feeding, swallow with their diet of hairy roots sufficient quantities of this arsenical poison to kill them. This treatment once applied will remain effective over a period of three or four years. Mowing, watering and other customary operations may be continued as usual on the treated lawn. (Do not apply fertilizer containing nitrate of soda, superphosphate, sulphite of potash, or potassium chloride, commonly known as kainit). These chemicals all react with lead arsenate and reduce its grub proofing capacity. Aside from these materials, practically any of the ordinary fertilizers, such as well rotted manure, ammonium sulphate, cotton seed meal, synthetic urea, and activated sludge may be used.

Flower and vegetable gardens, shrubbery borders, etc., should not be treated with lead arsenate after being planted as it may injure certain of these.

Planting a few hills of corn at various points about the garden and treating the soil about them will be found effective in attracting the grubs and poisoning them.

Lawns treated with this mixture show a marked reduction in numbers of weeds since most of these including crab grass, chickweed, dandelion, sour dock, etc., do not thrive in poisoned soil. They are stunted in their growth and the percentage of the germination of weed seed is very small.

James: "Papa, I ain't got no butter."

Papa: "John, correct your brother"

John (looking over into James' plate): "Yes, you is."

National Council Criticizes Merit System of Judging

THE second edition of the manual by the National Council of State Garden Clubs, entitled "Judging the Amateur Flower Show," has just been issued. It offers a number of valuable suggestions which will be of help to those staging flower shows. It may be obtained by writing the National Council of State Garden Clubs, 30 Rockefeller Plaza, New York City. Price, 50c.

Under the heading "Not recommended" is the following statement in regard to the **Merit System** of judging, introduced by Wisconsin:

"In some shows each exhibit is pointed and all above a certain mark, about 90 per cent, receive blue ribbons, all above 80 per cent receive red ribbons, etc. There may be six blues, eight reds, etc. By this plan, too many exhibitors receive blue ribbons who do not deserve them, since judges, not having to decide on one best exhibit, are likely to point too many exhibitors above their merits. Even though this system is said to be successful in some places, it does not raise the standard of horticulture nor promote good sportsmanship. It is known as parallel gradation or non-competitive judging."

The authors of the bulletin do not take any notice of the fact that the system has been found of help and very desirable by a great many garden clubs, not only in Wisconsin but in other states. Since the authors do not like the plan it must be all bad.

Here in Wisconsin our judges have been trained not to give more blue or red ribbons than are deserved. Obviously judges elsewhere have not been so trained because the bulletin says, "too many exhibitors receive blue ribbons who do not deserve them."

One of the reasons why many garden clubs have adopted this method is because the old system of giving a first, second, and third prize did not promote good sportsmanship. The fact that judges make just as many errors in giving a first, second, or third prize is not admitted in this article.

The authors do not state that they have ever had any experience with the system or have given it a trial.

PLACE CUT FLOWERS IN WARM WATER

WE have been told to place cut flowers in fresh cold water. Recent investigations have proved that the stems of cut flowers do not absorb cold water as well as warm. Cut flowers have been found to recover from a wilted condition much more quickly if placed in warm water. This is easily demonstrated by comparing flowers in water at a temperature of 40° with some in water at 70°.

Many housewives have observed the wilting of leaf lettuce picked from the garden during the warm part of the day and plunged in cold water. Generally, the lettuce is picked early in the morning when it is well filled with water and plunging in cold water has no detrimental effect. However, it will not wilt, when picked during the warm part of the day, if it is plunged in lukewarm water.

By Kenneth Post, Cornell University, in *Gardeners' Chronicle*.

Be kind to those you meet on the way up—they may be the same folks you'll meet on the way down.—Chinese Proverb.

Garden Club Programs

The De Forest Garden Club is planning to aid in civic beautification this year by planting shrubs and trees. Good luck to you! Also, if any club would like to exchange plants or seeds, Mrs. Odell Camren, president, De Forest, would enjoy hearing from you.

Sheboygan's May program "Glamorous Table Settings for All Occasions" with Kodachrome slides and lecture sounds most interesting. Tell us more about it, Sheboygan.

Menasha's "Alphabet for Members" is so very good that it will come to you through these pages.

Elkhorn Garden Club is stressing the study of trees. Evergreens, rare trees, Oaks, Maples, Nut trees, Wild Fruit trees, will be discussed by members throughout the coming months.

Jefferson will be most active in August. The club is to have charge of the Floral Exhibit at the County Fair.

Namakagon (Hayward) Garden Club's program of hand painted trillium and artistic arrangement makes us know there is an artist in the club. Congratulations!

Has your program come to the state chairman? The following clubs have responded, won't you send yours soon? DeForest, Elkhorn, Iola, Jefferson, Kenosha, Menasha, Namakagon (Hayward), Sheboygan, West Side (Madison), Waupaca. Thank you, program chairmen, for your attractive programs and valuable information.

Esther A. Klussendorf, 4125 Iroquois Drive, Madison, State Program Chairman.

Nowadays the road maps tell everything you need to know except how to fold them up.

GARDEN NOTES

INFORMATION ABOUT BIRDS

BIRD lovers will be interested to know that they may obtain from the Wisconsin Conservation Department, State Capitol, Madison, a bulletin entitled "Wisconsin Birds, Sources of Information." The bulletin is very complete, giving the names of birds in Wisconsin, and then a large list of sources of material on the subject of birds useful in studying the subject. Books, pamphlets, motion pictures and lantern slides on birds are listed. The bulletin is free.

SCRAP BOOKS FOR THE GARDEN CENTER

THE Menasha Garden Club has an excellent plan for providing information for their Garden Center, located in the City Library.

Members of the club have been appointed on a "scrap book committee," each member to make a scrap book on some phase of gardening. Pictures and articles from magazines are clipped and pasted in the scrap book so that when the book is complete, it is an unusually good source of information on the topic. Such topics as landscaping, flower arrangement, table setting, dirt gardening, and certain flowers such as peonies, iris, phlox, etc., are excellent titles for scrap books.

THIN OUT DELPHINIUM CLUMPS

OLD Delphinium clumps may send up a dozen or more shoots. These should be thinned to four or at most five of the strongest shoots as soon as the new growth is about three or four inches high.

The result will be much stronger and better flower spikes and larger and more beautiful flowers.

295 AMERICAN BIRDS

RECENTLY we asked Prof. Aldo Leopold, professor of Wild Life Management at the University of Wisconsin, for a list of illustrated books on birds. He recommended very highly a book entitled 295 American Birds by Dr. T. S. Roberts. It is a book of pictures of 295 birds. The illustrations are very accurate and it should be an excellent book for the amateur, as well as professional, to aid in the identification and study of birds. It contains an index of both scientific and popular names of each bird. No text, however.

We have made arrangements to take orders for this book. Send check or money order for \$2.00 to the Wisconsin Horticultural Society, 424 University Farm Place, Madison, Wisconsin, and the book will be sent by mail, prepaid.

The color plates in this volume, which is in a spiral binding are the same color plates as in the book, Birds of Minnesota, which sells in 2 volumes at \$25.00.

DO NOT LIME IRIS

ONE word of caution—do not spread lime over Iris beds in the spring as is so often suggested! It has been the experience of most Iris growers that liming the surface of the soil is definitely conducive to Iris root rot, and should, therefore, be avoided as if it were poison.

—F. W. Cassebeer, Editor of American Iris Society Bulletin, in The Flower Grower.

A long face gets a short reception.

LABELING ROSES

MISS MIRIAM TOWNSEND of Melrose, Mass., has a unique, inexpensive and permanent way to identify the roses in her garden. She has a circular rose garden of 150 hybrid tea roses with an entrance at one point in the circumference so that the bed may be viewed from both sides.

She has a piece of cardboard about 15 inches square upon which she has put 150 gummed labels in exactly the same position as the 150 roses in her garden. The labels are elliptical in form and about one inch the long way. On these labels are the names of her roses. If one is replaced or changed the change is shown on the cardboard by putting a new label over the old one. The labels always correspond to the roses in the garden. In this way any rose can be identified from the cardboard diagram and the labels whether the rose is in bloom or not. The cardboard is kept in the house or conservatory so that it is not affected by the weather. The same method can be employed for plants in any garden and is simple and very satisfactory.

By George A. Sweetser, Massachusetts, in Horticulture.

A SUMMER SCHOOL FOR GARDEN LOVERS

By Annette Hoyt Flanders

In Milwaukee—University Club.

Tuesday Mornings at 10:30 A.M.
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The Campus, Wisconsin College of Agriculture

June, 1940

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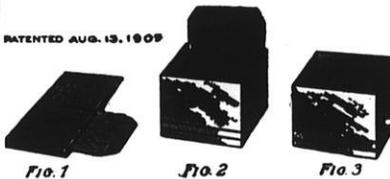
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"Now let's talk about you, shall we?" said the pretty film starlet. "All right, dear!" replied her admirer.

"Well, then, what does a young man like you see in a girl like me?"

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

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Subscription to Wisconsin Horticulture is obtained by membership in the Wisconsin State Horticulture Society for which the annual dues are \$1 per year or \$1.50 for two years. Garden Clubs, Horticultural Societies, and other Horticultural Organizations are affiliated at a reduced membership rate. Fifty cents of the annual dues paid by each member is for a year's subscription to Wisconsin Horticulture.

PLEASE DO NOT SEND STAMPS

Wisconsin *Horticulture*

Bait Traps For Codling Moth Control

John A. Callenbach

QUESTION: What is the value of bait traps in the control of codling moth? How are the bait traps made?

Answer: Bait traps are essential for the proper timing of codling moth sprays. Reference is made to Wisconsin Horticulture for June, 1939 for the proper construction and use of bait traps. If this is not available, the information may be obtained by writing to the Department of Economic Entomology, University of Wisconsin, Madison, and complete directions will be forwarded.

Question: Would it be advisable for the small grower who hasn't any neighbors nearby growing apples to use the bait traps?

Answer: Very much so. The only way the grower can properly time his sprays is by using bait traps.

Question: Approximately what time do the codling moth begin to lay their eggs for the second brood in various parts of the state?

Answer: It is impossible to give a satisfactory answer to this question. There is too much variation from season to season to even closely approximate the correct date. Bait pans are of par-



The Codling Moth Bait Trap is Essential for Proper Spray Timing

ticular importance in the proper timing of second brood codling moth applications.

Spray For Second Brood

Question: What spray should I use for the second brood of codling moth? How many times should I spray from now on?

Answer: Lead arsenate, 1 lb. to 50 gallons is the recommended material for second brood control. However, if the grower desires to avoid poison spray residue or needs two second brood sprays for late varieties, one of the non-arsenical sprays may be used. Black leaf 155 has been tested and found very satisfactory. Additional work is now in progress to determine the relative merits of other non-arsenical materials now available commercially. These materials are being tested both with and without a summer oil. Results of these tests will not be available before next winter. However, interested growers may wish to try some of these materials on a few trees to see how they work under local conditions.

THE STRAWBERRY OUTLOOK

THE U. S. Department of Agriculture announced in its April report of the fruit situation that unless yields in the late producing states, which includes Wisconsin, are again relatively high as they were in 1939, production in these areas in 1940 is likely to be smaller than last year.

A Destructive Bud-Transmissible Disease Of Sour Cherry

G. W. Keitt and C. N. Clayton

ASERIOUS unfruitful condition of sour cherry that has previously been called "physiological yellow leaf" or "boarder tree" is well known to Wisconsin cherry growers. Experiments conducted by the writers in the past two years have shown that this trouble is bud-transmissible and evidently a virus disease.

Symptoms

The diseased trees tend to have relatively large leaves, some of which lose their green color in irregular patches that later become yellow. These mottled or yellow leaves and some that are still green are shed. The leaf symptoms begin to appear about 3 weeks after petal-fall, showing first on the older leaves. The chief wave of defoliation usually occurs in the Door County district in late June or early July. The length of twig growth does not seem to be much affected, but the spur system becomes progressively reduced. The trees become unprofitable, producing sparse crops of cherries, most of which are unusually large. The fruits are free from bumpiness or patches of dead tissue, such as are characteristic of many virus diseases.

Experiments on the Cause of the Disease

In 1938 buds from diseased trees were inserted in 24 healthy trees. Twenty of these trees showed the typical leaf symptoms of the disease in 1939, while 4 showed no symptoms or gave doubtful results. In all cases in which union occurred between the tissues of the tree in which the diseased buds were inserted and those of the bud-piece, the

disease was transmitted. Only 3 of the diseased buds produced shoots, all of which showed the typical leaf symptoms.

Healthy buds were inserted in 8 diseased trees. Four of these produced shoots, all of which showed the characteristic leaf symptoms.

Fourteen healthy trees, in one of which healthy buds were inserted, served as checks on the budding experiments. All of these check trees remained free from symptoms of the disease.

Microscopic examinations and laboratory studies of the diseased tissues showed no evidence that a fungus or bacterium is the cause of the disease.

Various fertilizing and pruning treatments of diseased trees have thus far shown no effectiveness in curing them of the disease. No case has been found of recovery of a tree that has shown the typical symptoms.

The evidence at hand indicates the disease is caused by a virus. Additional budding experiments and other studies on the cause and control of the disease and its possible relations to previously described virus diseases are in progress.

Evidence Regarding Spread of the Disease

A record taken yearly from 1936 through 1939 on each tree in 5 orchards in the vicinity of Sturgeon Bay, containing a total of 2,593 trees (Montmorency and Early Richmond, 10 to 28 years old in 1939), showed 4.6 per cent of the trees in a medium or advanced stage of the disease in 1936 and 13.2 per cent in 1939, an average yearly increase of nearly 3 per cent. These data are not ex-

tensive enough to be taken as representative of the Door County district. They do show, however, that the disease is spreading in the orchards and indicate that something besides budding is concerned in its spread. Since insects are active in the transmission of many virus diseases, experiments with certain orchard insects as possible carriers of this disease are in progress (with the cooperation of J. H. Lilly).

The Problem of Control of the Disease

Recommendations for control are withheld until the experiments of last year can be repeated and extended and the indications of the virus nature of the disease confirmed. It is probable that control methods for this disease will be similar to those that have been used very successfully against other virus diseases of stone fruits. The chief principle followed in these cases is removal and disposal of the diseased trees as soon as the symptoms are definitely recognized, so as to limit the source of the infection. Provisions should also be made to avoid spread of the disease in nursery stock. The fact that the diseased trees go into an unfruitful condition and are then an expense to the grower as long as they occupy orchard space and receive spray treatments and other care is added reason for taking them out.

This report on the disease is made in order that growers may be advised promptly of this problem and given the information now available. As soon as results are obtained from the experiments started last season they will be made available.

HOW TO CONTROL APPLE MAGGOT

John A. Callenbach

QUESTION: What is the life history of the apple maggot? How does it live over winter?

Answer: The apple maggot overwinters in the pupae, in the soil. The adult fly emerges in mid-summer (about July 20th in the Gays Mills region). Eggs are laid beneath the skin of the apple. When the egg hatches the young maggot feeds on the flesh of the fruit gradually working its way towards the core. When mature the maggot emerges from the fruit and burrows into the ground an inch or two and pupates. There is only one generation a year.

Question: When do the flies emerge and begin to lay eggs in various parts of the state?

Answer: The only data available refers to the Gays Mills District.

How to Identify the Maggot

Question: How can I determine whether I have the apple maggot in my orchard? How does the apple look when it has been infested with the worm?

Answer: Perhaps the easiest way is to find infested apples, but by that time the damage is done. Another way is to look for the adult flies. These are slightly smaller than the common house fly, are black with white stripes across the body, and on each wing is a grey to black pattern shaped like the letter "F." The infested apple can be detected by looking for discolored burrowing tracks which will be slightly below the surface of the fruit. Cutting the apple open will disclose a burrow gradually penetrating towards the core and surrounded by soft brown rot. This injury should not be confused with the

dry rot found around the large codling moth cavities. The meandering burrows beneath the skin give the insect the better common name of railroad worm.

Spraying

Question: How and when should I spray for the apple maggot?

Answer: Lead arsenate, 1 lb. to 50 gallons is used for apple maggot control. This spray should be applied about five days after the peak of emergence, as indicated by emergence cages. In the Gays Mills district this spray is applied between July 25th and

FRUIT NOTES

Spray the Top

WORKERS in New Jersey found that in only two out of 35 orchards studied, was the spray load as great in the top as in the bottom. The other 33 had only half as much, yet a higher percentage of codling moth eggs were laid in the top.

Studies on apple scab at Lafayette, Indiana, showed that only 6.8% of the apples in the bottom third of a Rome Beauty tree were scabby, while 44% of the apples in the top were infested, according to Tennessee Horticulture.

August 1st. No data is available for other parts of the state, and the grower must determine the date for his locality by means of emergence cages.



Comparative sizes of sulphur particles in well known sulphur sprays. The smallest above represents Kolofof.

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COLOR AND QUALITY IN APPLES

Lawrence Southwick, New York

COLOR is one of the important factors determining the grading of a red apple. Many thousands of bushels of apples fail to meet the requirements of Extra Fancy, Fancy or A because of insufficient color development. The loss of thousands of dollars results each year just because the red color desired by consumers everywhere fails to make its appearance in sufficient quantity or quality.

Relation of Light to Color

The general need for sunlight has been recognized for a long time, but only in recent years have certain specific facts come to light. In an experiment in the State of Washington, green apples were picked and placed both under glass and in direct sunlight. After five days the percentages of color formation on Jonathan and Delicious apples were 8 and 31 per cent respectively and after 12 days, 30 and 85 per cent. Quite recently at the Boyce Thompson Institute for Plant Research in New York, Arthur used colored glass filters and definitely proved **that the ultra-violet, violet and blue regions of sunlight** (in contrast to the orange, red and infra-red) were the most valuable in producing color. These findings largely account for the fact that fruit grown at higher elevations tends to color well and also explains the tendency of fruit to color rapidly after rains. The important ultra-violet rays of sunlight tend to be absorbed as they pass through the air by moisture and dust particles. Hence their concentration is highest at high elevations and progressively decreases down to sea level. And

again, after a rain has cleared the air, the percentage of ultra-violet rays that reach the earth at any one location may be significantly increased.

Tree Vigor Produces Color

Fruit sugar content is almost as important to color development as exposure to light. It has been observed many times that apples having an excellent light exposure but a low sugar content rarely develop the best color. If color is developed, it usually will be a dull bronze unattractive red instead of the desired bright blush. There seems to be a close relationship between sugar content and anthocyanin or red pigment development. Fruit that is likely to be low in sugars may be found on weak trees. Inadequate leaf area for manufacturing the starches needed to build up the fruits may result in a shortage and often the fruits suffer. In short, demand exceeds the supply. Obviously, proper tree invigoration would be required in such a case. On the other hand, excessively high nitrogen trees are apt to turn out poorly colored fruits because of the unbalanced condition of nutrition and because insufficient light reaches the apples due to the luxuriant leaf and shoot growth. Here, a more equitable soil management and fertilization program leading to lower available nitrogen in the latter part of the season, together with proper pruning would be corrective measures. Putting an over-vegetative cultivated orchard in sod can usually be relied on to enhance the "finish" of subsequent crops.

Relation of Moisture

Then there is the question of too much and too little available moisture. Either extreme seems to affect color adversely. A surplus of water during the ripening period is likely to result in poorly colored fruit. This has become evident in orchards under irrigation. Under drought conditions, the area of colored surface may not be greatly reduced, but the quality of the color is often poor. A dull and lifeless red is a poor substitute for the lively bright red of normal well-grown apples.

High yields often delay maturity and, consequently, color development. This has led to the well-known practice of color-picking which is particularly useful with varieties like McIntosh with the pronounced pre-mature dropping habit, as well as with sorts like Jonathan and Cortland which are prone to over-maturity troubles. Caution must be the watchword when it comes to picking red-bud sports of our common varieties by the color criterion. In these cases it is easy to become over-optimistic and harvest fruit whose appearance belies its condition of maturity. Probably, for proper development of eating quality, a red-bud sport needs just as long a season as the variety from which it came. Undoubtedly, in future orchard plantings red sports will assume increasing importance. It is hoped that the increased ease of obtaining color will be accompanied by good judgment as to time of harvest so that all of the other attributes making up quality are duly taken into consideration. Only in this way will the desirable association of color with excellence of quality be maintained.

Condensed from *The Rural New-Yorker*.

The "Graduated Space" Method of Thinning Apples

THE thinning of fruits on overloaded trees has been recommended as a desirable practice for centuries—a practice, nevertheless, more noted for being disregarded than for being employed. One reason that it has not been more generally adopted in this part of the country with apples is that the producers have not been entirely convinced that it is practicable. Sometimes, when they have thinned their fruit in the conventional manner so as to leave what remains more or less evenly spaced, the resulting fruit has been enough larger and better in grade to net them a profit over and above labor cost. Often it has reduced total yields to such an extent that the higher price obtained for the better product has not compensated the grower for the loss that was incurred.

How to Thin

In a four-year study of this question in the western Michigan fruit belt, which included trees of the leading commercial varieties, it was found that if in thinning, relatively closer spacing (i.e. lighter thinning), is employed on the **thicker, stockier branches** and relatively wider spacing (i.e. heavier thinning) is employed on the thinner, **more slender branches**, there is **very little reduction in total yield**, as compared with no thinning, and a much greater improvement in size and grade is effected than is obtained by the conventional, even-space thinning. The result is an increase in gross receipts and net returns large enough to make the operation very profitable. The term "graduated space" thinning has been given to this new method, and it is being recommended for general adoption by Michigan apple growers.

—For details see: The "Graduated Space" Method of Thinning Apples. — Gaston, H. P. and Ricks, G. L.—Mich. Agr. Exp. Sta. Sp. Bul. 281. 1937. East Lansing, Michigan.

From *Michigan Experiment Station Report*.

BEES FOR THE ORCHARD

A CARD from Mr. A. C. Allen of Portage on May 14th, mailed from Winchester, Va., states: "We are visiting the annual apple blossom festival. Hundreds of acres of apples are in bloom. Yesterday saw 200 hives of bees in Senator Bird's 300 acre orchard. They were hauled 600 miles by truck from Georgia to fertilize the blossoms."

SHAWANO FRUIT GROWERS ASSOCIATION HAS MEETING

THE Shawano Fruit Growers Association met at Shawano on May 9th with a good attendance. Annual dues were reduced to 50c a year which brought in 15 new members. Plans were discussed for an orchard tour to be held in the fall. Speaker of the evening was Mr. H. J. Rahmlow, who showed moving pictures and slides and discussed various topics pertaining to apple and small fruit growing.

Officers of the Association are: President, E. A. Rosenberg, Clintonville; Vice-Pres., Chas. Kilian, Shawano; Secretary, Mrs. Robt. Lemhouse, Shawano.

Customer: "Heavens, man! Do you want to burn me. That towel is scalding hot!"

Barber: "Beg your pardon, sir. I couldn't hold it any longer!"

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The Story of The Delicious Apple

MANY people probably have seen the original Delicious apple tree still standing on the William Landis farm north of Peru, Iowa.

But few may know that we have those knobby red Delicious apples only by the merest chance, that the tree has been a cripple almost from the first. And nobody yet has told the whole story of Jesse Hiatt, stubborn old Quaker, who insisted he had the "world's best apple" (tho nobody believed him for twenty years).

Hiatt pioneered on a half-section of prairie land in Madison county, Iowa, in 1856.

A seedling grew in his orchard, a seedling that was to be very famous. He cut that seedling down when he first saw it in 1870! It was out of the row. That might have been the end of the Delicious apple right there. But the next spring it was up again, larger than before.

He ejaculated over it, and said: "If you must live, you may."

When he noticed the tree again, it was making progress, with a round and bushy top.

The tree was ten years old. He said to his wife one day: "Ma, there is bloom on my new apple tree."

Only one apple hung on till maturity, but what an apple! When he picked it, its fragrance filled the room. He took his pocket knife and carefully paréed and tasted the apple. Never had he known such flavor.

"Ma," he exclaimed, "this is the best apple in the whole world!" He never changed his mind.

Hiatt named the apple the Hawkeye. The tree produced every year *patience* ward, until it was filling a barrel.

Apples Received Little Notice

It is one thing to be convinced you have the best apple in the world. It is quite another to convince the world of it. Hiatt sent the apples to the Iowa fairs. They got little notice. The premiums went to established varieties. He tried to persuade friends to promote the sale of his Hawkeye, but they could see no future in the apple.

At last, after eleven years, he sent four specimens to a fruit show at Louisiana, Mo. There they fell into the hands of a man who was looking for just such an apple. He was C. M. Stark, senior member of the Stark Brothers Nursery, who staged the annual show.

Stark always carried a little red book in his pocket. In this he was continually jotting down appropriate names for new fruit varieties as they occurred to him. So when he discovered a new variety he usually had the name all ready in this little book.

For years, the book had retained the name Delicious. He was waiting for a fruit worthy of it. When he bit into the first apple in the lot from Madison county, Iowa, he had a sensation he never forgot. Here was the Delicious apple!

Stark would have written to Hiatt at once. But in the confusion of the show his name and address had been lost. Nobody knew where the apples had come from.

He could do nothing but wait for another show on the bare chance that the unknown exhibitor would enter again.

But if there was one thing the old Quaker had learned, it was *patience*. He forwarded apples to the Missouri show the next year.

Stark went through the exhibit anxiously. He knew the ap-

ples with their streaked strawberry color the moment he unwrapped them. Now he wrote to Hiatt, and lost no time in buying the propagating rights of the tree.

Hiatt's Hawkeye became Delicious and the nation's leading apple. But first the nursery spent nearly a million dollars to advertise and introduce it. In the first quarter century they sent out almost eight million trees.

In the meantime, his achievement as yet unrecognized, the old Quaker built the new home that had waited so long and completed the few years remaining to him.

—By Kent Pellet. Condensed from Wallaces' Farmer and Iowa Homestead.

A NEW LATE BLOOMING SWEET CLOVER

A NEW late blooming sweet clover has been developed by the Wisconsin College of Agriculture. Prof. W. K. Smith of the Department of Genetics and Agronomy has been working with this late blooming sweet clover which he hopes will be of more value as a pasture crop than the regular biennial sweet clover we are now growing.

While the plant is still in an experimental stage, there is sufficient seed this year for tests on farms in various parts of the state. A small field of this variety was observed on the University Hill Farm near Madison last summer. It blooms over a long period in August, and the bees seem to work on it well. If this sweet clover becomes popular as a pasture crop and blooms late, it may be of special value as a honey crop for beekeepers.

Shall We Thin Apples

THE question, "Do you thin apples on older bearing trees? If so, does it pay you to do so?" was submitted to a large number of Wisconsin orchardists. While some growers do not thin, most all think that thinning would be profitable on certain varieties.

Carroll Krippner, Fort Atkinson, writes. "I thin some of the apples on older bearing trees and find that the remaining fruit is much better in size."

Yellow Delicious is the variety mentioned most often as needing thinning if we are to get fruit of good quality and size.

"Apples sell better" is the reason most often given for the advantage in thinning.

Swartz Orchards, Waukesha, write. "We thin apples as far as we can reach from the ground and feel it pays to do so as it re-

moves ill shaped fruit and gives us more $2\frac{3}{4}$ inch apples."

Wealthy is another variety which is mentioned as needing thinning.

Charles Patterson, Franksville, writes. "The last two years I have thinned some trees as soon as the clusters showed pink so they would bear the following year, and then I thinned the clusters later. It paid."

John Miles, Sturgeon Bay, writes. "We have made it a practice to thin our Wealthys for several years and found it profitable to do so. This is the only variety we have ever thinned."

D. E. Bingham, Sturgeon Bay, states that whether or not it will pay depends upon the price one receives in the fall for the fruit.

Don Reynolds is of the same opinion. He states they have

tried it, but it doesn't pay when apples are too cheap.

Whether or not one should thin then, based on these reports, depends upon the varieties being grown, and the market for large size apples. Those who can obtain an increased price for apples brought to larger size as a result of thinning, will find it profitable, especially on Wealthy and Yellow Delicious.

A Scotch traveling salesman, held up in one of the Channel Islands by a bad storm, wired his firm in Aberdeen, "Marooned here by storm. Wire instructions." The answer said: "Start summer vacation as from yesterday."



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In The Berry Patch

QUESTIONS ON FREEZING STRAWBERRIES AND VEGETABLES

QUESTION: How much sugar should be added to strawberries in preparing them for freezing?

Answer: We have found that certain varieties of strawberries require less sugar than others. This, of course, is a matter of taste and it varies to some extent with the individual. In general, strawberries are better in a pack of 4 parts of berries to 1 part of sugar, provided the storage temperature is not too high. The higher the temperature the more sugar is required to prevent deterioration of quality.

Question: We stored string beans and corn last winter in our cold storage locker. In taking them out we found that the vegetables did not have a good taste and were sour, so we could not use them.

Answer: I am sure the trouble was due to failure to scald the vegetables properly or to a storage temperature too high. Vegetables, in general, do not keep well at any temperature above 10 degrees, and 5 degrees is much better. Anyone can make a simple test to determine whether the scalding job is properly done. Take a small quantity of the vegetable and crush it. Then place it in a test tube and cover with ordinary hydrogen peroxide. If, within two minutes, oxygen bubbles off, then the scalding has not been done thoroughly. This works well with most of the common vegetables except cut corn. In testing corn on the cob, a small portion from the center of the cob, itself, should be taken.—Questions answered by Prof. J. D. Winter, Minnesota Department of Horticulture.

STRAWBERRY GROWING AT WARRENS

H. H. Harris

STRAWBERRIES around Warrens which were covered well, wintered in good shape and plants look bright now (May 14) since growth started. We finished our setting on May 11th, but some are still setting out plants this week. As near as I have seen, there is not much change in the acreage set out this spring as compared to last year.

I think there have been more Premiers set out this spring than usual of late years. There is also a little increase in the setting of Catskill.

There has been considerable cold weather this spring which delayed planting, but the ground worked up in fine shape and all plants that I have seen looked good and are starting to grow.

Care of Strawberry Beds

The new strawberry bed should be cultivated, hoed or raked frequently to preserve moisture which has been lacking so far this spring.

Old beds which are to be renewed for second crops, are first cleaned up by removing the mulching material, cultivated and hoed, and the old plants thinned out if they are too thickly matted. Sometimes the old vines are mowed down and cleaned off. Some growers plow a furrow away from one side of each row, and some plow a furrow from each side. After this, the ground is harrowed both the long way and crosswise of the field to mellow the soil. As soon as the plants start so the rows can be seen, the field is cultivated the same as a new setting. This renewal of a bed should be done as soon as the picking is finished. I prefer to leave a row of old plants of fair

width as not many runner plants will set in time to make good fruiting plants if the renewal is done as late as August 1st, which may be as early as patch picking is finished.

IRRIGATION OF STRAWBERRIES

WE usually consider that the main purpose of irrigation is to supply water to the strawberry field just before and during the picking season in case of dry weather. While an adequate supply of water is very necessary for full maturity of all the berries during the picking season, it is also a good plan to give water to the young plants that were set out last spring in case the summer turns out hot and dry.

A good stand of plants in the young bed this year means a great deal in getting a good crop next year.

We suggest that growers who have water available and are interested in irrigation for berries of any kind, write the Agricultural Engineering Department, Wisconsin College of Agriculture, Madison, and ask for the bulletin on The Junior Rotary Irrigation System. This system is efficient and may be purchased at low cost. We think it well adapted to the small grower who has up to three or four acres. Of course it is necessary to have a water supply near the field.

To supply only one inch of water per acre required 27,000 gallons.

Wife: "I've been asked for a reference for our last maid. I've said she's lazy, unpunctual and impertinent. Now can I add anything in her favor?"

Husband: "You might say that she's got a good appetite and sleeps well."

HOW TO RENEW THE STRAWBERRY BED

WHATEVER is done with the old strawberry bed should be done immediately after picking in order that maximum time is given the young plants to form a root system and crowns for next year's crop.

Remember that in Wisconsin, fruit bud formation for next year's crop occurs in September. If the plants are too weak or too small to make good fruit buds in September, such plants will not produce a crop. The later the runner plants root therefore, the lower is their yield.

Mowing the Foliage

Mowing of the old strawberry bed is practiced for two reasons: First, all the leaves are removed to eliminate insects and disease, also weeds; second, harrowing can be done better to thin out the plants.

In a heavily matted row where the plants are very thick, this practice is no doubt necessary. However, where plants did not grow well last year and where the row is narrow or plants are thin, it is questionable whether any mowing or thinning is desirable. No doubt the only thing necessary would be to clean out the weeds. During a very dry season plants may be seriously injured by mowing and harrowing.

In a heavily matted row mowing and harrowing as described by Mr. H. H. Harris of Warrens in this issue, is desirable.

Very few growers burn over their bed in Wisconsin because of danger of injury.

Narrowing the Row

Wide rows should be narrowed as soon as the picking season is over. This is usually done by plowing under one side so as to narrow the row and leave the

newer plants on the outer edge of the remaining strip. This is no doubt better than to plow both sides of each row because it not only saves labor, but leaves younger plants which may be better than the plants in the center of the row for another year.

Fertilizing When Renewing Rows

In some sections it is reported that an application of about 250 pounds per acre of a nitrogen fertilizer such as ammonium sulphate has given good results. However, the fertilizer will not make up for lack of moisture and it is best to apply it just before or during a rain when it can be broadcast over the plants. In case of a dry season it should be spread on the sides of the rows after they have been narrowed.

HOW LONG WILL THE RASPBERRY PATCH LAST

THE average length of life of many black raspberry fields is not more than three or four crops. The chief reason for this short life is virous diseases. In many sections of course the black raspberry patch may last six or more years, and some have been profitable longer than that, depending upon how they have been cared for and how fortunate we were in getting disease free plants to start with.

The average length of life of the red raspberry patch has been in the past, much longer, even up to 20 years, although in most sections 10 years is considered a good fruiting period.

In recent years there has been an increase in diseases and insects in our raspberry patches and production has been greatly lessened after a few years. When a patch of raspberries looks weakened; when the canes do not grow tall and strong or produce well, it is certainly no longer profitable to care for the patch. They should

then be mowed down and plowed under, and a new patch with clean stock started elsewhere.

Size of Crop Depends Upon Diameter of Canes

A number of studies of the yield of red raspberries has shown that the size of the crop depends upon the size and vigor of the canes. The heavier or greater the diameter of the canes, the larger the berries and the better the crop.

If your new plants therefore, are growing spindly, they will not produce a good crop next year. This may be due to either lack of fertility of the soil or to a diseased condition of the plants.

Fertilizers

Ammonium sulphate applied either in the spring or early in August has given good results on raspberries. About 300 pounds of ammonium sulphate per acre has given excellent results. In past experiments not only did such fertilized raspberries produce more berries, but made a much larger cane and leaf growth.

Commercial fertilizer does not entirely displace humus in the soil and so all berry soils should be given applications of manure before planting or should be mulched afterward.

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Swarm Control

IN June the big job is to control swarming.

Evidently not all beekeepers are convinced that the largest colony produces the most honey because we are constantly hearing about dividing colonies and what to do when the bees swarm. In the last market report by the U. S. Department of Agriculture, we see the statement that in Iowa certain beekeepers reported in April that their colonies were so strong that they would have to be divided to keep them from swarming during May!

There is hardly a commercial beekeeper in Wisconsin today, however, who does not successfully control swarming.

Cause of Swarming

We are now agreed that swarming occurs when the brood chamber is in a crowded condition. The crowding may be due either to the brood, the bees, or the honey. Usually it is a combination of all three. If swarming occurs before the honey flow, it is of course due to the presence of too many bees and too much brood for the size of the brood chamber.

Under certain conditions, in strong colonies "the swarming fever" may develop early in the season before there is any real excuse for it. We have had colonies which showed the tendency in May if we neglected to treat

them properly—that is, give them plenty of room for broodrearing.

The Program

Our own method of swarm control began on May 11th when we reversed the two brood chambers of all strong colonies, all colonies being wintered in two-hive bodies. By that time the upper brood chamber was quite crowded with brood, honey, and pollen. A few had brood started in the lower hive body, or brood chamber. Since it is the tendency of the queen to go upward, they soon started laying in the upper story again. Soon thereafter the dandelion and apple blossom nectar flow came and if we had not reversed strong colonies just beforehand, the brood chamber would no doubt have become so crowded that the swarming impulse would have started.

In about ten days, or from May 20-25 we again watched these colonies and if the upper brood chamber was filled, the two bodies were again reversed. In case of a honey flow from fruit bloom and dandelion which might crowd the brood chamber, we put on a queen excluder and an empty super of drawn comb to provide room for the nectar coming in on all strong colonies.

From Now On

From now on, or in mid-June to July the problem of swarm

control becomes increasingly serious and we must watch carefully to prevent it.

At the beginning of the clover flow we remove from 3 to 5 combs of eggs and unsealed larvae, and perhaps a little of the youngest sealed brood and place them on top of the colony, putting empty combs in their place. We are careful not to remove any pollen from the brood chamber. A two-hive body brood chamber is maintained all the year around. Above these two bodies is a queen excluder, then an empty super for honey, and above this, supers of honey and the frames of eggs and larvae removed from the brood chamber as explained above. We do not practice top supering.

The youngest bees feed the larvae. They are therefore drawn out of the brood chamber into the super above, thereby relieving the crowding in the brood chamber. In addition this plan gives empty comb for egg laying.

This process must be repeated in ten days to two weeks.

If during the honey flow there is too much honey stored in the upper of the two brood chambers, we often remove some of this honey, replacing it with empty combs, being careful at all times not to remove any frames of pollen which are always left in the brood chamber.

(Continued on page 287)

ANNUAL SUMMER MEETINGS WISCONSIN STATE BEEKEEPERS ASSOCIATION

THREE BIG MEETINGS
JULY 23—PLATTEVILLE CITY CAMP
(In honor of Mr. N. E. France)

JULY 24—MENOMONEE FALLS, HONEY ACRES
(Walter Diehnelt Apiaries)

JULY 26—LADYSMITH, MEMORIAL PARK
FORENOON PROGRAM

10 a. m.-12 M. Assemble at places stated above. The forenoon will be devoted to inspection of honey extracting equipment, honey sales methods in nearby apiaries. Questions will be answered and equipment discussed. Discussion led by H. J. Rahmlow, Madison.

LUNCHEON

12 M. Pot luck luncheon. Everyone should bring some dish, the amount in proportion to the number in the family. Suggestions are: cake, pie, baked beans, potato salad, sandwiches, and similar dishes.

Coffee and lemonade will be furnished by the State and District Associations. Each person should bring a plate, knife, fork, spoon, and glass or cup. We will all eat together, cafeteria style.

AFTERNOON PROGRAM

1:15 p. m. How to create a demand for your honey. Mrs. Harriet Grace, American Honey Institute.

1:45 p. m. Some new old things about beekeeping. The great West. E. R. Root, Medina, Ohio.

2:30 p. m. New developments in beekeeping by Dr. C. L. Farrar, Central States Bee Laboratory, Madison. (Dr. Farrar may not be able to attend all sessions).

3:15 p. m. What we are doing in disease control by E. L. Chambers or J. F. Long, Madison.

3:35 p. m. The honey crop and marketing problems by James Gwin, Madison. In case of rain, arrangements have been made at each meeting for indoor sessions. Don't let rain keep you away.

Meeting Chairmen: Mr. N. E. France, District Chairman, Platteville; Mr. Walter Diehnelt, State President, at Menomonee Falls; Mr. Robt. Knutson, District Chairman at Ladysmith.

WOMAN'S AUXILIARY MEETING

10:00-12 M. Assemble at places stated in men's program. Take part in program or help with luncheon.

12 M. Pot luck luncheon. See men's program.

1:30 p. m. Short business session. Discussion of honey recipes.

2:30 p. m. Mrs. Harriett M. Grace, American Honey Institute, will speak on several topics and discuss a number of interesting subjects. Bring your favorite recipes.

Disease Resistant Bees

Report of Project to Develop Resistant Strains

THERE is ample evidence that strains of honeybees vary markedly as to the manner in which they respond to American foulbrood. Some strains succumb to the disease readily, while others show more or less resistance to it.

The superiority of Italian bees over the German, or black, bees in combating European foulbrood has long been known; so it is not surprising to find that variation also exists in the manner in which different races and strains of bees respond to American foulbrood.

The experimental work has proved beyond question that some strains of honeybees are highly susceptible to American foulbrood, while others show pronounced tendencies to resist the disease. The burning of infected colonies, therefore, is highly important because it not only reduces sources of infection but likewise helps to elimi-

nate stock highly susceptible to disease. The shaking treatment formerly used to control this disease merely prolonged the existence of susceptible stock, and colonies so treated served more or less as perpetual sources of infection.

Several strains of bees under test show resistance to a much higher degree than that found in the average colony. In most cases there has been an indication of increased resistance with each successive generation where queen progeny from resistant queens have been mated under isolation with drones from their own mothers.

Most of the lines of stock showing good disease resistance characteristics are inclined to be somewhat more irritable than is wanted for pleasant handling, and some lines appear subnormal in honey production. On the other hand, there are lines showing a good

degree of resistance coupled with desirable honey producing characteristics. Little opportunity has been given for testing the honey production or other characteristics of the resistant lines, and no effort has yet been made to incorporate both resistance and honey production in any strain although the cooperators have such plans in mind for the future. It should be added that no extensive survey for resistant stock has been made, and thus there is no reason to believe that better stock than any now on hand may not eventually be found.

Condensed from article by J. T. Hambleton, Division of Bee Culture, Washington.

BREEDING FOR DISEASE RESISTANCE IN BEES

RECENTLY we dropped in at a meeting for hybrid corn growers at the College of Agriculture. Anyone who has not made a study of hybrid corn and what it has done for growers will be amazed at its accomplishments. Diseases found impossible to control, such as corn ear rot and root rot, have been overcome by breeding resistant varieties.

The thought came to us that if we will ever be able to control American Foulbrood, it will be through resistant stock. European Foulbrood was overcome in that way. The old black bees were susceptible and the Italian bees resistant. Some day we predict American Foulbrood will go the same way. However, it is a slow process. As a pathologist pointed out in regard to hybrid seed corn, "We can get disease-resistant corn all right but then our problem is to get seed that will produce well." We now have resistant bees. The next problem is to get the desirable characteristics, such as gentleness and honey producing ability.

It is coming some day. Let's give encouragement to those far-seeing men who are doing the work. The more they do, the quicker good results will come.

BEEKEEPERS MAY BECOME CONCERNED ABOUT AIRPLANE DUSTING

BEES have been read- ing in various magazines about troubles experienced by their friends in California and other states from the spreading of poisons by airplane dusting. So far we have not had anything to worry about in Wisconsin.

Last fall, however, demonstrations were given by insecticide companies to show that peas and other crops can be dusted by airplane more cheaply than they can be dusted or sprayed with the small ground machine.

The danger to beekeepers, of course, comes from the drifting of the poison over other honey plants.

If this new program comes into effect, beekeepers will no doubt become concerned and take methods to prevent loss of their property. Of course in Wisconsin there are only a few sections in which crops are grown in large enough acreage to justify airplane dusting.

BEE DISEASES CAN BE CONTROLLED BUT NOT ERADICATED

WHY can't we eradicate A.F.B. from Wisconsin is a question we often hear asked by beekeepers.

Mr. E. L. Chambers, in an article in last issue, calls attention to the fact the disease **can be controlled but not eradicated** for the simple reason that it is impossible to find all the sources of infection. For that matter, neither can other diseases be eradicated. We might kill all the dogs that have rabies and it might seem easy to find them, yet every now and then we hear of a new outbreak of rabies and of counties being quarantined. There may not be a single case of smallpox in this state for several years and yet, suddenly there may be an outbreak somewhere.

In the case of A.F.B. the situation is still worse because of the number of old hives that have been stored away. These may be diseased but are brought out when a swarm happens to land nearby. Immediately the disease becomes active again. Perhaps it is a late

swarm. Because of foulbrood it is weak and may die during the winter but the inexperienced owner may not even know it is dead. It is set outdoors and all the bees within a mile proceed to rob it and carry the disease home.

Until all such equipment has been found and destroyed there will be constant outbreaks.

All informed beekeepers recognize this fact and are behind our department in its efforts to control the disease and are not expecting them to **eradicate** it.

The encouraging thing is that many parts of Wisconsin are now safe for beekeeping where a few years ago they were not. Our job is to support and encourage the Department of Entomology and not to hamper it in any way.

TO OBTAIN A LOAD OF POLLEN THE HONEY BEE MUST VISIT MANY FLOWERS

TO collect an average load of red clover pollen, the honey bee visits approximately 346 florets, is the conclusion reached in an experiment by W. E. Dunham of the U. S. Department of Agriculture and Ohio Experiment Station, reported in the October, 1939 issue of The Journal of Economic Entomology.

The experiment was conducted to determine the pollinating activity of honey bees. The red clover was used because it is known that honey bees devote practically all of their time in gathering pollen from red clover and get practically no nectar from it.

The experiment led to the conclusion that the honey bee visits approximately 12 red clover florets per minute and that it takes approximately 29 to 30 minutes to collect an average load of pollen from red clover.

Fruit growers might find it interesting to try to figure out how many apple blossoms are visited by a colony of bees in a day. Of course, a bee would not visit as many apple blossoms per minute as it would red clover florets. However, if a colony contains 20,000 workers and each worker visited only 2 or 3 apple blossoms per minute—well, you figure it out.

WHY SUCH HEAVY WINTER LOSSES

THE U. S. Department of Agriculture honey report for May 1 states that in some sections the winter losses have been heavy. In New York it was reported, "Up to 70% loss, and western New York may average nearly 50% loss."

Other beekeepers report losses

ranging from 25 to 60 or even 75 per cent.

In Wisconsin the loss was not reported so high.

But why the heavy loss? Isn't it after all due to the neglect of the beekeeper? A strong colony last fall with plenty of pollen and honey and a good queen should have wintered well whether in the cellar or outdoors, whether packed or unpacked. Plenty proof of that of course can be seen when one travels among good Wisconsin beekeepers who had very little loss.

C. D. ADAMS RETIRES AS CHIEF APIARY INSPECTOR

AS we go to press we received the information that Mr. C. D. Adams has retired as apiary inspector and will now be stationed at Green Bay as food inspector with the State Department of Agriculture.

Mr. J. F. Long of Westfield, supervisor of inspectors this past year, has been named acting chief apiary inspector.

ROCK COUNTY BEEKEEPERS PICNIC

THE Rock County Beekeepers Association announces a picnic for beekeepers on Sunday, July 14th at Mac Town State Park, south of Rockton. After the picnic there will be a tour to Mr. Ivan Whiting's bee yard where his modern new honey house will be inspected. All beekeepers are invited.

FOR SALE

FOR SALE CHEAP. 2,000 inside fixtures for 4¼x4¼x1½ comb honey supers. Complete roller skating outfit. S. P. Elliott, Menomonie, Wisconsin.

NO DISEASE RESISTANT QUEENS AVAILABLE FOR WISCONSIN

THE Wisconsin Experiment Station is not planning a project to breed disease resistant queens this year. Resistant queens are available in small numbers to each state experiment station. The station may increase them in an isolated place if they desire.

However, there are many problems yet unsolved. The first one is as to the honey producing quality, the gentleness, etc., of these queens. We believe Wisconsin beekeepers will do well to wait a short time longer before bringing in any of these queens.

KEEP UP THE COLONY POPULATION AT ALL TIMES

ACAREFUL beekeeper made the statement recently, "We cannot have strong colonies in the spring from weak colonies in the fall."

That is a good statement to remember because the strength of the colony this fall depends entirely upon what happens from now on. Swarming, reduced egg laying of the queen from any cause, a queen of poor quality, dividing the colonies for increase, and perhaps other factors contribute to make weak colonies in the fall. Weak colonies do not winter well and beekeeping with weak colonies is not profitable.

**50% Discount—
Stock Up Now!**

We have several hundred dollars worth of **discontinued DRIPCUT dispensers** which we are going to close out at 50% of their regular retail value. **Everything is first class merchandise.** Write for information, telling us about what quantities you are wanting. We have limited supplies only of some numbers.

Honey Dispenser Sales Co.
Box 2077, Univ. Sta.
Madison, Wisconsin

NEW HONEY CANDY DEVELOPED

THE Schultz Honey Farms of Ripon cooperating with the Ripon Dairy Company, has produced a new honey, milk and butter candy, which has been named "Hem" meaning honey energized milk.

The candy bar is attractive in appearance and good in quality. It should be especially suitable for children as a food candy because it contains so much of food value. Liberal cash prizes are being awarded public school children for the best story on this milk, honey and butter candy.

We congratulate the Schultz Honey Farm on their farsightedness in stimulating the future use of honey.

SPECIAL LOW RATE ON GLEANINGS IN BEE CULTURE

GLEANINGS in Bee Culture may be obtained through the Wisconsin Beekeepers Association, at the very low rate of 50c per year at the present time. All subscriptions must be sent through the Recording Secretary, Miss Louise Diehnelt, Menomonee Falls. The offer is good for one year only.

We really feel that all beekeepers should subscribe to the leading bee journals, and here is an opportunity to get one of the best at an unusually low price.

SWARM CONTROL

(Continued from page 284)

Do Not Demaree

We feel that it is a mistake to use the old Demaree plan of swarm control whereby an entire brood chamber containing brood in all stages, honey and pollen are placed on the top of the colony, often leaving the queen only one frame of brood below in the brood chamber. There are two objections to this plan. First, it removes so many

of the young bees from the brood chamber that it is a shock to the colony and results in a decreased honey flow. The queen slows up in egg laying, resulting in a decreased population later on. Furthermore, the pollen is removed from the brood chamber where it should be kept for broodrearing during a time of pollen shortage.

HONEY WANTED

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

TIMESAVERS!!

Frame Spacers
New! Space nine combs in a ten-frame super in 1/3 to 1/2 less time than by hand. Ask your local dealer for demonstration. Write for circular.

H. A. SCHAEFER
Osseo, Wisconsin

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Our location in the heart of the Wisconsin Basswood area enables us to supply you with sections made from the best obtainable material. We have one of the largest supplies of basswood lumber in the country, and it is all winter cut, piled and dried under our own supervision so that we know it is ideally suited for the manufacture of sections. In addition, our plant is equipped to produce the greatest volume of sections.

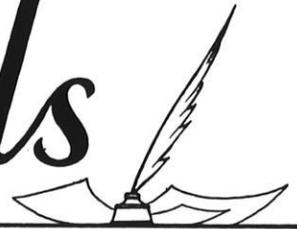
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Write for quantity prices and your free copy of our 1940 catalog.

AUGUST LOTZ COMPANY
Boyd, Wisconsin

Editorials



NO MAGAZINE IN JULY

AS has been our custom the past few years, there will be no issue of Wisconsin Horticulture in July.

The next issue will therefore appear about August 1.

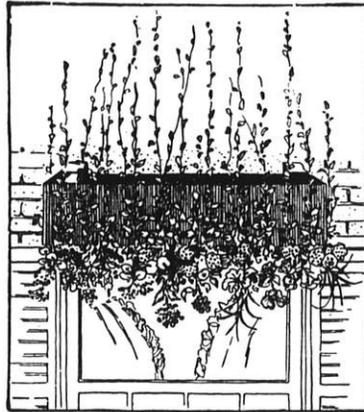
The reason this step was taken a few years ago was because there is a lessening of reader interest during the heat of mid-summer, and this step enabled us to spend more on our spring issues, when reader interest is at its height, than we could otherwise do.

FALL PLANTED STRAWBERRIES DO NOT SURVIVE THE WINTER

LAST October 9th we received a shipment of Mackenzie and Claribel strawberry plants, new varieties from the Experiment Station, Ottawa, Canada, for trial. They were sent then because spring at Ottawa is so late that it was felt they would do better if sent in the fall of the year.

Reports from growers in various sections of the state indicate that the plants did not survive the winter. While received in good condition, and even making some growth last fall after being set out, and well covered, they were dead this spring. Reports come from widely separated parts of the state such as Bayfield, Madison, Warrens, etc.

This is a good test on the fall planting of strawberries—it evidently doesn't work.



BAYFIELD STRAWBERRY FESTIVAL June 29-30

WISCONSIN'S outstanding strawberry festival will again be held at Bayfield this year on June 29-30.

In connection with the festival there will be a strawberry short-cake queen contest, strawberry king contest, and a strawberry show.

Plan your vacation trip through northern Wisconsin and attend this festival. A good time is assured all who attend.

A NATIONAL PEONY SHOW INVITES YOU Rochester, Minnesota— June 22-23

ALL Wisconsin flower lovers are invited to attend the National Peony Show which will be held June 22-23 in the Mayo Clinic Auditorium, Rochester, Minnesota.

This National Show is always a large and beautiful exhibit and our members are urged to attend.

VALUE OF THE OAK

WHAT variety of tree is the most valuable and the finest shade and ornamental tree for our state?

Joseph Dawson came to Wisconsin in the year 1840. His first shelter in the state was an oak tree, and this grove of oaks is still living. The next shelter was a rude hut made of poles and sod, which was his home for two years until a cabin could be erected. It was without windows, the floor being made of split logs fastened to the stringers with wooden pins. The first wheat was cut with a hook, threshed with a flail and pounded in a mortar.

The oak has been called the witness tree in the early records of the first land surveys. The record of one tree in the first survey of the farm recorded this tree as being 18 inches in diameter. It is now 4 feet in diameter. I remember an oak tree in this locality that more than 1,000 feet of the finest lumber was sawed.

More than 200 species of oak are known. Wisconsin has the burr, white, black, or scarlet, English and red. There is but one red oak left on our farm. The black, sometimes called the scarlet oak holds its foliage throughout the winter, the only variety of tree I know of with the exception of the iron wood. This is why the oak ranks among our outstanding trees for lawns and roadside planting.

R. G. Dawson, Franksville.

THE WISCONSIN ROADSIDE DEVELOPMENT COUNCIL

First Meeting at Madison Well Attended

TO create and restore beauty along Wisconsin highways" is to be the goal of the Wisconsin Roadside Development Council, according to Col. L. Farrand, the Council's first President. At the Institute held by the Council at Madison on May 28, representatives of Wisconsin's leading organizations interested in Roadside Development attended. They included the Wisconsin Garden Club Federation, the Wisconsin Federation of Business and Professional Women's Clubs, the Friends of Our Native Landscape, the American Legion and Auxiliary, and the Wisconsin Federation of Women's Clubs.

Said Col. Farrand further, "We will avoid controversy with other interests. If my aesthetic sense interferes with someone earning his bread and butter, I will step aside. I believe advertising can be done without offending anyone. Increasing the beauty of our highways will increase the income of many businesses because it will bring more people to Wisconsin."

On the program were some of the state's leading authorities on highway development. They told of the work which has been done and can be done in the future.

Another meeting to acquaint the people of the state with the possibilities in highway beautification is being planned for mid-summer, possibly in July, at Wausau. Prof. Franz Aust is chairman of the committee to plan the event.

AN INVITATION

You are invited to visit Burr Oak Flower Gardens during the blooming season of Iris and Peonies, late May and early June.

E. L. White, Box 334, Fort Atkinson, Wisconsin. On highways 26-89 at north city limits.

THOSE "AWFUL SUBSIDIES"

THE Wisconsin Agriculturist and Farmer states that since 1933 the Federal Government has paid out a trifle more than 3 billion dollars in conservation and adjustment payments to farmers. One billion was collected on processing taxes taken on their own commodities, much of which they paid. However, the editor comments, "Well, maybe farmers have given subsidies to other parts of the country. If farmers do not get their fair share of national income, if they must sell below cost of production, **someone is surely being subsidized at the receiving end.** And it isn't the producer. Farmers have produced abundantly.

"During the 1909-14 period they received parity, and in the following four war years more than parity; but they paid well for those brief years of parity by taking it on the chin for 20 years thereafter. During which time, gentle readers, they fed and clothed the country without adequate compensation and some of them lost their shirts doing it."

GLASS WOOL A GOOD PLANT COVER

WRITING in the May issue of Horticulture, Boston, Massachusetts, J. Horace McFarland, Harrisburg, Pa., states that the winter there has been a very harsh one. In regard to covering plants, he states:

"One thing I have noted with great satisfaction. It is that anything that was covered with the glass wool has stayed just exactly as it was when covered. Thus pansies in bloom when they were covered still had the unwithered flowers nearly three months later when the glass wool was stripped off them. This glass wool, by the way, comes in sheets, and can with reasonable care be rolled up and used again."

GARDEN TALKS

Radio Station WHA and WLBL Every Tuesday at 10 a.m.-10:45 a.m. over Homemaker's Hour

THE following garden talks will be given during June over the Homemaker's Hour, Radio Station WHA and WLBL, the State owned stations.

Tuesday, June 11. Flowers and Hobbies by the DeForest Garden Club.

Tuesday, June 18. A Home Cutting Garden. Miles Riley.

Tuesday, June 25. Flowers for the Summer Cottage.

CONTROL CANCER EARLY

CANCER is a curious foe. Second only to heart trouble as a killer and most feared of all causes of death, cancer is in its early stages one of the most curable of serious diseases. Its definite diagnosis requires the services of a highly trained pathologist, but early symptoms which may mean the disease is present are easily recognized by an alert individual.

Four years ago a small group of physicians, research workers, and club women launched the Women's Field Army of the American Society for the Control of Cancer. Its goal was to reduce cancer mortality and to arouse the interest of men and women everywhere in this disease and the methods and facilities available in their communities for treating and controlling it.

The growth of the Women's Field Army has been rapid. Divisions are now underway in forty-six states, Cancer information centers—local units of the Army—have been established in more than half the counties of the country. Cancer control is receiving more attention than ever before.

By Clarence Little, American Society for Control of Cancer.



Gladiolus Gleanings



By the WISCONSIN GLADIOLUS SOCIETY

Chester Harrison, Waldo, President

Dr. Geo. Scheer, Sheboygan, Vice-President

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

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

Regional Vice-Presidents
Frank Blood, Stevens Point

Fred Hagedorn, Sheboygan

Edwin Ristow, Oshkosh

Ben Robinson, Kenosha

GROWING OF SHOW FLOWERS

By J. H. Heberling,
Easton, Illinois

IN writing this brief article I am assuming that most of the readers are interested in the growing of outstanding exhibition gladiolus. First, of course, you must consider the location of your garden. It should be open to the sun throughout the day for best results, be free from roots of trees and shrubs and reasonably fertile and well drained. However very excellent exhibition flowers can be grown on very ordinary soil if other conditions are as they should be and the Gladiolus are supplied with plenty of water during the spiking and blooming period.

You should carefully select the best exhibition varieties to grow and then secure large, young, clean bulbs free of disease and insect pests for your planting. These may be secured from any reliable grower.

An important factor which I think has not been overstressed in the growing of exhibition spikes of gladiolus, is the fundamental necessity of moisture. To grow extremely tall spikes with long flower heads and large florets a great deal of water is required. If you have an inch or two of rainfall each week this should be adequate. However, if you fail to secure ample rainfall, very good results may be had by irrigating your planting by

WISCONSIN STATE GLADIOLUS SHOW

AUSPICES OF THE WISCONSIN GLADIOLUS SOCIETY

Columbus—High School
Gymnasium

Saturday and Sunday,

August 10-11

trenching along your rows and running water in the trenches or by spraying the plants with your hose.

With summer temperatures running from 85 to 95 degrees F. in the heat of the day, two inches of water weekly is not too much. In fact for best results they require approximately this amount. If the water is applied artificially it should be applied at the rate of one cubic inch of water to one square inch of garden surface at one time. This application should be made twice weekly. It should begin when the plants are spiking and continue until the blooms are cut. After the bloom is cut the water may be very materially reduced. Spray should not be applied to the plants when color is showing in the heat of the day. Spray them in the evening or early morning at this time. Trench watering may be done at any time during the day without injury to the bloom. Do not sprinkle lightly with a spray each

day for a few moments, this does no good. When you water them make it worth while.

From The Gladiolus, Published by the New England Gladiolus Society.

COMMITTEES FOR THE WISCONSIN GLADIOLUS SHOW

Columbus, August 10-11

General Chairman: H. J. Rahmlow, Madison.

Floor Manager: Noel Thompson, Madison.

Premium List: W. C. Krueger, Oconomowoc.

Classification Committee: Otto Hagedorn, Harvey E. Kiel, Sheboygan; Ben Robinson, Kenosha; E. A. Lins, Spring Green; E. H. Ristow, Oshkosh.

Supervisor of Judges: Dr. Geo. H. Scheer, Sheboygan.

Finance: Otto Kapschitzke, Sheboygan; A. Hiller, Columbus.

Banquet: Walter E. Bock, Columbus.

Publicity: W. R. Larson, Columbus.

Trophy Committee: Dr. Geo. H. Scheer, Sheboygan; J. R. Hopkins, Chicago; Chester Harrison, Waldo.

Executive Committee: August L. Steindorf, Columbus; Walter Miller, Sun Prairie; W. F. Neuberger, Reeseville; A. S. Haugen, Stoughton; Fred Hagedorn, Sheboygan; Otto Kapschitzke, Sheboygan; G. H. Thompson, Manitowoc; Chester Harrison, Waldo.

THOUGHTS ABOUT GLADIOLUS

Edwin H. Ristow

They say that time heals all things. If this be true, we can all look back on our mistakes and on our successes and form some opinion. It seems to take ages at times to get things done, to attain some objective. When thrips were first noticed some ten years ago, we just passed it off. We all have learned to have more respect for this insignificant looking insect since. Today we can enjoy our superb spikes of glads again. But can we? Last year thousands of blooms of Picardy, our champion of champions, were worthless. Perhaps our champion is on the way out, due to the same cause that has brought other varieties to their end in times past. It may be a condition of the bulb, and then again it may be disease.

There are millions of seedlings grown each year. Some of these ultimately reach our gardens. Some stay there a year or two, and finally are thrown out. A few because of some desirable character fill our hearts with gladness, and another glad has found a permanent abiding place.

What chance have you and I to produce a new glad of real merit? Just as much as anyone else. If we are good judges of real merit in seedlings, and at the same time know what is now on the market, we can break through just as well as anyone else. The greatest problem will be to market it. Just a recent case of one who broke through is Twomey of Canada with his Lord Selkirk, the famous white.

I grew Myrna in 1938 under the name of Shirley Temple's sister. It did not bloom for me until quite late. I took it to the State Fair where it was just another white among all the others. It was quite floppy. Frankly from first appearance it was against it. Shirley Temple in the same row were wonderful. In 1939 I grew the same bulb again. Gave it no special attention. About a week before our show, a fair looking bloom opened. I cut it and put it in cold storage for the show. At the show, the condition of the spike was just about the same as the day I cut it, no more florets had opened. The second day of the show it certainly was a top-notch. Other spikes of Myrna were also shown at the show. I believe it to be one of the best new varieties introduced in 1939. Shirley Temple has been fine for me the last two years.

Condensed from paper given at Spring Gladiolus Society meeting.

NEW GLADIOLUS REGISTERED

A NUMBER of new seedling gladiolus have been accepted for registration by the American Gladiolus Registry, Boston, Mass. The registrar is J. Foster Cass, 10 Stafford St., Hyde Park, Boston. During the past three months the registrations include some of interest to Wisconsin growers, namely, seedlings registered by Walter C. Krueger of Oconomowoc. The following are listed by the registry:

No. 16. **Cooney Lass**—Walter C. Krueger, Oconomowoc, Wisconsin, originator and introducer. No. 808; Picardy x Mildred Louise. Light salmon, slight throat marking of deep pink; large decorative type, 20-inch flower head, 5-inch florets, six open, four show color, total seventeen buds. Field height fifty-eight inches. Bulb production fair, germination good. Blooms in eighty days.

No. 17 **Gem**—Walter C. Krueger, Oconomowoc, Wisconsin, originator and introducer. No. 50; Coryphee x Apricot Glow. Pink with cream throat and midribs. Medium decorative type, four florets wide-open and triangular; five open, three show color, total seventeen buds. Field height fifty-two inches. Bulb production fair, germination good. Blooms in seventy-seven days.

Application has also been received from Mr. Krueger for use of the name **Duke** for a variety—Commander Koehl x Picardy.

TARTAR EMETIC FOR THRIPS CONTROL

A NUMBER of growers have reported success in the control of gladiolus thrips with tartar emetic—brown sugar spray recommended by the U. S. Bureau of Entomology.

The spray can be made of

either 2, 3, or 4 pounds of tartar emetic, and from 8 to 16 pounds of brown sugar for 100 gallons of spray. If the thrips are bad later in the season, 4 pounds of tartar emetic should be used, but with light infestation, from 2 to 3 pounds will be sufficient.

It is well to remember that tartar emetic is a very dangerous poison with no known antidote. It was found that the tartar emetic alone without the sweetening of brown sugar was not effective.

Summer Meeting

WISCONSIN GLADIOLUS SOCIETY

Miller's Gardens, Sun Prairie
Sunday, July 28

ALL members of the Wisconsin Gladiolus Society should plan now to attend the annual summer meeting of the Society in the beautiful gardens of Walter Miller, Sun Prairie. In addition to hundreds of varieties of gladiolus which will be in bloom at that time, Mr. Miller's gardens are always beautiful with other flowers, blooming in their season. He has one of the largest and finest collections of perennial Phlox in the middle-West.

An interesting program will be arranged. Bring your luncheon and come early. There are plenty of tables and a fire place. Refreshments will be furnished in the afternoon by the Society.

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Telephone—Hilltop 7050

Home and Garden

Mrs. C. E. Strong

I wandered lonely as a cloud
That floats on high o'er vales
and hills,
When all at once I saw a crowd,
A host of golden daffodils,
Beside the lake, beneath the trees.
Fluttering and dancing in the
breeze."

—Wordsworth.



THEY were not beside a lake but on a rocky bank—one cold morning in May — with black clouds threatening rain—and at once the sun seemed to shine. We stopped finding fault with the weather and found a host of pleasant things to think and talk about, especially daffodils—white, cream, yellow and golden shades—with their long season of bloom. One variety interested me specially, first because of its size and beauty, and then its name—John Evelyn, an *Incomparabilis*. It was 4 to 6 inches across, with a nearly flat, gracefully frilled cup fully 2 inches in diameter. The pure white of the perianth enhances the richly fluted and curved yellow cup. A very tame description, considering the beauty of the flower. John Evelyn for whom this daffodil was named, was an English writer born at Wotton in Surrey in 1620—died there in 1720. He published numerous works, amongst them treatises on gardening.

He advocated the use of fruits and vegetables in salads, using herbs and even the petals of flowers for seasoning and garnishment.

The petals of the *Tagetes* Marigold he recommended as being good to look at as well as good tasting in various salads. I am glad to be able to agree with this gardener of three hun-

dred years ago—and am sure you will agree with me as to the beauty of the John Evelyn daffodil.

HERE AND THERE IN GARDENS

THERE has been considerable winter killing of climbing roses—many of them had to be pruned almost to the ground. Floribundas were not frozen at all. In my own garden the rabbits pruned the Floribundas until one more bite would have caused them to disappear entirely. They served the Brooms in the same way—in spite of the Brooms being protected with wire guards. How they manage it is a mystery to me.

Good Shrubs

Japanese Cherries lived nicely and at this time, May 10th, are well set with buds. **Redbuds** and **Amelanchier Canadensis** are also covered with buds. **Magnolias Soulangeana** and **Stellata** where grown in this vicinity, have thrived. **Azalea Mollis** are alive to the tips and well set with buds. **Cornus Kousa**, which I have had hopes of seeing in bloom some day—decided life was not worth living in the spot last given, too dry I think. Well—we will just

have to try once more.

BUT — three **Crepe Myrtle** bushes planted last spring, have evidently decided to live—as the roots are plump and green, tops are frozen. However they will bloom on new growth, SO—we are hoping.

Several varieties of **Vitex** are alive to the tips, both in sheltered and exposed situations. **Tree Peonies** are well set with buds.

Japanese Iris came thru nicely with no protection as did **Chrysanthemums**. Even **Aladdin** lived in protected situations.

Good Perennials

Yellow Delphiniums lived and are coming strongly. It will be nice to see this attractive Delphinium in gardens again. **Buddleia Ile de France** seems to be a very hardy variety, growing almost as strongly as a Lilac.

Forsythias were a disappointment in general this spring. We may have to take an old gardener's advice and tie them up with corn stalks. "It's not handsome for a covering, but it's effective," he used to say.

There should be good showings of Canterbury Bells this season, judging by the thrifty groups seen in many gardens. We should grow more of the perennial varieties. Baron Solemacher strawberries are very much alive in spite of the warning that their hardiness was doubtful.

Plan For Fall Bloom

You will want to start planning your fall garden now—be sure to order the fall asters and chrysanthemums now, and keep a sharp pencil and note book in

your purse. You will want to jot down names of plants and shrubs when you go on garden tours as well as visit Nurseries.

Have you studied the effect of grey foliated plants in gardens—there are greys and glue greys and grey greens both in shrubs and plants. **Lonicera korolkowii** floribunda is a very attractive example—if you have plenty of room, as it does not do well if crowded. Low growing plants and shrubs in the grey tones are very attractive in small rock gardens. They give an air of serenity and coolness especially in hot weather.

Astilbes

Have your Astilbes been a bit backward in living up to the description in the catalogs? Give them about three inches of peat and a sprinkling of Aluminum Sulphate. Water well and they will show their appreciation.

ABOUT LILACS

LILACS grafted on privet roots as is often the case with the newer varieties, should be planted deeply. The union should be planted at least four inches below the surface of the soil.

The reason for this is that the lilac can never grow into a vigorous shrub if it depends solely upon the privet root. This root is good for propagating the lilac, but does not make a good union. Lilacs should therefore be planted deep enough so that they can make roots of their own on the lilac stock above the graft. So ask your nurseryman whether or not the lilacs are on privet or on their own roots.

Lilacs Borers

Common lilacs are often attacked by borers, but are not often killed. The best method of control is to prune out annually all the branches containing borers. Do this as soon as they are seen and destroy them.

Pruning of lilacs can best be done as soon as the flowers fade. On young plants, cutting off the old flower heads gives sufficient pruning. On old plants, cut out enough branches each year to encourage new wood growth. Keep the plant in an attractive shape and not too crowded.

LECTURE ON TREES AVAILABLE

ALECTURE, illustrated with slides in natural color, to show the exquisite beauty of many of our native trees and taller shrubs; and to present for sheer enjoyment, a variety of trees which though native to some far-off country, have become ours by adoption and use.

To follow the seasons through with the trees.

Spring, from the blossoming of the oriental cherry to its culmination in the flowering of the locust along the split-rail fence.

Summer with the cool greenness of the majestic roadside oak, and the silhouette of the full-leaved hickory against floating summer clouds.

Autumn with the flaming maples, golden cottonwoods, and hillsides like rich tapestries.

Winter when sunshine and blue sky transform a branch of the most common catalpa into a thing of loveliness, and the silvery aspen throws its shadows across the snow.

Moderate Fee
Eunice S. Fenelon
-Landscape Architect, A.S.L.A.-
Weyauwega, Wisconsin

The guest's nose was exceptionally large, and father had noticed Willie staring at it. Expecting the boy to make some frank and outspoken comment, he gave him a disapproving glance.

"That's all right, dad," came the reassuring response. "I'm not going to say anything. I'm just looking at it!"

USE A HOE IN THE GARDEN

THE relative merits of the long handled shovel and the garden hoe have been argued in that excellent magazine HORTICULTURE published by the Massachusetts Horticultural Society, Boston. In the November 15 issue, R. J. Comstock, St. Charles, Illinois, makes the following comments about the hoe:

"The common advice for the care of the shovel is to 'grease it and put it away in a dry place' but, if you use the hoe as much as you should, you can hang it on the garden fence and it will keep a good polish.

"If I remember my history aright, Sir Walter Raleigh had a difficult time persuading his good queen to let him come over to the new land of America and discover tobacco. She knew it would be a lot of work to raise a crop and keep the Indians out of the patch—and what were the first words Sir Walter uttered when he saw the beautiful shores of Coney Island in the distance? Why, from his perch up there in the crow's nest of the ship, he hollered down, 'Land, Hoe!'

"Did not Horace Greeley tell the young men of his day to 'Westward Ho'? If people had hoed westward instead of cultivating with gangs of horses and tractors, we should now have no dust bowls, no over-production, no lots of things.

"I was not sleeping well one night, so got up to write this piece and I could go on 'til day-break extolling the merits of the hoe. The best known hoes are: the Ho Hang Ho, the tallyho, Idaho, Arapahoe and the Navajo.

"Next to the long-handled shovel our more literary gardeners prefer Ivanhoe. Incidentally, the hoes that look the best in the garden are usually made of silk.

"King Arthur always said to his knights as they gathered at the round table, 'Ho! My merry men.' He did not want them to just shovel in the grub—and I now leave you with a 'heigh ho.'"

Wisconsin Garden Club Federation

News

Mrs. Charles H. Schuele, President
247 Woodland Lane, Oconomowoc
Mrs. E. A. St. Clair, Hon. President,
2418 N. 65th St., Wauwatosa
H. J. Rahmlow, Cor. Secretary,
Madison

Mrs. E. L. White, Rec. Secretary,
Box 334, Fort Atkinson
Mrs. C. H. Braman, 1st V-President,
Waupaca
Mrs. Frank Quimby, 2nd V-President,
1422 Blaine Blvd., Racine

OUR STATE FLOWER SHOW

AVERY artistic show and "very well managed" is the consensus of opinion expressed about the State Flower Show staged by the Wisconsin Garden Club Federation in Wauwatosa, May 17-19.

The large Recreation Building at Wauwatosa Park was an ideal setting for the show and was well filled with exhibits. The friendly cooperation of the Wauwatosa Park Board helped to make the show a success both by building the feature garden of the show, and by their help in setting up the exhibits and preparing the building. In fact, it was the Park Board's cooperation that enabled the management to make the show a financial success.

The Exhibits

The little gardens were excellent. In fact, most of them scored between 93 and 100. The dinner tables were uniformly excellent as were the shadow boxes. There were two very neat little roadside stands which showed considerable thought. Mr. W. A. Toole of Baraboo exhibited a very attractive wild flower garden.

There were a limited number of artistic arrangements and very few flowers in the perfection of bloom classes. In these shows there is a minimum amount of individual competition, but a strong showing by committees and groups representing clubs. A table of arrangements as a club project will bring out more



entries than individual flower arrangement classes.

Particularly noticeable was the pleasant atmosphere at the show. Everyone seemed happy, including the exhibitors. For this I think we should congratulate the show manager, Dr. Carl Schwendener and his capable committees in charge of the show.

A new venture at the show was the men's exhibits—screens for men only. This class has possibilities because after all, there are a number of men who may wish to take part in the future. However, it is our suggestion that men's exhibits be judged by men judges. This will give the men a feeling of freedom and encourage more entries. It does not mean that ladies aren't perfectly capable of judging, or that there was any criticism of the awards given at the show.

NOTICE! The price of entry tags, both for the merit system and the competitive system of judging, are 50c per hundred. Always state how many of each kind of tag is desired.

WE THANK YOU

ON behalf of the Board of Directors of the Wisconsin Garden Club Federation, I wish to thank Dr. Carl Schwendener, Flower Show Chairman, and his splendid committees for their fine work in making our flower show a success.

I also wish to thank the Wauwatosa Park Board for the use of their Recreation Building and their help in staging the show.

I am deeply gratified at the successful completion of the show. It means that there was tangible evidence of the existence of a State organization, towards which goes 10c of every 50c of the membership dues. It means that clubs and members realize they are an integral part of a far-reaching movement devoted to horticulture.

Some highlights of the show were: sincerity and friendliness; the efficiency and helpfulness of the committee organization; the written criticism of the judges which were helpful to exhibitors and visitors alike; presence of the distinguished visitors of the National Federation of Women's Clubs Sunday afternoon.

Would you like the show to be repeated next year? Suggestions are invited and will be appreciated. Now is the time to begin plans for the 1941 show—shall it be the first or second week in June?

—Mrs. Charles Schuele, President Wisconsin Garden Club Federation.

**ANNUAL SUMMER MEETING
WISCONSIN GARDEN CLUB FEDERATION
EAGLE RIVER—JULY 27-28**

SATURDAY, JULY 27

11 a.m.-12 M. Assemble at **Anvil Lake Camp Ground**—10 miles east of Eagle River on County Trunk A. Bring your own luncheon.

1:30 p.m. Short business meeting Wisconsin Garden Club Federation.

2:00 p.m. Dedication services in the Wisconsin School Children's Forest at East entrance of Forest on County Trunk A.

Each person will plant a tree as part of services, which will be conducted by Mr. John Callahan, State Superintendent of Public Instruction; Mr. E. N. Hein, State Conservation Department; Mr. Scott Leavitt, U. S. Forest Service; and Mrs. E. R. Durgin, Racine.

3:30 p.m. Tour conducted by U. S. Forest Service to Anvil Lake Lookout Tower for view of forest. A privately owned logged area, a Government logged area for comparison, and the famous Franklin Lake recreation area will be seen.

6:30 p.m. Dinner at **Club DeNoyer**—cabin camp reserved for our use. Includes modern cottages and recreation privileges, tennis, golf, horseback riding, hiking and swimming. Breakfast 50c; other meals 75c. Cottages—2 in cottage, \$1.00 per person. Make reservations with A. J. DeNoyer, Eagle River, Wisconsin, and be sure to mention reservation for the Federation, or they will be refused.

EVENING PROGRAM

8:00 p.m. Meeting under the stars and around camp fire in park near Eagle River.

Program, History and Geology of the Eagle River area, by H. S. Tuttle, Highway Engineer.

SUNDAY, JULY 28

8:00 a.m. Breakfast at Club DeNoyer.

9:00 a.m. Boat trip through Chain O'Lakes stopping at interesting points on way. Attractive gardens and appealing landscapes. Other tours to be announced. All will be supervised.

12 M. Half hour of inspiration presented by Congregation Church Minister and choir.

1:00 p.m. Dinner followed by sight-seeing tours if desired.

**LECTURES ANNOUNCED BY
LAKE GENEVA GARDEN
CLUB**

THE Lake Geneva Town and Country Garden Club announces two important open meetings to which all garden club members are invited, as follows:

June 11. Mr. A. P. Saunders of Hamilton College, Clinton, New York. Subject, Peonies.

July 19. Dorothy Biddle, Pleasantville, New York. Subject, Flower Arrangement.

Admission to each 50c.

**MEN'S GARDEN CLUB
CONVENTION**

THE annual convention of the Men's Garden Club of America will be held July 18-19-20 in the Hotel Sheldon, New York City.

The Men's Garden Club of America now has 28 member clubs.

Coming Wisconsin Flower Shows

June 11. Wild Flower Show by the Wild Flower Garden Club, Superior.

June 13-14. Baraboo Garden Club Flower Show. Baraboo.

June 14. West Bend Garden Club Flower Show in Evangelical Reformed Church, 2 to 9:30 p.m.

June 22-23. Art Institute Garden Club Flower Show, at Art Institute, 772 No. Jefferson St., Milwaukee. Show open June 22, 12 M. to 9 p.m.; June 23, 2 p.m. to 5 p.m. No admission charge.

June 22-23. Kenosha County Garden Club Annual Spring Flower Show at the Kenosha Youth Foundation Building in the Gymnasium. Admission 10c.

June 22-23. National Peony Show. Mayo Clinic Auditorium. Rochester, Minnesota.

August 3-4. Annual Flower Show of the Madison Garden Club in Woman's Bldg., 240 W. Gilman St., Madison.

August 10-11. Wisconsin Gladiolus Show. High School Gymnasium, Columbus.

NATIONAL COUNCIL, STATE GARDEN CLUB FEDERATION CONVENTIONS

JUNE 18-20. Wentworth-by-the-Sea, New Hampshire, Annual meeting. Wentworth House. Chairman, Mrs. William Champlin, Rochester, N. H.

October 7-9. French Lick Springs, Indiana. Semi-annual meeting. French Lick Springs Hotel. Chairman, Mrs. E. C. Cline, 207 S. Eighteenth St., Richmond, Ind.

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The State Flower Show

Dr. C. M. Schwendener

THE show is over and from all the fine comments we received, and considering the weather, it was a success. Also from all indications it will be a financial success, but of course will have to wait until all the returns from the tickets are in.

At this time I want to express my appreciation for the excellent help and support the organization that was set up gave me, and for the wonderful assistance and cooperation from the Wauwatosa Park Board.

To the advisory committee consisting of Mrs. Chester Thomas, Mrs. R. R. Hibbard, Mrs. W. Roecker, and Mrs. E. A. St. Clair most of the credit for the success of the show should be given. The first two planned the show and had full charge of staging and setting it up, and the latter two had full charge of the schedule—the entries and registration. They loyally supported me at all times and were very helpful in giving me much valuable advice.

Then we had the help of the following committees who also fulfilled all that was required from them:

Placement and Floor: Mrs. James Livingstone, Mrs. Frank Courtney, Mrs. S. A. Wandell, Mrs. Oscar Fleischer, Mrs. Max Schmitt, Mrs. Henry Konrad.

Registration of Entries: Mrs. Wm. Roecker, Mrs. Peter Cooper, and Mrs. Max Krautschneider.

At the door we had a most efficient committee. Mr. R. Ferge the chairman of the Door and Admittance Committee had worked out a system of relays to have the door at all times properly attended. Mrs. R. C. Ferge, Mrs. O. J. Reuss, Mrs. T. P. Eirich, Mrs. T. Wuchterl, and Mrs. F. G. Couley ably helped him.

The hostess committee Mrs. J. J. Simon, Chm., Mrs. Roy Sewell, Mrs. R. C. Schissler, with the help of many members from various clubs were on the job every day.

Mrs. Max Schmitt had charge of the poster contest and we had some much needed help from some men of the Juneau Heights Club—a men's garden club of West Allis. Mr. Sam Beernik, the president, painted the entire garden house at the north wall, and gave the use of his shop when Mr. Gordon Chromasta and his son helped him make some evergreen stands for us. They are made of metal and we now own 30 of them for the cost of the material.

Lastly, I must mention Mr. Bob Neus, the superintendent of the Wauwatosa Recreational Grounds, who, while not a member of a garden club, will long be remembered by those who worked with him as the most obliging and helpful person we had met for a long while.

The judges were: Mrs. H. Wilson and Mrs. E. R. Durgin, Racine; Mrs. Chas. Braman, Waupaca; Mrs. David Weart and Miss Catherine Morris, Oconomowoc; Mrs. C. Mohs and Mrs. F. Middleton, Madison; Mrs. Erwin Wells, Oakfield; Mr. James Livingstone and Mr. Albert Boerner, Brown Deer; and Mr. H. J. Rahmlow, Madison.

To all of these—and I hope I have not forgotten any—my personal thanks.

AWARDS AT STATE FLOWER SHOW

Wauwatosa, May 17-19

ALL exhibits excepting Perfection of Bloom Classes Judged by Merit System. Ratings: **Excellent**, Score 93-100; **Very Good**, 85-92; **Good**, 80-84; **Fair**, 75-79.

Gardens

Terrace or Patio Gardens. Excellent: Wauwatosa Garden Club. **Very Good:** La Belle Garden Club.

Garden Paths. Excellent: Blue Mound Garden Club; Milwaukee County Horticultural Society.

Dooryard Gardens. Excellent: Madison G. C.

Formal Gardens. Excellent: Menomonee Falls G. C.; **Very Good:** West Allis G. C.

Roadside Stands

Excellent: Hales Corners G. C.; **Very Good:** Blue Mound G. C.

Tables

Breakfast Tables. Excellent: Blue Mound G. C., Mrs. H. Freudenberg; Hillcrest G. C., Mrs. Robert Schissler; Ravenswood G. C., Mrs. T. P. Eirich; Elm Grove G. C., Mrs. Allan Kriz.

Garden Tea Tables. Excellent: Mrs. Ed. Hunt; Racine G. C., Mrs. Arthur R. Janes; Menomonee Falls G. C., Mrs. Walter Diehnelt. **Very Good:** Blue Beech G. C., Mrs. Hampton Thomas. **Courtesy Table (Excellent)** Mrs. A. H. Taylor, Florida Table.

Formal Tables. Wedding Tables. Crystal. Very Good: Blue Mound G. C., Mrs. H. Freudenberg. **Silver, Very Good:** Blue Mound G. C., Mrs. L. L.

Cannon; **Golden, Excellent:** Wauwatosa G. C., Mrs. Arno Krieger. **Modern, Excellent:** Blue Mound G. C., Mrs. Max Schmitt.

Period Tables, Russian, Excellent: Art Institute G. C., Mrs. Ray Lundahl; **French, Excellent:** Wauwatosa G. C., Mrs. Geo. Adami; **American, Excellent:** Milwaukee County Dental Auxiliary G. C., Mrs. L. A. Wandell; **Victorian, Excellent:** Fox Point G. C., Mrs. D. R. Kirkland.

Informal Luncheon Tables

May Day, Excellent: Menomonee Falls G. C., Mrs. Wm. Poepp; Milwaukee County Hort. Soc., Mrs. L. G. Stewart. **Very Good:** Port Washington G. C., Mrs. John Bittner; Ravenswood G. C., Mrs. E. Kronsoble.

Early American. 1732. Excellent: Blue Mound G. C., Mrs. R. Hibbard; **1750, Excellent:** Menasha G. C. **1800, Good:** Art Institute G. C., Mrs. C. Fleischer.

Coffee Tables, Excellent: Blue Mound G. C., Mrs. H. F. Kuechle; Wauwatosa G. C., Mrs. Howard Bast. **Very Good:** Hales Corners G. C., Mrs. W. R. Oelschlager.

Picnic Tables. Excellent: Milwaukee Co. Hort. Soc., Miss Stewart.

Wisconsin Scenes—Still Life Picture

North Woods, Excellent: Neenah G. C. **Farm, Excellent:** Milwaukee Co. Dental Auxiliary; **Still Life Using Material from Florida, Excellent:** City Club Garden Group.

Niches

Silhouettes, Good: Ripon G. C., Mrs. Linda Tabbert.

Etchings, Very Good: City Club Garden Group, Mrs. A. H. Taylor.

Tulip Pictures: Pink to Red, Excellent: Ravenswood G. C., Mrs. W. J. Armitage; **White to Deep Yellow, Good:** Milwaukee Co. Hort. Soc., Mrs. A. L. Noerenberg.

Foliage Arrangements, Excellent: Baraboo G. C., Mrs. Chas. True. **Very Good:** Hillcrest G. C., Mrs. Wm. Bruhn.

Fruits and Flowers, Excellent: Art Institute G. C., Mrs. A. H. Taylor; Milwaukee Co. Hort. Soc., Miss Celia Dix; **Very Good:** Green Tree G. C., Miss Loretta Seaman; La Belle G. C., Mrs. Lyle Nash.

Artistic Arrangements

Flowering Shrubs, Very Good: Sheboygan G. C., Mrs. L. E. Larson; Sheboygan G. C., Mrs. H. E. Sperling.

Good: Elm Grove G. C., Mrs. G. Schroeder.

Line Arrangements, Excellent: Blue Beech G. C.; **Very Good:** Madison G. C.; **Good:** Tess Corners G. C.

Living Room Pottery, Excellent: Blue Mound G. C., Mrs. I. C. Miller; Ravenswood G. C., Mrs. Wm. Armistage; Menomonee Falls G. C., Mrs. Wm. Poepp; **Good:** Elm Grove G. C., Mrs. G. Schroeder; Fox Point G. C., Mrs. W. C. Caspar; Elm Grove G. C.; Waupaca G. C., Mrs. D. J. Peterson; **Very Good:** Menomonee Falls G. C., Mrs. Wm. Poepp.

Desk Arrangements, Excellent: Madison G. C.

Screens

Alaska, Excellent: Fox Point G. C., Mrs. W. Fleischer; **Wales, Excellent:** City Club, Mrs. W. F. Roecker; **Canada, Very Good:** La Belle G. C.; **France, Very Good:** Menomonee Falls G. C., Mrs. Wm. Poepp; **Italy, Good:** Blue Mound G. C., Mrs. Max Schmitt; **Mexico, Good:** Sheboygan G. C., Mrs. L. E. Larson.

Screens—Men Only

Very Good: Wis. Horticultural Soc., Sam Post; Wauwatosa G. C., A. Wucherl.

Windows

Indoor, Excellent: Milwaukee Co. Dental Auxiliary; Ravenswood G. C.; **Very Good:** Blue Beech G. C.

Outdoor, Excellent: Countryside G. C.; **Very Good:** Racine G. C.

Arrangements Featuring Cultural Perfection

(Judged by Competitive Method of Judging)

Tulips: 1st prize, Hillcrest G. C., Mrs. S. M. Hyatt; Waukesha Town G. C., Mrs. J. B. Christoph; Waukesha Town G. C., Mrs. C. E. Schuetze; Elm Grove G. C., Mrs. Henry Roberts. 2nd prize, Waukesha Town G. C., Mrs. C. R. Rode; Wauwatosa G. C., Mrs. E. A. St. Clair.

Daffodils: 1st prize, Waukesha Town G. C., Mrs. C. A. Rode, 2nd prize, City Club Garden Group, Dr. C. M. Schwendener; 3rd prize, Waukesha Town G. C., Mrs. J. B. Christoph; Wauwatosa G. C., Mrs. E. A. St. Clair.

Iris: 1st prize, City Club Garden Group, Dr. C. M. Schwendener.

Specimen Bloom: 2nd prize, Hillcrest G. C., Mrs. L. Ruegg.

Collections: 1st prize, Wauwatosa G. C., Mrs. E. A. St. Clair.

Terrariums: 1st prize, Blue Beech G. C., Mrs. R. Malisch; 2nd prize, Waupaca G. C., Mrs. L. J. Peterson.

House Plants: 1st prize, Menomonee Falls G. C., Mrs. Wm. Poepp, Begonia;

2nd prize, Menomonee Falls G. C., Mrs. Wm. Poepp, Chrysanthemum; 3rd prize, Waukesha Town G. C., Mrs. C. R. Rode, Begonia.

Miniature Arrangements: 1st prize, Carol Elen Kriz.

WELCOME BERLIN GARDEN CLUB

THE Berlin Garden Club was organized in April. The club voted to join the Federation and the Horticultural Society.

Officers of the club are: President, Mrs. C. A. DeVoe; Vice-Pres., Mrs. J. A. Younglove; Secretary Mrs. J. C. Ziehm; Treasurer, Mrs. Earl Kolb.

The Federation welcomes the Berlin Garden Club to membership.

WILD FLOWER SHOW AT SUPERIOR

THE Wildflower Garden Club—Auxiliary No. 4 of the Superior Garden Club—is planning a Wildflower Show, including native shrubs, on June 11th. Club members of course will be careful that no laws are violated.

The Wildflower Club is particularly interested in listing all native wild flowers, testing rare varieties for garden purposes, and increasing the interest in the use of native shrubs in landscape work.

Weed study and the methods of eradicating noxious weeds will be studied this year.

CLUB ENJOYS SLIDES

“WE enjoyed the slides you sent last month so much we would like another set for next month’s meeting. For a new club, slides are just wonderful. The members seem to take much more interest in the meetings and in the flowers shown. We certainly appreciate them.”

—Mrs. H. A. Opsahl, DeForest Garden Club.

VISIT IRIS AND PEONY GARDENS

DURING the blooming season is the time to select iris and peonies for our gardens.

W. A. Sisson of Rosendale invites all of us to come to “The Peony City” this month. (See ad on back cover.) Mr. Sisson has over 1,000 varieties including all the leading varieties.

Mr. Walter Miller of Sun Prairie also has many of the best varieties of iris and peonies and his garden is an excellent place for a garden club tour. Mr. Miller also specializes in delphinium and perennial phlox.

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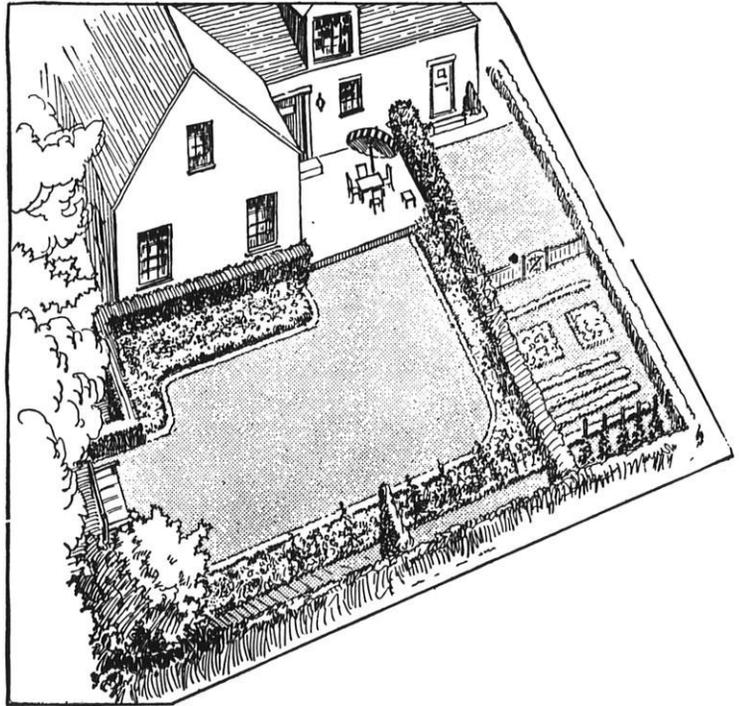
IN small gardens today classifications tend to merge. The orthodox types of garden design become strangely mixed. The formal and the informal, the natural and architectural, often mingle, and, strange to say, the effect may be delightful.

It should be said that the controlling purpose of modern ornamental garden design is to display the beauty of the flowers and plants which grow in the garden. There can be no beauty in a garden greater than the beauty of its plants; and the design is good in proportion to its success in displaying at their best the natural grace, form and color of the garden's horticultural treasures.

This trend toward simplicity of garden design is in harmony with dress design, interior decoration and other branches of the decorative arts. And like the others, the garden relies for much of its effect upon the studied use of color.

There are still to be found in our formal gardens geometrical beds and bi-symmetrical grouping of ornaments which might have been copied from mid-Victorian models; but seldom nowadays, except in public parks and railway station grounds is the carpet bedding fashion followed, in which plants are required to surrender their individual charm, and become merely pigments with which a gardener embroiders patterns on the lawn.

Formal beds now do not call for stiff and formal planting, but in them flowers are grown in their natural grace and beauty, so arranged, as to both form and color, that the feeling of balance



It's Not a Home Until It's Planted

essential to any good design is preserved.

Such arrangements are dependent upon skillful color grouping for their major charm; and where can be found a greater opportunity for the pleasing use of color than in a garden?

Flowers are color. They afford an infinite range of material ready to the hand of the artist who would combine them in a picture. It is not strange that the wave of color consciousness which has spread over the world and so strongly influenced our fashions in dress and decoration should focus in our gardens.

The layout of the small garden is tied directly to the plan of the house. Direct and inviting communication between house and garden is important, so that the maximum use of the outdoor department of the home, "the outdoor living room," may be enjoyed.

And a vegetable plot, where fresh and tender vegetables can

be picked a few minutes before it is time to cook them, completes the ideal small garden design. In the illustration, it is shown directly off the kitchen door, separated from the ornamental garden by a hedge, but contributing an attractive as well as useful feature to the small home grounds.

THE MERIT SYSTEM OF JUDGING

IN the April issue of *The Flower Grower*, Marion P. Thomas, editor of the *Clubs and Societies Page* comments on the Merit System of judging with the following statement:

"In exhibiting, one is not running a race hoping to down others and win a prize but is striving for perfection, either in expressing in plant material a mental picture or in developing some specimen to the highest standards of its kind. Merit System expresses exactly what it means."

IN MY GARDEN

Dusting. Until the latter part of June it is well to continue to dust all plants in the garden susceptible to diseases and insects with sulphur rotenone dust. Addition of pyrethrum in the dust hastens the killing of some insects. When real hot weather comes, however, do not use common sulphur for dusting, or lime sulphur for spraying because it may burn the leaves of tender plants. Many prepared dusts for the duster such as Kolo-Roteneone contain a mild type of sulphur which does not burn, in our experience.



Tulips. We noticed again in May that the tulips growing among shrubs on the College of Agriculture grounds in Madison were blooming nicely. They are in rather a dry place where we would not expect them to do well, but it seems that in such a place they do not multiply or the bulbs do not split up as much as in a good garden, so these tulips live over year after year. Do not cut down the leaves of tulips and other flowering bulbs until they are limp or yellow.

Iris. Cut the blooming stalks of iris as soon as the flowers wither. Do not permit them to go to seed. Then do not cut the leaves back, but allow them to grow naturally until fall. The leaves are manufacturing food to be stored in the rhizomes for next year's flowers. Dusting the leaves frequently with sulphur dust prevents iris leaf spot. Watch for iris root rot, especially in case of wet weather. When you find such a spot, examine carefully to see if it is caused by the iris borer. If it was, the program of dusting or spraying may need revision and improvement early next spring.

Peonies. There are many beautiful varieties of peonies.

June is the time to study them by visiting peony gardens. W. A. Sisson of Rosendale announces in his ad on the back page of this issue that we are all invited to Rosendale this month where there are 1,500 varieties of this beautiful flower. For a garden club tour, drop Mr. Sisson a card asking for best dates. Walter Miller of Sun Prairie also has a large planting.

When cutting peony blooms, be sure to leave some of the foliage on the base of the stalk for good flowers next year.

Changing color of Hydrangeas. The color of the hydrangea shrubs we grow in the garden cannot be changed. The florist hydrangea which may be either pink or blue, is not hardy. The color of this type can be changed by changing the acidity of the soil. If the flower is blue the soil is acid. It is pink if the soil is not acid. The florists control the color by application of common alum (aluminum sulphate).

Pruning Evergreens. Evergreens can be pruned this month. The ornamental evergreens such as Junipers, Japanese Yews, Arborvitae, and Mugho Pine should be cut back lightly as soon as the new growth has

reached full size. In this way we can prevent the evergreens from growing very much and keep them nice looking. Prune them so they have the shape that you like and are best suited for their location. They may be pruned quite heavily if desired.

Pruning Perennials. We can cut back perennials and have them grow more bushy or more branched than if they are not pruned. Hardy chrysanthemums should be pinched back to prevent certain varieties from becoming tall and spindly. Many annuals can be pinched back to produce a more attractive plant.

Some perennials such as Delphinium, Coreopsis, and Gaillardia can be cut back when they are finished blooming and will produce a second crop of flowers. H. J. Rahmlow.

Gruff Father to son—"Why don't you get out and find a job? When I was your age I was working for \$3.00 a week in a store, and at the end of five years I owned the store."

Son—"You can't do that nowadays. They have cash registers."

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MILK BOTTLES FOR FLOWER SHOWS

IT is interesting to find that paper milk bottles are beginning to appear in shows. It is quite possible that they will come into common use before long and perhaps replace most other containers. Paper milk bottles are surprisingly strong and, if well made, will hold water for a week without danger of leakage. If water is confined to the lower half, they are well weighted and are not readily tipped over. They are light to handle, easily stored, and can be used several times. Even when new milk bottles must be purchased, the expense will be almost negative.

Milk bottles have been used in exhibitions of the Massachusetts Horticultural Society at Horticultural Hall in Boston with some degree of success and it is known that arrangements can be made for purchasing such bottles at a low cost—three or four cents each delivered. The bottles are bulky and require large packages for shipment.

Table Covering

The covering of the tables at flower shows is a matter which often causes complications. Something is needed which will absorb water or at least not be discolored when water is spilled upon it. White paper, often used, is far from satisfactory, and burlap is in many instances too expensive. Sometimes fine peat moss is used to advantage. A thin layer of this material is not objectionable and of course absorbs any water, which might be spilled upon it. Cocoa shells have been tried and given good results but they throw off an odor about which visitors often complain. Probably the best material to be used for covering the table is

what is known as brown skin paper. This paper is pliable enough to be handled readily; the color is neutral enough to be inconspicuous; and it seldom shows stains. It comes in rolls at a reasonable cost and serves as a satisfactory background for flowers or plants of almost any type.

—From January 15 Horticulture.

BROWNING OR RUSTING OF EVERGREENS

THE sudden browning of evergreens is of more or less common occurrence each year. The amount of brown or yellow foliage may vary somewhat during different years and is also likely to be more conspicuous at some seasons of the year than others. This discolored condition of the foliage troubles both nurserymen and homeowners.

Generally speaking, browning occurs at three rather definite periods throughout the year, namely, early spring, early summer, and early fall. In an attempt to diagnose the cause of this trouble and to cope with it the writer feels that it is important to distinguish between these seasonal periods insofar as possible.

Spring browning—This particular type of browning often occurs during late February and early March. It is sometimes called winter-drying. The damage is done while the soil is still frozen so that the tree cannot replace the water lost by the needles. This type injury is usually more noticeable on those portions of the tree that are exposed to prevailing winds and direct sunlight. It should not be confused with injury to fall planted trees that fail to become established, or trees in poor vigor, lacking in

hardiness, or otherwise adversely affected from other causes.

Summer browning—Browning of trees during the summer is in most cases caused by insects or related pests. Spruce mite or "spider mite" is a common source of trouble. The spruce mite not only attacks spruces but many other types of evergreens as well. Upon close examination these reddish brown creatures, smaller than the head of an ordinary pin, can be seen crawling about the tree. Usually webbing is in evidence. Furthermore, mite injury is likely to be more prevalent during hot dry periods and is frequently quite "spotted," that is, on isolated plants here and there. Dusting sulfur as frequently used by nurserymen gives good control. Other possible causes of summer browning are scale insects, root weevils, spruce gall aphid, plant diseases, prolonged drought, sun-scorch, poor establishment of plants, and unfavorable planting sites, particularly exposed and poorly drained spots.

Fall browning—Here again the amount of browning may vary considerably during different years. Commonly, this condition is quite natural—that is, it is a case of natural shedding or pruning of the older leaves and branches and is comparable to that which occurs on deciduous plants. This type injury is particularly noticeable on arbovitae and may also be observed on pines in the form of browning and shedding of the 3 and 4-year old needles. Occasionally the 2-year old needles fall, but this may be due to some organic agency or some adverse weather condition.

—By F. L. Gambrell. Condensed from New York Nursery Notes, Edited by H. B. Tukey, Geneva, N. Y.

More About Vitamin B₁— Its Effect on Plant Life

By James H. Burdett

THE major topic discussed among flower lovers today is the application of Vitamin B₁ to plant life.

That as little as one milligram (about what will adhere to the point of a sharp toothpick) will make approximately 20 gallons of solution with which to water plants will give you an estimate of the potency and great economy of this discovery.

It is true that Vitamin B₁ has produced remarkable growth in certain plants normally found to be inherently deficient in this root growth factor, causing them to develop larger and stronger stemmed flowers, but this is not what is really hoped for it.

The greatest practical application is the elimination of root shock in transplanting any size plant from a seedling to a giant oak or conifer. Transplanting heretofore has always been fraught with a sense of uncertainty as to whether or not the transplant will be able to survive the shock of being moved. Thus far, the true plantsman has been most enthused over this phase in the application of the root stimulating Vitamin B₁ factor.

The amateur gardener who prefers to garden from seed will find in Vitamin B₁ a safeguard against the wilting and loss of seedling transplants when an unfortunate spell of very devastating hot weather follows the cool evening selected for transplanting from the plant box to the open garden.

The amateur will be further relieved to learn that Vitamin B₁ applied in solution to the soil under Camellias and other notoriously poor rooters will stimulate root development rather remarkably and result in better top growth.

The transplanting of trees and shrubs, it is hoped, will no longer present a problem, for experimentation at this time points to the fact that where the roots are immediately soaked with Vitamin B₁ solution after being disturbed, the shock of transplanting is minimized, and possibility of loss greatly reduced. A great deal of experimental work has to be done in order to determine the efficacy of the solution on the many families of plants.

At first blush, it is quite possible to gain the impression that Vitamin B₁ applied in weak solution to the roots of plants causes marked improvement in the same manner that fertilizer does and that it supplants the available plant food elements of fertilizers. This is a mistaken impression. Vitamin B₁ produces root growth, and indirectly makes it possible for the plant with the better root system to take more nourishment and drink and thus produce a more vigorous, healthy top with flowers of better quality.

Reports of further experiments with Vitamin B₁ will be watched by all lovers of plants with deep interest.

From Garden Glories.

COME SEE OUR JUNK YARDS

THE Maine Garden Club Members became disgusted with the methods used to control billboards, and are using stickers which are causing considerable comment, wherever they have been seen. One reads, "Come to Maine and Admire Billboards" and the other reads, "Come to Maine and See our Automobile Junk Yards."

—From Iowa Garden Club News Letter.

HOW TO CONTROL ANTS IN THE GARDEN

THE State Entomologist gives us the following method for the control of ants in the garden:

"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."

Editor's note: The editor has for the past four years dusted ant hills in his garden and lawn with rotenone dust. After one or two dustings the ants seemed to disappear in about a week's time. Very large hills, however, were dusted over a period of two or three weeks. We suggest that our members try this method as many have rotenone dust available.

GARDEN TOUR AND LECTURE AT FREEPORT, ILLINOIS

THE Freeport Garden Club, Freeport, Illinois, announces open house and garden tour, Saturday and Sunday, June 8-9. It will be a very interesting tour.

On Sunday, June 9th, at 2:30 p.m. Prof. A. P. Saunders, Clinton, New York, will give an illustrated lecture on peonies. Admission to both tour and lecture will be 50c each.

How To Distinguish Between Various Groups Of Roses

THE following description will help to distinguish between various groups or types of roses now being grown. The most common are Hybrid Perpetuals, Hybrid Teas, Floribundas, Polyantha roses, Tea roses, and Rugosa roses.

Hybrid Perpetual Roses

A good example is Paul Neyron. The name was given these roses because they were more everblooming than other roses at that time. Today, however, they are not considered everblooming because they bloom mainly in June with occasional flowers in the fall. They are fairly hardy, but require covering in Wisconsin. They are double, and come in colors ranging from pure scarlet, rose, light pink, and white. They are fragrant but not tea-scented.

Hybrid Teas

A good example is Radiance. They are also called Monthly or Everblooming roses, and in favorable climates bloom almost continuously. They are not hardy, but can be wintered in Wisconsin by careful and heavy mulching. The flowers are pointed and well formed, often quite double. They come in lovely colors often in unusual tints and tones. They are strongly tea-scented. The young leaves are sometimes bronze. They are recommended for all parts of the United States except where it is too cold for them.

Tea Roses

The Tea Roses are most useful in the warmer climates. Their fragrance is suggestive of tea. They have been crossed with the Hybrid Perpetuals to produce the hardier, more vigorous Hybrid Teas.

Polyantha Roses

The Polyantha roses are low growing, semi-dwarf bushes with dense clusters of flowers. There may be in many instances from 15 to 50 flowers on a plant, making a splendid garden display. They are fairly hardy and vigorous and well adapted to Wisconsin conditions, but must be given some protection in the fall.

Floribunda Roses

This is a new class especially adapted to mass-planting and garden decoration. They are quite hardy and bloom constantly. They somewhat resemble the Polyantha, but the individual flowers are large and more perfectly formed.

Rugosas

The Rugosa, both the species and the hybrid, are large strictly upright bushes and grow quite tall, with spiny or thorny stems, rough and wrinkled foliage, with fragrant although somewhat irregular flowers. They are adapted to rustic use and not so well adapted to the sophisticated city garden. The Grootendorst seems to be a blend of the Rugosa and Polyantha type. They are very hardy.

NATIONAL SHADE TREE CONFERENCE

THE Sixteenth National Shade Tree Conference will be held at the Book-Cadillac Hotel, Detroit, Michigan, August 27-30. Anyone interested in the program may write the Conference at 710 Stephenson Building, Detroit, Michigan.

WHY DO TREES FAIL ON PRAIRIE SOIL?

SOME clues as to why windbreaks and other tree plantations often fail on southern Wisconsin prairie soil have been uncovered by D. P. White and S. A. Wilde, working with support from the Wisconsin Alumni Research Foundation.

Greenhouse trials with a number of prairie soils from this area have shown that none of them are well adapted to forest growth. Seedlings grew but little better on prairie soil than on barren sand.

Low in Phosphorus

Analyses showed the prairie soils were low in available phosphorus, even though some of them had as much as 1,000 lbs. per acre of total phosphorus. Applying phosphate fertilizer markedly improved the early growth of trees on these soils. Nitrogen fertilizer brought about further improvement in the growth rate, even though the prairie soils are high in humus and total nitrogen.

Part of the difficulty with tree nutrition on prairie soil, White and Wilde believe, is due to lack of the proper soil microorganisms, particularly mycorrhiza. Lack of certain organic growth substances may be another factor.

So far the investigation has not revealed any unusual soil reaction, carbonate content, or concentration of salts in the upper layer of prairie soils that could be detrimental to trees.

—From Annual Report of the Director, Agricultural Experiment Station, University of Wisconsin.

Properly Placed

Politician (to railroad superintendent): "Can't you give my friend a job on your railroad?"

Superintendent: "But he can't speak English."

Politician: "Well, then, give him a job calling out trains."

How To Conserve Wisconsin Wild Flowers

By Emil P. Kruschke, Milwaukee Public Museum

THE conservation of our wild flowers is one phase of the conservation program which has lagged behind, not because it was less important, but because we didn't understand the language and drama of our plant friends; because we didn't fully understand the part wild flowers played in relation to other wild life and to the development of human culture.

In order to preserve our remaining wild flowers for posterity, I wish to make a plea to **all our people**, and especially **the farmer**, to help in accomplishing the following program, in order that we might partly redeem ourselves for the damage we have already done:

Permanent Sanctuaries

1. Establishment of **permanent** wild life sanctuaries so that the natural habitats of plants might be preserved. The state, private landowner, or any group or organization who loves his native landscape can be instrumental in creating them. We already have one such preserve called the "Ridges Sanctuary," at Bailey's Harbor, Door County. The railroad right of ways, are among the few places where we continue to find virgin wild flowers. If these lands were set aside as permanent sanctuaries, we would do much to preserve our wild flowers.

2. **Fence the woodlots** so that cattle; sheep and goats are not permitted to graze therein. Being born and reared on a farm I know that the woodlot furnishes very poor pasture. I wager that if you keep the cattle out of your woodlot for a few years you will be doubly rewarded. Your children will have a garden paradise that every city boy and

girl, despite their beautiful parks, will envy.

3. Leave a little land along your fence lines as a haven for trees, shrubs, vines and wild flowers. You will be providing a home for many wild flowers and you will encourage birds and other wild animals to come there for food and covers. You will profit, your community will profit.

4. **Prevent the contamination** of your lakes and streams by cities and factories. Why permit industry to poison the aquatic animals and plants of our streams and lakes?

5. Think twice before you surrender your swamp, bog, or lake to a selfish, scheming, drainage engineer who doesn't know the difference between a cat and a cattail. Don't disturb the channels of your streams and rivers, and by all means protect the vegetation on their banks. Don't continue selling your wild animals and beautiful orchids down the river.

6. To those who are fortunate to own a cottage and some land on a lake shore, you too can be of great help in preserving wild flowers. Protect those aquatic plants on your shore by not cutting them. Be tolerant of your wild flower neighbors and give them a chance in their rightful sphere.

Do Not Pick Flowers

7. Discourage all picking, cutting and digging up of wild flowers. People should be content to look at our remaining flowers in their native haunts and appreciate them there, instead of picking them, only to find them wilted and useless on bringing them home.

8. **Use your woodlot wisely!** For every tree you cut down,

plant two in its place. On bare hills and slopes, and on land which is too poor for crops, plant native trees and shrubs. At the same time you will create a home for woodland flowers.

9. Restore the wild flowers and native landscape that once grew along your highways. Much of this has been destroyed by short-sighted engineers. The tourist business in Wisconsin is second in value only to our dairy industry. Now, if we can protect and encourage our wild flowers, we can bring back that floral paradise we once had. Then we can advertise them to the public as does California, whereby we will add tremendously to our tourist business from which we all, directly, or indirectly, benefit.

WHEN GRASS GROWS POORLY UNDER TREES

LAWN grass cannot be grown in dense or complete shade because the green leaves of plants simply must have some sunshine. However, in partial shade it may be possible to improve the growth of lawn grass by adding a complete fertilizer such as 4-8-6, and also incorporating humus into the soil such as peat. Furthermore it is often very dry among trees. The leaves of the trees shed much of the rain and the tree roots use the humus and fertility.

It may also be possible to trim some of the branches off our trees to let in more sunshine. Shade trees need not have low branches and they can be opened up to allow sunshine to filter through. More water must be given grass in shady areas where there is competition from roots of trees or shrubs than in the open. In fact, water is one of the most important essentials for a good lawn.



June Is The Peony Month

Our Peonies Are Now Blooming!

ROSENDALE INVITES PEONY LOVERS FROM COAST TO COAST TO SEE 1,500 VARIETIES OF THESE BEAUTIFUL FLOWERS

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—Cut Courtesy
Wisconsin Country Magazine

July-August
1940



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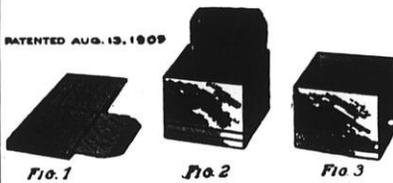
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The elderly maiden aunt received a letter from her ten-year-old niece: "Dear Aunt Martha: Thank you for your nice present. I have always wanted a pin-cushion, but not very much."



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Wisconsin Horticulture

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PLEASE DO NOT SEND STAMPS

Wisconsin Horticulture

Apple Crop Prospects

**Our Growers Report Good Prospects.
Scab and Codling Moth Being Controlled**

THE prospect for an apple crop in Wisconsin this year ranges from fair to good, according to reports sent to the Society early in July. The following reports were received:

SUNRISE ORCHARD, GAYS MILLS: Prospects in this section seem to be very good. All varieties have set a good crop with Greenings, McIntosh and Snow the heaviest.

FRED SACIA, GALESVILLE: Crop prospects are good. Wealthy, Duchess are light in bearing, while Delicious, and Greenings are heavily set. McIntosh is only fair.

A. K. BASSETT, BARABOO: The apple crop looks very good this year. McIntosh, Windsor, N. W. Greening, Russets and some other varieties have set a heavy crop. Snow, Salome and Ben Davis will have half a crop. Wealthies are light this year.

N. A. RASMUSSEN, OSHKOSH: Prospects are for about 30% of a crop. McIntosh are exceedingly light.

DON REYNOLDS, STURGEON BAY: The crop prospects here are only fair. N. W. Greening has a heavy set, while McIntosh is light.

RALPH IRWIN, LANCASTER: The crop prospects are very good. The June drop is about over and thinning will be necessary on some



varieties. Wealthy, McIntosh and Greenings have all set heavy.

DAWSON HAUSER, BAYFIELD: The outlook is for a large crop here. Most varieties and most orchards are loaded. We should have more of all kinds with the exception of Duchess.

S. S. TELFER, ELLISON BAY: The apple crop in the northern part of Door County will be lighter than normal. Wealthy, Duchess, and Wolf River set well. McIntosh and Greenings that had good bloom will have a fair crop of fruit. Trees that did not bloom heavily in these two latter varieties did not set well. There will be practically no Snow apples.

ARNO MEYER, WALDO: Crop prospects here are about 25% of a crop. Only Wealthy has a heavy set. McIntosh is light. There was a very light bloom on Snows.

Scab Control

There was a heavy infection of apple scab this spring in many sections of the state, but reports from growers indicate that the disease has been controlled. For example, Sunrise Orchards, Gays Mills, reports there was a heavy infection of scab this spring, but has been completely controlled wherever thorough spraying was done.

A. K. Bassett states that the fruit appears clean and that they applied three pre-blossom sprays.

Don Reynolds reports they sprayed seven times to the first part of July, and that the weather was bad for scab.

In Bayfield there will be some scab, especially where the spraying was delayed. Dawson Hauser reports that they sprayed five times up to July 1 and were about to spray again. There was an exceptional amount of rain in that section.

Trees which were not sprayed are badly infected, writes Mr. S. S. Telfer, Ellison Bay. With the rainfall above normal, it was necessary to apply extra sprays in order to control the scab this season.

Codling Moth not Troublesome

Due to the rain and cool weather, codling moth did not appear troublesome, at least until the first half of July. Writes S. S. Telfer, Ellison Bay: We are not troubled with codling moth so far. The orchard is exceptionally free from all insect pests which have given us trouble in the past. There are no leaf roller or aphids present.

The rain and cold weather during codling moth sprays reduced them considerably and at this time we seem to have them well under control, writes Sunrise Orchard, Gays Mills.

A. K. Bassett, Baraboo, states the codling moth seems to be late in hatching this year probably due to the cold weather.

In southern Wisconsin the situation is a little more severe than further north. Ralph Irwin, Lancaster, states that there is some evidence of worms and that they have had trouble with codling moth in the past. He wants more information on non-arsenical materials for later sprays.

N. C. Jacobs, Sturgeon Bay, and Martin Wiepking, Cedarburg, write that codling moth will not be bothersome this year because the trees have been sprayed thoroughly.

NEW APPLE VARIETIES FOR THE STATE FAIR

MR. VIRGIL FIELDHOUSE of Dodgeville writes: "I am very glad to see the Melba and Milton apples get recognition as individuals at the Wisconsin State Fair this year. I am wondering, however, if there are enough bearing trees to supply trays and pyramids of these varieties.

"The large exhibitors are not much interested in the new varieties, so I believe it is up to the smaller growers to exhibit them."

What Types Of Apple Containers Shall We Use For Selling Our Crop

EARLY in July we asked a number of our fruit growers in various sections of the state the question, "What kind of apple containers will you use this fall to market your crop?"

The answers to the question indicated that most commercial growers will use the bushel basket. However, here are some of the statements made:

S. S. Telfer, Ellison Bay, writes, "In the past we have used tub bushel baskets principally for marketing our apples. For the better grades of apples, especially the McIntosh, we have used the corrugated box containing eight trays, designed by the National Container Association's Research Department. We will undoubtedly use these two types of container again this season."

Arno Meyer of Waldo will use a box of which the dimensions are $16\frac{1}{2} \times 14 \times 11\frac{1}{2}$.

N. A. Rasmussen states that they will use bushel baskets and their special baskets which are of heavy corrugated cardboard, with cover and handle. No boxes will be used except of special bushel size of the same type as the baskets.

Dawson Hauser of Bayfield states that they will probably use bushel baskets, although a container that would pack and ship 8 or 10 pounds of fruit if it were cheap enough would be a good thing.

Containers for Local Markets

The question was asked a number of growers, "If you market your fruit locally, are you using paper bags or special types of baskets? And if so, why?"

Arno Meyer states: "The paper bag suits the customer best."

Sunrise Orchard, Gays Mills, states: "We use a few open mesh bags and paper sacks for local sales. Most of our customers that buy at the orchard supply their own container."

A. K. Bassett of Baraboo states: "We use bushel baskets, half-bushel baskets, and paper bags for peck or smaller amounts. These seem to be the cheapest containers to obtain and our customers as a general rule, do not like to pay for any high priced fancy containers."

N. A. Rasmussen, Oshkosh, states: "Paper bags and mesh bags are good for retail sales. Till and special baskets are good for better fruits. We also use baskets of 8 and 12 quart size with large bushel box style for shipping."

Ralph Irwin of Lancaster markets a large part of his crop at retail and uses paper bags for peck and half-bushel orders, and burlap bags for bulk sales, with baskets for the better grades. He has a market for culls and burlap bags are cheapest for these.

Martin Wiepking, Cedarburg, writes: "Selling to consumers, we sell in paper bags $\frac{1}{4}$ peck and $\frac{1}{2}$ peck and peck size. Very few are sold in bushel lots."

N. C. Jacobs of Sturgeon Bay, states that for the few apples sold locally to consumers they bring their own containers.

Misplaced

A group of angry and impatient men were inquiring why the 8:47 was not at the platform at 9:55.

A porter supplied an adequate explanation.

"Bill can't remember where he put the engine last night," he said.

Coloring Apples After Picking

Lawrence Southwick, N. Y.

DETACHED pieces of live green apple skin will develop red color under proper conditions of exposure and moisture. But following periods of storage, the skin cells usually die and such fruits will never take on color, even under conditions fostering such development.

Coloring After Picking

From what has been said, it is at once evident that apples need not be attached to the tree to develop color. Many fruit growers know that "drops" will color if allowed to remain under the tree for several days. In many cases it has seemed that color development actually has been speeded up following either natural abscission or artificial removal from the tree. Usually, however, under ordinary commercial handling conditions, apples are removed from direct light exposure shortly after picking so that most

of the crop is never given a chance to increase the amount or the quality of the red blush.

In recent years some experimental coloring of fruits before, during and after harvest has been done by Experiment Stations and also by a few individual growers. In the East, McIntosh and Northern Spy have been used to a large extent because of the tendency for these important commercial varieties to color poorly under conditions favoring high production, especially in some years. Hoffman's results at Ithaca indicated that picked apples will develop "very satisfactory color with a rather low total light intensity provided a relatively large proportion of the light is made up of the short wave lengths containing the ultra-violet." This finding illustrates the fallacy in old methods of exposing detached fruits to the direct rays of the sun without shading. *Severe scalding was often encountered.*

New Coloring Method

Hoffman devised a coloring method which any fruit grower can use effectively under the right conditions. On a shaded site a frame consisting of a roll of ordinary poultry wire four feet wide and 100 feet long is stretched across 18-inch supports. If the frame is in the open, a shade consisting of at least three layers of cheesecloth or its equivalent it stretched over the top about 18 inches above the fruit. Such a frame will accommodate 50 bushels of apples. McIntosh, green at harvest time, will develop fancy color after a few days on this frame.

Coloring Lower Side With White Oilcloth

The exact length of time will depend largely on weather conditions. With white oilcloth stretched on the ground under the frame, even

(Continued on Page 317)

AMERICAN A P-L-PAKS

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IN THE ORCHARD

THE RELATION OF THE SET OF FRUIT TO QUALITY

WHEN too many apples are allowed to develop upon a tree, the crop averages too small in size and lacks color and quality. Too thick a set of apples is slower in coloring and ripening than a set of the proper number of fruits. Again, leaves upon a tree are the source of starches and sugars required by a tree and its fruits. Too few leaves per fruit means small and poor fruit. You cannot increase the proportion of leaves to fruit in any adequate manner by nitrogen applications to a tree with too heavy a set in June and July; in fact, such a treatment tends to reduce color and quality. In other words, fertilization in midsummer is not a remedy for too heavy a set.

In general, the greatest volume of fruit per tree was obtained when apples were thinned to 6 to 8 inches apart.

—Prof. M. A. Blake in New Jersey State Horticultural Society News.

CONSIDERABLE INTEREST IN HARDY APRICOTS

AS a result of the Wisconsin Horticultural Society's recommendation that the Scout apricot be tested in Wisconsin, 49 members ordered from 1 to 2 trees each, making a total of 95 trees which were sent out to our members this spring.

Superintendent W. R. Leslie of the Dominion Experimental Farm at Morden, Manitoba, spoke at the Minnesota Short Course meeting this spring and stated that the Scout apricot developed at the Morden Station introduced two years ago, is hardy enough to do well anywhere in Minnesota, and that in quality it will compare well with the larg-

er varieties shipped in from the West, according to the Minnesota Horticulturist for June.

A PROMISING PEACH TREE

MR. WESLEY REYNOLDS of Warrens writes in May, "I was interested in the article "Why Peach Buds Winterkill" in the May issue of Wisconsin Horticulture. I have two peach trees propagated as chance seedlings, that have enough good healthy blossoms for a fair crop, although perhaps 60% of the buds winterkill. For comparison, I have a South Haven peach tree on which the blossom buds all killed."

Since the temperature dropped lower than 15 below zero last winter, it would seem that the peach tree seedlings which Mr. Reynolds mentions might have hardier blossom buds than the standard varieties. It will be interesting to watch.

Undoubtedly if we are ever to have hardy peach trees in Wisconsin it will have to be from seedlings or from crosses of hardy varieties whose flower buds will withstand our winters.

SOIL TEMPERATURES AFFECTED BY CULTIVATION

AIR temperatures play a very important part upon plant growth. The type of soil, the shade from the plant (not weeds), and the time and depth of cultivation are factors that will influence soil temperatures. Many of our plants thrive best when soil temperatures are from 75 to 85 degrees, often growth stops at 95 degrees and death to roots at about 110 degrees.

Results from soil temperature readings during the year may vary from 25 to 30 degrees above during the winter months at a

4-inch depth, up to 115 to 125 or 130 degrees during the summer.

The more and deeper the cultivation and the warmer the air temperature, the deeper will be the penetration of the heat. After all isn't weed control one of the most important reasons for cultivation? —From *Hoosier Horticulture*.

BEAVER STRAWBERRY STILL LEADS IN COMMERCIAL SECTIONS

THE Beaver strawberry is still the most popular in the commercial strawberry growing sections, especially on lighter soil in the Bayfield, Sturgeon Bay, and Warrens areas. On the sandier soils the Beaver outyielded any other variety observed this year, and all growers contacted are holding to the Beaver as their first choice commercial strawberry.

Premier has second place in popularity and seems to do a little better on some heavier soils than the Beaver.

Catskill is popular in some sections, especially Bayfield, where a number of growers are preparing to have as their main crop next year, Beaver and Catskill.

Senator Dunlap still seems to be a good berry for the farm garden, and some excellent patches were noticed this year, especially on heavy soils and where the patches are small. However, in the larger growing sections Senator Dunlap seems to be so subject to leaf spot that we saw patches which were practically a 50% loss. The leaf spot stunted the berries and many failed to develop at all.

Most growers are discarding Dorsett and Fairfax. They are high quality berries but fail to give good yields.

NEW STRAWBERRY VARIETIES AT WARRENS

H. H. Harris

OUR first picking of strawberries was on June 20, and the last on July 8. We had as nice large Beavers this year as we ever had—better on the second year bed than on the one set last year. This, I think, was because the runners on the new planting were late in getting set last season. Premiers yielded as well as Beaver, but ran smaller and were more inclined to lose their calyx in picking. There were no Beavers on my patch to compare with Catskill, Premier and Dresden.

Dresden Looks Promising

The Dresden yielded more than either Catskill or Premier from the first picking to the last. There were more berries on each stem than any other variety. This bent the clusters to the ground. They averaged good size. I picked each variety each time myself, and I found there was some danger of the whole cluster of Dresden breaking off if care was not taken in lifting the cluster to pick those that were ripe. All who saw them thought they were ideal berries. They held their size quite well even to the last, rather better than the other two on test. The plant was not quite as bright at end of the season as Premier (and few varieties are).

The Beaver is inclined to have more or less wilted or faded foliage at the end of the picking season.

The North Star set the least fruit of any variety on our list. The plant is the largest of all.

Yield Records

The following are the records of the pickings from June 20 to July 8 on my test rows of Catskill, Dresden and Premier.

Variety	Qts. per row	Crates per acre
Catskill	18	738
Dresden	23½	969
Premier	21	862

STRAWBERRIES AT DODGEVILLE

Virgil Fieldhouse

THE Senator Dunlap strawberries in a plant bed did well this year, and they still seem to be the farmer's best bet in this locality. We like the Premier much better for canning or table use ourselves. Our pickers and those who taste the berries, all prefer the Premier.

"The Fairfax and Catskill were stunted by winter injury. The Dorsett had good foliage, but all three produced nubbins. There were a few nice large berries. However, we will give the Catskill another trial.

"The North Star had good flavor but had made so few plants that the yield was very small.

"The Dresden foliage was good and a very large set of well shaped berries was obtained. I did not like the flavor however. Our rows unfortunately could

not be reached by water on hot days, and we cut out large clumps of oats a few days before we started to pick; so the sun may have damaged the clusters.

"The pickers were instructed to grade the berries in the patch, carrying a four quart carrier with one different looking box for seconds. About 36 quarts of these were thrown away, and the rest sold at a low price.

"Although Beaver strawberries were available in local stores at 8½c to 10c per quart, mostly picked the day before, the store ran out of our berries almost every afternoon at 15c per quart."



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In The Berry Patch

RASPBERRY CROWN GALL INCREASED BY SOIL INSECTS

THE Minnesota Experiment Station reports that soils containing large numbers of white grubs, and other soil insects on which raspberries have been planted result in an increase in the amount of raspberry crown gall.

Soil insects such as white grubs carry the crown gall bacteria on their body, and inoculate the roots through wounds made while feeding. A number of such insects feed on large roots or in the crowns of the plants. They may be infected with the crown gall bacteria by other plants than raspberries and then give the disease to the raspberry roots.

Other insects such as wire worm and larvae of certain root feeding beetles have been found feeding on infected roots. In the experiment, raspberries were planted on various kinds of fields with the following results: Raspberries following small grain, 2.8 per cent infection; after alfalfa, 5.4 per cent infection; after grains with weeds, 7.5 per cent infection. After Kentucky bluegrass, on four different fields, infection ranged from 23 to 54 per cent.

After a two-year rotation of sweet clover there was only 2.13 per cent of infection.

This experiment indicates that raspberries should *not be planted on bluegrass sod*, or any soil with a high percentage of earth insects, and that sweet clover and alfalfa sods are very good for raspberries.

"Alice has decided to marry a struggling fruit grower."

"Well, if Alice has decided, we might as well stop struggling."

FALL SETTING OF STRAWBERRIES

IN our last issue we mentioned that the test made last fall indicated that it is not advisable to set out strawberry plants in the fall of the year.

Mr. Lynn Reynolds of Tomah writes in regard to this matter, "I think it was a good test of fall setting of *exhausted* strawberry plants. A short time before the Canadian strawberry plants arrived I set out some Wayzata from my own garden and found that they all came through the winter even without mulching."

There is, of course, some difference between setting out plants from one's own garden in a change of location, and shipping them in from long distances. Perhaps further trial should be made and we would like to hear from any of our members if they have ever succeeded by setting out shipped in strawberry plants in the fall of the year.

FERTILIZERS FOR STRAWBERRIES

PAST experience and the results of research show that chemical fertilizer may supplement but *cannot replace organic materials* in our soils. The turning down of available stable manure and green manure crops, such as soybeans, cowpeas, rye, wheat, winter barley and others, keeps up the humus content. After the plants are set a side-dressing of fertilizers, such as 2-12-6 or similar grade, usually is cultivated into the soil. If the plants still are not making satisfactory growth later in the summer, 150 pounds per acre of sulphate of ammonia or nitrate of soda may be applied to the row in July or August. The fertilizer must be applied only when the plants are dry and the excess is brushed from the plants.

—From *Hoosier Horticulture*.

DRESDEN STRAWBERRY LOOKS PROMISING

THE new Dresden strawberry, fruited by our fruit testing members for the first time this year, looks very promising. In the opinion of these growers they have never seen any variety which yields as heavily as the Dresden. The berries were large and the clusters loaded. The plants were quite vigorous.

In quality the Dresden is perhaps not the best, but it has flavor which promises to make it a good berry for canning and table use. For commercial growing it is probably not necessary to produce a berry which has high quality for eating out-of-hand, as very few are eaten that way.

More Dresden plants were planted this spring so that we will have a much larger test in 1941. Based on observation of this year, we would not hesitate to recommend that more of our members try from 25 to 50 plants this coming year.

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Why So Many Weak Colonies This Year?

BY July 4th Wisconsin beekeepers had very little honey, but many weak colonies. Reports from many states in the middle-West indicate that beekeepers elsewhere were in much the same situation.

Why so many weak colonies this year? The usual answer is that we had so much cold, rainy weather this spring, but that doesn't satisfy. Cold, rainy weather in itself would not cause weak colonies. In fact, colonies were seen in June that were weaker than they were in April.

After considerable discussion with beekeepers and Dr. C. L. Farrar, we have come to the conclusion that there are two main reasons for weak colonies: First, there may be some nosema disease present. Nosema is spread by the nosema spores getting into stagnant pools of water from the feces of bees, or from dead bees.

A letter from Mr. Jas. I. Hambleton of the U. S. Bee Culture Laboratory states:

"Undoubtedly a wide difference exists as to the damage done to individual colonies in an apiary. Whether or not this is a matter of resistance has not been tested. It may possibly be explained by differences in the behavior of colonies. Within the same apiary, colonies differ greatly as to the sources from which they obtain pollen, nectar and water. Watering places are not only suspected, but are known to be sources of contamination. Colonies side by side will at times be working on entirely different sources of pollen. The same is true of nectar; consequently, it is not unlikely that there might be just enough difference in the stores and in the sources of water to account for the great variation found in an apiary."

Colonies were observed in May that were very weak. Sometimes there were fewer old bees than necessary to cover the brood, showing heavy dying off.

Unfortunately there is now no known cure, although Dr. Hambleton stated:

"There have been a few accounts in the foreign journals of feeding a suspension of colloidal sulphur in sugar syrup with good results but the data have been fragmentary, and we ourselves have not tried this method.

"With our present financial condition it is not likely that we could carry on a major investigation of this disease."

Lack of Pollen

The lack of pollen may be the second cause for weak colonies. Not only was there a lack of pollen early in the spring, but at times due to the cold, rainy weather, bees are unable to get pollen from the fields, and with heavy broodrearing they used more than they could bring in. Consequently, three weeks after such a period, there was a definite decrease in population because old bees were dying off faster than young bees were being hatched out. There is no question but that in the future we must watch the pollen question more closely. Dr. Farrar reports feeding cakes of soy bean flour during May, at a time when there was no pollen in the hives. The bees used as much as one pound of flour per colony.

AUGUST IN THE BEE YARD

DON'T let the "increase bug" get you. August is really too late to make any increase in the number of our colonies. It is far better to use extra queens to replace old and failing queens. We have noticed that beekeepers who make a lot of increase each year have many small, weak colonies which never produce much honey. After all, we keep bees to produce honey, not to make increase.

This year is a good one to remember as an illustration of what happens when we winter weak colonies.

From what we know of the value of pollen at this time, it is important that we do not remove any pollen from the brood nest during extracting. Combs heavy with pollen found in the extractor should be placed in a separate hive body and should be given back to the bees in the fall. This will enable them to raise young bees during late winter so that there are more young bees for broodrearing in the spring.

Now is a good time to look for failing queens. Many amateur beekeepers on finding queen cells at this time suspect that the colony is going to swarm and immediately kill such cells. That may be a mistake. If only a few large queen cells are found it is probably an indication that the colony is superseding a failing queen, which is a very desirable thing for them to do. Superseding cells may be excellent for requeening another colony with a queen not too good. Simply kill the old queen and after a few hours give the colony one or two of the cells.

The Schaefer time savers or frame spacers are proving to be very helpful in the rush of adding supers, especially where nine-frames are used in a ten-frame hive body. As soon as one becomes accustomed to using them, it is difficult to get along without them.

HONEY ABSORBS MOISTURE READILY

HAVE you ever extracted honey during a damp or rainy period, left the honey exposed in an open tank and then found that the top layer in the tank became very thin after a few days? Many beekeepers have had this experience. One beekeeper had the idea that the heavy honey settles to the bottom and the thin honey came to the top, but

that is not the case. The top layer actually absorbs moisture from the air.

The fact that honey will absorb moisture means just two things—that we must keep our storage tanks well covered; that extracting should be done in a dry room, and that the honey should be put into smaller sealed containers just as soon as possible if the weather is at all damp, and to have as little steam as possible in the room with the extracting equipment. That means plenty of ventilation and air.

COLONIES USE LARGE AMOUNTS OF POLLEN

VERY few beekeepers realize the amount of pollen which a strong colony of bees would use during a year. At the California Bee Culture Laboratory pollen traps maintained in four different beekeeping areas yielded from 33 to 40 pounds of pollen per colony during the year. Have you ever seen 40 pounds of pollen? It would almost fill a wooden case used for two 60-lb. honey cans.

In the above test, as much as one-half pound of pollen per day, representing 15,000 loads of pollen, was obtained from one colony during the height of fruit bloom. This also shows the great pollenizing value of a strong colony in fruit pollination.

It was also found that brood-rearing corresponds to the amount of pollen being brought in—the more pollen brought in the more brood was reared.

FOR SALE

Nearly new, 4-frame honey extractor and old-style Brand capping melter in good condition. Schultz Honey Farm, 835 Liberty Street, Ripon, Wis.

HONEY EXTRACTOR WANTED

Wanted! Small 2 frame honey extractor. Leslie Newell, 1825 Regent Street, Madison.

Hive Ventilation May Aid Honey Ripening

SPECIAL provision for upward ventilation was effective in speeding up and completing the ripening of honey under conditions of mild weather and an abundance of nectar, is the conclusion reached in an experiment by J. F. Reinhardt of the Minnesota Experiment Station.

The experiment as reported in the Journal of Economic Entomology of October, 1939, gives the following additional conclusions:

“Special ventilation is of little value to the honey ripening process when weather is hot and excessively dry or the honey flow is slight.

“Temperature, humidity and the character of the honey flow are important factors in the rate of honey ripening and they determine whether special provisions for ventilation are of any effect on the speed of the honey ripening process.”

Reduced Entrance May Prevent Ripening

In this experiment one colony had its entrance reduced to a crack, one-quarter inch deep across the width of the hive. During a good honey flow when the humidity was high, this colony failed to ripen honey in 21 days.

Another colony, however, with a regular entrance three-quarters inch deep ripened its honey in 11 days. However, a third and fourth colony which had been given increased ventilation in the top super ripened their honey in 6 days.

This experiment would indicate that if we have a heavy honey flow during somewhat damp weather, it would be of great advantage to give top ven-

tilation by raising the upper super or sliding it forward. One good way is to raise the top super or one side and place a small stick between the two supers so as to make an opening of about one-half inch. Sliding the upper super forward in another way it can be done, but it would seem that during rain storms this would allow water to get into the lower supers.

TIME FOR HEATING HONEY TO PREVENT FERMENTATION

HONEY is liable to ferment, especially if it has a high moisture content. Fermentation usually takes place when the dextrose crystallizes out and leaves a levulose solution with a considerably increased water content.

The best way to prevent fermentation is by pasteurization.

In order to determine the exact temperature and the length of time for which honey should be heated to kill the yeast organism which is called fermentation, and experiments conducted at the Ontario Agricultural College by G. F. Townsend, reported in the Journal of Economic Entomology (October, 1939), indicated that the yeast organisms could be killed at the following temperatures if held for the length of time stated:

Temperature	Time for Heating
135 degrees F.	60 minutes
140 degrees F.	26 minutes
145 degrees F.	11-13 minutes
150 degrees F.	6 minutes
155 degrees F.	3½-5 minutes

(For practical purposes the time above is given in minutes instead of the correct minutes and seconds as given in the experiment.—Editor.)

COMB HONEY WILL ABSORB MOISTURE

A SECTION of comb honey stored for 35 days in a moist atmosphere gained 2% in weight. This was the result of an experiment carried on by E. C. Martin, Cornell University, New York, and reported in the Journal of Economic Entomology, October, 1939.

The following are some of the conclusions reached in the experiment.

1. Honey exposed to air tends to establish equilibrium in water content with the water vapor of the atmosphere, at first rapidly and then more slowly as equilibrium is approached.

2. Exchange of moisture between honey and the air is a surface phenomenon, but the change in water content slowly occurs throughout the honey by diffusion.

3. In a dry atmosphere, as moisture is lost at the surface of honey a shining dry film is formed which retards subsequent water changes in the honey, so that in a dry atmosphere moisture changes occur more slowly than in moist atmospheres.

4. **Moisture exchange will occur through the capping of honey sealed in the comb.**

From this experiment and from our knowledge of the subject, it should be emphasized that even though honey may be well ripened on the hive, it should not be stored for any length of time in a room under damp conditions because it will absorb moisture even though it is sealed.

For best results, therefore, honey should be allowed to remain on the hive until it is ripe. **It should be removed during a time when the air is dry and it should be immediately extracted** and placed in a sealed container.

Comb honey should be stored in a dry room.

HONEY A GOOD GIFT PACKAGE

W RITING to the Wisconsin Manufacturers' Association, Mr. Kenneth Hawkins of the G. B. Lewis Company, states: "One of the first gift packages we ever sent out was Wisconsin honey, which, of course, was well received, and even though this was two or three years ago we have not since repeated sending honey in order to add variety to our remembrances. We would like at this time to speak a word for Wisconsin honey and hope that it can be included in the recommendation which your Board of Directors may at some future time make."

The letter was sent by Mr. Hawkins to the Manufacturers' Association in answer to a letter by the Association suggesting that Christmas gift packages in the form of cheese be sent this year. Mr. Hawkins suggests that a variety of Wisconsin products in gift packages is very desirable. If the same product is sent year after year, consumers get tired of the idea.

Why not therefore Wisconsin honey as a gift package at some future time. It is an excellent idea. All beekeepers should promote it.

LOW RATE ON AMERICAN BEE JOURNAL

I N the June issue we called attention to the fact that Gleanings in Bee Culture may be obtained through the Wisconsin Beekeepers Association at the low rate of 50c per year.

We have a letter from Mr. J. C. Dadant stating that the American Bee Journal, Hamilton, Ill., may also be obtained through Associations at one-half price, or 50c per year. Regular price is \$1.00.

We suggest that all county associations call the attention of their members to his low rate at their county meetings, and group subscriptions can be sent in direct to the Bee Journals by the County Secretary, as well as the State Secretary.

We feel that all beekeepers should have both of these excellent magazines.

HONEY WANTED

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

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 - *2 1/2 lb. Cans, per carton of 100..... 3.75
 - * 5 lb. Pails, per reshipping case of 12 .87
 - * 5 lb. Pails, per carton of 50..... 2.88
 - *10 lb. Pails, per reshipping case of 6.....75
 - *10 lb. Pails, per carton of 50..... 4.30
 - 60 lb. Cans, 2 1/2 in. caps, in bulk, each .30
 - 60 lb. Cans, per reshipping case of 12 .92
 - 60 lb. Cans, per carton of 24..... 6.96
- *Soldered with pure tin solder.

Masterline Glass Jars—

- 2 lb. jars, per carton of 12..... .55
- 1 lb. jars, per carton of 24..... .80
- 1/2 lb. jars, per carton of 24..... .65

Bee-Hive Glass Jars—

- 2 lb. jars, per carton of 12..... .55
- 1 lb. jars, per carton of 24..... .80
- 1/2 lb. jars, per carton of 24..... .65

Glass Honey Pails—

- 2 1/2 lb. glass pails, per carton of 12..... .60
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Madison, Wisconsin

Editorials



THE FRUIT SHOW AT THE STATE FAIR

August 17-25

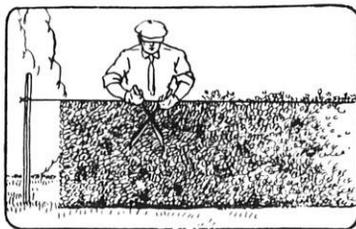
ONE of the features of the horticultural show at the State Fair each year is the wonderful display of apples. The trays arranged against the wall form a beautiful splash of color covering half the length of the building and creates a great deal of comment on the part of the thousands of visitors.

This year the show will be up to its usual high quality because our apples are growing well.

We notice that a change has been made in the varieties of apples listed for exhibit. The number of named varieties on the plate and tray list is gradually decreasing, as poorer varieties are being omitted. New varieties are being added, and so we have this year in the plate classes Cortland listed as one of the important kinds, with Melba and Milton also given a place.

We find an increase in the number of ways in which apples are to be displayed. In addition to the pyramids we find "A single layer packed as a ring pack" in the top of a standard bushel basket. Then there is a "Peck basket of apples packed for show window display." Another class is "Standard box of apples, jumbo pack for show window display."

A man's judgment can be no better than his observations and information.



SHALL WE REMOVE OLD RASPBERRY CANES

HERE are some important points to remember in making a decision as to when the old raspberry canes should be removed. 1. The canes which have fruited are of no further value in the field; 2. Taking them out as soon as picking is over may destroy insects and diseases; 3. The canes are less tough and easiest to remove in mid-summer; 4. There is no loss of moisture through the old leaves in a dry season if removed.

The last point is probably important in a dry year. The removal then of the old canes is certainly advisable because the young canes will have more moisture for their own use.

At any rate, if we have the time to do it as soon as the picking season is over, there really is no reason for not doing it.

Fairy Story—Once upon a time there was an absent-minded professor who invested in a new car because he couldn't remember where he parked the old one.

Absolutely—A dentist calls his office a "dental parlor" because his patients would feel too bad if he called it a "drawing room."

LADIES GIVE PREFERENCE FOR FRUIT VARIETIES

IN a survey made by the New Jersey Experiment Station recently, among 150 housewives, it was found that the ladies stated they were influenced almost entirely by variety, taste and appearance in buying apples. Of the 150 housewives interviewed, 66 bought from 3 to 8 pounds of apples at one purchase, 32 purchased in half-bushel lots, and 8 in bushel quantities.

It was found that 54 ladies bought their fruit at special fruit stores, 44 in chain stores, 35 at roadside markets, 25 from growers, 17 from self-service stores, and 10 from independent grocers.

Varieties preferred for *cooking* were given as follows: 53 preferred McIntosh; 51 preferred Baldwin; 35 preferred Greening; 29 Winesap, and 8, other varieties.

The varieties preferred for *eating* were as follows: 51 preferred McIntosh; 27 Delicious; 27 Winesap; 13 Baldwin; Others, 7. (*The term Winesap may mean Stayman.)

It is noted too that choice of varieties will differ in various sections of the country.

WE THANK YOU

MR. WILL OTT of La Crosse in renewing his membership in the Wisconsin Horticultural Society states: "I consider Wisconsin Horticulture the best magazine among the many that I receive. It is certainly very instructive and interesting."

WISCONSIN DAHLIA SHOW
Gimbel Store, Milwaukee
September 5-6-7

THE Tenth Annual Show of the Dahlia Society of Wisconsin will be held on the third floor of the Gimbel Bros. Department Store, Milwaukee, on September 5-6-7. In addition to the usual classes calling for mammoth exhibition blooms, there are separate classes for medium sized flowers and for the small flowering varieties such as pompoms and miniatures.

A special attempt is being made this year to encourage members of Garden Clubs to exhibit at this show by creating a special Garden Club Division in the show schedule in which any member of a Garden Club or Horticultural Society is eligible to exhibit, no entry fee being charged.

The Dahlia Society has gone to considerable expense to provide shadow boxes for the Dahlia Flower Picture class in the Garden Club Division. In addition to classes calling for baskets, vases and bowl arrangements, other classes of interest are those calling for the best bubble bouquet, best dinner table, bridal table using white dahlias, fall table using autumn shade dahlias, children's birthday table using dahlias, stag table for men using dahlias, breakfast table for two, picnic table, and novelty table. Any one interested in exhibiting in the Garden Club division may obtain additional information by writing Mrs. Lorraine Hoppe, chairman of Garden Club Division, 2442 No. 61st Street, Wauwatosa, Wisconsin.

Developing a Copy Writer—A father purposely kept his son short of money at college because it caused him to write home more often and more charmingly.

Hardship will reduce sappiness in a tree and increase the manhood in a "sap."

Coloring Apples After Picking

(Continued from Page 309)

tie under surfaces of the fruits will turn red due to reflected light. From 100 to 500 foot candles is believed sufficient for proper color development provided the light is of the desired quality, as explained above. In the shade on the north side of healthy apple trees the intensity has been found to vary around 500 to 600-foot candles and apples are known to color under these conditions. It is further interesting to note the general absence of ill-effects on the frame-treated fruit as measured by the amount of wastage and the quality of the apples upon removal from storage months later. Hoffman estimated that 10 cents per bushel would cover the cost of the complete coloring operation. Others have made estimates considerably under this figure. Considering a relatively small total cost, the treatment is justified if lack of color is the only factor lowering the grade and if the price differential between grades is real.

Coloring on Mulch

Some growers have tried after-harvest coloring by placing the green and poorly colored fruits in a single layer on mulch under the trees. The approximate time required for good development of color averaged 10 days under these conditions in several actual cases, and the value of the fruit was always markedly increased. It should be borne in mind, however, that *such long exposure to average orchard temperatures at that time of year may materially reduce the storage life of the fruit.* Other possible drawbacks of this "ground-ripening" method are the increased chance for insect (especially cricket) or mechanical injuries incident to extra handling and the possibility of variable results due to different light conditions under individual trees. Provided these facts

are not over-troublesome, the method does have the important advantage of simplicity. In experiments in Ohio last year, the mulch system actually seemed the more practical method with McIntosh, Spy and Delicious. "Bright" mulch material is recommended if this system is to be used.

—Condensed from *The Rural New-Yorker*.

DIVIDE IRIS NOW

LATE July and early August is a good time to divide the iris rhizomes. No doubt the gardener has noticed that when the iris clumps get to be five or six years old, the rhizomes become very crowded, the leaves are smaller in size, and the blooms are not as large or attractive as they were when the plant was smaller.

Sections of rhizomes may be removed from the size of the clump and set elsewhere, or the entire clump may be lifted and divided. The leaves should be cut back in proportion to the amount that the roots have been cut in the lifting process.

We now consider that the rhizomes should be covered with about one inch of soil. Look carefully for root rot and any soft spots should be carefully cut to healthy tissue with a knife. Surrounding the cut surface with clean sand may protect it from further infection.

AN INVITATION

MR. GEO. DeKOEYER of Baraboo, invites anyone interested in gladiolus to visit his gardens—about one acre of gladiolus, 112 varieties—at any time. The garden is one mile north of highway 33 out of Baraboo. Turn north at Larson's Garage.



Gladiolus Gleanings



By the WISCONSIN GLADIOLUS SOCIETY

Chester Harrison, Waldo, President
Dr. Geo. Scheer, Sheboygan, Vice-President
H. J. Rahmlow, Madison, Cor. Sec.

Otto Kapschitzke, Rec. Sec.-Treas.
1710 Illinois Ave., Sheboygan
Regional Vice-Presidents
Frank Blood, Stevens Point

Fred Hagedorn, Sheboygan
Edwin Ristow, Oshkosh
Ben Robinson, Kenosha

COLUMBUS HAS IDEAL SETTING FOR STATE GLADIOLUS SHOW

THE officers and committee members in charge of the annual Wisconsin Gladiolus Show met at Columbus on Sunday, June 23. The Columbus High School Gymnasium in which the show will be held was inspected, and the members were much surprised at the beauty of the hall and the accommodations it provides. There is ample room for all exhibits, and good looking tables are available from the school.

The Columbus committee members are enthusiastic about staging the show and offer every possible cooperation in making it a success.

The Columbus Woman's Club was given full charge of advance ticket sales, and we were told they are hard workers and will make it a success. We are therefore assured of a good attendance and no loss to our treasury in staging the show.

Mr. Walter Miller, Sun Prairie, offered to donate a silver loving cup for the 25 Variety Table. A special class has been made for novice exhibitors from Columbus and vicinity, premiums for which will be furnished by Columbus business men.

The amateur classes have been eliminated this year. All other amateurs will exhibit in the regular classes.

WISCONSIN STATE GLADIOLUS SHOW

Columbus—High School Gymnasium

Saturday and Sunday

August 10-11

Auspices of the Wisconsin Gladiolus Society

Admission 25c

GLADIOLUS SHOW DATES

August 10-11. State Show, the Ames Gladiolus Society, host to the Iowa Gladiolus Society, Ames, Ia.

August 10-11. Southeastern Michigan Gladiolus Society, Woodward Avenue Y.W.C.A., Detroit, Mich.

August 14-15. Twenty-first annual New England Gladiolus Society Show, Boston, Mass.

August 15-17. Indiana Gladiolus Society, Crown Point, Indiana.

August 24-25. Illinois Gladiolus Society, State Fair, Springfield, Illinois.

Meeting in Miller's Gardens

A meeting will be held in Walter Miller's Gardens on Sunday, July 28th, at which further plans will be made. At this time the Society will consider the plan of holding the business meeting and election of officers at our fall meeting instead of at the banquet the first evening of the show. Many have expressed themselves as feeling that it is a very poor time to hold an election of officers during the show.

WITH OUR GLADIOLUS GROWERS

GROWING conditions for gladiolus have been good this season due to frequent rains. The flowers would have been further advanced had the weather been warmer. Cool weather and especially cool nights have retarded blooming dates in the opinion of the officers of the Wisconsin Gladiolus Society, who reported the first part of July.

"The young crop of seedlings shows the effect of lack of sunshine more than plants from older bulbs," writes Dr. G. H. Scheer, Sheboygan.

What Fertilizers for Gladiolus

Gladiolus growers are using various types of commercial fertilizer. Rotted manure and super-phosphate is preferred by A. S. Haugen of Stoughton, while Chester Harrison, Waldo, uses 0-20-20, which is followed up with an application of ammonium sulphate at blooming time. He mulches with straw after the last cultivation, which of course conserves moisture.

Walter Miller prefers rotted manure, while Dr. G. H. Scheer states: "I used as much sheep manure as I could get, also some leaves—both were scattered broadcast. In addition, I used commercial fertilizer 0-20-10, which was poured into the trench at the rate of about 3-4 lbs. to 60 feet of row and then worked well into the ground."

Fred Hagedorn, Sheboygan, uses super phosphate only, as his soil is very good.

O. A. Kapschitzke uses Vigoro, while Karl Timm is using new ground broken for the first time a year ago and he does not find it necessary to use anything additional.

F. J. Blood of Stevens Point uses Milorganite and some Vigoro.

No Early Signs of Thrips This Year

Thrips were conspicuous by their absence early in the season, at least until July 10, when this was written,

according to reports from various parts of the state.

Most growers report treating their bulbs with Bichloride of Mercury and a few used Lysol.

Dr. Scheer states that his bulbs were not dipped prior to planting, but were treated with Agicide "400" throughout the dormant season.

Fred Hagedorn, Sheboygan, stores his bulbs in a cold cellar and does not find it even necessary to treat.

Otto Kapschitzke writes that he treated half his bulbs with Lysol and the other half with Bichloride of Mercury, but noticed no difference early in July.

Karl Timm, Markesan, states that he discarded all bulbs that looked diseased or unfit, then treated the good bulbs with Naphthalene flakes. He found it unnecessary to do anything further.

Wm. Neuberger of Reeseville treated his bulbs with Semesan this spring.

F. J. Blood treated his bulbs with Lysol, soaking them in 1 tablespoon of Lysol to one quart of water from 5 to 10 hours.

Sprays for Thrips Control

Wisconsin Gladiolus growers will use several types of sprays to control thrips this summer. A. S. Haugen states that he will use Rotenone dust for the fourth season with which he has had good results.

Chester Harrison says that he is using the Tartar Emetic spray as is also Dr. Scheer and others.

Walter Miller is dusting with Rotenone dust No. 75 when needed, with very good results.

Fred Hagedorn, Sheboygan, uses Rototox, as does also Karl Timm.

A majority of the growers, however, state that they will use the Tartar Emetic spray with brown sugar as described in our last issue.

TARTAR EMETIC SPRAY FOR GLADIOLUS THRIPS

The Tartar Emetic brown sugar spray is the most satisfactory for the control of gladiolus thrips during the summer months. The best formula now seems to be as follows:

2 lbs. of tartar emetic; 4 lbs. of brown sugar to 100 gallons of water.

To make up a smaller amount, use 2 level tablespoonsful of the tartar emetic, $\frac{1}{8}$ pound of brown sugar to three gallons of water.

POINTS IN THE ARRANGEMENT OF THE GLADIOLUS

GIVE every spike lots of room so that each one may display its individuality.

In arrangement of difficult colors, white or cream intermixed will keep them from clashing. The color classes in the Iowa shows are so arranged that the entire show presents a harmonious whole, devoid of all clashes.

In the vase classes it has been suggested that the exhibitors use a perfectly plain vase, unglazed if so desired, and slightly larger at the top than the bottom. The colors may be either grey, foliage green, black or white, depending upon just what color the Glads may be which are to be displayed. In order to make it easier for the flowers to stay in place, it is advisable to put a few twigs or pieces of wire in the bottom of the containers.

Violet or purple Gladiolus look best in yellow or white vases, light pink in blue vases, lavender and salmon in cream containers, reds and scarlets in black vases. Scarlet Gladiolus go very nicely with tritomas or French and African marigolds.

—From *Glad-Winnowings* by Iowa Gladiolus Society.

NEW GLADIOLUS VARIETIES BEING GROWN THIS YEAR

THE officers of the Wisconsin Gladiolus Society were asked early in July to give the names of the new varieties they were growing this year. The following are the replies:

A. S. Haugen, Stoughton, is growing Imperial Purple, Scarlet Glow, Margot Bruning, Matterhorn, Algonquin, King Lear, Carillon, Roselle, Master Myron, Surfside, Coral Glow, California, Candy Heart, Bingo, Sweet Alibi, and Beautiful Dream.

Chester Harrison, Waldo, is growing Aladdin, Amulet, Chamouny, Margaret Beaton, Memory of Hindenburg, Snow Princess, and several others.

Walter Miller is growing Barcelona, Buccaneer, Snow White, Titan, Jasmine, Algonquin, Deane, Lord Selkirk, Marguerite, Myrna, Rosale, Valeria, King Lear and Aladdin.

Dr. Geo. Scheer is growing American Commander, Edelweiss, Greta Garbo, Elwood, Atlas, Walkover, Vredenburg, Snow Princess, Admiral, Honeymoon, Flora Farmer, Myrna, and many others.

Fred Hagedorn will grow the following new varieties: Carillon, Coral Glow, Damaris, King's Ransome, Rosa von Lima, Roselle, Timbucktoo, and Myrna.

O. A. Kapschitzke is growing Rima, Green Light, Rudolf Surkin, Blazing Star, Angelling, Rewi Fallu, Roqual, Euides, Black Opal, Hindenburg's Memory, and Peggy Lou.

F. J. Blood is growing Rosa von Lima, Peggy Lou, Crystal, Pacemaker, Lavender Ruffles, Alayne, Camellia, J. D. Sez, Greta Garbo, Rima, Mrs. R. H. Burton, Cardina, Coral Glow, Euides.

CANTABILE—A NEW VARIETY BY DR. SCHEER

A BEAUTIFUL certificate of award was given Dr. Geo. Scheer, Sheboygan, on one of his seedlings by the Massachusetts Horticultural Society. This variety, which was under number last fall, was exhibited by Mr. Wyman at the Boston show last September. Dr. Scheer thereupon asked Mr. Wyman to select a name for the variety. The name Cantabile was chosen and Dr. Scheer hopes that he will have some spikes of it at our state show at Columbus.

"I'll tell my wife a thing or two if she scolds me for coming home late."

"That's bad. Tell her one thing and stick to it!"

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Home and Garden

Mrs. C. E. Strong

*The art of being happy—
Is the art of discovering
The depths that lie in the
Common daily things.*

BIERLY.

MORE ABOUT VITAMIN B₁

ALTHOUGH we have seen no signs of Vitamin B₁ flowers of unusual size and growth of the Jack and the Beanstalk type, a number of gardeners who are carefully and honestly testing this Vitamin are saying, "It really is a wonderful help in transplanting both annuals and perennials, especially the rather fussy sorts."

We tried it with year old plants of Saxatile Alyssum where every bit of dirt shook off those long roots. They were also in bloom. Soaked over night in a solution of Vitamin B₁ they transplanted perfectly even though the sun was blazing hot. Annuals watered with the solution a few hours before transplanting seemed to suffer no shock whatsoever. Pelargoniums or as we usually say Lady Washington Geraniums, had unusually fine bloom, and the blooms lasted much longer.

One gardener declares that Vitamin B₁ is doing wonders with her Cactus—never have they shown such growth and bloom.

A Garden Helped

It was my good fortune to meet a few years ago, a woman whom most of us would have pitied,—in a motor accident, one arm was severely injured, and finally had to be taken off. During all this time, instead of fretting and talking of her affliction, she paid more and more attention to her garden. She studied herbs and



planted many varieties, and could tell the most interesting tales of their use and where they were grown. Garden clubs enjoyed hearing her. Her back yard garden held many unusual plants and shrubs. Nearly every window was filled with plants and seed boxes. Every one enjoyed visiting with her—and strange to say—no one pitied her for her life seemed to be full. She gave something of interest to everyone she met.

A few days ago I had the pleasure of visiting her garden. She grows plants for the sheer love of plants, having made no attempt to make a "beautiful" garden, but it is a garden you like to linger in. Every step interests you; every plant seems to have done its best for the gardener who loved them and tended them. It was one of those "can't be done" gardens, plants and shrubs that just do not grow up here, waist high ferns under the trees where pots of plants from southern states grow. Even a tiny water and bog garden. North and east windows filled with begonias and gloxinias that were raised from seed. Cactus blooming on the porch railing. Truly

she had no time to weep over misfortune. She was too busy with her garden getting pleasure, knowledge and healing, as well as something to give to others.

WINNING VARIETIES AT THE WISCONSIN IRIS SHOW

THE Wisconsin Iris Society held a very nice show at Gimbel's in Milwaukee early in June. The Society deserves encouragement for its efforts to increase the popularity of this beautiful flower.

Winning varieties at the show were as follows: Grand Champion bloom was San Francisco shown by Dr. Carl Schwendener, Milwaukee, who also had the largest bloom, the variety Paulette. The prize for the smallest iris was won by Mrs. A. Jaeger, Milwaukee, on Kamaeonensis.

The best white varieties were Wambliska and Gudrun.

The prize winning yellow varieties were Alta California and Jasmania.

Pink Satin won first in the pink class, while San Francisco was first in the plicatas.

Paulette won in the lavender to blue class; Mary Geddes and Jean Cayeux in the light blue.

Cheerio and Indian Chief won in the red iris group, and Wm. Mohr and Doxa in the Pogo-Cyclus class.

A Sales Tale—Sid the Salesman, attributes his extraordinary success to the use of five words, when a woman opens the door: "Miss, is your mother in?"

How To Keep Cut Flowers Fresh

THE following information is the result of several years of research carried on by the Floriculture Department of Ohio State University. You will find that it contains several facts quite contrary to popular belief in regard to keeping cut flowers.

Transpiration

Most flowers absorb a maximum amount of water while in a fresh condition. This quality gradually falls off and drops rapidly as the flower dies. It appears fairly definite that the shorter lived flowers transpire the greatest amount of water. Just as soon as transpiration exceeds the amount of water entering the stem, the flower will wilt and finally die, unless the situation is relieved.

There are several factors which cause excessive transpiration in flowers, the most common being high temperature, low humidity and drafts. As the temperature rises, more water may evaporate from the leaves and petals than can be transported up the stem for replacement. A draft, especially if the air is dry, will further increase this outgoing of water. However, unless the air current is very dry or at a higher temperature than the surrounding air, it usually does not visibly shorten the life of the flower.

Depth of Water

A. One inch of water is sufficient for most flowers. Deep water is usually unnecessary as almost all water is absorbed at base of stem. Carnations are an exception to this.

B. If flowers have been allowed to dry out they can be revived by placing in deep water for at least one hour.

C. Changing water and cutting stems daily has proved of comparatively little value in prolonging the life of the flower.

Length of Stem

In the majority of cases, flowers with long stems will keep just as well as those with stems cut short.

Methods of Wearing Corsage Flowers

The statement by a well known authority that corsage flowers should be worn upside down so that the sap will drain down the stem and hence keep the flowers fresh longer is not borne out by fact. Roses and orchids actually lasted longer when worn upright, while gardenias and sweet peas were unaffected by position.

Miscellaneous

Adiantum fern kept twice as long if stems were cut rather than pulled, while pansies kept a half-day longer when stems were pulled. Sweet peas kept equally well when picked by either method.

Removing anthers from lilies so as to prevent pollination did not lengthen their lives. It does, of course, keep the blossoms white.

The removal of wilted gladiolus florets improves the appearance but does not prolong the life of the flowers.

Fillers for Baskets and Vases

Wire filler, either chicken or straight drawn, is the most satisfactory form from the keeping quality standpoint. Evergreens or trash cause decay of stems.

Refrigeration

A. The most suitable temperature range for storage of flowers is between 40 and 50 degrees F.

B. 40-45 degrees is desirable for roses, carnations, gardenias, tulips and Boston yellow daisies.

C. 50 degrees was found best for most annuals, including snapdragons, stocks, pansies, sweet peas, and calendulas, also bouvardia and daffodils. Cattleya orchids keep best at 48 degrees or slightly lower.

D. For each additional day carnations are kept in the refrigerator, they will last one day less after removal from the refrigerator. That is, the length of life of a carnation is approximately the same whether it is held in cold storage or whether it is kept at room temperature.

E. Sudden changes in temperature are undesirable.

Humidity in Refrigerator

The humidity factor is relatively un-

important in the average cooler, as these usually run as high as 70 to 80 per cent, due to plenty of evaporating water. Unless the relative humidity drops much below 60 per cent, no injury is likely to occur.

—From Ohio News Letter by Victor H. Ries.

DRYING FLOWERS IN THREE DIMENSIONS

FLOWERS can be dried in their natural shape, according to an article by Frances R. Williams of Massachusetts, in June 15th issue of *Horticulture*. Borax is considered the best material for drying, while Potato flour also gave excellent results. The following is the method recommended by Miss Williams:

"To try this process with borax, take an open cardboard box. Sprinkle in a half-inch layer of Borax. Hold the blossom in the box above the borax and parallel to the bottom of the box. Fill in all around the blossom with borax using a spoon to get the borax under the flower and sometimes into it. Use enough to completely cover the flower and leaves and to have from one-fourth to one-half inch of borax over the flower. Set the box, with the flower embedded in the borax and with no cover on the box, on a shelf in a room of ordinary temperature for three weeks. Then, uncover the flower carefully and lift it from the borax. You will be surprised at what you find—a lovely snapdragon spray of vivid pink or yellow flowers almost as it was three weeks before when you put the living plant away to dry; or a Crimson Bedder nicotiana turned from its dark, rich red to a dull dark grey; or a Heavenly Blue morning glory that has changed to a bright pink."

Wisconsin Garden Club Federation News

Mrs. Charles H. Schuele, President
247 Woodland Lane, Oconomowoc
Mrs. E. A. St. Clair, Hon. President,
2418 N. 65th St., Wauwatosa
H. J. Rahmlow, Cor. Secretary,
Madison

Mrs. E. L. White, Rec. Secretary,
Box 334, Fort Atkinson
Mrs. C. H. Braman, 1st V-President,
Waupaca
Mrs. Frank Quimby, 2nd V-President,
1422 Blaine Blvd., Racine

FEDERATION BOARD OF DIRECTORS MEETS AT OCONOMOWOC

THE officers of the Wisconsin Garden Club Federation, District Chairmen and Committee Chairmen, met at the home of our president, Mrs. Charles Schuele, Oconomowoc, on Friday, July 12th. A number of important matters were discussed, including final details for the summer convention at Eagle River, the coming annual convention at Madison on October 1-2, and future policies of the organization.

Dr. Carl Schwendener, chairman of the State Flower Show, reported a profit of over \$150 resulting from the spring flower show. This money was voted to be put into a flower show fund for use at future flower shows, because it is entirely possible that a deficit may result at some show.

The Board voted to recommend to the annual convention that another flower show be held next spring, providing the clubs will cooperate, exhibit, and sell tickets.

WELCOME NEW GARDEN CLUBS

THE Board of Directors of the Wisconsin Garden Club Federation voted to membership, two new garden clubs at their recent meeting in July. These clubs are the Dousman-Ottawa Club at Dousman, and the White Manor Park Garden Club of West Allis.

We wish these two new clubs



Entrance to School Children's Forest

The Forest was dedicated at the summer meeting of the Federation on July 27

COMING EVENTS

AUGUST 3-4. Annual Flower Show Madison Garden Club. Woman's Bldg., Madison.

August 10-11. Wisconsin Gladiolus Show, High School Gymnasium, Columbus.

August 17-18. Green Bay Garden Club Flower Show, in pavilion at Bay Beach, Green Bay. Small admission fee.

August 17-18-19. Wisconsin Garden Club Federation Annual Flower Show at the Wisconsin State Fair, West Allis.

August 17-25. Wisconsin State Fair. Exhibits in Horticulture Building every day featuring garden club exhibits, gladiolus, dahlias, and other flowers. Florists and nurserymen's exhibits and the fruit show. West Allis.

August 24-25. Cedarburg Garden Club Flower Show, Cedarburg Gymnasium, Cedarburg.

October 11-12-13. Semi-annual meeting National Council of State Garden Clubs at French Lick.

August 24-25. Oakfield Garden Club flower show. Progressive flower show. Gardens also open to public. Garage of Frank Willard, Oakfield, will be turned into a Flower Mart.

success in their efforts. The officers of the clubs are as follows:

Dousman-Ottawa Garden Club Dousman

President: Mrs. Geo. Jeffery
Vice-Pres.: Mrs. D. M. Laney
Secretary: Mrs. H. J. Martin
Treasurer: Mrs. C. R. Cole

White Manor Park Garden Club West Allis

President: Mrs. August Boehnke,
6401 W. Stack Drive
Vice-Pres.: Mrs. Anthony Birchler,
3004 So. 54th St.
Sec'y-Treas.: Mrs. Clarence Sauer,
R. R. 5, Box 880.

THE STATE FAIR FLOWER SHOW

THE Wisconsin Garden Club Federation will again stage a special flower show in the Horticulture Building at the State Fair on August 17-18-19.

A total of \$415 is offered as premiums in the Garden Club section. The classes will be somewhat similar to former years excepting that requirements for the classes have been changed. There will be three little gardens, all of them of interesting design. Then there will be wall pockets for indoor or porch use, flower arrangement tables, each with five arrangements.

Still life pictures will fill the shadow boxes, while the dinner tables and bouquets of one variety will complete the show.

All Garden Club members should attend the Fair during the first three days. There will be many Garden Club members in attendance the first day while the show is being set up.

ANNUAL CONVENTION WISCONSIN GARDEN CLUB FEDERATION

**Lorraine Hotel, Madison
October 1-2**

THE annual convention of the Wisconsin Garden Club Federation will be held at the Lorraine Hotel, Madison, on October 1-2.

The program this year will be built around horticultural topics. Several speakers from out of state will be on the program to talk on topics relating to gardening.

The important feature this year will be the round-table conferences on committee work. Noon luncheons on both October 1 and 2 will be devoted to round table conferences with committee chairmen in charge. There will also be breakfast conferences on the morning of October 2.

Mrs. Frank Quimby, our second vice-president, 1422 Blaine Blvd., Racine, is in charge of arranging the round-table conferences. Each committee chairman who wishes to have a conference to discuss their program of work should contact Mrs. Quimby and arrange for a special session.

FOX RIVER VALLEY DISTRICT MEETING AND FLOWER SHOW

Neenah—Aug. 23-25

THE Fox River Valley District of the Wisconsin Garden Club Federation will hold their annual meeting in the new Recreational Bldg. at Neenah, on Friday, August 23rd.

The District will stage a flower show in the Recreational Bldg. on August 23-24-25. All garden clubs are invited.

Domestic—Some women walk more than a mile preparing a meal. That's the worst of mislaying the can-opener.

MY GARDEN

I love a profusion of color
In my flower bed,
White and yellow daisies
Mixed with Zinnias red.

The hollyhocks all colors
Are standing by my door.
My pink gladiolus are blooming,
And these I do adore.

The forget-me-not and lemon mint
Seem to be everywhere.
The heliotrope is blossoming
Its fragrance fills the air.

The lupines are in blossom
The phlox is standing high,
I hate to see the summer go
Because my flowers die.

—Marion F. Haugseth
Hayward Garden Club

RIPON CLUB SECURES LAND FOR WILD FLOWER PRESERVE

THE Yard and Garden Club of Ripon has secured from the Chicago, Milwaukee, St. Paul and Pacific Railroad Company a tract of one and one-half acres of land bordering their tracks near Ripon. This bit of virgin territory is to be kept as a wild flower preserve.

ROCK GARDEN SOCIETY ELECTS OFFICERS

THE American Rock Garden Society held its annual meeting in Greenwich, Connecticut, May 20th. The following officers were elected for the coming year: President: Walter Blair, Tarrytown, N. Y.; 1st Vice-president, T. H. Everett; Secretary: Mrs. Dorothy Hansell, New York City.

THE GARDEN IN COLOR

AREDUCTION in price has just been announced on the book "The Garden in Color" by Louise Beebe Wilder. This book, illustrated with 320 beautiful pictures of flowers and gardens, now sells for \$2.95. The illustrations are in natural color and are for

every garden season — spring, summer, autumn and winter. It is a large book of 318 pages, and well worth the price.

The book may be obtained through the Wisconsin Horticultural Society, or direct from the Macmillan Company, New York City.

WHA GARDEN PROGRAMS

THE Homemakers' Hour over Radio Station WHA and WLBL announces their garden program given every Tuesday from 10-10:45 a.m., as follows:

Tuesday, August 6. Down the garden steps. Shrubs that shelter birds.

Tuesday, August 13. A trip to the gardens of Mrs. Harry Manchester.

Tuesday, August 20. A trip to the Hygienic Laboratory with Dr. Wm. Stovall.

Tuesday, August 27. Flower Show Highlights. Mrs. F. C. Middleton and Mrs. Sam Post.

Water Roots WITH A Water Boy
ATTACH GARDEN HOSE - PUSH WATER BOY INTO GROUND
TURN ON WATER - WATER THROUGHOUT

WATER BOY

Iron valve is of first-grade materials and rugged construction. Double pistol grips make it easy to push WATER BOY into the hardest soil. Galvanized iron pipe has twelve (12) holes near the bottom placed so the water tends to encircle the roots. Tip of WATER BOY is of steel and pointed to penetrate soil readily. Pipe and tip are both detachable so pipe is easily cleaned if ever necessary. Price \$2.50

Water Roots WITH A Water Boy
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Twenty Years of Trees

Gladys S. Jerome, Madison

THE greatest beauty of our yard and garden after twenty years lies in its trees; not only the greatest beauty, but also the greatest change, and throughout their time, for us, the most enduring pleasure. Either the trees were very small when we first came, for our land was once a grassy hillside, or we ourselves have planted them.

The blue spruce, which once would fit under my extended arm, now rises in frosty stateliness to a height four times as tall and has much the same effect upon us as if it were a noble person. Close by, a more youthful European larch has already outstripped the spruce in height. Its ways seem far more flexible than those of the latter; a breeze sets its feathery, pendulous branches swinging; a stiff wind tosses the larger lateral ones into visible green vibrations; and a storm drives them madly. Yet the strong, straight stem never fails to suggest to me its use as the mast of a sailing vessel. Though the wind must be strong indeed to stir the spruce more than a little, if you go up close to it on a windy day, you will hear a sound through its needles like the sound of an ocean, and smell a smell as pungent as that of hartshorn.

Far different is our Russian olive, a shrubby kind of tree, always seeming somewhat strange because of its gray leaves and the angular growth of the branches; and in the blossoming period, because of the sweet, heavy odor, becoming quite exotic. Then it hums with bees.

Slim, straight and sturdy, like an adolescent, the soft maple which years ago we found a seedling in the bean patch, now reaches above our roof; and a native white birch, also a seedling, which we found growing in a cleft in a rock, has accommodated itself in such a fashion that it bids fair, says one who



knows, to outlive the far more husky-looking maple.

There are besides, two willows—graceful things—that grew from switches which we brought home one spring from an old tree in the marsh; a wild-plum thicket; a mulberry with beautiful fine bark and bright yellow roots, but no fruit; two elms; and last, but by no means least, six twin apple trees that border the garden.

These are our own particular trees which we enjoy from snowfall to apple harvest; but during twenty years we have come to know many others almost equally well—those which are down the street, those which we have discovered in certain fields and woods, and the great number in faraway places which we remember.

SLIDE PROJECTORS NEEDED BY GARDEN CLUBS

IT is a well recognized fact that pictures help greatly in an educational program. Colored slides are becoming more and more popular in educational work.

Garden Clubs now have available a large number of sets of colored slides which will greatly increase the educational value of their meetings, as well as the interest in the program on the part of the members.

The Wisconsin Horticultural Society will have at the end of this summer eight complete sets of lantern slides with lectures available free of charge to our member garden clubs.

Many garden clubs, however, do not have projectors available and cannot make full use of the educational material available not only from the Society but from such other organizations as the Conservation Commission. The Wisconsin Horticultural Society will therefore be glad to cooperate with the garden clubs in purchasing a projector for their use. Inexpensive projectors are now available. We suggest that garden clubs arrange some project to make money and then correspond with the Society about purchasing a projector.

The Society has one good projector available for rental to garden clubs, but of course that is hardly enough to accommodate all the clubs who may desire it.

We would further like to suggest that all program chairmen for 1941 be appointed at least by December of this year. We are planning on issuing a circular of program topics, including lists of lantern slides and motion pictures available from various sources. This will be sent to the program chairman of each club as soon as the name is available in the office of the State Horticultural Society.

COLOR IN THE GARDEN

THE art of color arrangement in the garden consists of so placing the plants as to produce harmony or contrast, both in foliage and in flower. Harmonizing colors are, in general, more pleasing than those which contrast strongly, and may be said to resemble plaintive chords in music. Unfortunately there is no absolute formula for arranging colors harmoniously. One good rule to remember is that there can be no displeasing color composition wherever there is a generous amount of white intermixed with other colors. Although a cold color when used alone, white is the peacemaker of the garden. All yellows are pleasing in one another's company although few reds and purples will exist in peace together. Yellow and white together always give a pleasing effect. There is a fresh simplicity in their association that refreshes and invigorates the mind. Light blues are most pleasing in association with yellows and white.

The warm colors of yellow, orange, and scarlet are most effective in full sunlight areas while blue, violet, and lavender, the cool colors, are for shadows and shady places.

It is well to remember that in all color composition the richer or more intense the color the more sparingly it should be used, while the lighter and more delicate the color the larger the amount of it that may be used and the more these masses of colors may be repeated. Therefore, light flower colors should constitute the predominating effects of the garden. It is best to place the strong colors in small masses and if possible at points farthest from the eye. The softer, paler colors should be placed

in the foreground so we may appreciate their delicacy and charm.

—Condensed from *Horticultural News*, Mich. Horticultural Society, by Carl Gerlach.

HOW TO CONSERVE VITAMIN VALUES WHEN COOKING APPLES

MUCH of the vitamin values of apples can be conserved in cooking if several easy precautions are followed.

A certain amount of vitamin losses during cooking is unavoidable in any food, but the following tips will help preserve valuable quantities of these protective substances:

1. Use as little water as possible.
2. Raise temperature to boiling point as rapidly as possible. Cook quickly.
3. Don't stir air into apples while cooking.
4. Don't put through a sieve while hot.

Baking seems to preserve a maximum of the vitamin values in apples.

CARE OF DELPHINIUM IN MIDSUMMER

WHEN the flowers on the main stalk of the delphinium begin to lose their sepals, the spike should be cut back to the lateral branches. Then when these are through blooming, the entire stalk should be cut to the ground. By this time most of the plants have sent up their second crop of spikes and if the plant has plenty of vigor some of these may bloom.

It is not necessary to plug up the hole left in the stump of the old spike because the crown of the plants forms an impregnable corky layer between the tissues.

When the old plant has been

cut down the soil should be well watered and some fertilizer given because it seems that at that time the vitality of the plant is at a low ebb. Protection against the sun will also be of help for a second crop of flowers.

WHAT ARE HERBS?

MOST of the plants in our flower borders are classified as herbs. Many of them were once used as food or medicines. Out of iris, rose, larkspur, calendula, peony, foxglove and many other plants came the crude drugs of commerce. Then there are the mints, thymes, lavenders, artemisias, basil and a multitude of other flowering plants that are used for culinary purposes. Herbs have been and are still being used, in many cases, in soap, perfume, lotions, extracts, chewing gum, etc. The tansy, dandelion, milkweed, anise, cumin, mustard, sesame, caraway, dill, and others are herbs that have been used extensively. The ancient herbs which we now call vegetables, such as carrots, onions, parsnips, spinach, beans, beets, etc., now constitute an important industry of the world.

—By L. L. Davis in North and South Dakota Horticulture.

"WRAP-A-ROUND" Cardboard Vase Cover

For Flower Shows

One-piece, lock-type, cone-shape, in Gray, Black, White or Tan colors.

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3x3x5 for 12 bulbs
 3½x3½x5¾ for 25 bulbs
 5x4x7 for 50 bulbs
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Samples and prices on request

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IN MY GARDEN

WHETHER it is because the season has been favorable for the garden and unfavorable for garden pests, I am not sure, but at any rate, our garden is unusually free of both insect and disease injury this summer. Perhaps it is getting tiresome, but it is said that only by repetition will many people believe something new. Therefore, I want to repeat that I started dusting my garden with a combination of sulphur and rotenone the first part of May when the plants were just coming up and continued once each week until the latter part of June. The result—we have no iris leaf spot, no peony black spot, our rose leaves look clean, and I can find no insect injury.

Perhaps you will be interested to know that our English walnut tree is finally producing a small crop of walnuts. Not of its own accord, however. It required help. For the third consecutive year the tree has produced pistillate flowers or little walnuts, but no catkins bearing the pollen. Thereupon I determined to do something, and was fortunate in finding a black walnut tree whose catkins were dehiscing pollen at the same time that the pistillate flowers on the English walnut were ready for it. Shaking some of the pollen into a bag, I climbed up on a ladder and with a camel's hair brush pollenized the little English walnuts with the black walnut pollen. There are about 20 nuts on the tree now, the first ever produced in this state. Consequently we are quite thrilled.

I have been trying my best to get at pruning the Bridal Wreath, Lilacs and other early blooming shrubs in our border during past weeks because I know full well

that that is the time to do it, but so far, as is usually the case, the pressure of other work has prevented me from getting it done. We preach pruning early blooming shrubs as soon as they are through blooming in order that they may set a new crop of flowering buds this summer and fall for next year's bloom. We know that if we prune in the early spring we remove some of the flower buds and decrease the bloom. There is an old saying, "Don't do as I do, but do as I say," which seems to apply here. If we don't get it done now we will have to do it next spring and take the chance of losing some flowers.

This has been an ideal season for Tuberous Rooted Begonias. We again have a row of them on the north side of our house and because of the cool weather and abundance of moisture, and with perhaps unusually good varieties, we have a wonderful display of flowers. The Begonias attract all who go by.

Is your lawn doing well? If not, we might suggest a light top dressing of ammonium sulphate. Spread it over the lawn as you would sow lawn seed. If done during a rain it will dissolve and be available to the grass roots immediately. If it does not rain, it should be well watered down with the garden hose as it will burn the grass if not washed down. This is a nitrogen fertilizer, very concentrated, and if the lawn has a yellowish tinge you will probably notice the change in color to darker green in two or three days. One way to get rid of the dandelions is to improve the lawn and prevent the dandelion seedlings from getting a start.

Two very interesting and to us new perennials this year were *Helenium Hoopesi* and *Helenium Biglowi*, given us for trial by Dawson Hauser, Bayfield. Many of us have grown the *Helenium Riverton Gem* and others of that type which bloom in September, but the two mentioned bloom in June, with the iris and peonies. They grow upright and have fairly large *Helenium* shaped flowers, *Hoopesi* having yellow petals and yellow centers, while *Bigelowi* has yellow petals with dark centers. Put them on your trial list for next year.

The Geums are well worth growing in the border. They are very attractive small red and orange flowers, the plant being quite low growing, while the flower stems are long. They should be useful for cutting as well as ornamental in the border.

—H. J. Rahmlow

ANNETTE HOYT FLANDERS LECTURES AT NEENAH

THE Neenah Garden Club announces a school on designing the small garden, by Mrs. Annette Hoyt Flanders, well known landscape architect.

Mrs. Flanders will give a series of three practical lessons on designing the smaller garden, its construction and soil preparation, theory of planting, under the auspices of the Neenah Garden Club on September 5-6.

The fee for the course is \$6.00. For tickets and more information write Mrs. Dorothy Kuehsted, Neenah, President of the Neenah Garden Club.

If you are interested in purchasing a projector for your garden club, write the Society as soon as possible.

The Best Iris Varieties of 1940

WE realize that a selection of the best iris varieties is largely a matter of opinion, but amateurs appreciate a guide in their selection of good varieties, so we venture to list the varieties below as our choice for 1940 in the different color classes.

We note that the list coincides closely with the list given in one of our leading iris catalogs, that of Schreiner's Iris Gardens of St. Paul. We are listing only the less expensive varieties—those within reach of most amateurs.

White Self

Gudrun, Crystal Beauty, Snowking.

Plicatas

Los Angeles, San Francisco, Siegfried.

Amoenas

Shah Jehan and Wabash.

Light Blue

Shining Waters, Aline, Blue Monarch.

Medium Blue

Missouri, Narain, Sierra Blue.

Violet

Black Wings, Brunhilde, Valor, Wineshiek.

Mauve and Mauve Blends

Ozone, Violet Crown, Wm. Mohr.

Pink and Pink Blends

Pink Satin, Angelus, Imperial Blush, Pink Opal.

Deep Pinks

At Dawning, Avondale, Rosy Wings, Sandia.

Purples

Indian Hills, Legend, Red Dominion.

Red and Coppers

Cheerio, Dauntless, Ethel Peckham, Joycette, Marco Polo, Spokane.

Bronze Purples

Depute Nomblot, Shirvan.

Yellow Blends

Copper Lustre, Golden Light, Jean Cayeux, Naranja.

Yellow Selfs

Alice Harding, California Gold, Golden Hind, Happy Days, Sahara.

We have added a few varieties which sell at present at medium-high prices, but they are good varieties to watch.

HONEY BEST FOR INFANT FEEDING

HONEY is the best sweetening which can be used for infant feeding, according to experiments conducted on infant feeding by Drs. Schultz, Knott, Gedoud and Loewenstamm of Chicago.

As the result of careful experiments conducted and reported in the February Institute Inklings, these doctors came to the following conclusions:

"Honey appears to have a special advantage in infant feeding. With the exception of dextrose, honey was absorbed most quickly of all sugars tested during the first fifteen minutes following injection, yet it did not flood the blood stream with exogenous sugar. Honey also maintained a steady and slow decrease in blood sugar until the fasting level was again reached. Since it is easily obtained anywhere, and is very palatable and digestible, honey would seem to be a form of carbohydrate which should have wider use in infant feeding."

It will be remembered that Dr. J. Martin Johnson of Ripon reported that he has found the formula consisting of equal parts of condensed milk and boiled water, to which is added 7% of honey, the best baby food.

POISON IVY CONTROL

POISON IVY has been successfully controlled in Maryland by spraying with the following materials, according to a report by A. F. Vierheller, College Park, Maryland, extension horticulturist:

"Atlacide"—Chipman Chemical Company, Bound Brook, New Jersey; "Vegecide"—Reade Manufacturing Company, Jersey City, New Jersey, and "Triox"—California Spray-Chemical Corporation, Elizabeth, New Jersey. All of them were effective, but it seemed that the plants formed new leaves after a time. Recent examination of these plants has shown that the ivy is now practically killed out. There are a few sprigs living that were missed in spraying, but if followed up, now, with another spraying, the results should be 100% kill. It takes very little material to do it."

The cost of the material is not very high. It was applied in the apple orchard at a cost of about eight to ten cents per apple tree, and it is stated that there was no injury to the trees. It was applied with a spray pump of about 75 pounds pressure, and an effort was made to get the spray to the roots of the ivy, but it seemed to wash down to the roots afterwards. It was applied during June or July.

HALF-YEAR DUES ACCEPTED BY FEDERATION

GARDEN club members who wish to join the Wisconsin Garden Club Federation and the Horticultural Society for the balance of 1940, may send in half-year dues for the balance of this year. Half-year dues are 30c per member, of which 20c goes to the Wisconsin Horticultural Society for membership and this magazine which is sent until the March issue, thereby giving members January, February and March in which to pay next year's dues.

Due to the cost of returning overpayments and the labor involved, the Board has authorized the Recording Secretary-Treasurer, Mrs. E. L. White, Box 334, Fort Atkinson, to retain all overpayments of dues. In other words, if you send in 50c, the regular annual dues, the entire amount will be kept by the Federation, but credit will be given only for the balance of this year.

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PEONIES—

International reputation. Orders will now be received for fall planting which should be done from the last of September to freeze up.

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