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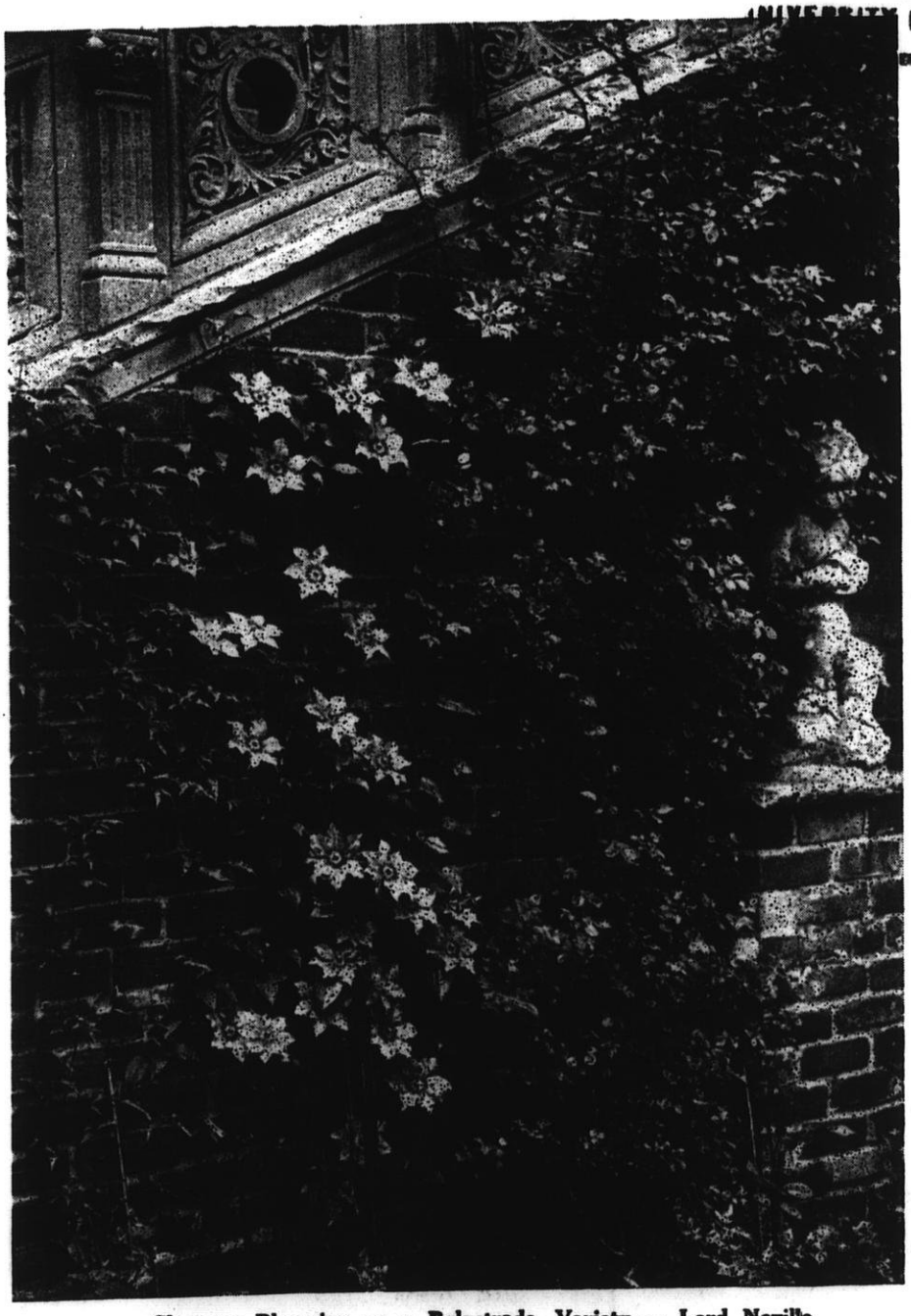
HORTICULTURE



Clemates Blooming on a Balustrade. Variety — Lord Neville.
Cut courtesy The Gardener, by the Michigan Horticultural Society.

September 1946

WILD STRAWBERRIES A REAL TREAT IN ALASKA

Dr. Aamodt, Robert Savage, A. D. Edgar, specialists who are with the U. S. Department of Agriculture from Washington, D. C., and Mr. G. W. Gasser, Alaska Territorial Commissioner of Agriculture, stationed at Fairbanks, recently went out on a survey trip of the Big Delta region. They stopped at the Alaska Fire Control Station at Jarvis Creek where Mr. and Mrs. John Howard reside. Mrs. Howard gave them a very pleasant surprise by serving a delicious WILD STRAWBERRY SHORTCAKE for their lunch. The size of these berries were that of a garden pea. The many hours spent in gathering these berries make it a much more appreciated cake and one that cannot be duplicated in many parts of Alaska. She reported then that she had canned 50 quarts of such berries last year for their winter use.

—*From The Alaska Farmer, Fairbanks, Alaska.*

WISCONSIN HORTICULTURE

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Wisconsin Apples At State Fair

Fruit Growers Show How Apples Are Produced And Prepared for Market

The "Wisconsin Apple" exhibit at the State Fair exceeded the hopes and expectations of those who took part in creating the 24 x 140 foot display. Housed in the Farm Crops Building, there was ample space for all of the exhibits and plenty of aisle space for thousands of visitors who paused a minute at each one.

High praise is due County Agents and committees of County Fruit Growers Associations who staged the educational display. It was designed not to be "pretty" but to tell about 300,000 consumers of apples who passed through the building how Wisconsin appes are grown, harvested, brushed, and graded, displayed for market, and new and old varieties being grown. It was estimated that 10,000 persons purchased and ate a Wisconsin apple on one of the best days during the week.

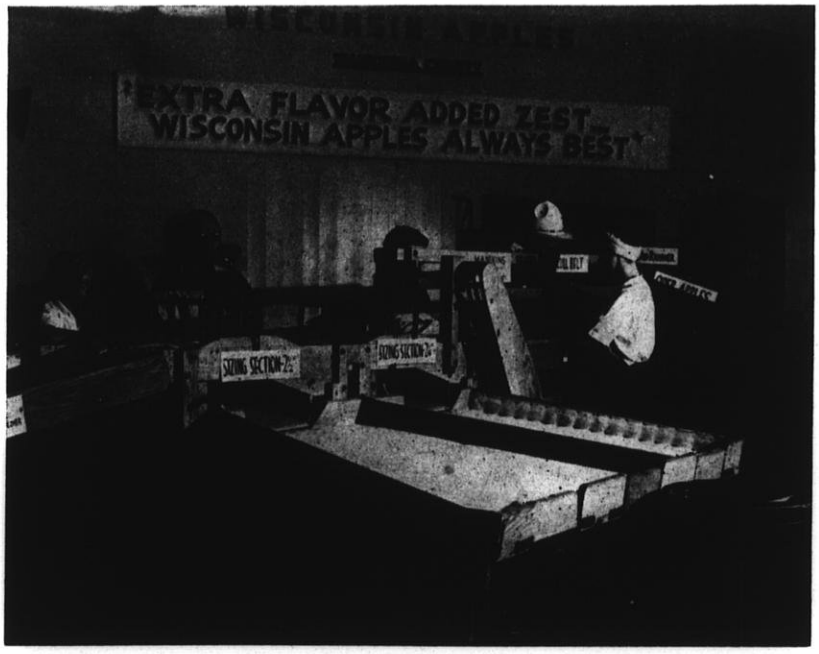
The Ozaukee County Fruit growers Association exhibit at the State Fair. A model "Wholesale Display Room." Mr. V. Puestow, Rockfield, Frank Eicksted, Cedarburg and Joe Morawetz, West Bend were busy selling apples.

The Exhibitors

The *Milwaukee County Fruit Growers* display of an orchard scene attracted much attention because it was so unusual. Three large trees, furnished by Mr. Alfred Meyer, Secretary of the Association, were brought in by the committee, set upright in pails of water, and apples tied on in a very realistic manner by running a small wire through the apple and hooking them on the branches. The trees drank about 10 gallons of water per day. Many were the comments "isn't it a shame to cut down such nice trees," this gave the oppportunity to explain that when and orchardist has a variety of poor quality or unprofitable trees, they should be cut down and better varieties planted. There is no such thing as "conservation of apple trees" in an orchard. Members of the committee in addition to Mr. Meyer were, Mr. Oscar Conrad; Mr. Allan Guenther; Mr. Elroy Honadel; and Mr. Ed. Quentin. They worked under the leadership of County Agent Sid Mathisen and Mr. Jr. Shaughnessy.

Apple Grader Stops the Crowd

The Waukesha County Fruit Growers Association exhibit of a model apple cleaner and grader stopped the crowds in great numbers whenever it was in operation. The apples sold, excepting the softer kinds, were run over this grader and when the men were at work spectators watched with great interest. Many said they didn't know the Wisconsin apple industry was so large and important that growers used graders with a capacity of 800 bushels per day. A loud speaker was used to tell visitors how apples are grown, graded, put up for market, and varieties for sale in Wisconsin. The Waukesha committee



Waukesha County Fruit Growers Association exhibit. A model grading and packing room where apples were cleaned and graded during the Fair. Loud spepaker was used to tell about it.

was Mr. Lester Tans, Secretary Southeastern Wisconsin Fruit Growers Co-op; Mr. Peter Swartz; Mr. Herbert Hasslinger; Mr. Fred. Gygax; and Mr. Ed. Hass. County Agent J. F. Thomas worked with the committee.

The Growers Wholesale Display Room

The Ozaukee County Fruit Growers Association created a fine picture of a grower's wholsale display room with baskets and boxes of apples on display. For a time a table was used at this exhibit to sell apples when the crowd exceeded the capacity of the roadside stand to serve them..

The committee, assisted by County Agent Carl Gilman of Port Washington, was Mr. Martin Wiepking, Cedarburg; Fromm Orchards; Nieman Brothers Orchards; Frenz Orchards; Armin Barthel; Mr. and Mrs. Frank Eickstedt. Mr. Eickstedt was financial secretary and treasurer of the organization and supervised sales.

The Roadside Stand

County Agent E. E. Skaliskey and Mr. Jos. L. Morawetz, President of the Washington County Fruit Growers Association, did a splendid job in erecting a roadside stand in which Mrs. Morawetz ably assisted in selling apples. On busy days when good red eating apples were on sale in the stand, demand was so great that four persons could not wait on the customers fast enough. Growers and wives from Ozaukee County also helped sell apples.

New And Old Varieties

The Sheboygan County Association had as their project showing of new and old varieties. It was a splendid exhibit, selected and put on display by Mr. Arno Meyer, president of the Association and his two sons. The varieties were labeled and there were always people studying the varieties to see if they had this or that kind in their orchard.

How to Prepare Apple Juice at Home

J. D. Winter, Minnesota Experiment Station.

Apple juice is the term properly applied to the unfermented juice of the apple. Cider (or in France, "cidre") refers to the fermented juice.

Selection of apples: Use only sound, firm-ripe apples or crab apples. A product of good flavor may be expected if four to six varieties selected at random are mixed. Single varieties, or the mixing of only two or three varieties, may not produce a juice of good aroma and quality. Avoid using Duchess, Hibernal, Patten, Greening, and Virginia for juice purposes, as these varieties may impart an undesirable flavor.

Corrosion-resistant equipment: All equipment which comes in direct contact with the juice should, so far as possible, be made of glass, corrosion-resistant metal, or wood. Do not allow the juice to stand in tin or copper containers, although well-tinned equipment may be used if the juice is in contact with it for only a brief period. White enamel containers may be used, if not chipped but not gray or blue enamelware. Apple juice has relatively slight corrosive action on tin and aluminum. Contact with iron should be reduced to a minimum.

Washing, grinding, pressing: It is important to wash the apples thoroughly before they are crushed in a grinder. If the apples have any considerable amount of lead or arsenic residue from spraying operations, they should be washed in a one percent solution of hydrochloric acid, then rinsed in clean water.

About 3½ gallons of juice per bushel of apples may be expected from a powerful hydraulic press, but a small screw press will not yield more than 2 to 2½ gallons per bushel. A simple press may be constructed by using an ordinary hydraulic automobile jack, which will give greater pressure than a hand screw press and a somewhat higher yield of juice per gallon.

Press cloths of heavy, open weave cotton may be used, or clean grain sacking. Standard press cloths may be purchased from manufacturers of juice making equipment. Before using, soak the cloths overnight in clean, cold water, and do not dry them. The cloths should be washed, boiled, rinsed, and dried after use. Keep the press clean by adequate washing with water.

Unfiltered juice: Apple juice, as it comes from the press, cannot be filtered by ordinary methods to remove cloudiness due to suspended colloidal material. The coarser material may be removed by straining through muslin or cheesecloth.

After straining, the juice may be allowed to stand for 10 to 15 hours to allow some of the suspended material to settle, after which the juice may be siphoned off without disturbing the sediment. Much better sedimentation may be obtained by adding Pectinol A as described under "Clarification."

If cooled promptly to 32 degrees to 36 degrees F., the unfiltered juice may be held for several weeks without further processing.

Clarification: The simplest method of preparing apple juice for clarification is to add one pound of Pectinol A to each 100 gallons of Juice, and allow it to stand at room temperature for 10 to 15 hours. If the juice is very cold, a somewhat longer time must be allowed. For smaller quantities, use two level teaspoonfuls of Pectinol A per gallon. Sift the Pectinol into the juice with gentle stirring. Pectinol A is an enzyme material that breaks down the pectin substances in the apple juice, thereby producing a sediment which may be removed by filtration or to a considerable extent by siphoning or decanting. Pectinol A may be purchased from Rohm and Hass Company, Washington Square, Philadelphia 5, Pa.

Commercially, the juice may be prepared for filtration by "flash heating," by the use of Pectinol A, by high speed centrifuging, or by other approved methods.

Special filtering methods have been developed for commerical use. The addition of one ounce of 140 grade pectin in 150 gallons of clarified juice will prevent further sedimentation when the juice is packed in glass for commercial distribution, according to date from the Michigan Agricultural Experiment Station.

Pasteurization: Apple juice may be pasteurized and bottled by heating it promptly and rapidly to 170 degrees to 175 degrees F., in the upper part of a double boiler, then pouring the hot juice into hot, sterilized bottles, taking care to remove foam and fill each container completely. Seal each bottle immediately and place on its side for three to five minutes. Then place the bottles in hot water (160-165 degrees F.)

(Continued on Page 335)

Time to Pick Apples

WHEN SHALL WE PICK APPLES?

It's a difficult problem to know just when to pick apples. If we pick them too ripe their storage life is short. If we pick them too green they lack color and never develop good eating qualities. It used to be said McIntosh should be picked 127 days after full bloom. Now it has been shown this method has no value. In 1945 it took 154 days for McIntosh apples to mature after full bloom in New York State.

Do hormone sprays effect ripening? There is some indication that they do on early varieties, and is most apparent on fruit during high temperatures. No doubt the best single index of ripeness is underlying ground color of the fruit. Cornell Experiment Station is working on color charts for this purpose.

THE HARVEST SPRAY FOR APPLES

For several years, quite a number of Wisconsin growers have been using hormone harvest sprays on some of their apple varieties, particularly on Wealthy, McIntosh and Snow. Their experience, as well as that of growers in other states, shows that best results are obtained when the spray is applied a week ahead of the right picking time of the variety in question. It does not matter so much which brand of hormone is used. It is more important that the application be timely and thorough. Follow the manufacturers directions for making the spray mixture. Do not expect 100% control of drop. It will actually be considerably below this figure but still be much worth while. (Small home orchard may find the dust form of hormone more convenient than the liquid spray.)

—By C. L. Kuehner in Orchard Letter No. 5.

DRY ICE HAS VALUE FOR FRUIT STORAGE HOUSES

Dry ice will reduce storage house temperatures, prevent scald, and rid the house of rats and mice. By placing dry ice at the rate of 25 lbs. per 1,000 cubic feet of storage space in the alleys at night, and then closing up the room as tightly as possible, carbon dioxide is liberated. As much as 20 percent concentration is produced which will kill rodents, reduce storage house temperatures, and prevent scald.

By airing out the rooms, there will be no danger to human beings, though the orchardist should not enter the room before it is aired out.

To prevent scald, about two times as much dry ice is necessary and the treatment is carried on for five days. It is said, however, to be cheaper than by the use of oiled paper, dry ice costing two to three cents per bushel, oiled paper five to six cents.

CODLING MOTH ACTIVE; APPLE MAGGOT HOLDS OVER FOR NEXT YEAR

"Second brood codling moths were very active up to August 10th." writes C. L. Kuehner in his August 14th news letter. He recommended another spray a week later or 14 days after last application.

Apple maggot fly emergence was slow. Hardly any bait traps caught flies due to lack of rain in July. That means a hold-over until next year. Then if we have July rains, watch out!

They tell us that a bee sting is only one thirty-second of an inch long. The other two feet are just imaginary.—Spooner Advocate.

WHEN TO PICK CORTLAND

The Cortland apple, developed from a cross of Ben Davis and McIntosh, closely resembles the McIntosh parent; but it is described as being somewhat later to mature and having a somewhat longer storage life. Results for 3 seasons in New York (19) indicate that Cortland was usually harvested at about the same number of days from bloom (128) as McIntosh. One season's results in New York, in which samples picked at different maturities were compared after storage, indicate that both Cortland and McIntosh should be picked somewhat later (about 135 days from bloom). Results for 10 seasons in Ohio (4) showed a still longer period from bloom to harvest (average, 144 days; range, 133 to 155), which was also considerably longer than the camparable average for McIntosh (129 days). From these results it seems likely that at least 130 days from bloom should elapse before the picking of Cortland is stated. Optimum maturity probably occurs normally at about 135 days. Like McIntosh the Cortland variety is fairly soft and ripens rapidly at high temperatures. It is essential, therefore, that the fruit be picked before it becomes too soft (pressure test of less than 15 to 14 pounds) and that the fruit be placed under refrigeration promptly after harvest.

Cortland is exacting in its picking requirements, developing storage scald if picked too early and break-down and mealiness if picked too late. Because its fruit holds on the tree much better than that of McIntosh, there has been a tendency to delay picking until harvest of McIntosh is complete. This has resulted in some overmature and poor-keeping Cortland fruit.

DELICIOUS

Under long growing season conditions Delicious apples may become overmature. Relative firmness may be used as an indication of the approach of an overmature condition. The apples should be picked before the pressure test drops below 15 pounds or preferably 16 pounds. Delicious grown in districts with long growing seasons has a tendency to develop water core; such development is a further indication that the fruit should be removed from the tree. Another guide in determing the picking time is the fact that the flesh of Delicious apples in proper picking condition is yellowish.

This variety holds for a long season in a firm, crisp condition if moved at once after harvest into storage at 31 degrees F. It softens and becomes mealy with extreme rapidity, however, when handled at higher temperatures; consesquently, it is not well suited to handling in common storage and any delay between date of picking and placing fruit under refrigeration will greatly decrease the time the fruit will remain in good condition in cold storage.

Red bud sports of Delicious, particularly Starking and to a lesser extent Richard, develop red color earlier than regular Delicious, and the tendency in commercial practice is to pick them earlier. Maturity investigations have shown, however, that these sports do not mature any earlier than the regular Delicious; therefore they should not be picked until at least 145 days from bloom.

When To Pick Golden Delicious

Golden Delicious is not subject to wilt, particularly when picked in an scald in storage, but it has a tendency immature condition or when extensively russeted. When picked while still fairly green it does not develop in cold storage the attractive golden yellow that adds greatly to the appearance of the fruit and it also lacks its fine characteristic flavor. Generally Golden Delicious apples can be picked over a fairly long period with satisfactory results. However, it is a rather soft variety and there is a possiblity of its becoming too soft for good storage quality if picked late.

The quality of the fruit of Golden Delicious seems to be influenced by the size of the crop to a greater extent than with some of the other varieties. With a light crop the ground color of the fruit turns yellow sooner and satisfactory dessert quality may be obtained in fruit picked 7 to 10 days earlier than fruit of a heavy crop.

Golden Delicious varies with respect to the length of periods from bloom to maturity, possibly due in part to crop size. With a light crop it seems likely that satisfactory maturity may be obtained when picking starts as early as 145 days from bloom; in general, 150 days should elapse before picking starts.

—Condensed from Circular No. 711, Picking Maturity of Apples, by U. S. Dept. of Agriculture.

Old minds are like old horses. You must exercise them if you wish to keep them in working order.—John Adams.

THIN RASPBERRIES NOW

Much larger yields of raspberries will be obtained from large canes and from those of small diameter. Therefore it is well to thin hedgerows of raspberries which have become crowded so there will not be more than about 10 canes to 4 feet row. This can be done by cutting out the weak canes of small diameter. While it is well to have the fruiting canes stand 6 to 8 inches apart, one must be careful not to cut out too many of the robust canes because that might reduce yield. Most growers get larger production per acre from hedgerows than from hills providing the hedgerows are kept fairly narrow and thinned properly.

BREEDING STRAWBERRIES FOR HIGH VITAMIN C CONTENT

They Are Much Richer In Vitamin C Than Other Fruits Grown In This Section—Varieties And Seedling Vary Widely In Vitamin Content.

By George L. Slate and Willard B. Robinson, Geneva, N. Y.

The fruit breeding projects at Geneva have as one of their objectives the development of varieties with high vitamin content. Strawberries are a much richer source of vitamin C than other fruits commonly grown in this region. The average vitamin C content of 37 varieties tested at the Experiment Station at Geneva was 62 milligrams per 100 grams of fruit (about 3½ ounces).

The National Research Council has recommended a daily allowance of 75 milligrams of vitamin C. This amount would be supplied by three-fourths cup of freshly picked strawberries. To appreciate the true value of strawberries with respect to this vitamin, they should be compared to the fruits that are usually recommended as dietary sources. A 100 gram serving of oranges supplies from 35 to 55 milligrams, and tomato as 15 to 30 milligrams. The majority of apple varieties contain from 5 to 15 milligrams per 100 grams.

Many Varieties Analyzed

The vitamin C contents of the more common varieties that were analyzed are given in Table. The variation is considerable, ranging from a high of 8 for Catskill to a low of 41 for Aberdeen.

At Geneva, Howard, Dorsett, Marshall, Aberdeen, and Pathfinder were relatively low in vitamin C. Of the widely grown varieties, only Catskill is high in vitamin C, and the value for Fairfax is 62, the mean for the group. It should be emphasized, however, that even the varieties lowest in vitamin C compare favorably with other commonly grown fruits.

At the present time Howard (Premier) and Catskill are the principal varieties for market, and often they are grown in the home garden. Of these two sorts Catskill is to be preferred for home use by virtue of its superior quality, size, and attractive appearance. Catskill also make a better frozen product than Howard.

Ascorbic Acid (Vitamin C) Content of Strawberry Varieties Grown At Geneva In 1945.

Variety	Mgms of Ascorbic Acid Per 100 Grams of Fruit
Catskill	81
Dresden	72
Mastodon	71
Sparkle	65
Redheart	69
Gem	65
Fairfax	62
Howard (Premier)	54
Dorsett	49
Culver	49
Marshall	49
Aberdeen	41

—Condensed from Farm Research July, 1946.

When Do Raspberries Winter Kill?

Visiting with Mr. A. K. Bassett, of Baraboo, last spring, he found a patch of red raspberries completely winter killed. Only a few yards away was a young patch in which the canes were alive to the tips. We discussed the matter at length. The winter killed canes were about 6 feet tall and of excellent diameter, very strong and vigorous. The ground had been well fertilized which induced the vigorous growth. It was Mr. Bassett's opinion the plants did not mature well in the fall, that they had grown too vigorously and were not hardy. The young plants on the other hand had only grown about 3 feet tall.

No doubt the tall vigorous canes would have produced a fine crop of berries this year had they survived. We came to the conclusion that if we want to produce a big crop of berries we should fertilize well and if we obtain such a vigorous growth we would have to cover the cane in late fall with soil as growers are doing in the Hopkins, Minnesota area.

If on the other hand we do not want to do the vast amount of work connecting with covering and uncovering we will have to learn how to grow our raspberry plants so they will be winter hardy on the kind of soil on which we grow them.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS ASSOCIATION

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NEWS ABOUT BEEKEEPING

Honey Prices Remain Under O. P. A. Ceiling

The Secretary of Agriculture did not decontrol Honey on September 1. This in spite of efforts by beekeepers who wanted either decontrol or increased ceilings. We expected decontrol would be granted. The law requires it whenever a crop is normal or above so that the law of supply and demand will keep prices down. Such is not the case with Honey this year; the sugar shortage having a big influence on the demand for honey.

As stated in our last issue, present ceiings on Honey are rediculously low—way below the increase in prices of most other commodities, which is unfair to beekeepers. We must continue our fight for a fair price to the producer.

Watch Consumer Prices

During the last week in August we visited two Madison Grocery stores In one, honey was selling at 44 cents per one-pound jar; in the other at 47 cents per one-pound jar. This is unreasonable if the producer can receive only 12 cents in bulk. How can the retail price possibly go that high-legitimately or reasonably. We called the O. P. A. about it and they are investigating. We think every beekeeper should see to it that profiteering is eliminated on his product. You will find the O. P. A. quite cooperative and they will appreciate your help.

What beekeepers need is strong national leadership; an organization which will concern itself with these important problems which are not in the field of our experiment stations or educational organizations. It is a function of our national Federation the most important function they have.

Watch Brood Chambers. They May Be Light In Honey, Heavy With Pollen.

In sections of the State where the honey flow is light during mid-summer brood chambers are very heavy with pollen. While this is fine for winter brood rearing it presents an important problem. Winter brood rearing means heavy honey consumption. That means starvation unless there is a large amount of honey or sugar syrup available for winter food supply. Hefting or weighing our brood chambers to determine winter needs may be dangerous because weight will be due to the pollen. Then too, colonies may need more honey than usual this coming winter because pollen will be available for brood rearing.

We have then a chance for good wintering if we provide plenty of honey or sugar syrup but great danger of starvation if we are not careful.

We predict heavy winter losses this coming year.

Three Hive Body Brood Chambers

We like the three hive-body brood chamber system of management more and more. It proved especially good this year when we had strong spring colonies. Swarm control proved easy by reversing at the right time and adding supers when needed. In fact we can not see how there could be adequate room for maximum brood, rearing under present conditions of strong colonies, many frames full of pollen and honey for winter. Even the lower of the brood chambers has been filled with brood, honey and pollen this fall.

The Sugar Situation

Sugar is scarce and we really suspect most all beekeepers, in sections of Wisconsin where the crop is short, will need the full allotment of 25 lbs per colony to prevent starvation this winter. Get your application blanks from the O. P. A. district office at Milwaukee or Green Bay at once. It takes time to get the ration stamps and feeding must be done early in October. Don't feed with a teaspoon—give them at least two ten pound pails of syrup at a time. Use two parts of sugar and one part boiling water; stir well.

We suspect there are many failing queens and queenless colonies this fall. Such colonies should be destroyed and if free from A.F.B., the combs of honey and pollen are excellent for starting packages early next April.

H. J. R.

WANTED! NAME OF OLDEST MEMBER OF WISCONSIN BEEKEEPERS ASSOCIATION

The Board of Directors of the Wisconsin Beekeepers Association has decided to recognize at the banquet during the annual convention at Fond du Lac, on October 31-November 1, the man or woman who has been a member for the longest time.

Anyone who has been a member for 25 years or more, should write this magazine at once, stating the number of years they have been a member.

ATTENTION LADIES!

Mrs. Robert Knutson, Ladysmith, Wisconsin who had charge of the Pot luck dinner at our summer meeting at Eau Claire Lakes writes there were several articles left behind; a table cloth, medium sized platter, table knife, and teaspoon. She will appreciate it if those who left these things notify her.

HONEY CROP AND ANNUAL RAINFALL

When we have a dry summer, flowers fail to produce nectar and the Honey crop is very short, we wonder if we should seek a better location. Does any part of Wisconsin have more summer rainfall than other parts of the state? And is it consistent?

Some of you may have the annual year book of U. S. Department of Agriculture for 1941 entitled "Climate and Man." It is a very interesting publication. Study of the average precipitation for the state leads one to conclude there are a number of good places in Wisconsin for Beekeeping; some not so good, but that a move might not change matters very much.

We were surprised to find on the map of average annual precipition that the Northwestern part of the state, Douglass and Bayfield counties, are the driest counties of the state. Average 28 inches of rainfall as compared to 32 inches for the Southwestern section. There are two more sections that averaged 32 inches.

Cities in which the average annual rainfall were highest are as follows: Butternut 34 inches; Stanley 33 inches; Neillsville 33; Mt. Horeb 34, Lancaster 32; Brodhead 33; Watertown 32; Darlington 32; Amherest 32; Stevens Point 33; Beloit 32; Medford 33; Viroqua 33 and Port Edwards 32 inches.

Since the most rainfall during the year is between months of May to October with May, June and September the heaviest, we find that the cities with the largest annual rainfall also have the largest amount of summer rainfall.

Checking some of the areas of low annual rainfall we find Ashland with 27 in; Superior 27 in; Amery 26 in; Ladysmith 28 in; and Menasha 28 in.

The city in which there has been the highest rainfall in the month of June is Mondovi with 5.09 inches, and Stanley second with 5.07 inches.

The length of time the records were taken may have a bearing on the results. Some of the records have been kept for 40 years and some only 8 years. If all records were for 40 years, results would no doubt be different.

The heavy clay soil of Wisconsin retain their moisture much better than light soils, so this may influence Honey production in a dry season. We are inclined to think that the amount of lime in the soil influences the nectar secretion of Clovers and perhaps the amount of potash has a bearing on it.

It is interesting to note the difference between summer rainfall in cities fairly close together. Madison has an annual rainfall over a period of 40 years of 30.6 inches. Mt. Horeb, also in Dane County averages 34.12 in. for 17 years. Here the records might be different however, if they were for the same length of time.

THE NEXT STEP IS TO LEARN SWARM CONTROL

Mr. Jas. E. Starkey of Indiana writes about his experience with strong spring colonies in his news letter as follows:

"Some of us are quite willing to try almost anything once. When Dr. C L. Farrar began to advocate strong colonies in the early spring and overwintering in 3-story 10-frame hives; I tried it. It was partly from choice and partly because of a scattered condition of stores found in 3 bodies in the fall. Well, it works. In fact, it works almost too well. Last spring at least two of these experimental colonies ranged out on early sources and partially crowded out the queens from laying space in the top and middle hives. This was when average 2-story colonies were on the verge of starvation or having a hard time keeping alive. On the other hand, these extra strong 3-story colonies were able to take advantage of every break in the weather to accumulate more stores from fruit blossoms and dandelions, etc. I was unable to get to them until May 21 and both had swarmed, I don't know how many times. Extra honey in the hives made them feel rich. My mistake was in not being able to be there to remove the inner cover and turn them loose into the extra sets of combs above. There would have been no point in alternating or reversing the hive bodies they had for they had every comb jammed full of brood, pollen and honey.

"So my experience so far has been that if I am to get such strong colonies too early, a change in management is desirable. Today both of these colonies have not a pound of surplus. They went completely to pot because of too much swarming. They have been stripped down to two stories and have merely furinshed extra equipment for colonies that were less strong in the early part. A strong colony that gets out of hand, and goes to pot completely, always makes me furious. How about you?"

You are right, Mr. Starkey—but we have learned how to control swarming in these colonies.

There is an old saying, "The eye of the master fattens his cattle." It's very true in beekeeping.

ANNUAL CONVENTION WISCONSIN BEEKEEPERS ASSOCIATION RETLAW HOTEL, FOND DU LAC OCT. 31—NOV. 1

The annual convention of the Wisconsin Beekeepers Association will be held this year in the Retlaw Hotel, Fond du Lac on Thursday and Friday, Ocober 31-November 1. Members of the Board of Directors of the State Association were all in favor of Fond du Lac this year, and are anxious that we have a top-notch program.

Some of the leading authorities in the United States are being contacted to appear on the program which will be well rounded out to cover a number of important topics. A very large attendance is expected.

BEEKEEPERS FAVOR PAYMENT FOR BEES DESTROYED BY INSPECTORS

The plan to use bee tax money in Wisconsin as an insurance fund to pay for colonies destroyed by inspectors in AFB control, is meeting with favor throughout the state. A majority voted in favor of hte plan at each of our summer meetings. The Rock County Association voted in July favoring the plan. A prominent member of the Wisconsin legislature from southern Wisconsin is said to be highly in favor of the idea and is willing to introduce the bill or have the committee on agriculture introduce it.

It all revolves around the idea of using the money received from the bee tax as an insurance fund. In the past proposals to pay indemnity out of state money have all been shunned. Mr. Chas. Roy of Sparta said at the meeting of the Northwestern District in Menomonie last May, whenever he proposed indemnity before he was always turned down.

Now, however, it looks as if we will go ahead with plans on a satisfactory basis.

MORE ABOUT PAINTING HIVES

Treating Inside of Hives May Taint Honey

Quite a few comments have been received about our articles on the value of painting bee hives. Mr. Kenneth Hawkins of the G. B. Lewis Company, Watertown, writes us in part as follows:

Your article in the May issue about painting hives is quite interesting and maybe I can add some suggestions that will save someone some time.

Quoting Dr. F. L. Browne, he suggests that since paint is not a preservative, treatment of the wood would be more in order, to prevent decay.

Without any attempt to advertise, you know the G. B. Lewis Company does that and what a headache it was to find anything suitable. The first materials we tried had a phenol base and while slightly irritant to the beekeeper before the material had dried for some days, it was apparently not objectionable to the bees. Eureka, we had it, or did we?

No one could tell us if honey produced in such a hive would be tainted so we had to find out before we could market it. By having honey produced in such hives, as freshly treated as possible we had the American Bakers' Institute test the honey for us by using it for baking bread. The honey tasted all right but the bread tasted like something so far out of this world I doubt a hungry refugee would have eaten it.

We tried a succession of materials over a period of two or three years until we found something that did not taint honey, and did not prove an irritant to the handler nor to the bees. I do not know if anyone can ever use a material, sufficiently valuable as a preservative, that will not spoil the honey nor cause a rash on the beekeeper's skin.

The danger of honey being tainted is worst of all. Honey takes up odors easily, especially when heated, for witness the trouble when too much carbolic is used to separate bees and honey on the hive. Maybe this will save someone some time and trouble as the value of the preservative now used is real although not as fully so as it might otherwise be.

NECTAR SECRETION AND THE HONEY FLOW

Beekeepers usually think of nectar secretion and the honey flow as synonymous; yet there is an important difference. A honey flow represents the relation between the colony and the available nectar supply. A honey flow that enables colonies to maintain their weight or to increase 1 to 3 pounds a day constitutes a light honey flow, colony gains of 5 to 10 pounds a day represent a good honey flow, and colony gains of 12 to 20 or more pounds a day a heavy honey flow.

A general understanding of the conditions affecting nectar secretion is necessary for effective colony management. Nectar secretion is determined by many factors pertaining to the plant in relation to its soil and climatic environment. The clovers, sweet clover, and alfalfa grow best in fertile limestone soil. Nectar secretion is heaviest when these plants show vigorous growth under favorable soil and moisture conditions, being intensified by a hot, dry atmosphere and abundant sunlight during the blooming period. Hot days followed by cool nights seem to be best. Therefore, nectar secretion is usually greatest in northern latitudes and at high altitudes. Severe droughts, plant diseases, or heavy insect infestations may shorten the honey flow, but they seldom are responsible for a complete crop failure where colonies are in good condition throughout the season.

Taken from Circular No. 72. July, 1944.

Editorials

HOW APPLES SOLD AT THE STATE FAIR

About 10,000 persons bought an apple at the Wisconsin State Fair on one of the busiest days during Fair week this year. The varieties they purchased and liked, were the Melba and Early McIntosh. When these were on display at 2 for 5c for medium size and 5c each for larger apples, they sold so rapidly it was difficult to wait on customers.

But when varieties of poor color or eating quality were offered, sales dropped. Everyone connected with the exhibit was impressed with the fact that people do like and will buy red apples of good eating quality "like hot cakes," as growers put it.

It was impossible to buy enough Melbas and Early McIntosh this year. Growers who had roadside stands found sales so good they did not wish to sell at wholsale. We appreciated very much the cooperation of Mr. Merle Pennebecker, of Waupaca who brought to the Fair 75 bushels of fine, highly colored Melba and Early McIntosh, in spite of the fact that he had a good sale for them locally.

Others who brought fine quality Melbas and Early McIntosh were: Mr. Lester Tans, Waukesha; Mr. Arno Meyer, or Waldo; and Mr. Virgil Fieldhouse, Dodgeville.

Comments were heard that growers who have well colored Melba and Early McIntosh need not fear competition in Mid-August. At that time certain early varieties were a glut on the market and found poor sales. Melba, Early McIntosh and Milton are most suitable for the roadside stand or the grower who is near a good retail market. Unfortunately the Fair was too early this year for Miltons. Quite a few are being grown in the lake shore area and would have been fine for eating had they been ripe.

MEMBERSHIP DUES INCREASED

Board of Directors Vote to Increase Dues of Affiliated Memberships To 50c PerYear. Individual Memberships Remain At $1.00

The Board of Directors of the Wisconsin Horticultural Society, meeting on August 20, voted to increase the dues of affiliated organizations to 50c per member per year. This action was found necessary to meet the increased costs of publishing Wisconsin Horticulture. The cost of printing and paper has gone up about 40% and other costs have increased likewise.

The Society had accumulated a substantial balance of more than $3,000 during the past 10 years, but during the last fiscal year expenditures were $1,135.89 more than receipts.

Other matters acted upon by the Board were as follows: It was voted that another meeting be held by the Society in Western Wisconsin for fruit growers in that section some time in Novembber, similar to the meeting held at Chippewa Falls last November.

It was voted the annual convention of the Sociey be held in the Athearn Hotel, Oshkosh on Thursday and Friday, November 14-15, and to extend an invitation to the Wisconsin Apple Institute to take part.

ANNUAL CONVENTION WISCONSIN HORTICULTURAL SOCIETY HOTEL ATHEARN, OSHKOSH THURSDAY — FRIDAY, NOVEMBER 14-15

Board of Directors of the Wisconsin Horticultural Society voted to hold the annual convention of the Society at Hotel Athearn, Oshkosh, November 14-15. This should be an outstanding convention. A survey of fruit growers is being made to determine subjects they would like to hear about and speakers will be invited accordingly.

THE VEGETABLE EXHIBIT AT THE WISCONSIN STATE FAIR

The vegetable exhibit at the Wisconsin State Fair this year was patterned along the same line as the fruit and farm crops exhibit; showing in a large way, how one important vegetable crop is produced, harvested and canned in Wisconsin.

The vegetable chosen for display this year was the red table beet. In large wooden letters above the exhibit was the statement "Wisconsin Leads in Red Beets." "1945 Pack Was 80,000,000 Cans."

Few people realized so many red beets were grown and canned in this state, or that we lead the nation in producing and canning this crop. The exhibit, staged by County Agent E. E. Skaliskey and committee of Washington County, assistant County Agent John Bucholz, and committee of Manitowoc County, and the Wisconsin Canners Association, consisted of three scenes. The first, a four-row beet seeder and how it sows the seeds four rows at a time. Next a display of beets growing in soil and being cultivated with a four-row cultivator, and being hoed by hand. The third scene was of a harvester

which digs, tops and elevates the beets into truck in one operation. Then came a very neat exhibit of canned beets by the Wisconsin Canners Association.

A few folks missed the conventional vegetable display consisting of plates of five vegetables of various kinds with premiums. However, 99% of Fair visitors were outspoken in their praise of this type of exhibit which illustrated the production use and value of an important crop. While plates of vegetables are fine for the County Fair, they have little meaning at a State Fair.

Credit for helping with the display is due the Rockfield Canning Company of Rockfield, Wisconsin, and Mr. Robert Bergstrom, field worker for the Company, who furnished the four-row cultivators and the harvester. Libby McNeil and Libby, Mr. Kenny, Mgr., for furnishing the seeder, and Mr. Marvin Verhulst, Secretary, Wisconsin Canner's Association for his cooperation.

AMERICAN IRIS SOCIETY AWARDS 1946

Dykes Medal—No Award in 1946. The voting for the Dykes Medal this year resulted in a tie with 23 votes each for DAYBREAK and OLA KALA.

Award of Merit-Tall Bearded.

1. Chivalry—Wills
2. Tobacco Road—Kleinsorge
3. Master Charles—Williamson
4. Tiffanja—DeForest
5. Berkeley Gold—Salbach
6. Casa Morena—DeForest
7. Sharkskin—Douglas, G.
8. Ranger—Kleinsorge

Award of Merit-Not Tall Bearded.

1. Lady Mohr (T.M.B.)—Salbach
2. Eric the Red (Sib.)—Whitney

Honorable Mention.

Alpine Glow; Amandine; Anna Williamson; Arab Chief; Auburn; Black Forest; Desert Song; Distance; Easter Bonnet; Easter Gold; Golden Ruffles; Gulf Stream; Helen McGregor; Honeyflow; Lady Boscawen; Lake Shannon; Lights On; Lynn Langford; Mattie Gates; Moontide; New Snow; Patrice; Pink Cameo; Premier Peach; Rajah Brooke; Rilla Gabbert; Russet Wings; Salamonie; Sukey of Salem; Sultan's Robe; Sylvia Murray; The Capitol; Three Cheers; Treva; Veishea.

Fruit Exhibit At State Fair
(Continued from Page 316)

How An Apple Tree Is Produced

At the end of the series of exhibits, and of great interest to fair visitors, was the display by the Jefferson County Fruit Growers Association on how a young apple tree is produced from seed to the two-year old tree. A series of sections in a circular booth showed the various stages from apple seeds, one-year old seedlings, the grafting process, one-year and two-year trees, and how they should be cared for in the orchard. The committee did a splendid job under the direction of County Agent C. A. Dumond; Association president Wm. Leonard, secretary Mr. Carroll Krippner, and Mr. Laurence Holmes of Coe, Converse and Edwards Nursery.

Object of the Display

The object of the exhibit this year was to inform consumers and interested people how Wisconsin apples are grown, harvested and marketed, and from that standpoint the exhibit was truly educational. The manager of the Wisconsin State Fair made the statement that the Farm Crop, Fruit and Vegetable Building had made the greatest improvement over previous exhibits of any building on the grounds.

For the Wisconsin apple grower it was truly valuable because it created an interest on the part of the consumer in our apples. This is in line with the work of the Wisconsin Apple Institute. Only a few persons missed the premiums formerly given on varieties.

SOUND MOVIE AVAILABLE ON TULIPS

A full-color, 16 mm sound film is available from the Associated Bulb Growers of Holland, 41 East 42nd Street, New York 17, N. Y., according to announcement by the organization.

The film shows the arrival of the bulbs from Holland, their formal presentation from the people of the Netherlands, their careful planting, and finally, their glorious springtime color on American and Canadian soil. It shows the charm of tulips for home gardens, and close up shots of flowers. Planting and culture are explained by Mr. E. L. Seymour, Horticultural Editor of the American Home Magazine.

Sound movie films cannot be shown in silent film projectors. However, many County Agricultural Agents have sound projectors, and if one is available this may make a good picture for a garden club meeting.

GREYHOUNDS

These unusual dogs make graceful, affectionate pets. Friendly, good-natured dogs. D. H. Thiemann, Hubertus, Wis.

Scientists say one noise can be used to silence another. For instance, the little bell on the cash registers muffles the groaning of the customers.—Arcadia News-Leader.

One reason romance lasted longer in the old days, was that a bride looked much the same after washing her face.

Gladiolus Tidings

By the WISCONSIN GLADIOLUS SOCIETY

Gladiolus Show Reports

The Wisconsin Gladiolus Show At The State Fair.

Our first 1946 show held at the State Fair brought out a good number of blooms of exceptional quality with an array of color seldom seen. There were approximately 700 blooms exhibited by society members providing keen and friendly competition. Grand awards were made as follows:

Greatest number of points — Mrs. Harold Turner, Alden, Ill.

Second point winner — Dr. L. C. Dietsch, Plymouth, Wis.

Third point winner — A. E. Piepkorn, Plymouth.

Champion spike 500 series — A. E. Piepkorn, Plymouth, variety EXCLUSIVE

Champion spike 400 series — Dr. L. C. Dietsch, Plymouth, CHAMOUNY

Champion spike 200-300 series Dr. L. C. Dietsch, Plymouth, BLACK OPAL

Best 1946 Introduction — F. M. Bayer, Milwaukee, SPIC AND SPAN

Color Champion — A. E. Piepkorn, Plymouth, EXCLUSIVE

Most Ruffled Bloom — Legion Trial Garden, Spring Green, MYRNA

Longest Flower-head — Dr. L. C. Dietsch, Plymouth, MARIMBA

Most open florets — F. M. Bayer, Milwaukee, SPIC AND SPAN

Best formal type spike — A. E. Piepkorn, Plymouth, EXCLUSIVE

Best formal type spike — O. A. Kapschitzke, Sheboygan, OGARITA

Best Illinois Introduction — F. M. Bayer, Milwaukee, Silver Wings

Best Recent Introduction Seedling — Reliance Gardens, Oconomoc, MISS WISCONSIN

Best formal seedling — A. E. Fiedler, Cudahy, Wis.

The spike of **Exclusive** exhibited by A. F. Piepkorn was the most beautiful at the show.

Reliance Gardens, (Walter Krueger) had the best commercial display of newer varieties.

In the artistic arrangement section were exhibited a basket of Spic and Span by Cosmopolitan Glad Gardens, Milwaukee, Wis. Also a basket of Orange Gold by the Garden of the gods, Janesville, Wis. Cosmopolitan Glad Gardens also exhibited a basket of Oriental Pearl, which was not in Competition. The three spike division was exceptionally large. The show in all respects proved a success.

We wish to express our appreciation for the assistance and and courtesies given us by the State Fair Management, particularly Mr. E. L. Chambers and Mr. H. E. Halliday.

MADISON GLADIOLUS SOCIETY HOLDS BEAUTIFUL SHOW

Almost 10,000 visitors were checked as attending the annual gladiolus show of the Madison Chapter in the First National Bank. It was a beautiful show with many outstanding arrangements as well as fine blooms.

Point winners were in open class: John Flad, 1st with 840 points; Paul Hoppe, 2nd, and Roger B. Russell 3rd. In th amateur class,Prof. B. Hibbard, 1st with 146; John Magnasco, 2nd.

In flower arrangement classes, Mrs. T. Wisniewski was the point winner with 9 entries; Mrs. F. Middleton, 2nd with 8 entries; and Mrs. Geo. Harbort third with 8 entries.

In arrangements by growers, Mrs. R. B. Russell was first. Mrs Albert Haugen, 2nd, and Paul Hoppe 3rd.

FINE SEEDLINGS

There were some outstanding seedlings shown. Mr. Theo. Woods won nine firsts; R. B. Russell, one first; and Etlar Nielson, one first. Grand Champion seedling and New England award went to Theo. Woods on 3-43-50.

Grand Champion spike was shown by R. B. Russell, variety Leading Lady.

Theo. Wood had the most beautiful spike—his champion seedling.

In the open spike section over 4¼, single, the following varieties won first prize in their color class: Purple Heart, Leading Lady, Dr. Whitley, Trocadero, Pioneer, Ethel Cave Cole, Red Charm, Chamouny, King Lear, Hoppe's Seedling, Buckeye Bronze. Division Champion, Leading Lady.

Division Champions in the following classes were: 3 spikes, Myrna; Amatuer over 4¼", Red Charm; Under 4¼ inches, amateur, La Fiesta.

SEEDLING SHOW BRINGS OUT BEAUTIFUL FLOWERS

The annual Wisconsin Seedling Gladiolus Show held at Walter Miller's Garden, Sun Prairie on Sunday, August 4th, brought out many beautiful seedlings. It was a credit to members of the Wisconsin Gladiolus Society. We compliment the Wisconsin hybridizers who have produced such fine flowers.

Attendance was excellent and refreshments furnished by the societies were enjoyed by all. Credit is due Walter Miller for his courtesy in extending the use of his garden and buildings for the show, and to Theo. Woods, Madison, as show chairman.

A total of nearly 500 spikes were shown.

The Winners

Mr. D. M. Puerner wrote the following comments on the winners: "Single spike championship went to Walter Krueger, of Oconomowoc, on a large, ruffled and laciniated yellow originated by Beardmore. Other outstanding spikes in this section included a handsome large white by Torrie, of Madison, a large ruffled lavender by Woods and Carlson's 4111, a ruffled buff-pink, owned by the Cosmopolitan Glad. Gardens.

"The 3-spike championship went to Carlson's 4111, which also went on to win the basket championship. Other 3-spike winners were Torrie's No. 43-14-1, Krueger's No. 458-10 and Menzie's (Australia) A-12, exhibited by Harold

Janes. Runner-up on baskets was Wood's handsome entry of Alcan, a ruffled white holding many open florets.

"The recent introduction class was highlighted by Christine, a large pure white exhibited, by John Fladd, of Madison. This spike went on to win the section championship. Leading Lady, Spotlight, Gratitude, Bridesmaid, Eglantoine, Summer Gal, Miss Wisconsin and Abigail were also winners in the large single-spike section. Krueger's Color Marvel won the division championship.

"Grand championship of the show went to Beardmore's yellow 42-06 owned by Walter Krueger, of Oconomowoc, and grand championship for recent introductions went to Christine."

STATE SHOW AT WAUSAU HUGE SUCCESS

The Wausau show was a grand success. There were 859 entries and more than 1800 spikes shown. About 5,000 persons attended the show and 500 danced at the Gladiolus Ball. At the aucction Mr. Archie Spatz sold the flowers in bouquets of 12 sspikes.

Dr. L. C. Dietsch Point Winner

Dr. L. C. Dietsch, Plymouth was the point winner, scoring 155 points. Mr. Spatz scored 98. Other point winners were: Mr. A. Piekorn, Plymouth 66; Mrs. Carl Hornick, Menomonie 65; Dr. R. H. Jeuers, Wausau 45; Mr. Arnold Sartorious Porterfield 39; Mr. Richard Jeske 37.

Rev. H. Schedler, Hamburg swept the show with Corona, It was the section champion, division champion, besst spike 500 series, color champion and won two vases.

David Puerners' Spic and Span was section champion 400 series while Colonial Maid by Mrs. S. C. Malmsten, Michigan was the best in the 2-300 series.

A spike of Burma by Archie Spatz was the division champion, section champion and best recent introduction. Flying Fortress by Dr. L. H. Juers won the longest flower head class.

ADDITIONAL WINNERS

Other winners were: Best formal spike, Spic and Span by Puerner. Best informal spike Purple Supreme by Mrs. N. S. Nelson.

Best seedling was shown by C. D. Fortnam; Palmers seedling #41053.

Mr. Warren Dowling of Monroe, Washington won the D. C. Everset Vase on an air shipment of Abnaki.

In the Commercial exhibits Mr. Walter Krueger of Oconomowoc was the winner. Mr. Harold Janes of Whitewater ssecond and Dr. George Scharr of Sheboygan third. Mrs. A. J. Radloff of Plymouth was the point winner in thte Artistic Arrangement class winning the Dr. Lempke vase. There were 93 entries.

THE BANQUET

A very succesful banquet was held on Saturday evening at Hotel Wausau. Telegrams of greeting from the N. E. G. S. was read. The gladiolus Queen was Miss Giese, daughter of Mayor H. A. Giese. She was crowned by President Leland Shaw at the Gladiolus Ball and presented with a $250 bond. Each of the four members of her court received a $50 bond.

The Business Meeting

The Board of Directors of the Gladiolus Society met during the show and voted to have the fall meeting in the Medford Hotel in Milwaukee on Sunday, November 17.

It was decided that the Society donate uniform trophies. One to each affiliated chapter that sponsors a show. They suggested the society sponsor only one state show in 1947. That the society purchase sufficient folders from N. E. G. S. describing Gladiolus Culture to supply our growers so they may include them together with membership application blanks in filling bulb orders.

THE MARINETTE — MENOMINEE SHOW

The second regional Glad Show of the Twin Cities Gladiolus Society proved to be a great success, with about 1,000 spikes of glads on exhibit.

An estimated 4,000 persons reviewed the show which was topped by Grand Champion, King Klick, which was also section A champion, shown by Mrs. Carl Hornick of Menominee, Michigan. Section B champion was Camellia by Arnold Sartorious, amateur section champion was Aladdin by Leo Paschke of Marinette; Section C-3 spike, Miss Wisconsin by Walter Krueger; Section F, R-I Intruder by Dr. R Juers of Wausau, who also won Best R. I., Rosette given by N. E. G. S. Seedling No. 42724 shown by Archie Spatz won only ribbon given in that section.

Commercial displays were made by Marty's Glad Patch, Plover, Wisconsin, and Ravet's Glad Gardens, Menominee, Michigan.

An added feaure was bulb certificates aworded blue ribbon winners each class in the amateur section, these being donated by various growes and also a seedling bulb and bulblets valued at $25 to grand champion of show, given by Perrine Scot Farms, Whitmore Lake, Michigan.

High point winners of the show were Mrs. Carl Hornick, 83, Chester Harrison, Waldo 71, Archie Spatz, 56, Arnold Sartorious, 49, and H. E. Krubsack, Peshtigo, 38.

—*By Arnold Sartorious, Porterfield.*

Fall Or Spring Planting

Plant Lilacs In Fall, Tender Roses Only In Spring — By Karl Junginger, McKay Nprsery Co. Madison

Many arguments arise as to which is best—Fall or Spring planting of nursery stock. To answer this, one must consider separately each individual species. Much nursery stock is planted in the Fall erroneously because of bad advice received by the planter. Such misinformation generally is obtained in articles written by growers in a climate entirely different from that of rugged Wisconsin. Also some nurserymen, (fortunately a small minority), recommend the planting of many tender varieties in the Fall, mainly to obtain money to carry them through the winter..

A tabulation as given below can be the source of much argumentive discussion for the simple reason that because so many factors enter into this problem of what can be planted sucessfully in the Fall, no list will apply definitely to each year. The writer has seen many soft wooded trees, such as Lombardy Popular and Willow, planted equally good in the Fall as in the Spring when there has been a very dry Fall and we have good frosts to properly ripen the wood, and the following winter, a favorable one. Therefore, this list is given solely as a general guide to follow. Fall planting is increasing year after year and rightly so, because so many plants can be moved sucessfully at that time.

When To Plant

EVERGREENS: All varieties of Evergreens that are hardy in this climate can be planted in the Fall or Spring. Fall planting should not be done too late, preferably prior to October 15th and all Fall planted Evergreens should be balled and burlapped.

DECIDUOUS TREES:

ASH — Fall or Spring
BIRCH — Spring only
CRABS, FLOWERING (Malus) Spring. Can be planted in Fall if balled and burlapped.
ELM — Fall or Spring
LINDEN — Fall or Spring
LOCUST — Fall or Spring
MAPLE HARD (Sugar), NORWAY, or SCHWEDLERI — Fall or Spring
MAPLE SOFT — Spring only
MT. ASH — Fall or Spring
NUT TREES — all varieties Spring only
OAK TREES — all varieties Spring only
POPLAR BOLLEANA — Fall or Spring
POPULAR — All other varieties Spring only
PRUNUS (Wild Cherry) — Fall or Spring. Spring is preferred.
RED BUD — Spring only
THORN (Crataegus) — Spring - Can be planted in the Fall if balled and burlapped.
WILLOW — All varieties Spring Spring only

DECIDUOUS SHRUBS:

ALMOND — Fall or Spring
ALTHEAS — Spring only
AMELANCHIER — Fall or Spring
ARONIA — Fall or Spring
BARBERRY — Fall or Spring
BEAUTY BUSH — Fall or Spring
BUCKTHORN — Fall or Spring
BUTTERFLY BUSH — Spring only
CARAGANA — Fall or Spring
CORNUS — (Dogwood) — Fall or Spring
COTONEASTER ACUTIFOLIA Fall or Spring
COTONEASTER — All other varieties Spring only. Can be planted if balled and burlapped.
CURRANT ALPINE — Fall or Spring
DEUTZIA — Spring only
ELDER — Fall or Spring. Spring preferred.
Spring only
EUONYMUS ALATUS, ATROPURPUREA or EUROPEAN — Fall.
EUONYMUS RADICANS or other Evergreen vine types —
FORSYTHIA — Spring only
HYDRANGEA P. G. or ARBORESCENS — Fall or Spring
HONEYSUCKLE 9 (all varieties) Fall or Spring
JAPANESE QUINCE (Cydonia) Fall or Spring. Spring preferred.
KERRIA (Rhodotypos) — Fall or Spring
LILACS, COMMON or HYBRIDS — Fall or Spring. Fall is preferred.
PHILADELPHUS (Mock Orange) — All varieties Fall or Spring.
PRIVIT ARN or REGALS — Fall or Spring
PRUNUS TRILOBA (Flowering Plum) — Fall or Spring
PRUNUS RED LEAF varieties Fall or Spring
RUSSIAN OLIVE — Fall or Spring
SNOWBERRY and INDIAN CURRANT — Fall or Spring
SPIREA all varieties — Fall or Spring
SUMAC, FRAGRANT — Fall or Spring
SUMAC all other varieties — Fall or Spring. Spring preferred.
TAMARIX — SPRING only.
VIBURNUM CARLESI—Spring. Can be planted in Fall if balled and burlapped.
VIBURNUM — All other varieties Spring and Fall
WEIGELIAS — Fall or Spring. Spring is preferred.
WITCH HAZEL (Hamamelis) — Fall or Spring. Fall is preferred.

DECIDUOUS VINES:

BITTERSWEET — Fall or Spring
CLEMATIS — Spring only
CLIMBING HONEYSUCKLE — Spring only

IVY BOSTON and ENGELMANI — Fall or Spring
MATRIMONY VINE — Fall or Spring
WILVER LACE VINE — Spring only
TRUMPET CREEPER (Bignonia) — Spring only
WISTERIA — Spring only

ROSES:

Wild Species such as BLANDA, LUCIDA, SETIGERA, etc. — Fall or Spring
RUGOSA and RUGOSA HYBRIDS, such as BELLE POITEVINE, GROOTENDORST, HANSA, and SIR THOS. LIPTON — Fall or Spring
ROSA HUGONIS — Fall or Spring
HYBRID TEA ROSES — Spring only
HYBRID PERPETUAL ROSES Spring only
POLYANTHA ROSES (Baby Ramblers or Floribundas) — Spring only
CLIMBING ROSES — Spring only

When TO PLANT NARCISSUS

Plant Narcissus reasonably early in the fall—September is best, although early October is satisfactory. September planting is advised because the bulbs should have time to make roots before cold weather arrives.

Where division and transplanting of home grown stock is done, this work may be done as soon as the foliage has ripend, say, in July with varieties that multiply at a reasonable- rate, it is usually advisable to dig up clumps and divide every three or four years. In naturalized plantings, the rate of increase is not so rapid, and it is not necessary to divide as often. It is doubly necessary to feed plantings here division is not made so ofen however.

Planting depth for bulbs: Planting deph varies with the size of bulb and type of soil. It is better to err on the side of planting too deeply than too shallow. This is particularly true if you do not wish to divide often, as deep planting retards the increase of offspring. The small bulbs of the jonquil should be planted about 4 to 6 inches apart, and the bulbs should be covered with three inches of earth. This would mean a planting depth of about 4½ inches to the base of the bulb. All the other narcissus (all the groups except the jonquils) should be covered with at least 4 inches of soil, which would mean a planting depth to the base of the bulb of about 6½ to 7 inches; and these groups should be planted from 6 to 12 inches apart.

It is important after the bulbs have bloomed that you do not cut the growing foiage. Allow the foliage to ripen and die down naturally. This will usually be about the end of June or the first part of July. It is important that the foliage be preserved until it begins to yellow, because it is the leaves that help to utilize he materials that provide sustenance for the bulb.

Naturalized Plantings: Daffodils lend themselves to the nauralization and are ideal for this purpose. Use them along driveways, in meadows, orchards, woods, along shrubbery, or on the banks of pools or brooks. They like to nestle among the roots of shrubs, and as they bloom before leaves develop on the other vegetation, they will thrive in places which later in he season are quite shaded. If some bulbs are planted with a southern exposure and others with a northern exposure, the period of flowering will be prolonged.

In naturalizing, plant by allowing them to fall from a tilted basket and planting where they fall. Once planted, do not disturb until hey multiply to such an extent they are overcrowded. A single bulb in several years will establish quite a colony.

Some beautiful, striking combinations can be achieved with narcissus in naturalized plantings. One such combination is Poet's narcissus with native bluebell (Mertensia virginica) or witth Phlox divaricata. If to this group you add bleeding heart, you have a spring garden picture that will not be forgotten. All of these plants except the phlox become dormant a short time after flowering, and the space they occupy can be used for planting shallow-rooted annuals in the late summer.

—*By the Master Gardener.*

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

PRESIDEN'S MESSAGE

The war is over. We won the war at great cost and we hope the day is not far off when we shall have world peace.

Now is the time to start work on post war plans. Our work along educational lines has been effective and worthwhile. This year we are having a two day convention. All barriers have been removed. We can travel to the convention, and there is food to eat. We are looking forward to a fine convention; so please accept our invitation and attend the convention.

If we wish to remain a strong, active organization, capable of carrying on the work, we must all help. We need new blood, new ideas, and good leaders. We must organize new clubs and gather in new members. We are on the way to success. You are aware that success brings success. Let us all work that we may see a tremendous quickening and an abundant harvest.

In one of the Michigan State bulletins is a short report stating that the National Council is getting out a booklet: "America from the Drivers Seat" containing information from each state in the Council.

The American Legion, at their gathering at Lake Geneva this Summer, discussed the subject of Highway Development and are taking

a long range program. We must work hand in hand with the Legion.

They propose "Silent Cross Highway" as a memorial. Highway, 51 as the upright of this cross of the state; then a cross State Highway from Hudson to Marinette Wisconsin the upper section of the "Silent Cross."

Beautification of the "Silent Cross" is the thought that comes o each Garden member in the state. Let us get busy when the Highway is completed and make it a beauty spot. It should be planted with trees and shrubs native to those parts of the the state and for their spring, summer and fall beauty. We, in Wisconsin have inherited much out-of-door beauty, which we should preserve for those who follow.

We want to beautify our Highways, that they may be as beautiful as the rest of the state, and bring people to admire our natural beauty spots.

—By Alfred H. Otto, President.

ALL ABOARD FOR FOND DU LAC

Do you realize that in a few short weeks we are to hold our State convention? Fond du Lac, the place; October 10-11, the time.

Do you want to make this the largest convention in the annuals of the Federation? Do you want to listen to the fine speakers schedule? Do you want to see and participate in the flower show? Do you want to have a member of your club bring to those who don't attend, the important messages? How can this be possible? All this and more is possible if each club will work for it.

Appoint a convention chairman to take care of all arrangements, then send every delegate your club is entitled to. Each club is allowed one delegate for 50 members or less; two persons for each club having 51 or more members. If you have members willing to defray their own expenses, so much the better. But see to it that you have one delegate sent by your club.

For the past few years you have extended helping hands to hundreds of new gardeners in your communities; bring them with you. Show them how a garden club and the Federation can help them to be better gardeners.

(Continued on page 332)

Wisconsin Garden Club Federation

Nineteenth Annual Convention

RETLAW HOTEL, FOND DU LAC, OCTOBER 10-11, 1946

PROGRAM

Thursday, October 10

Meeting in Crystal Ball Room — Rev. Alfred Otto, President, Presiding

10:00 a. m. Call to order and invocation by the Rev. Alfred H. Otto, President.

Address of Welcome by Mrs. Lawrence Skilbred, Fond du Lac, District President.

10:40 a. m. Reports of the standing committee chairmen, Accomplishments and Recommendations. Mrs. F. J. Fitzgerald, Menasha, General Committee Chairman, presiding. Reports limited to 5 minutes.

12:00 M. Luncheon. Four dining rooms have been reserved for luncheons and special program. Tickets $1.00; must be purchased before 11 a. m. Two rooms have capacity of 35 only; others are larger.

PROGRAM:

Section 1. Conservation Group. Mrs. Max Schmitt, Chairman, Wauwatosa. Topic: The World is Your Garden. Miss McCabe, U. S. Forest Service.

Section 2. Birds. The value of birds in our economy. Discussion led by Mrs. Arthur Koehler, State Bird Chairman, Madison, assisted by District Bird Chairman.

Section 3. Horticulture Program. Miss Merle Rasmussen, Oshkosh, Chairman. Speaker: Mr. Carl Cropp, Chicago.

Section 4. New Mums and Hemerocallis illustrated with slides by Miss Olive Longland, Lake Geneva.

AFTERNOON PROGRAM

2:00 p. m. Succession of Bloom in Historical Hazelton. Illustrated with slides. Mrs. C. R. Walgren, Dixon, Illinois.

3:00 p. m. Pardon Me, Your Foundation Shows. A discussion of planting about buildings. Illustrated Prof. J. S. Elfner, Department of Horticulture, University of Wisconsin.

THE BANQUET

Price $1.50 per plate

6:30 p. m. Music and entertainment auspices Fond du Lac, Community and Ledgewood Garden Clubs, Fond du Lac.

Soloist, Mrs. Frank B. Whiting, Neenah. Question and Answer Contest. Prizes.

PROGRAM:

The Human Side of Nature. Nature Movie by Sam Campbell, Three Lakes, Wisconsin.

Banquet Committee: Miss Clara Liston, Mrs. E. E. Borsack, Mrs. Lawrence Skillbred, Fond du Lac.

FRIDAY, OCTOBER 11

BOARD OF MANAGERS MEETING IN CIVIC ROOM

9:00 a. m. Annual meeting Board of Managers Wisconsin Garden Club Federation. Official delegate only.

The Board of Managers consists of one delegate from each affiliated garden club with a membership of less than 51. Two delegates per club having 51 or more members. This Board acts on all matters of business and makes recomendations on all important matters to come before the convention.

GENERAL PROGRAM

MEETING IN CRYSTAL BALL ROOM

9:30 a. m. Trees For Tomorrow. Mr. Vico Isola.

10:15 a. m. How To Grow House Plants. Gardening Under Glass. Mrs. Arthur F. Durand, Highland Park, Illinois.

11:15 a. m. Annual business meeting Wisconsin Garden Club Federation. Election of Officers. Change in Constitution.

12:30 M. Luncheon — no plans.

AFTERNOON PROGRAM

1:30 p. m. Design in Flower Arrangement. Demonstration and lecture by Hazel Peckinbaugh Dunlop, Detroit, Michigan.

COMMITTEES

Elections: District President. Mrs. N. R. Barger, Madison; Mrs. G. W. Neuenberger, Two Rivers; Miss Mary Potter, Cambridge; Mrs. O. J. Reuss, Milwaukee; Mrs. L. Skilbred, Fond du Lac.

Program: Mrs. F. J. Fitzgerald, Mrs. C. Breman, Mr. H. J. Rahmlow.

Flower Show: Mrs. C. Schultz, Neenah, Miss Merle Rasmussen Oshkosh

Other Committees to be Listed in Official Program.

Registration Fee 50 Cents

FLOWER SHOW SCHEDULE FOR FEDERATION CONVENTION

Flower Show October 10-11, 1946

Class Section	Entries
1—Table 35x72 in. set for 4 or 6	3
2—1. . Swags — doors	3
2. . Swags—arches 7o in. x 7 ft.	3
3—Windows — No wreaths	3
4—Altar — 13 ft. space	1
5—Santa room 13 ft., 60 inch window as fireplace	1
6—Dooryard	2
7—1—Wreaths 15 in. evergreens and cones no other decorations.	10
2—Wreaths 18 in. evergreens, ribbons and other decorations.	9
8—1 Artistic arrangements featuring nuts or gourds.	5
2 Artistic arrangements featuring foliage or berries.	5
3 Artistic arrangements suitable for Church, natural burlap background furnished.	4

RULES CHRISTMAS THEME ONLY

1. Entries from clubs only.
2. Entries with Xmas theme only will be judged.
3. Properties will be furnished.
4. Entries must be completed by 11:30 a. m. Oct. 10th.
5. Entries accepted according to time received..

NOTICE OF INCREASE IN MEMBERSHIP DUES

The Board of Directors of the Wisconsin Horticultural Society voted at their meeting on August 20 to increase the membership dues of all affiliated members to 50c per year.

This will mean an increase of 15c per member to the Wisconsin Garden Club Federation.

The action was necessary due to the increase of 40% in the cost of printing and paper in the publication of this magazine and other increased expenses.

The Wisconsin Garden Club Federation will therefore find it necessary to act on the matter of dues at its annual convention in Fond du Lac.

In order for the Federation to raise its dues, there must be an amendment to the by-laws. This can be done at the annual business meet-

ing of the Federation during the convention. The amount of increase should be discussed thoroughly and can be acted upon by the Board of Managers.

FOX RIVER VALLEY DISTRICT MEETING METHODIST CHURCH, ANTIGO, SEPTEMBER 19

The 13th annual meeting of the Fox River Valley District of the Federation will be held in the Methodist Church, Antigo, September 19 beginning at 10 a. m. Registration 25c. Send reservations for luncheon to Mrs. B. B. McIntyre, 929 Clearmont Sreet, Antigo, by September 17th. Price of luncheon, $1.00.

An excellent program is in store. Mr. J. H. Alexander of Madison, superintendent of recreation and education division of the Conservation Department, will be the speaker. He will illustrate his talk with slides.

IT'S DRY HERE TOO GARDEN CLUB THRIVES AMONG OIL DERRICKS AND MESQUITE

Mrs. Arthur J. Berggren, President of the Odessa, Texas Garden Club, says, "It is very dry way out here in West Texas oil fields—we drive for hours and nothing but oil derricks and mesquite—but come to one of our cities. You will always see evidence of *Garden Clubs.*"

Mrs. Berggren sends check for some of our enry tags and merit system award cards which she read about in Dorothy Biddle's article in the August issue of the Flower Grower. Their show is held the later part of October or early November, and will feature chrysanthemums and dahlias. She adds, "We are in a very hot, dry climate. As a rule we do not have a frost until Thanksgiving. We have a rain in January and then hope for one by the 4th of July. Anything will grow for us if we have a well to water it."

SOUTH CENTRAL DISTRICT MEETING

The meeting of the South Central District of the Wisconsin Garden Club Federation will be held at Lake Ripley Country Club on Tuesday, September 10.

Mrs. Victor Bergler, Baraboo, will talk on "International Kitchens." A smorgasbord lunch will be served at 12:30.

Miss Mary E. Potter, Cambridge. President.

MADISON DISTRICT ANNUAL MEETING

Christ Presbyterian Church, Wisconsin Ave. and Dayton Street Thursday, September 19, 1946

10:00 a. m. Registration. Fee 35 cents.

10:15 a. m. Business Meeting, report of club president and district chairman, elections.

12:30 a. m. Luncheon. Per plate $1.00

Program following Luncheon:

"Control of Flower Insects" by Prof. E. H. Fisher, Economic Entomology, University of Wisconsin.

"Flowers at Wychwood" by Miss Olive Longland. Lecture illustrated with colored slides of Wychwood, Lake Geneva, Wisconsin featuring hardy chrysanthemums, hemerocallis and tuberous begonias.

Flower Arrangement Exhibit. Every member urged to bring an arrangement. Best to be discussed by some of our accredited judges.

—By N. R. Barger, President.

LAKE GENEVA GARDEN CLUB JOINS FEDERATION

A letter form Mrs. Roy H. Sewell, Milwaukee, past president of the Federation, encloses dues and registrations of the Lake Geneva Garden Club of 87 members. This Club is a member of the Garden Clubs of America.

Officers of the club are: President Mrs. Arthur W. Wakeley; First Vice-President, Mrs. John Eliot Warner; Second Vice-President, Mrs. Anthony G. Zulfer; Recording Secretary, Mrs. Howard Vaughan; Corresponding Secretary, Mrs. William O. Hunt.

The Federation welcomes this club to membership and appreciates Mrs. Sewell's continuous effort on behalf of the Federation.

The Convention

- (Continued From Page 330) -

Are we going to have many? We ought to for the Federation includes 91 clubs with about 2600 members, and we need you to build a still larger Federation. There is no better way to do this than to have the inspiration of a convention.

What a wonderful sight and inspiration it would be to see all the delegates that the clubs are entitled to, present a the convention in 1946.

Mrs. F. J. Fitzgerald and her committee have prepared a full and interesting program which will be found in this issue.

Mrs. Lawrence Skilbred is serving as local chairman, which is assurance of a well run convention.

Mrs. Clarence Schultz, Chairman of the flower show committee, and Miss Merle Rasmussen are planning a beautiful flower show and looking for many entries.

Let us get together and make the 1946 convention the biggest convention held. WE CAN DO IT.

—By Mrs. Wm. Curtiss, State Publicity Chairman.

"Mother," asked the little one, on the occasion of a number of guests at dinner, "will the desert hurt me, or is their enough to go around?"

Only uncomfortable chairs become antiques; comfortable chairs are worn out by use in a single generation.

Face powder may catch a man, but it takes baking powder to keep him.

Random Notes

By Genevieve Dakin

September and October are busy months for the gardener. Get your narcissus bulbs in as early as possible to insure good root growth. Have you considered a collection of miniature daffodils for a spring picture in the rock garden? Set these tiny bulbs at a depth of two and a half times their size. Have you grown botanical or species tulips? They are available again in large variety. They, too, fit into the alpine garden picture. Species crocus are equally desirable and infinitely prettier than the large flowered types. Chionodoxasome in soft lavender blues, in gentian blue, in white and pink. Do you know the white scilla and white grape hyacinth? Now that these lovely spring bulbs are again on the market include a few new ones in your fall planting.

Fall is considered the best time to renovate lawns. Weeds are far less troublesome than in spring. There seems to be more time to do a good job than in the crowded spring program.

Do you save your leaves for the compost pile? Do not underestimate the value of leafmold for flats and beds, to say nothing of wild flowers, ferns and primroses..

This is the time to plant evergreens and to divide and plant hardy perennials. October is time enough for deciduous trees and shrubs when they become dormant.

If alfalfa is available trench it into your vegetable garden this fall. It will break down during the winter and add both fertility and humus to the soil. If the vegetable plot is spaded and left rough for the winter the results are worth consideration. The ground is mellow and in fine condition for spring work.

Mrs. Fred Bahnson of Salem, N. C. who is one of the few women hybridizers of hemerocallis in the United States tells how to raise day lilies from seed. Sow the seed in shallow drills filled wih peat moss and then covered with sand and peat moss and kept moist. They will come up in two weeks, may be transplanted in two months, and will bloom in two years.

Two pleasing combinations in one area: In spring theifera crab, prunus triloba, with ground cover of daphne cneorum and phlox Blue Hills under clumps of cottage tulip Sarah Bernhardt. In summer Elsa Paulson roses in upper terrace with pink lythrum, perennial scabiosa, pink astilbe, and veronica incana below.

Red Spider, an orange mite with great devastating powers multiplies very rapidly during the summer months and unfortunately winters over on low growing vegetation, migrating in spring to other plants and evergreens. Plants attacked are those in too much sun or those suffering from too little moisture. Spraying is said to be better than dusting. Michigan State College has used as a control a spray either of bill-posters'paste or common glue. The rule is one tablespoon of bill-poster paste to a gallon or two to three tablespoons of glue to a gallon of water.

For a long time we have been reading about vermiculite which according to some authorities is the most revolutionary of all new materials coming to aid gardeners. It has been sold for a decade under various trade names yet it is comparatively unknown, Mr. Milton Carleton in an article in The Flower Grower calls it the Garden Stepchild. It is said to be cheaper than glass wool and a perfect insulation as a winter cover. It never mats down because pore structure won't let it become saturated. What is it made of? Technically verniculite is exfoliated mica which means that a certain type of mica has been roasted at over 2000 degrees F. until it has popped like corn on a hot gridle. This heating process makes the mica completely sterile. As the particles of mica pop they form tiny sponges or kernels which are so porous that they will absorb and hold many times their weight in water. As a mulch it retains soil moisture and slows drying out, an important consideration against winter losses. It porous structure allows air to reach roots. Its high insulating value makes it useful for frames as well as borders. It may be used for storing bulbs and root crops. Another use is for plant propagation. It is used then as a "soil." A special horticultural grade should be available through seed stores now or at an early date.

A book which has been called to my attention is "The Gardeners' Bug Book" by Cynthia Westcott. It is published by The American Garden Guild Inc., 444 Madison Avenue, New York 22 N. Y. The book is said to be a practical, usable and complete guide to pest control. Price $4.95

Another book which may be obtained from the same company is P. J. Van Melle's Shrubs and Trees for the Small Place. We know the author as a horticultural authority of high standing. The price is still $1.75.

Politician: "Now, ladies and gentlemen, I want you to tax your memory . . ."

Business man (in audience): "Goodnight! Has it come to that?"

Between Clubs

La Crosse Garden Club reports that their community service project for this year consisted of an effort to make the surroundings of newly developed homes for veterans at the army ordnance shops more attractive and homelike. This plan was carried out under the direction of a garden club member who is also a member of the local housing authority committee and who provided window boxes well filled with blossoming plants for several of the buildings. Garden club members and friends contributed generously various shrubs, perennials, annuals and vines which they coud spare from their own gardens.

Construction of a flowing well and a shelter house at Wayside Park, Highway 28, west of the Sheboygan City limits are two project which the Sheboygan Garden Club has promoted this this year. The dedication of this project was held in August with the Rev. A. H. Otto as speaker.

At its April meeting the Whitnall Park Garden Club of Hales Corners voted to purchase at least one or more books per year for the Reference Library maintained in the Administration Building of the Whitnall Park Botanical Gardens, Hales Corners. In accordance with this action the club purchased and presented to the Reference Library, "The Gardener's Bug Book," by Cynthia Wescott, recently published by he American Garden Guild, Inc., and Doubleday & Company, Inc.

The Two Rivers Garden Club recently enjoyed a garden party at the Meckelberg Gardens on the Mishicot Road, Highway 147, North city limits. Whether one was interested in flower arrangements, peonies, roses, trees, shrubs, birds, a lecture on foreign travel, landscape architecture, or the buffet supper—it was all there. Slated for special study were the June roses and peonies, of which there were about 30 varieties. Attention was directed to a peony bush which is 54 years old and from Mr. Meckelberg's mother's garden.

Other garden club members in Wisconsin who have also contributed books and eriodicals to this Library, include Rev. A. H. Otto, West Bend Garden Club; Mrs. Chester Thomas, Blue Beach Garden Club; Mrs. Fred C. Marquardt, Whitnall Park and Hawthorne Garden Club; and Mr. H. J. Rahmlow, Wisconsin State Horticultural Society.

The Sheboygan Garden Club put out 30 bluebird houses this spring, which were built and put up with the aid of local Boy Scouts. The trail follows Highway 28 to the Village of Kohler and they report that many homes were occupied.

The La Crosse Garden Clubs Bluebird Trail was begun in March by the placing of twenty-four bluebird houses in suitable locations in two nearby counties. The Vocational School made these houses. Reports show that blubirds nested in nearly every house.

During the summer months the La Crosse Garden Club has had only informal outdoor meetings in the nature of family picnics. One afternoon deserving special mention was spent at the country home of a membe,r located on the slope of a beautiful bluff with a magnificent view of a wide expanse of the Mississippi River. The view of the river for many miles up and down with many islands and distant bluffs was a special treat.

One of the most successful flower shows ever held in Sheboygan was sponsored by the Sheboygan Garden Club, June 22, 23 at the Kiwanis Park Field House. The outstanding exhibit was a tropical display, including tropical plants, orchids and palms. An old-fashioned table with picture lamp, lace edged embroidered doily and a pansy arrangement also received many comments.

There are several recipes very popular with the La Crosse Garden Club. These were distributed at their harvest festival last year and they have received requests for them again this summer.

DRIED CORN

Select young tender ears. Cook on cob three to five minutes, cool and cut from cob, place paper on large cookie tin and spread corn on it. Place tin in very low temperature oven with door open. Stir often. When corn begins to dry, set tin in the open until cool. Repeat oven heating until corn is dry.

Put in tight cloth bags and keep warm until corn is *Perfectly Dry*. Then it may be stored in glass jars for winter.

To Cook. Soak over night, one cup of dried corn in enough water to cover. Place on fire in this same water and simmer about one hour. Season with salt, butter and a little cream if desired. (Serves Four)

—By Mrs. William Curtiss, Plymouth, R. 1, *State Publicity Chairman.*

It never pays to meddle with a hornet, a wasp, or a farmer who is minding his own business. —Farmers Guide.

The future of democracy depends on whether it is able to depend on us.—Pacific Rural Press.

ASCORBIC ACID PREVENTS DARKENING IN FREEZING PEACHES

Prof. J. D. Winter, Division of Horticulture, University Farm, St. Paul, has just released a memeograph circular on the use of ascorbic acid in freezing peaches and apricots, which is very informative. It contains details, for those interested. He states:

"A small amount of ascorbic acid (crystalline vitamin C) added to the syrup used in packing peaches and apricots for freezing prevents darkening of the cut pieces and makes it very easy to preserve the natural color and flavor of the fruit.. Also, color and flavor can be retained when using much less sugar than is needed without ascorbic acid.

"First, prepare a sugar syrup by disolving 3 cups of sugar in a quart of water. This will make about 1⅓ quarts of syrup.

Use clean, cold water and let the syrup stand until clear, stirring occasionally. Then add ascorbic acid, mixing the proper amount in a small quantity of water before adding it to the syrup. Use one-half level teaspoonful of ascorbic acid per quart of prepared syrup. Mix thoroughly, but avoid beating in air while stirring. Do not add the ascorbic acid until ready to prepare the fruit. The amount of sugar may be reduced, if desired, to 2¼ cups per quart of water although the product will not be sweet enough to suit the average person.

"Ascorbic acid may be used to prevent the darkening of peaches and apricots packed and frozen without ascorbic acid. Simply mix ⅛ teaspoon in a very small amount of water and pour this over the top of each pint of fruit as soon as the container is opened before the fruit starts to thaw.

"When ascorbic acid is not available, best results are obtained by packing peaches and apricots in glass jars using a syrup made by dissolving 4 cups of sugar per quart of water. The covers of the glass jars may be screwed on loosely until after the fruit is frozen, and then tightly sealed."

How To Make Apple Juice At Home

(Continued From Page 316)

and cool them at once by adding cold water to the container. The pasteurized juice should be stored in a cool, dark place.

Commercially, the juice may be preserved by a method known as "flash pasteurization." Ordinary unclarified apple juice is not well-suited for preservation by pasteurization a· the heating causes the coagulation of various substances it contains, and the product tastes more like apple sauce than fresh apple juice.

Preservation by freezing: Freezing is the best method of preserving unclarified juice, and clarified juice may be preserved equally well by this method. The frozen juice may be stored at 0 degrees F. for periods up to two years. Clean, glass coffee jars, one-pound size, may be used for freezing simply by filling each one with four cups of juice. Larger quantities may be frozen in small wooden kegs, leaving a head space of 1/5 the volume for expansion.

Use of preservatives: Benzoate of soda, U. S. P. grade, may be used to preserve apple juice, although it usually imparts a slight taste to the juice which is undesirable. It may be used at the rate of one-tenth of one percent (1¼ ounces to 10 gallons).

It is important to add the benzoate soon after pressing. Dissolve the proper quantity in a small amount of warmed juice before adding it to the container. Juice treated in this manner should be stored in a cool room. If the apple juice is sold, the use of benzoate of soda must be declared on the label.

Containers: Containers should be absolutely clean and free from odors. When possible, it is best to keep apple juice in glass containers. Clean barrels or kegs may be used for large quantities. Old, dirty containers will impart undesirable flavors to the juice. If old barrels are used, fill them with water and allow to soak for a day to loosen up any dried deposits. Then wash out each barrel with clean water, and rinse the inside thoroughly with a solution of sodium hypchlorite, containing 500 parts per million of available chlorine until the container seems "sweet". The simplest way to accomplish this is to purchase chlorox at the grocery store and make up a solution using 1½ cups to ten gallons of water, or use Hilex at 2½ cups to 10 gallons. After this treatment, the barrel must be rinsed repeatedly with clean water. Hot water or steam will remove paraffin from paraffin-lined barrels.

YOUR GARDEN IN AUTUMN HARVESTING AND STORING VEGETABLES

When frost comes the first vegetables to be harvested for storage are beans, winter squash and pumpkins. These tender vegetables must not remain out-of-doors in a freezing temperature. Tomatoes, peppers, eggplants and cucumbers should be gathered too, but these cannot be stored for any length of time.

ON KEEPING TOMATOES—Ripe ones keep well in the refrigerator, but green tomatoes will not ripen there. They should be laid out without touching each other in the sun or in a dark cool place and transferred to the refrigerator or other cold place when they turn red. Or, the vines may be pulled up and hung in a basement or warm garate to allow the fruits to ripen. If, however, the fruits drop from the suspended vines, they risk being bruised. Tomatoes may also be wrapped in paper and stored in a box in a fairly cool room.

A tomato ripened on the growing vine has the greataer vitamin value and flavor than one which is picked green.

DON'T BE IN A HURRY to dig and store your root crops. This applies to beets, carrots, rutabagas and turnips. Leave them in the ground until heavy frost—even after the tops have died down, but of course remove them before the ground freezes hard. They keep better after low temperatures have caused the cells to fill up with starch and sugar, while the water content becomes less.

ROOT CROPS AND CABBAGES keep best in moist atmospheres.

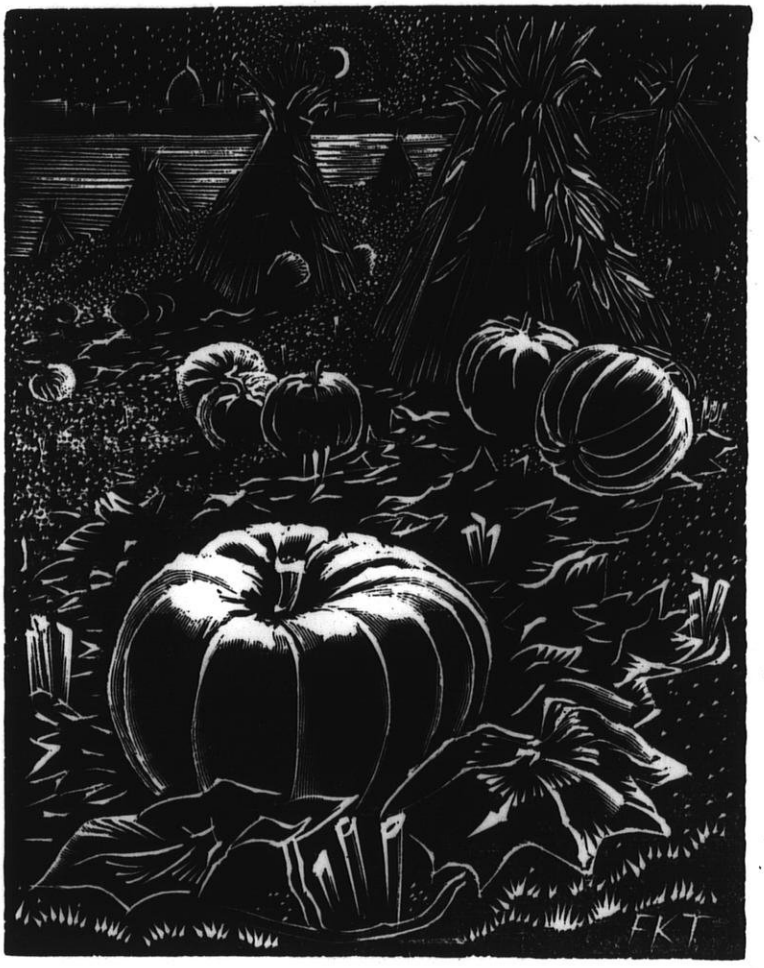
ONIONS DISLIKE HUMIDITY and must be kept dry.

HIGH FINANCING

Mrs. Newly-wed:_ "Darling, will you lend me twenty dollars, and only give me ten of them? Then you'll owe me ten, and I'll owe you ten and we'll be even."

Eating crow is not pleasant, but if the world won't start producing its own food pretty soon that's what we'll come to.

WISCONSIN HORTICULTURE



October 1946

CONVENTION NUMBER

NEW SPRAY MATERIAL FOR FRUIT

The search for new spray materials to combat fruit diseases and insects goes on. We have often wondered if our old standby lime sulphur and lead arsenic would be replaced. We're not ready to say they will be now but the chances are good.

We now read of a new patented oily spray, called nitroacenaphthene, developed by Drs. Bowen and Smith of the U. S. D. A. It's said to rate 25% better than lead arsenic for controlling codling moths and doesn't leave a poisonous film on fruit.

Then there is a new spray called No. 341 produced by Boyce-Thompson Institute research which controls scab, cedar-apple rust on apples, black spot on roses, and leaf spot on sour cherries. This may be mixed with insecticides.

All new materials are being tested by our Wisconsin Experiment Station. We will hear more about them at our annual convention.

Banker, telephoning: "Your bank account is overdrawn $17."

Depositor: "Say, Mr. Banker, look up my balance of a month ago —how did I stand then? I'll hold the phone."

Banker: "You had a balance of $450."

Depositor: "Well, I didn't call you up, did I?"

WISCONSIN HORTICULTURE

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Growing And Handling Apples

A West Virginia Grower Explains How Apples Sell Themselves. — By Henry W. Miller, West Va.

Apples properly grown, picked, packed, and stored sell themselves. These are the words of my chief competitor, Lester Arnold, Sales Manager for Senator Byrd of Virginia. To this statement, I add "Amen." There always has been and always will be ready sale for fruit of high character.

A certain Irishman has said, "Experience is a fine teacher but it is awfully costly." Our long and tough experience cost plenty, but it was worth it.

Pruning: World War II served to amplify the fact that an apple tree can grow too tall to be profitable. Our trees have all been cut back to 20 feet and and young trees are being trained to stay below 18 feet.

Spraying: Our entire acreage is served with carefully engineered pipe systems, designed to deliver a pressure of 700 pounds at every hose connection. Soft ground and steep mountain sides are not obstacles to a pipe system. Last summer all trees were frequently covered in five 10-hour days. Spraying 35,000 trees on time is a sizable job.

Approximately 800 acres were sprayed in 1945, with DDT. Results obtained with this new chemical were far ahead of our wildest expectations. In 1944 approximately 22% of the Company's apples were thrown out of top grades because of worm damage. DDT results in a reduction of worm damaged apples in 1945 to less than one-half of 1%. This was the most complete kill of any insect ever experienced in our orchards. I doubt if any atomic bomb coud have done any better.

Thinning: Many growers in the Appalachian area feel that it is unnecessary to thin York Imperial and certain other varieties. Experience gathered from our own commercial

tests has left us with a definite belief that it is practical and profitable to thin all varieties.

We do not believe, however, that all varieties should be thinned alike. The operation should have a wide variation depending on size of the per tree crop and the variety. For example, white apples such as Transparent, Northwestern Greening, Grimes, and Golden Delicious do not have to be thinned for color, meaning that apples can be regularly spaced throughout the tree; whereas, on red varieties we endeaver to remove most of the inside apples which are not in position to secure enough sunlight.

We begin thinning as soon as apples are formed and generally keep at it until summer apples are ready to pick in early July.

Picking: Plantings have been so arranged that apples can be picked almost continuously from July 1 until early November. Practically all picking is done on a piece basis to avoid excessive bruise and to get the fruit harvested as rapidly as necessary.

Our management can quickly spot bruise from rough handling, and find the offenders because picker puts his number ticket in the corner of his picking boxes.

Hauling: All fruit is hauled from field to cold storage in lug boxes which are immediately stacked for quick cooling. A 24-hour schedule is generally maintained from tree to storage. Apples designed for a long hold should be handled on a peach moving schedule.

Storing: Air-conditioned, humidity-controlled cooling systems have proven superior to the conventional pipe systems. (We have both). Latent heat can be removed from fruit much quicker and air ducts also take up less space than piped and defrosting troughs. We often hold over 150,000 bushels of tree-run, unpacked apples under refrigeration in big boxes for fresh packing throughout the winter.

Packing: All packing is done in one large, modern, steam-heated plant, situated in the town of Paw Paw on a main, trunk line railroad. Practically all fruit is packed fresh, winter and summer, and placed directly into railroad refrigerator cars. The plant is equipped to pack either wrapped or face and fill boxes, baskets, or 5-lb. mesh bags.

It is also equipped with a labor saving, power conveyor system which eliminates practicaly all hand-trucking and carrying of unpacked or packed fruit. When apples are placed on the conveyor system back in cold storage rooms, they are carefully moved with electric power until completely packed and delivered to car doors.

A comparatively small crew of 25 or 30 skilled men and women can easily pack 200,000 to 300,000 bushels per season in this plant, with practically no over-time. This considerable tonnage can be packed with a few people because of our long packing season extending from July to March or April, and because of the modern equipment used.

Our sales manager is instructed never to stop movement just to wait for a higher price. A high per pack-

age yearly average is the goal. It is impossible to get a high average by selling 75% of a crop above the market and then practically giving the other 25% away because of poor condition.

You may be interested in the following general impressions of conditions in the Appalachian area and what is being done to meet the future.

Planting has not kept up to tree removal in recent years. Only a few large commercial operators have been planting extensively. While these commercial plantings are individually large, they do not substantially affect the total tree census when compared with the thousands of small orcharding operations which are slipping backward. The Appalachian area is definitely over its peak of production caused by huge plantings back in the teens and '20's.

Benjamin Franklin said on signing the Declaration of Independence, "Gentlemen, if we do not stand together, we will hang separately," meaning that the British would do the hanging. Now, gentlemen, I can say to you that the time has come when we apple growers must stand and stick together in our respective organizations which support and stand under the wings of the National Apple Institute. If we fail to do this, we will be just as vulnerable to certain powerful, unscrupulous interests as Benjamin Franklin and his brave associates were to the British.

—*From The Eastern Fruit Grower, August* 1946

Bob Burns speaking: "Most of my folks came from the country—as soon as they found out I was making good in the city."

PERPLEXED

"Was your tie red when you came in?" asked the barber.

"No, it wasn't," replied the customer.

"Gosh!" said the barber.

THE GREEN McINTOSH PROBLEM

A return of the consumer demand for higher quality apples will bring new importance to the old problem of green McIntosh. Red color in the apple is due to anthocyanin pigments. The development of anthocyanin pigments depends on a supply of carbohydrates (sugars) which are products of green leaves. Therefore, a supply of reserve carbohydrates is necessary for the red color pigment in the apple. This relates the whole problem of color right back to the nutritional conditions of the tree, together with favorable sunlight and temperature.

Not all the accumulated sugar is used in making the color pigment. There must also be sugar for those more subtle qualities of aroma and flavor which distinguish a really good apple from a poor imitation. An imitation McIntosh would be one which was picked green and immature and then exposed to some chemical or artificial light which would make it appear as luscious as one which had matured on the tree with about 45 good, thick, leathery leaves to back it up. Red dye is not the answer. Only tree-matured fruit will maintain the popularity of the McIntosh.

We realize that other stations are working on this problem, but we feel that it is important enough to justify some of our attention. Our plan is to make comparative studies of orchards which consistently produce high percentages of green McIntosh with other orchards which produce higher quality fruit. This study will correlate percentages of green McIntosh with such factors as growth and nutritional status of the tree, pruning system, age of tree, fertilizer practice, planting distance and type of planting system.

We shall employ such corrective measures as adjusting fertilizer applications to fit individual orchards, fanning and removing crowding trees, and adequate pruning. More fundamental studies will include shading, ringing, thinning, spraying with certain chemicals such as sodium thiocyanate, and searching for a red bud sport.

—*From Dr. W. H. Griggs, Pomologist, University of Connectocut. July* 1946.

BEWARE OF MICE IN THE ORCHARD

Mouse Population is on the Increase.

Serious damage may result if mice are not controlled. We are warned by Mr. G. C. Oderkirk, Division of Rodent Control, that the mouse population is on the increase in the central states; that the population is on the more or less cyclic build-up at the present time.

Early in September we found mice had chewed apples under trees in orchards. This was early, as mice usually come to sheltered places such as orchards under sod during October. It may mean a large mouse population.

Poison oats bait for mice is available from the following firms; Bayfield Fruit Growers Co-op, Bayfield; Door County Fruit Growers Co-op, Sturgeon Bay; Southeastern Fruit Growers Co-op, Waukesha; F. R. Gifford Company, Madison. The last two firms have adds in this issue and will service growers anywhere in the state.

Make an orchard survey at once. Look for mouse runways under the trees. If numerous, put a teaspoon of poisoned oats bait under every tree in a fresh runway. Cover the bait with a handful of grass. Do this in the forenoon of a nice clear day when mice feed the most freely.

Poisoned oats bait will last indefinitely if kept in a dry place. Exposed to rain the poison will be washed off. That's why it is best not to place in the orchard before a rain. Results come quickly if the bait is placed on a fresh runway on a nice day.

McINTOSH AN EATING APPLE

There are not enough fancy McIntosh this season to supply an eager public with their favorite eating apple. Green, hard, immature McIntosh are not fit to eat and are not eating apples nor will people continue to buy them as such. There are *plenty of the lower grades and other cooking apples to use up all the sugar available.*

By using spot picking and hormone sprays and by cultivating patience and restraint it may be possible to improve the quality and increase the part of the McIntosh crop that is pleasing to McIntosh lovers — and at better prices.

—From New York and New England Apple Institute Inc. September, 1946.

A REPUTATION IN APPLES

Editorial In The Rural New Yorker

John Chandler, past president of the National Apple Institute, is quoted at a recent meeting of the New York-New England Apple Institute as saying, "It behooves every apple grower to do a good job of grading if he is to escape 75-cent prices. This season we have a real opportunity to live up to the reputation we have built over the past years for our McIntosh and other varieties. It will pay dividends this season and in the future.

This is the keynote of apple growers throughout the country for 1946. They realize that with a short crop and under OPA there have been no price differentials operating to encourage better grading and packing. Most apples, good, bad, and indifferent, have gone at ceiling or near-ceiling prices. What inducement has there been for better grading and picking? The result has been a chaotic condition and much inferior fruit on the markets at prices which have been too high. Growers have feared that the efforts of a generation would be destroyed.

Now comes the call by leaders in the apple industry to return to proper standards and to live up to the standards of former years. It should be heeded by all growers of apples who have a stake in the enterprise. This is the "year of grace" immediately following an unusal situation of small crop, high prices, and inferior produce. The consumer may understand and overlook a condition due to abnormal circumstancees for a time, but he will not long tolerate its continuation.

As John Chandler says, "It will pay dividends this year in the future," and the emphasis is on the word "future."

FRUIT SHOW
ANNUAL CONVENTION WISCONSIN HORTICULTURAL SOCIETY
ATHERN HOTEL, OSHKOSH
November 14-15

Committtee in charge: C. L. Kuehner, Madison, Chairman, assisted by Leland Brown, Sturgeon Bay, E. L. White, Fort Atkinson; and V. W. Peroutky, County Agent, Oshkosh.

NEW APPLE VARIETIES
Plate of 5 Apples

Judges: C. L. Kuehner, Madison, assisted by R. L. Marken, Kenosha.

JUDGING BY MERIT SYSTEM

Judging will be by the Merit System. All entries rating Excellent will receive $1.00; Very Good, 75 cents; Good, 50 cents.

1. Milton
2. Macoun
3. Cortland
4. Haralson
5. Secor
6. Kendall
7. Perkins
8. Lobo
9. Hume
10 Prairie Spy
11. Fireside
12. Any other variety

STANDARD VARIETIES
Plate of 5 Apples

Premiums on classes 13 and 14 offered by the Niagara Sprayer and Chemical Company, J. Henry Smith, representative, Waupaca. There will be six premiums on merchandise in each class. All others by Merit System.

13. McIntosh
14. Delicious — any type of red
15. Golden Delicious
17. N. W. Greening
16. Snow
18. Cortland

SEEDLING APPLE EXHIBIT
Five Apples Not Previously Shown

Prizes: 1st, $5; 2nd, $3; 3rd, $2; 4th, $1.

Consumer Package Exhibt:

Class A. One package of apples in model "consumer package."
Class B. A gift package of any type of home grown fruit.
Premiums: Exhibits rating excellent, $2.00; very good, $1.50.

78TH ANNUAL CONVENTION
WISCONSIN STATE HORTICULTURAL SOCIETY
FRUIT GROWERS PROGRAM
OSHKOSH, ATHEARN HOTEL, NOVEMBER 14-15
PROGRAM

THURSDAY, NOVEMBER 14

8-10.00 a. m. Setting up fruit exhibits. See premium list.

10:00 a. m. Call to order by President Don Reynolds, Sturgeon Bay.

Preliminary Investigation Of Apple Pollination and Partial Blossom Cluster Removal and Its Effect on Fruit Set. Dr. B. Esther Struckmeyer, Department of Horticulture, Madison.

10:45 a. m. Progress Report on Use Of DDT In The Orchard. Control of Codling Moth, Oyster Shell Scale and Red Mite. Dr. C. L. Fluke, Department of Entomology, Madison.

11:30 a. m. Round Table. Questions and Answers on Insect Control and Pollination.

12:00 M. Meeting Board of Directors Wisconsin Horticultural Society.

AFTERNOON PROGRAM

1:30 p. m. How Michigan Orchardists Solve Some of Their Problems. Frost Protection. Value of Red Bud Sports. Minard Farley, Jr., Michigan Apple Commission, Lansing, Michigan.

2:15 p. m. The Present and Future of Apple Growing. Prof. W. H. Alderman, Chief, Department of Horticulture, Minnesota.

3:00 p.m. Results of Investigations of Fruit Disease Control in 1946. Report on New Fungicides. Drs. G. W. Keitt and J. Duain Moore, Department of Plant Pathology, Madison.

3:45 p. m. Question and Answer Period.

4:15 p. m. Annual business meeting Wisconsin Horticultural Society.

ANNUAL BANQUET

6:30 p. m. Banquet, Hotel Athearn. Entertainment arranged by Oshkosh Horticultural Society and Fruit Growers Association.

Honorary Recognition Certificates Awarded to Two Outstanding Horticulturists.

The Agricultural Situation As I See It. Prof. Asher Hobson, Chief, Department Agricultural Economics, University of Wisconsin.
Committee.

FRIDAY-NOVEMBER 15

9:30 a. m. Joint session Third Annual Meeting Wisconsin Apple Institute.

What We have Learned in Wisconsin About Apple Selling and Promotion. Mr. Gordon Crump, Publicity Director, Wisconsin Department of Agriculture.

Discussion.

10:30 a. m. Plans of Michigan Apple Growers and the Michigan Apple Commission for Apple Promotion. Minard Farley, Jr., Lansing, Michigan.

11:15 a. m. Topic to be announced.

AFTERNOON PROGRAM

1:30 p. m. Observations In Wisconsin Orchards in 1946. Discussion of Cultural Operations. Dr. R. H. Roberts, Department of Horticulture, Madison.

2:30 p. m. Annual business meeting Wisconsin Apple Institute, Election of Officers. Transaction of Business. President C. J. Telfer, presiding.

MARKETING RESEARCH PROGRAM ESTABLISHED

In August, President Truman signed the Flanagan-Hope bill to establish a program of marketing research under the direction of the USDA. President Truman said: "Our greatest peace-time agricultural problem is the effecient marketing of adequate quantities of the right kinds of food and other farm ducts."

Said President E. J. Blalock of the United Fresh Fruit and Vegetable Association: "I regard this as one of the most constructive agricultural laws passed by Congress in a long time."

Every industry is spending money on research to deveop new processes for better mechandising methods. We hope to see beneficial results from this new research work for horticulture.

DDT KEEPS POTATOES GREEN

A letter from Mr. Virgil Fieldhouse, Dodgeville, states: "I have a patch of Sebago potatoes which I sprayed with DDT and DuPont Copper A Compound. The vines were still very green on August 28 and without any curl or burn of the outer portions of the leaves. Flea beetle damage cannot be seen either. They were planted very early for late potatoes and were watered regularly each 12 days. It is a wonderful plot; will give a very high yield of nice potatoes. For a while the plot was a thick mass 2½ ft. high.

"We had a great year with our Premier strawberies again. Watering before and after full bloom put our patch way ahead of others in the locality in size of berries."

HELP WANTED

IN THE ORCHARD

ORCHARD NOTES

Officers of the Racine County Fruit Growers Association, with the help of Mr. Hugo Klumb of the County School of Agriculture, held a very interesting orchard tour on September 9. Three fine orchards were visited and there was considerable interesting discussion on orchard problems as they were encountered in the walks among the trees.

Two questions of interest to all growers came up. First was the red mite evident on leaves of some of the trees. We had passed a somewhat neglected orchard enroute, which showed serious injury from red mite, visible from the highway. Evidently then, red mite needs to be watched in Wisconsin orchards. Where DDT is used, which will kill its parasites, but not the mite, injury may be still more severe. We might suggest growers take a reading glass and examine the lower side of leaves showing any russetting, especially on Delicious. If mites are serious, plan to spray with oil next spring. This will be discussed in more detail at our annual convention.

Another question which was discussed by Mr. C. L. Kuehner, was the *effect of drought and spray injury on the leaves of the trees.* Some varieties as Delicious showed considerable browning on the margin of the leaves. Growers may wish to turn to a mild form of sulphur in their spray schedule during the hot summer months, in order to have healthier foliage. We pointed out that injured foliage may have a serious effect upon the fruit buds for next year's crops.

In one orchard not visited on this trip, there had been considerable injury due to use of a very dilute lime sulphur, 1 to 100. This is dangerous because burning from arsenate of lead resulted. It is important never to use lime sulphur more dilute than 1 to 60 or 1 to 75, as it prevents to some extent at least arsenate of lead injury.

Mr. Virgil Fieldhouse of Dodgeville writes: "Our Ember plums are swell this year. *We are rather tired, however, of raising large quantities of plums.*"

APPLE VARIETIES FOR WISCONSIN is a topic that is being discussed by many growers. The list is decreasing in number all the time. This year's experience with early varieties leads many growers to the opinion they will not plant any early *cooking varieties.* If they plant Duchess it will be Red Duchess. Melba, Early McIntosh and Milton hold the stage right now as the early varieties in orchards near large consuming centers, especially those with roadside markets.

Cortland is meeting with increasing popularity in sections where it is doing well, and there will be larger plantings in the future. It looks as if there will be more Cortland planting than McIntosh.

There is one outstanding fact evident in all discussions of varieties. There is no highly popular late variety. Some are planting more N. W. Greening. A few like Delicious, both red and golden. We are anxious to see what Fireside, the new Minnesota variety will do in Wisconsin, and we hope it will be the variety we are looking for as a late season, high quality eating apple, but we won't know until some of the trees already planted in various sections come into bearing.

Brushers And Graders

In a recent visit to orchards we were convinced of the need for brushers and graders in many Wisconsin packing sheds. We saw large quantities of windfalls being packed for market. Now these windfalls may have a place. There are low-income families who want to buy and are satisfied with this type of fruit. Unless run over a brusher and grader, however, the apples certainly make a poor appearance. Also we see no excuse for allowing apples with rot spots go into such baskets. The canvas table does not enable operators, usually in a hurry, to find all the bad fruit. We wonder if this type of fruit should be sold to retail stores where it finds a place on the counter as "good Wisconsin apples."

The brusher would take off the dirt we saw on some of these apples. Watching operators at canvas tables we can't help but feel that a brusher and grader will pay for itself in one or two seasons by saving labor and speeding up the operation.

Use of DDT may increase injury by red mite. This statement has been made by our entomologists. Casual observation in an orchard at Gay Mills led to the conclusion there is evidence to that effect. Six rows of N. W. Greening had been sprayed with DDT and these rows were heavily infested with red mite. Adjoining rows of other varieties not sprayed with DDT appeared to have much less mite infestation. Nearby orchards sprayed with a dormant oil spray this spring were relatively free from red mite.

MINNESOTA SOCIETY HOLD ANNUAL MEETING

The Minnesota Horticultural Society held its annual convention in the Lowry Hotel, St. Paul, on September 23-24. This is an unusually early date and we hope that the Society had a very sucessful convention.

FRUIT GROWERS MEETING
WESTERN AND NORTHWESTERN WISCONSIN
WISCONSIN STATE HORTICULTURAL SOCIETY
WISCONSIN APPLE INSTITUTE COOPERATING
NORTHERN HOTEL, CHIPPEWA FALLS
NOVEMBER 7-8, 1946

PROGRAM — THURSDAY, NOVEMBER 7

1:15 p.m. Meeting called to order by President Don Reynolds or Vice-President Wm. Connell. Comments on outlook for apple growers.

1:30 p.m. Control of codling moth, apple maggot and red mite. Observations on use of D.D.T. and other new insecticides. Dr. C. L. Fluke, Department of Entomology, Madison.

2:30 p.m. Control of Apple Scab. 1946 experiments with the ground spray and use of mild fungicides. Dr. J. Duain Moore, Dept. Plant Pathology, Madison.

3:30 p.m. Fruit work at the Mayo Foundation, Rochester. Report on the National Apple Institute meeting. Mr. Ben Dunn, Rochester, Minn.

4:15 p.m. What We Learned About Apple Marketing This Year. H. J. Rahmlow, Madison.

THE BANQUET

6:30 p.m. Banquet in Northern Hotel dining room. Toastmaster, County Agent H. G. Horne, Chippewa Falls. Program to be announced. Wild Life In Our Nat'l Parks & Forests. Beautiful Colored Talking Movie.

FRIDAY, NOVEMBER 8

9:00 a.m. Advertising apples by radio, newspapers and posters. H. J. Rahmlow, Madison.

9:30 a.m. Set of fruit from blossoms pollinated at six different stages of development. Removal of from 1 to 4 blossoms from Delicious and McIntosh spurs and effect on set of remaining hand pollinated blossoms. Dr. B. Esther Struckmeyer, Department of Horticulture, Madison.

10:15 a.m. Apple varieties for Western and Northwestern Wisconsin. Cold resistance and winter hardiness of small fruits. Prof. W. G. Brierley, Department of Horticulture, Minnesota.

11:15 a.m. Minnesota experiences with hardy root stocks, double working, top working of apples. Orchard observations and experiences. Prof. W. H. Alderman, Chief, Dept. of Horticulture, Minnesota.

12:15 p.m. Adjournment.

Questions and discussion following each topic.

RABBIT REPELLENT DOESN'T WORK

Question: Please give the directions for using aluminum sulfate as a rabbit repellent.

Answer: Subsequent tests have shown that the aluminum sulfate repellent method which was announced several years ago is not satisfactory and it is no longer being recommended. The only practical method is fencing, even with building paper. Also, trapping or shooting in early Spring before the crops are up is being recommended.

—*Taken from Horticulture Illustrated. September,* 1946.

The world's largest trousers are size 78. They are worn by a Milwaukee bartender, who weighs one-third of a ton.

The highest and lowest points in the United States are clost together in California: Mt. Whitney, 14,495 feet above sea level, and Death Valley, 276 feet below sea level.

He: "Honey, I have bought something for the person I love best. Guess what? She: "A box of cigars?"

IN THE BERRY PATCH

SHALL WE COVER RASPBERRIES FOR WINTER PROTECTION?

What causes winter injury to raspberries? Dr. W. G. Bri rley of the Minnesota Department of Horticulture, says "Investigation has shown that the canes do not need to be protected against severe cold which they can endure without injury, but need protection against the effect of warm spells. Therefore," he adds, "by bending the canes to the ground in late fall and either covering the tips or the entire cane they are left in cold storage all winter and are not effected by very warm and cold spells."

But, ask some growers, why is it that on the same farm, canes on a rich fertile soil that have grown six feet tall and of good diameter, vigorous so they will produce a good crop the next year, are often winterkilled, while on another piece of ground, perhaps at a higher elevation, or sandier less fertile soil, where they have grown only four to five feet tall, they are uninjured during the same winter.

Be that as it may; if we have a highly productive patch of raspberries with large canes that will produce a good crop, it will pay us to tip-cover them this fall. Mr. Conrad Kuehner, Extension Horticulturist, remarked recently that our raspberries may be somewhat subject to injury this winter because growth was delayed during the dry summer, and with heavy rains in some sections in early September, growth was resumed, leaving the canes less hardy than usual. This is a factor to consider.

Results Of Winter Protection Experiments

Dr. W. G. Brierley reports in an article in the October issue of The Minnesota Horticulturist, the results of an experiment carried on at Duluth in 1942 to 1944. Eight growers cooperated. Injury to canes when the **tips were covered** ranged from zero to 5%. Injury to canes in the same field with **no protection** ranged from **30 to 55 percent.**

In the winter of 1943-44, results were quite similar. There was 3 percent injury when plants were tip-covered, but from **40 to 60 percent injury** with no protection.

Time Of Covering

To answer the question as to the best time for covering, Dr. Brierley writes in his article:

"The effect of protecting canes at different times in the fall was studied in 1943. Covering must be done before the ground freezes but it was not known how early the work could be done safely. It was thought covering while the canes were in full leaf might not be desirable. As cane growth has been found to end usually by mid-September, protection, was begun on September 28 while the canes were in full leaf. Comparable plots were tip covered and completely covered on this and succeeding dates and other plots left with no protection for comparison. The results obtained show clearly that there was no difference in the protection provided by covering on the different dates. Even in the completely covered plots there was no injury due to presence of leaves when covering was done early.

"Presence of leaves was an advantage in covering as they helped materially to hold the canes down. Apparently covering may be done safely at any convenient time in October allowing ample time for the work before the ground freezes.

"Tip covering can be done readily with relatively little labor and if done carefully there should be only a small amount of cane breakage. Such protection appeared to be entirely satisfactory for commercial plantings. Complete covering, although entirely eliminating winter injury did not add sufficiently to protection to justify the greater amount of labor required.

Tip Covering Pays

"Although tip covering will add another operation to raspberry growing practices it apparently is very much worth while. As the extent of injury is reflected in a comparable reduction in crop volume and income, adoption of the old practice of tip covering should materially reduce injury and pay well for the labor. As severe injury occurred in 5 of the 7 years during which the study was in progress, and as injury was satisfactorily avoided by tip it is apparent that raspberry growers at Duluth can profit by adopting this practice."

BORAX FOR MALFORMED STRAWBERRIES

In order to develop a satisfactory commercial strawberry for the South Atlantic States many crosses made by the United States Department of Agriculture have been tested. Some of the crosses have been promising, but many, having desirable characteristics ottherwise, produce fasciated fruits. The large, flat, multiple berries produced by fasciation are, in Illinois also, a varietal peculiarity.

It has been found by L. G. Willis, of the North Carolina Agricultural Experiment Sation Soil Research Laboratory, that borax is a remedy. At one location, borax at the rate of ten pounds per acre gave perfect shaped fruit, while an adjacent plot without borax produced eighty per cent fasciated berries. On other plots, following the addition of five pounds per acre, the faciation which had been severe has been eliminated and controlled for three consectutive years. It was found that borax in solution at a concentration of two pounds in fifty gallons of water could be safely sprayer on strawberry plants and that it could be sprinkled in the granular form on dry plants at the rate of five pounds per acre; it could also be applied in fertilizer at the same rate. More than ten pounds per acre resulted in severe leaf burn and the loss of many plants. The ten-pound rate was tested and found safe only on a soil which was very nearly nuetral. On a very slightly acid soil (pH 6.0) five pounds per acre was satisfactory.

Borax Applied In September

The recommendation is made that the borax be applied early in September. This is because some varieties produce embryonic fruit buds in the early fall, and it is these buds that are most susceptible to deformation. Decreased susceptibility of buds formed later in the fall is attributed to their formation when the days are shorter, since other work by the same investigator indicates that in cotton a shortening of the period of light exposure is the physiological equivalent of an increase in the supply of boron.

—Condensed from Illinois State Horticultural Society. News Letter No. 5, August, 1946.

Apples on the Chicago Market

Summary of Chicago Market Survey by Washington State College and Apple Commission

Washington apples have long dominated the market in Chicago, as in most other major retail centers of the nation. But just how well our product stands with Chicago grocers has been graphically brought to light in a recent survey conducted for the Apple Commission by the Northwest Marketing Service in cooperation with Washington State College.

A sample lot of 212 stores (not including chain stores) scattered throughout the city, were checked during the months of February and March by experienced survey men.

In an average week of the survey period the 212 stores sold 1172 boxes of Washington apples against 145 boxes or bushels of apples from 15 other states.

No less than 55 brands of Washington apples were found in stock, indicating conclusively that no particular sales firm dominates the Chicago Market.

Of particular interest from the viewpoint of proper handling of our fruit, the survey revealed that: (a) More than 60 percent of the store operators were purchasing apple stocks at least three times a week; (b) 25 percent were ordering daily (c) purchases, even when apples were plentiful, were made in small lots of five and six boxes. This was heartening proof that the Commission constant admonition to retailers to "buy often and take 'em out of storage only as you sell," is being heeded; with the happy result that consumers were getting apples in finer condition.

A stern warning note to the industry was evidenced however, in the grocers' answers to the question: "What grade would you purchase if you had a choice?" Only 2 percent listed "Combination; 75 percent answered. "Extra Fancy," and the remaining 23 percent chose "Fancy,"

Another section of the survey pertained to sources of supply for viewed. To the question of: the 212 grocers who were inter- "Where do you get your apples?"; 36 percent reported they bought on the open market and hauled the fruit themselves; 30 percent bought from wholesalers who deliver; 23 percent from free-lance truckers; and 10 percent from chain or group headquarters.

Pre-packaging

And lastly, but of considerable interest, here is what the Chicago grocery trade thinks of the future of apple pre-packaging and what they suggest: (a) 74 percent designated two pounds as the proper size for any type of consumer package; (b) nearly 30 percent favored some type of Cellophane wrapped carton; (c) a package or box was suggested by 32 stores and some type of bag by 28 stores; (d) and 53 operators — 25 perient of the total — did not think a consumers package for apples would work or was even desirable.

LIKES RECIPE BOOKLET

A letter from Mr. H. A. Dvorak, orchardist at Casco, says: "We have a very heavy crop of cherries and a large number of people from neighboring cities come in each day to pick their own. We are handing out copies of the pamphlet '36 Ways to Use Wisconsin Apples' to these folks. They are going fast. Send us 300 more at once. May want more later."

Members of th Wisconsin Apple Instiute may purchase the recipe booklets for their own use at $4.00 per 100.

Tramp: "Could you give me a bite?"

Lady: "Well, as a rule I don't do any biting myself, but if you wait, I'll call the dog."

THE SUGAR SITUATION

Corn Sugar and Syrup Obtained For Apple Butter

But No Speedy Relief in Sight for Sugar Shortage:

The first helpful break in the sugar shortage which has been punishing the market for culinary apples, can be reported today. A program initiated by the Institute to obtain additional sweetening materials for manufacture of apple spreads is being put into effect today by the Department of Agriculture.

There is no general easing of the shortage in sight for this season. The insistent questions are, where is the sugar? and why doesn't somebody do something about it?

The over-all trouble is that the whole world is short of sugar. Less *than one-third of the United States supply is from continental U. S. crops;* the remainder is brought from Hawaii, Puerto Rico, Virgin Islands, Cuba, and the Philippines.

Shipments from the Philippines, which normally sent a million tons a year to the U. S., have been zero, because production knocked out during the war. Replacement of cane plantations is a slow business and new plantings require 18 months to two years to reach maturity. Formosa and Java, both major exporters to other countries before the war, were similarly knocked out.

In Europe, beet sugar production which normally came close to meeting European demands, declined nearly 50 percent during the war; only a fraction o fthe crop could be planted and harvested in 1945, and there wasn't enough fuel for refining what they had.

The result was intensified competition for supplies from Cuba and the other remaining export areas.

U. S. Supply This Year Only 80% of 1944:

In 1944 the United States supply of sugar was 7,147,000 tons; Cuba had stepped up production almost

(Continued on Page 45)

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS ASSOCIATION

OFFICERS

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Cornelius Meyer, Appleton, Vice-President
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Ivan Whiting, Rockford

HOW MUCH HONEY FOR WINTER

Do Bees Need More Stores If Wintered Outdoors Than In Cellar

In September an article appeared in a farm paper saying in effect, "if you winter bees in a cellar you need leave them only 30 pounds of honey, but if wintered outdoors, they must have from 75 to 90 pounds." Now a difference of about 50 pounds, worth about $10.00 at present prices, may prove to many that cellar wintering is by far the most economical.

Such is not the case and most of our best beekeepers are wintering out of doors.

If an outdoor wintered colony uses more honey from October to June than one in the cellar it is because it raises more brood and therefor becomes proportionately stronger.

From 20 to 30 pounds of honey or sugar syrup is no doubt enough to keep a queenless colony alive whether wintered indoors or out. Broodrearing begins in January. If the colony is strong, pollen and honey are available, quite a few bees are reared during February and March. In fact the modern conception of *good wintering is not to try to keep all the old bees alive but to rear young bees in late winter to replace those that die normally.*

Do bees rear brood in winter if kept in cellar? Yes, they will if pollen is present. The amount of brood will depend upon several factors including the size of the cluster and

availability of food. Such colonies are seldom as strong as those in 3 hive body brood chambers the year around, the queens being equal.

The reason then why outdoor wintered colonies need more honey is that they use it to raise more bees. For that purpose it is worth even more than 20cents per pound.

There are several reasons why broodrearing is heavier out of doors than in cellar. If the hives are *not packed heavily,* are protected by a windbreak, then the winter cluster is warmed up on sunny days and more often than we may realize there are short flight periods during mid-day, especially if there is an auger hole entrance in the brood chamber, close to the cluster. *This activity stimulates broodrearing,* and of course means stores are used more rapidly than othewise, but with profit in stronger colonies.

This season we again had proof that it pays to have strong colonies *early.* Only the strong were able to gather much honey during the short period in June and early July when clover yields nectar in drought areas. In the same locality much better crops were obtained by colonies which built up early than those that wintered on 30 pounds of honey.

Feed the bees and they will feed you.

HONEY PRICES DECONTROLLED

What Will Happen Now?

On September 27, 1946, we received word honey prices were decontrolled. So now you may sell your honey at whatever you can get for it.

Decontrol, we understand, was obtained because honey is not an essential part of the cost of living, or rather, it is a minor food item.

What will happen now? We know that due to the sugar shortage prices will soar. We heard a report honey sold in New York City at 75 cents per one pound jar during early September.

Is there a relationship between the high price of honey after the First World War and the very low price during the depression? Frankly, we do not know. Of course, the drop seemed extremely large. If you drop from 30 cents to 5 cents per pound wholesale it seems much larger than a drop of from 12 cents to 5 cents.

We asked one of our leading agricultural economists if the price would have remained higher during the depression if it had not gone so high after the war. He did not think so and frankly didn't know what the effect would be if it goes too high now. The only danger, he said, is that the consumer will stop buying if the price gets too high. Therein lies our problem. It's up to the beekeepers now and *even more so honey packers and retailers.*

We thought the industry would be better off under a higher and fairer ceiling. Now we can only wait and see what will happen.

Send us your observations on effect of decontrol.

—H.J.R.

68TH ANNUAL CONVENTION
WISCONSIN BEEKEEPERS ASSOCIATION
RETLAW HOTEL, FOND DU LAC
OCTOBER 31 - NOVEMBER 1, 1946

PROGRAM

9:30 a.m. Thursday, October 31, Registration.
10:00 a.m. Call to order by President Walter Diehnelt, Menomonee Falls. Observations on This Season's Beekeeping.

10:30 a.m. Progress on Disease Control in 1946. Plans for 1947 by Mr. James Gwin, Chief Inspector, and Mr. John F. Long, Deputy, Madison.

11:15 a.m. Our Program in Minnesota by Mr. C. D. Floyd, Chief Inspector, St. Paul.

12:00 M Luncheon. Business meeting Board of Managers.

AFTERNOON PROGRAM

1:45 p.m. Results of Investigations at the Federal Disease Research Laboratory on Bee Diseases. Dr. A. P. Sturtevant, Bee Culture Laboratory, Laramie, Wyoming.

2:30 p. m. What Have We Learned Through Our Research Program of Value to Beekeepers. Mr. James Hambleton, U. S. Bee Culture Laboratory, Washington.

3:15 p.m. Stock improvement through breeding. Management of strong colonies including swarm control. Dr. C. L. Farrar, Central States Bee Laboratory, Madison.

4:00 p.m. Free for all discussion on sulfa feeding and A.F.B. control.

THE BANQUET

Ballroom, Retlaw Hotel

6:30 p.m. Mr. Walter Diehnelt, toastmaster. Music and entertainment by Fond du Lac County and Fox River Valley District Beekeepers Associations.

Wild Life In Our Nat'l Parks & Forests. Beautiful Colored Talking Movie.

Speaker to be announced.

Contests and prizes. Colored movie on Beekeeping by W. W. Vincent, Jr., Kenosha. (This film won a national prize.)

FRIDAY, NOVEMBER 1

9:30 a.m. Commercial beekeeping practices in Minnesota.

10:15 a.m. Bees and Pollination. Mr. James I. Hambleton, Washington.

11:00 a.m. Your beekeeping questions answered, by Dr. C. L. Farrar. (Send your question to the Horticultural Society, 424 University Farm Place, Madison 6, Wis., on a postcard.)

12:00 M. Luncheon.

AFTERNOON PROGRAM

1:30 p.m. Continuation of disease investigation report at Federal Laboratory. Dr. A. P. Sturtevant.

2:15 p.m. Annual business meeting and election of officers. Report of Board of Managers. Reports of committees.
(Note: Mr. Jas. Hambleton will make every effort to be present but cannot be sure at this time.)

HONEY EXHIBIT
ANNUAL CONVENTION
Wisconsin Beekeepers Association
Fond du Lac, Wis.
October 30 - November 1

All beekeepers attending the convention are urged to bring honey for the exhibit. Each jar must be labeled.

Class 1. Six 1 lb. jars of Wisconsin No. 1 white honey.

Class 2. Six 1 lb. jars of Wisconsin No. 1 amber honey.

Prizes, In each class: 1st prize, $3; 2nd, prize, $2; 3rd prize, $1.

Two jars from each exhibit receiving prizes will be served at the banquet.

Score Card

Quality of honey_____40
Sales appeal in jars_____30
Sales appeal of label_____30

NATIONAL BEEKEEPERS CONVENTION
TAMPA, FLORIDA

Beekeepers need a vacation too and mid-winter is a fine time to take one. A trip to Florida will give you a real thrill and a needed rest. We expect a good delegation from Wisconsin to attend the National convention. Let us know if you are going and we will list your name in the next issue. The program will be of interest to everyone. Mr. James Gwin is planning a program for bee inspectors, he being secretary of the national organization. Mrs. H. J. Rahmlow, Madison, is president of the National Auxiliary and is planning an intensive two day program with speakers in the forenoon and trips to gardens and interesting spots in Tampa for afternoons.

INCREASE IN COLONIES THIS YEAR

There were 5,787,000 colonies of bees on hand July 1, 1946 according to the report of the Bureau of Agricultural Economics. This is 6% above a year ago and 33% above 1940. Increase was 10% in West North Central States, 9% in East North Central, 8% in South Central. About 43% of new colonies were obtained from packaged bees. Winter conditions over the country as a whole were very fair but starvation as usual the principle cause of colony loss.

BEEKEEPERS FINED FOR EXPOSING DISEASED COMBS

Mr. James Gwin, Chief Inspector informed us that Mr. Charles Halle,Route 3, Fond du Lac, Wisconsin was brought to court during September for exposing combs infected with A.F.B. so bees in the neighborhood could rob them. This is in voilation of Wisconsin laws.

Mr. Halle pleaded guilty in court on two counts, knowing that he had disease and not reporting it to inspectors and knowingly exposing combs so disease would be spread to his neighbors bees. The fine amounted to $25.00 on each count plus costs, a total of $54.95.

This magazine believes this was a justifiable action. The fine Mr. Halle paid was nothing compared to the loss his neighbors will probably experience in having their colonies infected.

MORE ABOUT SULFA AND A. F. B. CONTROL

Mr. Henry Schaefer of Osseo suggests we discuss the question of feeding sulfa to diseased colonies at our annual convention. We have, therefore, set aside a "free for all" period on the program, so all and sundry can express themselves. Mr. Schaefer writes he has found an improved method for feeding the drug and we will all be pleased to hear from him.

A Problem

This editor has been fighting A.F. B. for 3 years by calling the inspectors and burning. This fall we found only one diseased colony. Now what to do? Should we feed Sulfa or burn. We debated and waited. Then the decision was made suddenly. A colony only a few yards away from the diseased colony was being robbed. Why we don't know! It had a queen-tho a poor one. It had 2 brood chambers full of bees. It had produced a fair crop of honey. When we examined it, there wasn't an ounce of honey left in the brood chambers or supers. The bees seemed unconcerned though hungry.

We were very much concerned! Supposing the colony had been diseased. What a mess to have the A. F. B. carried all over the yard. Right away we started to worry and called the inspector.

Will Disease Spread.

Mr. John Long, our genial Assistant Chief inspector remarked recently that even tho Sulfa will stop the disease from developing, farmer beekeepers who seldom look at their colonies would not feed 20 to 30 pounds of syrup with sulfa each fall or spring. Could we then let the disease spread by assuming that burning is no longer necessary.

Since the disease spores are still present on the combs and hive walls even tho we feed sulfa, if we mix up our extracting supers will not all the colonies eventually become infected. Then it will be necessary to feed every colony every year. Seems like a dismal outlook for the future — unless we have permitted the diseas to spread already, and then its still a dismal outlook.

So — if you found only one diseased colony this fall, would *you* burn?

IS BEEKEEPING PROFITABLE?

In the August issue of the South African Bee Jounral is an article, "To those considering the possibility of making beekeeping a means of livelihood."

The author of the article quotes an American "who answered many hundreds of questions and was himself a beekeeper of many years experience." He answered this question: "Will you kindly give me the advice I seek as to whether there is a profiitable field in keeping of bees?"

We do not know who the American is, but it is interesting to note that his advice is being regarded in South Africa. Here is his answer:

"Your question is exceedingly difficult to answer. If it be a matter of money I should say that beekeeping is a good business to let alone, for the same amount of brains and engery will make you more than a living at almost any kind of work. But if you have the great love for beekeeping that some men have, then it may be part of wisdom for you to choose beekeeping in preference to any other business that would net you ten times as much money, for a true beekeeper does not have to wait until he has made his pile before he begins to enjoy life. Every day is a vacation and a day of enjoyment.

"But you must make a living. Can you make a living? I don't know. There are a few who make a living at beekeeping alone. There are probably a few more who can. You may be one of them, and you may not."

SULFA FOR A. F. B. CONTROL

Mr. Henry Schaefer, Osseo, is positive that sulfa is the answer to AFB control. He says, "Why, I do not know, but it is."

One disadvantage of being an old-timer is that we become skeptical. Those of us who remember various cures such as Hutzelman's solution. and other treatments, (and some well known scientists were just positive about those), is that when something else comes along, we can't help but remember. It's like the boy who cried "Wolf, wolf." Perhaps some day the wolf will really come and we old timers will not be ready to acknowledge it.

Here is what Mr. Schaefer says about his method of treatment with sulfa:

"Burn jsut the combs with disase that you can see; do not burn frames of eggs and very young larvae. Burn larvae about to be capped also even if it looks healthy. Shake the bees off the frames you are about to burn into the space left vacant by these same frames. Put the frames of eggs and very young brood in the center and fill up the space with old drawn combs. Then feed at least 30 lbs. of sulfa sugar. When using three hive bodies, I would put the super of winter stores on the bottom board the next heaviest body next and on top would be placed the brood nest just treated and then feed the syrup. This arrangement would cause the bees to bring up the honey from the lower body with any foul brood spores in it. This honey will be mixed with the sulfa and be safe for bee feed. Why? I do not know, but it is."

Note: We would like to see check colonies run, i. e. treat colonies the same, feed syrup, but without the sulfa.

Judy Canova's recipe for making "Tomato Surprise:" "Take two pounds of butter, five pounds of sugar and three pounds of bacon and give them to your girl friend. Will *she* be a surprised tomato!"

WOMAN'S AUXILIARY
WISCONSIN BEEKEEPERS ASSOCIATION
RETLAW HOTEL, FOND DU LAC
OCTOBER 31 — NOVEMBER 1
PROGRAM

Thursday, October 31

10:00 a. m. Call to order by president, Mrs. Cornelius Meyer, Appleton.

The Hobby Show. Each lady is invited to bring handiwork or hobby work and tell how it is made and how it is used. This program created considerable interest at last year's convention at Rice Lake.

11:00 a. m. Plans of the American Honey Institute for 1947. New Research and Publicity Plans. Mrs. Harriett Grace, American Honey Institute, Madison.

AFTERNOON PROGRAM

1:30 p. m. New Developments in Vegetable Production. Varieties. New Methods of Weed Control, illustrated with slides. Prof. O. B. Combs, Department of Horticulture, Madison.

2:30 p. m. Making winter bouquets. Use of native material in making arrangements. Mrs. Hugo Sperling, Sheboygan.

4:00 p. m. Annual business meeting Woman's Auxiliary. Election of officers.

BANQUET

6:30 p. m. See Beekeeper's Program
Committee in Charge:

FRIDAY, NOVEMBER 1

9:30 a. m. Round table discussion — How we made our honey cookies and honey cake. Coments on exhibits by judges.

10:30 a. m. Continuation of hobby program. Gifts From Your Home Grounds.

11:00 a. m. Are your family meals adequate? Is your family really well fed? Mrs. L. D. Dennett, Prof. of Home Econimics, Extension Nutritionist, College of Agriculture, Madison.

AFTERNOON PROGRAM

1:30 p. m. Tour of Interesting places in Fond du Lac. Details to be announced.

Reserve rooms at Fond du Lac early for the convention.

PREMIUM SCHEDULE
Women's Auxiliary Exhibit
ANNUAL CONVENTION
Wisconsin Beekeepers Association
Fond du Lac, Wis.
October 31 - November 1

Class 1. One dozen cookies, not less than 50% honey.

Class 2. Honey cake, any kind, not less than 50% honey.

Class 3. Hobby Show Exhibits to consist of handwork, collections, etc.

Prizes for each class. First prize, $3; second prize, $2; third prize, $1; 75 cents for each additional entry.

Cakes will be served at the annual banquet. Recipe should be with each entry.

Employee: "May I have the afternoon off to go shopping with my wife?"
Boss: "No."
Employee: "Thanks ever so much."

WANTED TO BUY

Wanted: Bees and equipment. Write full description and price. S. C. Fox, R.F.D. 2, Pewaukee, Wisconsin.

Editorials

OFFICIAL BALLOT
For The ELECTION OF OFFICERS OF THE WISONSIN STATE HORTICULTURAL SOCIETY

For President

WM. F. CONNELL, Menomonie ☐

_____ ☐

For Vice-President

G. J. HIPKE, New Holstein ☐

ARNOLD NIEMAN, Cedarburg ☐

E. L. WHITE, Fort Atkinson ☐

_____ ☐

For Director To Succeed Leland Brown, Sturgeon Bay

RAY BARNARD, Sturgeon Bay ☐

H. A. DVORAK, Casco ☐

ALRIC ERICKSON, Egg Harbor ☐

_____ ☐

For Didector To Suceed R. G. Dawson, Franksville

R. L.MARKEN, Kenosha ☐

CHAS. PATTERSON, Franksville ☐

WM. VERHULST, Franksville ☐

_____ ☐

For Director To Succeed E. L. White, Fort Atkinson

WM. R. BOESE, Fort Atkinson ☐

JOHN R. DAVIDSON, Milton ☐

_____ ☐

Instructions: Mark an X after name of person for whom you vote, for each office. You may fill in name of a new candidate on blank line. Cut out the ballot and mail to Mrs. A. E. Steinmetz, Wisconsin Horticultural Society, 424 University Farm Place, Madison 6, Wisconsin, acting as Secretary for the Nominationg Committee.

ALL MAIL BALLOTS MUST BE MAILED ON OR BEFORE NOVEMBER 10th. Voting may be done the first day of the annual convention where extra ballots will be available. Voting closes at 4 p. m.

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

Sign Name_____

WHO ARE THE NOMINEES?

The nominating committee consisting of Mr. Leland Brown, Sturgeon Bay, Mr. R. G. Dawson, Franksville, and E. L. White, Fort Atkinson, nominated these members for the election of officers:

Mr. G. J. Hipke of New Holstein is well known in fruit circles. He is associated with Hipke and Sons,canners of vegetables, and operates a large orchard. Now on the Board of Directors of the Society.

Mr. Arnold Nieman of Cedarburg is associated with his brother in operating one of the largest orchards in Ozaukee County. He is a member of our Board of Directors and Recording Secretary-Treasurer of the Wisconsin Apple Institute.

Mr. E. L. White, Fort Atkinson, is a nurseryman; is well known in Garden Club circles. He has been an officer of the Wisconsin Garden Club Federation and president of the Fort Atkinson Garden Club.

H. A. Dvorak, Casco, is one of the leading fruit growers of Kewaunee County. He has a large orchard and is a leader in the promotion of better cultural methods.

Ray Barnard of Sturgeon Bay operates a large cherry and apple orchard in the Door County area.

Alric Erickson of Egg Harbor is manager of the Horse Shoe Bay Farms and well known grower of apples.

R. L. Marken of Kenosha is well known to members as a past-president of the Wisconsin Horticultural Society and an orchardist at Kenosha.

Charles Patterson, Franskville, past-president and honorary president of the Racine County Fruit Growers Association, is a well known fruit grower in Racine County.

Mr. Wm. Verhulst, Franksville, is president of the Racine County Fruit Growers Association and an interested grower.

Mr. Wm. R. Boese of Fort Atkinson operates an orchard on his farm in Jefferson County. Has long been a member and officer of the Jefferson County Fruit Growers Association.

Mr. John R. Davidson of Milton has 35 acres of apple orchards and has long been a member of the Jefferson County Fruit Growers Association.

AUXILIARY PROGRAM
ANNUAL CONVENTION
WISCONSIN HORTICULTURAL SOCIETY

Athearn Hotel, Oshkosh

November 15-16, 1946

THURSDAY

10:00 a. m. Call to order by President Mrs. Don Reynolds, Sturgeon Bay.
10:15 a. m. What Can We expect From Some of Our New Insecticides and Fungicides. E. L. Chambers, State Entomologist, Madison.
11:00 a. m. Latest News in Nutrition. Is Your Family Really Well Fed? Mrs. Charlotte Buslaff, Fond du Lac.
12:00 M. Luncheon. Arranged by Oshkosh Horticultural Society.

AFTERNOON PROGRAM

1:30 p. m. New Development in Vegetable Production. Varieties; Weed Control. Illustrated with Slides. Prof. O. B. Combs, Madison, Vegetable Specialist.
2:30 p. m. Landscaping your Home Grounds, illustrated. Prof. J. S. Elfner, landscape specialist, Department of Horticulture, Madison.
4:00 p. m. Attend business meeting Wisconsin Horticultural Society.

6:30 p. m. **BANQUET**

Presentation of honorary recognition certificates.
See Horticultural Society program.
Entertainment auspices Oshkosh Horticultural Society.
Committee:

FRIDAY. NOVEMBER 15

9:30 a. m. Gifts From the Home Grounds. Members bring in home gifts materials for illustration. Round table discussion.
10:15 a. m. Experiences in My Fruit and Vegetable Garden. Prof. W. H. Alderman, Chief, Department of Horticulture, University of Minnesota, St. Paul.
11:15 a. m. Business meeting Woman's Auxiliary.
12:00 M. Noon luncheon. Plans to be announced.

AFTERNOON PROGRAM

1:30 p. m. Gardening And The Other Arts. Mrs. Behncke, Oshkosh Normal School. Illustrated with colored slides.

COMMITTEES

Reception:
Luncheon:

PREMIUM SCHEDULE ANNUAL CONVENTION WISCONSIN HORTICULTURAL SOCIETY WOMEN'S AUXILIARY EXHIBIT

Athearn Hotel, Oshkosh
November 14-15

Class 1. Hobby Show to consist of handiwork, collections, etc. etc.

Class 2. Winter bouquet. Any kind of plant material, fruits, vegetables, berries, nuts, evergreens, berries, colored foliage,

Class 3. Arrangement in a dustpan for porch, sunroom or breakfast nook. May use evergreens, berries, colored foliage, fruits, flowers, etc.

Judging at 11:00 a. m.

Premiums: Judging will be done by the **merit system.** Each entry receiving a rating of **excellent** will be awarded a premium of $3.00. Those with rating of **very good** will receive $2.00, and those with rating of **good** a premium of $1.00.

Judges: To be announced.

Show supervised and arranged by Oshkosh Horticultural Society.

SAME THING

"What is the feminine of Bachelor?" asked the school teacher.

There was no reply until a small boy sang out: "Please, a lady in waiting."

NATIONAL APPLE PRODUCTION BY VARIETY

Delicious Apples Lead All Others.

The U.S.D.A. has just released a varietal estimate of the 1946 crop. Not only is the crop estimate of interest but the estimate by varieties gives a good picture of the kinds being grown in this country. Here is the crop report in bushels with 000 omitted.

Summer

Gravenstein 2,365; Other summer 4,164;

Fall

Grimes Golden 2,268; Jonathan 8,640; Wealthy 2,657; Other fall 3, 287.

Winter

Baldwin, Ben Davis and Gano 2,287; Black Twig 1.255; Cortland 1,449; Delicious 21,234; Golden Delicious 2,424; McIntosh 7,566; Northern Spy 1,241; R. I. Greening 1,655; Rome Beauty 6,900; Stayman 7,107; Winesap 13,613; Yellow Newton 4,549; York Imp. 6,765; Other winter 7,349;

Grand total is 111,728,000 bushels.

HERMAN C CHRISTENSEN

Herman C. Christensen, lifelong resident of Oshkosh, passed away from a heart attack on September 13.

Mr. Christensen was one of the oldest and most stirling members of the Wisconsin State Horticultural Society. A market gardener and flower grower, he was a charter member of the Oshkosh Horticultural Society and life member of this organization. He has been president of both Societies and ong a member of both Executive Boards.

In1934 Mr. Christensen was awarded the certificate of honary recognition by the State Horticultlal Society for services to his community and state in the field of horticultur.

Mr. Christensen was president of the Society from 1922-24.

The Society extends sympathy to the family.

ABSENT MINDED

Professor: "Ed-er, My Dear, what's the meaning of this vase of flowers on the table today?"

Wife: "Meaning? Why today's your wedding anniversary."

Professor: "Indeed! Well, well, do let me know when yours is so I may do the same for you."

Gladiolus Tidings

By the WISCONSIN GLADIOLUS SOCIETY

1946 Observation of Leading Varieties

The following variety comments are made by request. Take them for what they are worth.

ANNA MAE finally gets some help in the white color class, by the addition of CHRISTINE AND ALCAN to the available list. Niether are "dead" white but both larger of florets than Pomnert's fine white ALCAN is the first introduction of another Wisconsin hybridist, Mr. Theo. Woods, Madison.

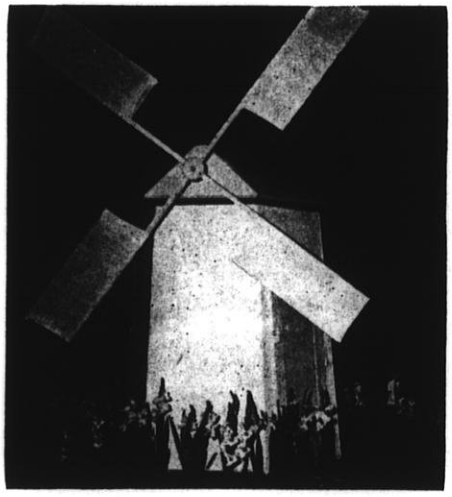
WAX MODEL, with its small rose-lavender throat spear, is classic.

HEAVENLY WHITE with its blue undertone is excellent. MT. INDEX, with its yellow throat is fine. WHITE CHALLENGER, a blush white, with a rose blotch and ruffled, bids fair to be one of the best in 1947.

The supremacy of the large size creamy whites belongs to SILVER WINGS and LEADING LADY. LONA AND PARMA, in smaller floret size, the latter with its two rose spears make an excellent quartet.

The cream group is dominated by ORIENTAL PEARL, WHITE GOLD and of course LADY JANE.

VAN GOLD is a fine deep yellow. *Crinkle Cream* outdid itself this year. *Golden State* is a fine yellow. *Color Marvel* is a florist's glad. *GOLD MEDAL*, F. Beardmore's yellow, is worth waiting for. SPOTLIGHT is in great demand deservedly. MARTHA DEANE is tall.



Center of attraction at Sheboygan County Regional Show at Kohler was a Holland windmill constructed by Emil E. Jaschinski, Sheboygan.

The older salmons will get plenty of competition on the show bench, and in the trade, from Bridesmaid, Madeline Brown and Pioneer. Dream Castle is great. Watch Prairie Beauty.

The soft toned Hiawatha and the fiery Tarawa are two fine scarlets.

Two salmon scarlets are outstanding, Dieppe and Nowadays. The latter has a rose colored infusion — a fine performer. The former has sparkle.

Red Charm, Spotlight, Intruder, and Red Rascal remain in high favor. In black-reds, Black Diamond is boss. Fuchsia Belle is supreme under electric light.

Lady Luck is a great light pink Yankee Lass shows promise. Connecticut Yankee with its fine blotch has lost none of its appeal.

The deeper toned pinks have class and size — Summer Gal, Spic and Span, Crescendo and Cover Girl.

The most improved color is lavender. Size of floret, height of plant, and number open all receiving help from Huntress, Abigail, and Crown Orchid.

Rose Blush, Miss Vermont and Dream Girl are superb. Miss Wisconsin rules the rose class as Buma does the rose-reds.

King Lear and Purple Supreme are still the "boss" purples.

This 1946 observation should not be closed without paying tribute to the best performers during the past hot dry season. They are Pink Radiance, Pink Paragon, Variation, Criterion, and King Lear.

ANNUAL MEETING WISCONSIN GLADIOLUS SOCIETY MEDFORD HOTEL, MILWAUKEE

Sunday, November 17

President Leland Shaw of the Wisconsin Gladiolus Society promises a fine program for the annual meeting of the Society at the Medford Hotel, Milwaukee, on Sunday, November 17.

Prof. Ray Nelson, pathologist, Michigan State College, has been asked to speak. He gave excellent presentations at the N.E.G.S. meeting last winter at East Lansing according to reports of our growers who attended.

Most important will be the question and answer hour. Send in questions about Gladiolus culture, disease and insect control, soils, fertilizers, varieties. The questions will be presented at the meeting and growers or speakers present requested to give the answers.

TRI CITIES GLADIOLUS SHOW

By Harold Janes, Whitewater.

One of the high spots of the glad season is the privilege of attending the shows. This year I planned early to see one of the large Eastern shows, and selected the Tri Cities Glad Show, at Binghamton, N. Y. This show is sponsored by Clarence Fortnam, well known exhibitor and is probably the largest one held in the U. S.

On Sunday, August 11, we drove to Chicago where we met David N. Puerner, and Leo Mathews of Indianapolis, who made the trip with us, arriving in Binghamton early the following afternoon. The show was held in the spacious and beautiful Kalurah Temple and was well filled with blooms by the time judging started.

Highlight of the show undoubtedly was the 100 or more super spikes exhibited by Mr. Fortnam. Wisconsin growers are well aware of his ability to produce winning spikes as he has been sending Air Express shipments to our own show for several years. His *Leading Lady* was finally declared grand champion although the runner up, a supurb spike of *Summer Gal,* could have won this honor, without criticism of show visitors. Several Eastern growers had lovely commercial exhibits, including Elmer Gove, Al Moses, Nigara Glad Gardens, Flying Cloud Farms, Arthur Aremius and Jerry Polusky.

Several outstanding seedlings made their initial appearance. A huge pale pink seedling of Mr. Palmer was the center of admiration. It will not be released until the fall of 1947. Two seedlings by Mr. Lee Fairchild, however, were equally as sensational and will be released this season. *Janet Lee* is an immense blend of orange and yellow color reminiscent of *Lantaua,* but having a floresence several times as great. *Kathy Lee* is a pure ruffled wide open lemon yellow. Both will add strength to their respective color classes. Louis Whites' new lavender, *Lady Marion* also was on display. A photo of this appears on Page 144 of the 1946 N. E. G. S. Annual and its release will be eagerly awaited by glad fans next season.

The general quality of all displays was high, beautiful spikes of the newer varieties being much in evidence, including Spotlight, Silver Wings, Spic and Span, Oriental Pearl, Martha Deane, and many others. A banquet was served at the Arlington on Tuesday evening and was attended by 250. Rev. Tony Birch acted as toastmaster and introduced out-of-state visitors. Texas was the farthest away state represented.

EFFECTIVE, SAFE — CONTROL OF GLADIOLUS THRIPS

The gladiolus thrips is a tiny black insect. The adult can be recognized by a wide, light band across the center of its dark body.

Each female thrips lays about 200 eggs over a period of three to four weeks. During the summer these eggs are deposited just below the surface of the leaves in the green plant tissue. In warm weather the larvae hatch from the eggs in about five days, and immediately begin feeding.

Both larvae and adult thrips injure the plants by rasping the surface of the leaves, spikes, and flowers until the cells are ruptured, then lapping up the sap. The excess sap soon dries, giving the plant a silvery appearance. After a few days the injured area becomes dry and brown. Flowers produced by injured plants are deformed, shabby, and unattractive. Severely injured plants often fail to flower.

Once established in a field of glads, thrips can cause total crop destruction before a single flower spike develops. Thrips are so minute, and so secretive in their habits, that detection is not easy. Before leaf feeding begins they can be detected by a slight browning along the base of inner edge of leaves. This is the time to begin treatment. Use Rotenone or D.D.T. for control of thrips on growing gladiolus.

BASE, containing 50% D.D.T.

If preferred, infested gladiolus may be sprayed with a mixture of 1 ounce (4 Tablespoonfuls) of Gold Dot Spray Base to 5 gallons of water, or 1 lb. to 100 gallons. Repeat in weekly intervals until four or five treatments have been applied.

WINTER STORAGE OF GLADIOLUS BULBS:

Thrips present on glads in fall, migrate to the bulbs, and lay their eggs in the fleshy tissue under the leaf base. Here they overwinter. If the storage room is warm, they reproduce and feed on the bulbs, often interfering with germination.

Treatment: Place several dozen of cleaned bulbs or corms into a strong paper bag. Add a handful of Agicide Spray Base, (Rotenone), just as it comes from the package. Close bag, and gently shake up and down to effect a complete dust-covering of all bulbs. Store bulbs in this bag, covered with dust, until spring.

Large quantities of bulbs: Take clean flat or shallow boxes. Shake a thick coating of Agicide Spray Base powder over entire bottom of box. Cover with cleaned bulbs. Shake thick coating of Rotenone dust over top. Cover with several layers of newspapers, and store in cool, dry, dark place until spring.

"You say he left no money?"

"No, you see he lost his health getting wealthy and then lost his wealth trying to get healthy."

Nervous Passenger: "Don't drive so fast around the corners. It frightens me.

Taxi Driver: "Do what I do—shut your eyes when we come to a corner."

NEWS FOR GARDENERS

FORM HERMEROCALLIS SOCIETY

A group of enthusiastic gardeners met recently at Shenandoah, Iowa, to organize the Midwest Hemerocallis Society. The name is no indication of its scope—the aim of the society is to learn all about hemerocallis everywhere, and persons from all sections of the country are welcome and urged to join.

Officers elected include: Merritt Whitten, Nebraska City, Neb., president; Daisy Ferrick, 416 Arter, Topeka, Kan., secretary; Marie Anderson, Gowrie, Iowa, round-robin secretary.

The officers plan to provide a yearbook, a loan library and competent judges to appraise and test promising seedlings. Anyone interested in hemerocallis should send to the secretary for the material explaining membership. A gift collection of interesting flower seeds, including a packet of hemerocalis seeds, is to be given to charter members who enroll early.

—From Florists' Review. September.

THE BEST OF THE INEXPENSIVE PEONIES

Mr. Victor Ries of the Ohio College of Agriculture, Horticulture Department, issues an interesting news letter. In a recent issue he listed these varieties of peonies as the "best of the inexpensive peonies." The number indicates the rating of the American Peony Society—10 being perfection.

Albert Crousse, 8.6, Alice Harding, Baroness Schroeder, 9.0; Cornelia Shaylor, 9.1; Edwin C. Shaw, 9.1; Festiva Maxima, 9.3; Kelway's Glorious, 9.5; Lady Alexander Duff, 9.1; Laura Dessert, 8.9; Le Cygne, 9.4; Longfellow, 9.0; Martha Bulloch, 9.1; Minnie Shaylor, 8.9.

Mons. Jules Elie, 9.2; Mons. Martin Cahuzac, 8.8; Mrs. Edw. Harding; Nancy Dolman, 9.1; Philippe Rivoire, 9.2; Phyllis Kelway, 9.0; President Wilson, 9.3; Richard Carvel, 8.8; Solange,, 9.2; Therese, 9.5; Tourangelle, 9.4; Walter Faxon, 9.3.

Singles: Albiflora, 8.2; Le Jour, 8.6; L'Etincelante, 8.4; Nellie, 8.6; Pride of Langport, 8.9; Silvia Saunders; Vera, 8.8.

Japanese: Akashigata, 8.7; Ama-No-Sode, 9.2; Fuyajo, 9.2; Hari-Ai-Nin, 9.1; Isani-Gidu, 9.3; Mikado, 9.6; Nippon Beauty, 9.2; Yellow King.

THE MOST FRAGRANT ROSES

Fragrance is one of the special attributes of the rose which is enjoyed by everyone. The Ameican Rose Society, Harrisburg, Pennsylvania, has recently conducted a National Rose Survey to determine which of the popular rose varieties are most fragrant.

This Survey produced a list of 184 strongly scented varieties and the following roses were noted as possessing the highest degree of fragrance. They are arranged according to the number of votes cast by hundreds of amateur growers from all parts of the United States.

1. Crimson Glory (velvety crimson)
2. Etoile de Hollande (deep, bright red)
3. Hector Deane orange and salmon-pink)
4. The Doctor (satiny pink)
5. Heart's Desire (crimson)
6. Girona (apricot)
7. Mirandy (garnet-red)
8. Mme. Jules Bouche (blush white)
9. Golden Dawn (yellow)
10. Neige Parfum (white)
11. Christopher Stone (scarlet)
12. Radiance (cameo pink)

Those who wish to grow sweet-scented varieties which can be depended upon to flourish will find this list useful.

—By the American Rose Society
Editors Note. In Wisconsin, do not plant these, or any non hardy rose unil spring.

PURPLE LOOSESTRIFE

This summer when our purple loosestrife (Lythrum Salicaria) was in bloom, we noticed that the honey and bumble bees swarmed all around it. This is a native of the Old World but has become naturalized in North America. It will grow in common garden soil but loves the damp soil around pools and streams and seeds very freely becoming somewhat of a pest in the garden. The bloom lasts several weeks and a clump of these are very showy in the background.

As we watched these flowers this summer we thought that this plant is a desirable one for beekeepers. The plant thrives in the marshy land surrounding swampy places and which can not be used for cultivated crops and it blooms when there is a shortage of other blooms.

—E. L. White, Fort Atkinson.

ON STORING APPLES

By L. H. Stringer

The time for picking and storing apples has come again and many of us who are tired from picking apples can appreciate a few lines from Robert Frost's poem, "After Apple-picking."

"My long two-pointed ladder sticks through a tree
Toward heaven still,
And there's a barrell I didn't fill
Beside it, and there may be two or three
Apples I didn't pick upon some bough.
But I'm done with apple picking now.

* * * *

I feel the ladder sway as the boughs bend.
And I keep hearing from cellar bin
The rumbling sound
Of load on load of appes coming in."

But the old fashioned apple cellar has long gone the way of the horse and cutter and we have no place to store our apples that will keep them fresh and crisp through the long winter months.

I find that Golden Delicious, which shrivels up quickly in ordinary storage, remained firm and juicy when kept in our old washboiler with the lid on. Later I cut the heads out of two fifty-gallon drums, cleaned them and lined them with paper, and fiilled one with Goden Deicious and the other with Red Deicious, five bushes each. They kept in good condition till March. I used a piece of oilcloth for a cover.

Good Apples All Winter

With a little planning one can have good apples all winter. Two things to remember: (1) the apples must be ripe and well colored when picked, and (2) the temperature of your storeroom must be kept in the low forties or thirties. If you haven't a cool, well ventilated storeroom in your basement, you can keep them on a north porch covered with something until it is quite cool. An unheated room does well.

EARLY USE OF ARSENIC

An early reference to the use of arsenic as an insecticide is found in "Systema Agriculturae; The Mystery of Husbandry Discovered," by John Worlidge, 3rd Edition, London, 1681, in which the author outlines its uses in ant control as follows:

"Also you may make Boxes of Cards or Pasteboard pierced full of holes with a Bodkin, into which Boxes put the powder of Arsenick mingled with a little honey; hang these Boxes on the Tree, and they will certainly destroy them (the Ants): make not the holes so large that a Bee may enter, lest it destroy them."

Interestingly enough, the method with slight modification is still used in combating ants. If you are pestered with any one of the several varieties of ants found in and around the house and garden, you will find of interest a new U.S.D.A. bulletin, House Ants, just issued as Leaflet No. 147. It is available from the Superintendents of Documents, Washington, D. C., at 5 cents per copy.

—*From Shade Tree Digest. September,* 1946.

THE SUGAR SITUATION

(Continued From Page 35)

enough to make up the loss of the Philippine supply. Drought wiped out the Cuban increase the following year, and there were lingering effects (cane is a perennial) on the 1946 crop, voiding earlier hopes for an improvement in the U. S. supply this fall. There is no point here in going over the debate which boiled throughout the war years on the relationship of prices to production. The U. S. supply of sugar for 1946 with no reserve stock-pile remaining to draw upon, is now estimated to be 5,610,000 tons.

This is about 6 pounds per person per month for consumption in all forms (compared with 9 to 10 pounds just before the war) or a little over 3 ounces per day for everything from coffee to cough drops.

Dividing the Supply:

If the country had been disposed to forget the other fellow and had cancelled all exports from the U. S. for relief purposes abroad, the quantity spared thereby would have been 125,000 tons.

It would have taken an addition of 350,000 tons to the supply to validate one more ration stamp for home canning. Extra production to permit that simply did not materialize.

To keep as much as possible for household use, greater reductions were made in manufacturing uses. In products liked canned apples and sauce, which require very little sugar, production was not cut; a small percentage reduction in the sweetness of the product was ordered. In items requiring a large amount of sugar, production was cut in most cases to the point where a further reduction could have forced the items out of production through inability to carry overhead costs. Sugar alloted for apple butter and apple jelly was reduced to 55 percent of the amounts used in 1944, despite the recognized need for spreads.

"Not Another Pound:"

From the time the summer apple market began to sour, every possibility for obtaining even a very small extra quantity of sugar was explored. It was clear that although almost nothing could be gained by spreading a small quanity around generally, it would do a lot of good if localized for a particular purpose like manufacture of apple butter.

Not a pound could be borrowed, begged, or stolen. To make matters worse, here and there were warehouses full of domestically produuced sugar, committed for use in other parts of the country, but not getting there on schedule because of the freight car shortage; so that some product plants could not get sugar already authorized.

—*From Bulletin* 251 *By The National Apple Institute.*

Garden Gleanings

We have had complaints because this department was discontinued for some months—that it contained timely garden information and should appear each month. Do you agree?

Can you help by sending suggestions to the editor on dirt garden subjects.

Mr. Henry Yonk of Kenosha says that in his opinion there is no fertilizer equal to wheat bran for garden flowers. He tried it on suggestion of this department a few years ago. Had excellent results and is unable to get as good with other fertilizers.

He hopes bran will again be available at a reasonable price so it can be used. Perhaps bran contains elements or vitamins helpful to the growth of plants not found in mineral fertilizers.

A friend from West Virginia called during early September, looked at our roses, and exclaimed that the leaves were still on the plants. He said in the East roses were losing their leaves. There has been a great deal of rain in the East this year, resulting in considerable black spot which defoliates the plants. Our dry season has been unfavorable for black spot and so we have not been troubled. Constant dusting with sulphur or copper fungicides is necessary to prevent black spot when there is moisture on the leaves for a period of nine or more hours.

Mr. H. A. Graves, horticulturist of North Dakota College of Agriculture writes in North and South Dakota Horticulture that from all the information he can obtain, it is best to discard Easter lilies after they have bloomed rather than carrying them for another season. Results are so poor trying to grow the worn out bulbs. This, he says, is also generally true of all so-called Easter flowering plants.

Mr. Graves writes that he has been called upon to landscape a County Fair grounds, arranging buildings, planting trees and shrubbery to make an attractive grounds for a county which has just purchased a piece of land for a Fair. We hope that Mr. Graves will do a better job than we have seen at many county fairs.

Did your pears develop brown centers? If they did it was because they were allowed to hang on the trees too long or ripened at too high a temperature. Pears should be picked while still green, just after they begin to change from dark green to the pale green color, then ripened at from 65° to 68° indoors. When ripe they must be used immediately. Many varieties develop grit cells and break down rapidly if not picked before maturity.

When shall we dig gladiolus corms? The best time is when the foliage has begun to yellow or just before frost. Be sure and destroy all diseased corms. For thrips control fumigate with naphthalene flakes. A good way is to place from 25 to 100 bulbs in a paper bag. Add from 1 to 3 tablespoons of naphalene flakes, close bag, place in root cellar until January. Then empty out the flakes and leave bulbs in storage until spring. Some growers report good control of thrips by dusting bulbs in storage thoroughly with rotenone or DDT dust.

Of all the gladiolus varieties shown this year, the most outstanding was Leading Lady a white introduced in 1942, according to the editor of Horticulture (Boston). Like Picardy, it promises to become very popular as a florists' cut flower.

The same magazine recommends the following Darwin tulips "which have been thoroughly tested by experienced growers and are recommended for cultivation in amateur's gardens."

Darwin Tulips

Afterglow—Apricot suffused rose.
Black Eagle—Purple
Clara Butt—Salmon pink
Eclipse—Deep crimson
Charles Needham—Brilliant scarlet
Golden Age—Clear butter yellow
Glacier—Pure white

HOW TO STORE TUBEROUS ROOTED BEGONIA BULBS

Tuberous rooted Begonia bulbs are not easy to keep over winter. The late Herman Christensen of Oshkosh suggested a number of years ago that they be stored in air-tight containers such as mason jar, or any large glass jar with a tight cover. In such a container, stored at from 50 to 60 degrees, is perhaps the most successful method of keeping them unless one has a root cellar with favorable temperature and humidity.

Unfortunately, tuberous rooted begonia bulbs are not long lived. If grown under unfavorable outdoor conditions, the bulbs are of poor quality in fall, rot or shrivel easily.

A leading grower of Tuberous rooted Begonias gives these directions for digging in fall, "Wash off all soil, taking care not to bruise the tubers. Dry in sunlight for a day or two until thoroughly dry; then store in open trays in a cool dry place. See that all particles of old stem are removed until healthy tissue shows, otherwise if left on they will decay and destroy the tubers."

Our winters are too long, however, for the bulbs to be allowed to remain in open trays, they must be protected from drying out. Therefore, store in glass containers.

Beware of frost. A frost that will freeze the soil only ¼ inch may seriously injure the bulbs.

The only way to get along with women is to let them think they're having their own way. The only way to do that is to let them have it.

HOW TO STORE SUMMER-FLOWERING BULBS

Most gardeners handle tigridia corms in the same manner and at the same temperature as gladiolus corms, except for the thrips treatment. Sometimes, tigridia corms are mixed with dry sand. Acidanthera corms come into this same group, as far as storage requirements are concerned. The same is true of zephyranthes. Begonia tubers are kept at the same temperature but are usually packed in dry sand, peat moss or in shavings.

Rare Bulbs

Some bulbs need to be kept fairly warm and dry during the winter. This is especially true of ismene or Peruvian daffodil (Hymenocallis calathina) and of tuberoses. If storage conditions for either of these bulbs fall short of 60 degrees in temperature and are on the moist side, failure to bloom will probably take place next year. Tuberoses are often lifted with the soil clinging to the clumps, and put into storage in the condition after drying.

The tender caladiums were, or should have been, brought indoors before freezing nights occurred. They can spend the winter in soil which is permitted to dry and remain dry at a temperature of 60 degrees or slightly higher. Achimenes can also be kept in dry soil. Those in pots can, after drying, be left undisturbed until spring.

Dahlia clumps which were dug after their tops were cut down by frost can be stored intact. A temperature just below 50 degrees seems suitable provided sawdust, newspaper, peat moss or some similar material surrounds them to prevent excessive drying. The roots may need to be checked occasionally for shriveling because of drying in storage.

The cannas can go along with the dahlies. Cannas, too, can be left undivided in a place where the temperature remains about 50 degrees or slightly lower. The soil that adhered to the canna roots at digging time can remain on the stored clumps.

Galtonias are very nearly hardy and thus are usually removed from the open soil late in the autumn and carried over winter mixed with sand in a place where the temperature is slightly below 50 degrees. Montbretia corms are also dug late and will be all right where the temperature is only silghtly above freezing. The corms are usually packed in slightly moist sand or peat moss to prevent excessive drying.

From Horticulture Illustrated, November 15, 1945.

WHAT HAPPENS TO ALL THE APPLES?

If you did not eat, drink, or smoke up as apple honey nearly one bushel of apples in 1944, you failed to consume your share of the 125 million bushel crop produced in the United States that year.

One hundred and twenty-five million is a lot of anything, in apples it's 150 times the Indiana production and that many apples at the present fresh fruit retail ceiling would cost the consumers 900 million dollars.

It is fortunate that apples can be marketed in barrels, bottles and cigarettes because these products take some of the strain off the fresh fruit market and no doubt influence the price growers receive for their apples.

Seventy-two per cent of 1944 apple crop was sold as fresh fruit, 28 per cent being canned, dried, frozen or processed into vinegar and cider etc., wih cider and vinegar amounting to nearly half the total processed fruit. Only 2 percent of the crop was frozen. Half the apples produced in California and West Virginia were processed in California, the bulk being dried; in West Virginia, into cider or vinegar, etc. Large quantities of the apples in New York, Pennsylvania and Virginia were processed. Only 17 per cent of theWashington apples were processed and over half these apples were dried. Large volumes of apples are canned in the east, on the west coast they are dried.

It is evident from these figures that processing is a very important phase of the apple industry and it would be very disastrous should all the processed fruit be thrown on the fresh apple market. Freezing is a relatively new method of markeeping apples but eventually the volume frozen will equal the canned or dried volumes and when it does, at least one-third of the apple crop of the U. S. will be processed.

Some Midwest apple growers may think it farfetched to consider canned apples in the east and dried apples on the west coast, but it is very evident that these products have a strong tendency to increase Midwest fresh fruit prices. Processing may never be a factor in marketing our apples but we are certainly dependent upon it.

—*From Hoosier Horticulture, March* 1946.

Oh Yeah!

Two small boys were bragging about the prowess of their dads. The first boy said: "My dad writes a few short lines, calls it a poem, sends it away and gets $10 for it."

"That's nothing," said the second, "my father writes out a sermon on a sheet of paper, gets up in the pulpit and reads it, and it takes four men to bring in the money."

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

REPORT FROM THE PRESIDENT

Did you notice the warning feeling telling you frost and cold weather are just around the corner? Even as far back as August, in the garden toward evening, or early in the morning, we experienced the sensation that fall was coming.

There are other creatures besides human beings busy harvesting, storing to prepare for winter months. It is pleasant to think of autumn. It brings good things such as: beautiful colors in nature, apples, pears, peaches, plums, grapes and pumpkin - pie. Not only good things to eat but good things for the mind.

Meetings

The semi annual meeting of the National Council of State Garden Clubs, will be held in Detroit, Michigan. The Central District, National Council of State Garden Clubs, also meets in Detroit. There are six states in the central region: Michigan, Wisconsin, Illinois, Indiana, Iowa and Missouri. At this meeting the Presidents make their reports.

I took over the work as President of the Wisconsin Garden Club Federation in November. Committee chairmen were appointed. All did a wonderful piece of work.

In February the Executive Board met and discussed many things for the Welfare of the Clubs. In March we held 5 splendid regional meetings. At this time the State

chairmen presented their regional programs to officers and chairmen of local clubs, whose job it is to put the program into practice. It seems to me this is the best means of putting the program into everyday life. Our State Chairmen have fulfilled their duties effectively.

Our state flower show was a great success, both artistically and financially. Mrs. Thomas surely knows how to put on a flower show. I know you will be pleased with her financial report. The State Convention at Fond du Lac will climax the year's work. This is the first two day convention since 1940.

I tried to carry out the work of the Federation in the best possible way. In October, last year, I attended the semi annual meeting of the National Council of State Garden Clubs. This meeting gave me much to think about. In March I attended the National Council meeting in New Ordeans, La. This was a very outstanding meeting.

We have now 96 clubs with 2,861 members. Our organization is growing and we have accomplished a number of things. We accepted the Blue Star Highway with Highway 51 as our Tributary to Blue Star Highway. We are working in conjunction with the American Legion. They had their annual convention this summer and adopted Highway 51 as the upright of the Silent Cross with the cross arm from Hudson to Marinette, Wisconsin. This is the Living Memorial of the Legion. The Garden Clubs of Wisconsin are co-operating with the various Legion organizations to make the highways as attractive to the public as Wisconsin itself.

We have a roadside park near Kohler, Wisconsin. On these grounds we had a well drilled to furnish fresh water to all who stop for refreshments. Highway 51, just north of Appleton, is being planted with wild crabapple trees. The Garden Clubs of the Fox River Valley are taking care of this project. I attended the 2 day convention of the Wisconsin Horticultural Society held at the Retlaw Hotel, Fond du Lac last November. I also attended the meeting of the Executive Board of the Wisconsin Roadside Development Council.

I wish to take this opportuntity to express my appreciation for the

loyal support given me by officers and chairmen and members of the Federation. The friendships formed have made the years on the Executive Board a pleasure which we will not forget.

I deem it a great privilege to have served as your President and I hope garden club work will be carried on for many years with great success and with great service to the nation.

—*By Alfred H. Otto, President.*

NEW TYPE OF FLOWER ARRANGEMENT DEMONSTRATION AVAILABLE TO GARDEN CLUBS

The Kenosha Garden Club reports a very successful meeting conducted by Mrs. Laura Weber of River Road, Freeport, Illinois.

Mrs. Weber uses more than 50 pictures painted from original flower arrangements. These illustrations are large, made in oil and water colors. Each arrangement is discussed constructively and critically by Mrs. Weber. Advantage of this type of demonstration is that many types of arrangement may be covered in the space of an hour or more as compared with demonstration in which the lecturer makes her own arrangements as she talks.

Mrs. Weber's fee is $35, plus 5 cents per mile.

FEDERATION IS GROWING

The Wisconsin Garden Club Federation on September 1, 1946 had 96 affiliated clubs, with 2,861 members. This is the largest membership in the history of the organization, as reportd by Recording Secretary-Treasurer, Mrs. Eric Martin, Edgerton.

Mrs. Brown showed her husband a large lampshade which she had just bought, saying, "Isn't it lovely, dear?"

Mr. Brown, looking anything but pleased, replied, "If you wear that to church tomorrow, you'll go alone."

MOONLIGHT ARTISTRY

This limpid, lyrical lavish moonlight
that softly carresses the sweet scented flowers
with the magical music of stillness,
like glory soft spoken, light burnished with law,
thrills me, holds me, fills me with awe.
Small creatures, gossamer wings are singing
and spinning nocturnally, soft muted colors
echo hues from the summer's warm sunshine;
tall trees now half-screen the calm, soaring, full moon
painting short'ning shadows — too soon.

—*By Effie Anne Orth, Madison*

WANTED: NAMES OF SPEAKERS

In our next issue we would like to list the names of all speakers available for programs of Wisconsin garden clubs.

Beginning in November many garden clubs work on their programs for the coming year. They find it very convenient to have before them a list of speakers available, together with information as to the topic and the rates or fees expected.

Please write the Wisconsin Horticultural Society, 424 University Farm Place, Madison 6, Wisconsin, at once, giving the names of speakers in your community, or if you are a speaker, send us the information for publication.

SOUTHERN DISTRICT HOLDS SUCCESSFUL MEETING

The South Central District of the Wisconsin Garden Club Federation held a most successful meeting at Lake Ripley Country Club, Cambridge, in September. One of the projects discussed was that of choosing a state tree. Members voted for the Burr Oak and reported their choice to Prof. Aldo Leopold of Madison.

The District clubs are to have the second and fourth Fridays of the month for garden broadcasts over Janesville Radio Station WCLO at 11:30 a. m. on the program The Farm Round-Up.

Officers elected for the coming year are: Mrs. M. H. Johnson, Delavan, president; Mrs. Chas. Jahr, Jr., Elkhorn, Vice-President; Mrs. J. T. Murphy, Delavan, Secretary-Treasurer.

Speaker of the day was Mrs. Victor Bergler of Baraboo on International Kitchens. She made a plea for the wider use of herbs in cooking, and distributed recipes.

Between Clubs

Cambridge and Lake Ripley Garden Club held a summer flower show in August. They report a very sucessful show, considering the dry season. They had 317 exhibits and as a side attraction held an auction of articles contributed by the members.

The New Holstein Garden Club has held many interesting and successful meetings. During August the feature was flower arrangements as greeting gifts to eight-shut-ins of their city. Program topics included "The Hollyhocks, Peonies, No Mystery About Flower Arrangements, Weeds in the Garden" and a flower spelling contest.

When Mr. H. J. Rahmlow was guest speaker of the Sturgeon Bay Home and Garden Club last April he recommended holding outdoor meetings in June when nature is at its best. They adopted this idea and chose Flag Day to make their annual trip to various gardens. Each of the seven gardens visited were full of lovely flowers, especially the iris. So successful was this outdoor trip that in July they held a picnic in Potawatomi Park, with the superintendent's wife as hostess.

The Plymouth Garden Club joined with many others in exhibiting at the 50th Anniversary of the Sheboygan County Fair. They have been first prize winners each of the three times they have entered 20 vases of artistically arranged flowers. Each vase a different flower.

The Cambridge and Lake Ripley Garden Club has $50.00 toward a memorial fund to aid in landscaping the "village square" which will be dedicated as a memorial park.

Anyone driving through New Holstein who has noticed the beautiful bed of flowers in the Railroad Park can thank the New Holstein Garden Club for this lovely beauty spot.

They also maintain a bed of red and white geraniums for the seven casualties of their community at the base of the local service board.

As a memorial for all service men and women they planted a red maple.

The Port Washington Garden Club cancelled their flower show which was to have been held in September, because of the continued drought in this state which has kept flowers from being prize specimens. This show would have been their first since early in the war. The club plans to hold a spring show in 1947.

In September the Sturgeon Bay Home and Garden Club and their guests the Washington Island Garden Club had a potluck dinner at the Sherwood Hotel at Ephraim. Later they drove to Fish Creek to an outstanding home and garden in Door County "The Junipers," the summer home of Mrs Wm. Ryan.

Mrs. Ryan led the group over the wide lawn flanked by tall trees to the horseshoe shaped garden made up of pink and white and red and white borders, backed by harmonizing plants, bushes and stone wall. White lawn furniture and a pump in an open wellhouse, with an immense chinese jar standing in readiness added to this charming scene.

They then went down stone steps -far down-to the long concrete pier in the bay where bass and perch may be caught in the eight foot deep water.

From here they admired the 600 foot rock seawall, gray stone ledges one above the other, highlighted by pink geraniums and topped with towering trees, which permitted glimpses of the white house.

From the doors and windows of this delightful old home they viewed the magnificient panorama and enjoyed a cool fruity drink.

The New Hostein Garden Club is contemplating a program of yard and garden plantings with the help of a qualified landscape artist. The objective is to have properties in proper attire for the centennial observance in 1948.

The purpose of the group planning is to have one planting tie in with another to make a complete and composite whole. Plans will be made according to elevation, contour, size and coloring, and will be subject to recommendations by the State Planning Board at Madison.

The Sheboygan Garden Club presented a program, "Music and Flowers" as a means of expressing appreciation to supportors of their Lower Falls Wayside project where a well has recently been erected.

Musical and dance numbers and bright hued slides of gardens and mountainous areas were part of the program.

—By Mrs. Wm. Curtiss, Route 1, Plymouth, State Publicity Chairman.

THE SECRETARY

The secretary is a person, usually female, whom the boss often tells everybody, but her, he couldn't do without.

A secretary must know how to translate the boss' rambling dictation into statements which are crisp, grammatically correct and straightforward, so that he is pretty proud of himself when he reads what he thinks he dictated.

An office boy starts at the bottom and works up.

A secretary starts as a secretary and works.

Officer: "Hey! Pull over to the curb, lady. Do you know you were doing seventy-five?"

Cute She: "Isn't it marvelous, and I just learned to drive yesterday."

A fool and his money are some party.

Random Garden Notes

By Genevieve Dakin

When motoring through Ohio this mmer we were greatly impressed ith the charm, beauty and practi- bility of many *Roadside Parks* ong the highways. A state sign ell ahead tells that one is ap- roaching a park and that pure rinking water is available. A fence, sually white, encloses a well-main- ined area of possibly 150 by 350 eet. Here are several tables, ben- hes, outdoor fireplaces, a pump and Shelter. The furniture is in reated natural woods. The Shelter nd the shelter for the pump com- ine wood and stone.

The Autumn issue of *Plants and Gardens* published by the Brooklyn Botanic Garden is devoted to wild Flowers.

Reports in Montreal point to a eavy loss in roses last winter. One ardener said 65%.

At Jackson ad Perkins rose gar- ens in Newark, New York we saw nen using a watering gadget new o us. It is a "water wand", is five eet long, made of aluminum, and as fins so constructed in its orifice hat water reaches the base of the lant in a surprising satisfactory ashion. It sells for three dollars nd is really an indispensible labor- aver. Jackson and Perkins' fall atalog lists it.

One of the most exquisite gar- ens I have ever been privileged o visit is in the province of Quebec n the bank of the lower St. Law- ence. To those of us who have en- eavored to grow alpine gentians he gentian walk 140 feet long with ts five ft. borders of gentian Ma- aulayi Wellsii — more than 3000 lants — is a matter to dream a- out. Hundreds of roses in masses f a dozen or more of a kind ex- elled in form and color any rose isplay I recall. A long herbaceous border — approximately 200 feet — was edged with dozens of dian- thus in every tone of pink and campanula turbinata in pastel and darker blues. Other gardens fea- tured Mecanopsis Baileyi, choice primula, lilies, tree peonies and her- baceous peonies. There were choice alpines, a rock garden, a shrub gar- den, and an azalea garden. The secret of success of this garden is due to intelligent planning, pre- paation of the soil, adequate main- tenance, as executed by the garden- ers under the direction of the wo- man who created the beautiful de- sign. A real factor in bringing out the color and floriferous wealth is the constance moisture in the air from the immense body of water adjoining the estate. The condition is not unlike England.

A new lecture on Church Flow- er Arrangements written by Mrs. George W. Both of Scarsdale, N. Y. is available through National Council. Address: Mrs. Blanche Wilks, 500 Fifth Avenue, New Yok, N. Y. Room 108.

In addressing The Garden Club Of America, Dr. Raup of Harvard said, "I wish we had a word which expressed the proper use of the land rather than the conservation of the land. We have to learn how to use the land to better advantage, more reasonably than we have in the past. This involves learning to manage the forests so that they pro- duce good timber, good water shed potection, good recreational land, or whatever forests are to be used for.

Planting for Winter Effect might well be the subject for several po- grams. A study of Viburnums, their soil requirements and use in the landscape as well as their attraction for birds might prove interesting.

Dorothy Biddle's suggestion is a Vegetable Auction. The meeting may be held in the evening with the fee for admission vegetables from the garden. Have the vegetables auctioned off for the benefit of the club treasury.

Another idea we came across was he subject Organic Gardening for a series of meetings.

TheHoney Creek club did some- thing for its show whiih was called to my attention. Beautiful antique vases, cake dishes, fruit holders, many over 150 years old, were dis- played to add interest to the Flow- er Show. Sounds intriguing, doesn't it?

Has your club made a study of Aaboretums of prominence? What do you know about the Arnold Ar- boretum, The Morton Arboretum. the Ridge Sanctuary in Door County? In Madison the University is developing an Arboretum which is very interesting. Professor Long- enecker is in charge of the plant- ing plans.

Arizona is greatly concerned a- bout the continued export of their "Spoon Flowers". State laws pro- hibit their removal from state lands, but the traffic continues. Ariszona club members are sealing their let- ters with a sticker which reads "Please do not buy SPOON FLOWERS and discourage others from using them." To help in the education of all flower arrangers will Bulletin readers pass the word that Arizona prefers their "Spoon Flowers" growing on the desert — not upside down in a vase.

—*National Bulletin*

"Ma!" called Sammy. "Ma! I got a hundred in school."

"Fine," said his mother. "What subject did you get a hundred in?"

"Two," said Sammy, "60 in readin' and 40 in spellin'."

THE ECONOMIC VALUE OF BIRDS

Too often we think of birds from an aesthetic, sentimental standpoint. We love their color and their song but we forget their tremendous value. H. W. Henslaw, former Chief of the U. S. Biological Survey once wrote "Without the birds, not only would successful agriculture be impossible, but the destruction of the greater part of vegetation would follow." There are three important ways that birds help us. First, the destrucion of huge quantities of weed seeds, second by eating many insects in all stages of development, and third by the control of rodents.

Each species of birds seem to have some specialty, some insects or weed seed of which it is very fond. The grosbeak is very fond of potato bugs, the cuckoos eat hairy caterpillars until the inside of their crops look like fur, the woodpeckers clean the bark of trees. It is estimated that the tree sparrows eat 875 tons of weed seed, mostly rag seed, in one state in one season. Most of us hate to see the robbins and catbirds eating our fruit but they really pay for it over and over in the vast amount of insects they eat too.

Ornithologists who study the food habits of birds have several different methods. One is to watch a bird as it feeds and to count the number of times it captures something. A scarlet taanager ate 630 caterpillars in 18 minutes and a northern Yellow-throat ate 3500 plant lice in 40 minutes. Another method of study is to watch a nest and learn how many times the young are fed. A Grosbeak fed the young 426 times in 11 hours. I watched our phoebes last June 20 and found they were fed 69 times in an hour. However a wren holds the record with 127 times in one day. Still another method is to examine the crops of birds that have been killed.

A nighthawk's crop contained 500 mosquitoes and a flicker's crop contained 1000 chinch bugs. A mourning doves crop contained 7500 sorrel seeds and 9200 of pigeon grass. Remember that was just one meal and those crops are filled several times each day. An experiment was conducted in Maryland by which it was estimated that 46000 weed seeds per acre are consumed by birds each 24 hours during their season.

Many farmers condem all hawks and owls and shoot them whenever possible. Few realize how few of them molest poultry and how valuable they are in the control of rats and mice. Each hawk and owl must find about 1000 rodents during the year. Only the Great Horned owl is a menace and usually he lives in the deep woods far from the farm yards. Other hawks and owls may occasionally take poultry but as with the small birds they pay for their food in the good they do and should be protected as a friend.

I have prepared a list of some of our most familiar birds and their economic status. Of course I could not list all of the 365 Wisconsin birds. However this will give some idea of the great amount of good we derive from the birds. Six are listed as largely detrimental but even they have some good points. Twelve are questionable but probably do more good than harm while 125 are listed as beneficial.

—Mrs. Arthur Koehler, State Bird Chairman

Two sailors entered a bus and sat across from a pretty girl.

First Sailor — That's a mighty cute girl. Shall we speak to her?

Second Sailor — Take it easy, Mack. Let's wait until she pays her fare.

He had proposed and been accepted.

"Do you think you could live on my salary of $25.00 a week?" he asked.

"Surely, darling," she replied, "but what will you do?"

HINTS — ON DISPLAY FOR WINTER MEETINGS

Terrariums — (gardens under glass).

Forced bulbs and plants (house plants).

Plant stands — wrought iron, wall brackets, etc. Winter twig arangements.

Forced twigs of flowering shrubs and trees — (Februray).

Evergreen display for study and identification.

Display of flower, tree, shrub, and evergreen seeds and fruits for identification.

Display of seed pods for study and identification. Designs of seed pods in Art.

Display of dried weeds for study and identification. Weed and grass arrangements.

Display of holders for house plants.

Home made flower containers—lead, copper gourds, woods, etc.

Home made flower holders — lead, wire, etc.

Display of flower paintings, etchings, and prints.

—From Garden Greetings—Ohio

NOTES ON WATERING CACTI

A common widely spread facllacy connected with the growing of cacti and succulents indoors is that they will grow any time. This is not so. Normally, they grow during the Summer and rest during the Winter—from about October to April. During this period they need very little water and none at all on very cold days, but when in active growth — usually in early Summer — most kinds need almost as much as other plants. When applying the water, give the soil a through wetting and leave it until almost dry before doing it again. When dormant the plants withstand a temperature of 40 to 50 degrees. An attic is often a very good place to store cacti over Winter. Newspaper wrapping will give protection.

—From Horticulture, Illustrated. September 15, 1946.

A BED OF CHRYSANTHEMUMS

Victor Ries, Ohio

Although the hardy chrysanthemums which I lined out in my vegetable garden last May have not grown as well as they did the two previous seasons, the majority of them are large enough and nice enough, even though I planted only single stem divisions, to dig and transplant over to the yard around my house. I take a good sized clump of soil with each one weighing five to ten pounds and replant it immediately. They'll go in between other perennials and on top of my spring flowering bulbs. By transplanting them as they begin to show color I know the exact height of each one and in the case of new varieties which I have not seen before I'll know the exact color. This gives me opportunity to compose a bed in which the lower ones will be in front, the taller ones in back. It will also give me a chance to combine and blend my colors. As soon as they are planted I hitch up the hose put on the sprinkler and let it thoroughly water them for 3 to 4 hours. This heavy soaking of the ground enables them to stand the shock of transplanting and go ahead and bloom just as if nothing had happened.

After the frost finally kills them in November I hope to dig one plant of each variety, heel it in a light sandy soil (with a lot of leaf mold in it) in my cold frame, smother them with oak leaves for the winter, so that I will have plants to divide and start all over again next year.

Daffodils

The supply of daffodils, or if you prefer narcissus, should be ample this fall. Some of the newer ones that I would like to suggest you try even though you buy only one bulb of each would include the following: Fortune, Roxane, Gertie Miller, Dick Wellband, Becrshebo, John Evelyn, Tunis, Actaea, Alasham, Carlton, Daisy Schaffer, Firetail, Francis Drake, Red Shadow, Thalia, and Yellow Poppy.

There are a number of hardy sunflowers that are not only nice in the garden but useful as cut flowers, they include Helianthus multiflorus, Helianthus floreplanea, Heliopsis scabra, Heliopsis incomborablis, and newer named varieties such as Golden Rays, and Summer Gold. One of the hardy sunflowers that I have always liked is a native one that is not seen very often, Helianthus orgyalis. This will grow 6 to 8 feet high, with long slender leaves, which give it a willowy air almost bamboo effect. Although the flowers are small they are numerous so the plant is extremely decorative. Like all other sunflower groups it must be grown in the sun.

—*In Garden Notes.*

ROVING WITH ROSES

Richard S. Wilcox, Chairman Test Garden Committee Minnesota Rose Society

The trouble with so many of the new roses, and the old hybrid teas as well, is that they are just a little too tender to winter here satisfactorily even with moderate hilling with dirt. This means that even though they do come through the winter they do not have enough vigor to put forth maximum growth and bloom and usually get weaker every year and soon pass out of the picture.

Dr. Longley of the University of Minnesota, in the small amount of rose breeding he has done, has demonstrated what can be accomplished. His cross between Crimson Glory and Pink Princess, 24-1, is a gorgeous rose with an uncelled bud. When wide open it is semi-double but this does not detract from its beauty.

Walter D. Brownell of Little Compton, R. I., of course, to date has done more than any other rose breeder to give us the additional hardiness and disease-resistance we need. His Nearly Wild is the hardiest and the most persistent bloomer of all single roses and is our most valuable low flowering shrub. His new reds have great possibilities. And, of course, Pink Princess is still right at the top. His new Cherry Rose is darker but otherwise much like Pink Princess. Velveteer is a striking semi-double deep Crimson Glory red.

—*Condensed from The Minnesota Horticulturist.*

RUBAIYAT CHOSEN ALL-AMERICAN ROSE

Rubaiyat, entry of the Jackson & Perkins Company, Newark, N. Y., was selected as the 1947 introduction at the meeting of the All-America Rose Selection, Inc.

Rubaiyat is a bright red bloom, wiht a long pointed bud, is characterized by free and continous flowering and has a good, vigourous, healthy bush. The 1947 introduction will be out by September.

Charles Perkins, Newark, N. Y., was elected President of the All-American Rose Selection, Inc., for the coming year, and with him, Robert Pyle, West Grove, Pa., will serve as vice-president, and W. Ray Hasting, Harrisburg, Pa., will continue as secretary-treasurer.

—*Condensed from American Nurseryman. August,* 1946.

SAUER KRAUT MADE WITH HOT WATER

Shred cabbage and put into one or two quart glass jars. Do not pack shake jars until cabbage is within 1 inch of top. Insert silver knife in center of cabbage and pour the *boiling* brine over it. (Knife prevents jar from breaking).

Brine. 1 qt. water, 1 tbs. salt, 1 tbs. sugar.

Seal jars *tight* at once.

This method requires longer for kraut to ripen but it will keep a long time and stay crisp and white.

Questions About Growing House Plants

Question: What temperature is best for most house plants?

Answer: The reason why so many house plants last only a short time after coming from the florist is because our homes are too warm. If the temperature in the room is 70 degrees F. or more day and night, the flowering house plants will not be able to take it. They like best a temperature of about 55 degrees F. Cinerarias and Calceolarias prefer about 45 degrees F.

Question: What kind of house plants will do well in a heated room in winter?

Answer: If our rooms are 70 degrees F. or more day and night we should confine our growing of house plants to semi-tropical foliage plants —cacti and succulents. If we can have a fairly low *night* temperature, many plants which prefer a cool temperature will do quite well.

African violets, begonias and geraniums may do well if night temperature is dropped to 60 degrees F.

Question: Why do house plants often do best in country farm houses?

Answer: Because the temperature is low, especially at night, and the humidity high if there is no central heating system. The steaming kettle on the farm kitchen range is a first class humidifier.

A cool sunporch is ideal for house plants if the night temperature is safely above freezing. If humidity is high plants will do better there than indoors.

Question: If my plants do not do well in winter, is it because of lack of plant food?

Answer: Probably not. If we repot our plants with good, rich soil such as florists use—often florists will sell us suitable soil—and such soil is high in phosphorus, potash and organic matter, it is very doubtful if additional fertilization will be of much help. More likely when the plant becomes large it will need more room for the roots to expand and should be set in a larger pot. Oftentimes when a small pot is set on a bench of soil in the greenhouse, the roots come through the opening below, enter the soil on the bench, and then the plant does well, showing the need for more room.

Question: What is a good potting mixture for house plants?

Answer: A good mixture might be two parts of good loamy garden soil, one part of leaf mold or peat moss, one part of sharp sand. A pint of complete fertilizer per bushel of the mixture and two quarts of well rotted dried cow manure would help.

Question: Should I add lime to my soil for my house plants?

Answer: This is doubtful. Have the soil tested. However, most Wisconsin soils do not require lime as most flowers prefer slightly acid soil. There are, of course, some soils in northern Wisconsin that are quite acid.

CLEAN SPRAYER THOROUGHLY AFTER USING 2-4D

Fruit Trees and Plants Injured Severely If Sprayer Is Not Cleaned

A slight trace of 2-4D on sprayer walls may injure fruit trees or other plants, according to experience of growers.

The best way to clean the sprayer is to wash the walls with alcohol mixed with water according to Dr. T. C. Allen, University Entomologist. Dilute the alcohol with about 1 to 3 parts of water. Wash the sprayer carefully and run the solution through pump and hose. Denatured or alcohol used in car radiators may be used.

2-4D is not readily soluble in water and while washing or rinsing with hot soapy water is of help in cleaning the sprayer, alcohol which disolves it is much better and safer.

Mrs. Brown: "Dear, I saw the sweetest little hat downtown today."

Mr. Brown: "Put it on and let me see how you look in it."

DIGGING AND STORING DAHLIA TUBERS

By The Master Gardener

Proper digging and storage of dah tubers has a great deal to do wi their keeping qualities. It they are i jured in digging, decay starts in t wound and spreads to the healt roots.

Digging should be done about week or 10 days after the first ki ing frost. Before digging cut off t stalks to about two inches above t ground.

Loosen the ground with a spade fork all around the plant and abo two feet away for the stalk. Force t spade or fork deeply into the grou and one foot from the stalk on four sides. Pry up slowly, being car ful that the fork or spade is und the clump. One person should ho the stalk while the other pries up t clump and lifts it out of the soil. removing the tubers there are tw precautions that should be remem bered. First, be careful not to bre the clumps apart and second, don pull the clumps out by the stams.

In sandy soils, most of the ear will fall off the roots. In heavier soi shake gently to remove soil and e pose to the air for an hour or tw Turn the clump upside down duri this time, to allow any moisture the stem to dain. This avoids rottin at the crown.

Store upside down in a dry cell for about two weeks. At the end this time cut off all loose and brok roots. Powder the crowns with fine dusting sulphur and the roo are ready to be stored.

The ideal temperature for storag is 40 to 45 degrees. Dahlias may b stored in a vegetable cellar witho protection at this temperature. Th average cellar, however, it too d and hot for storage by this metho Under such conditions, the clump should be placed in the coolest pa of the cellar, packed upside down boxes or barrels and covered wi dry sand or peat moss.Be certain t storage material is perfectly dr otherwise rot will set in and dama the entire mass.

Examine the tubers monthly. case they start to shrivel or dry, moi en very slightly. If there should be excess of moisture, allow the roots remain uncovered until they appe fairly dry. If any rot develops, tr out such portions, powder all fre with dusting sulphur and pa peat moss or sand. separate clumps until sprin

Hallowe'en Plant Superstitions

In 837 A. D. Pope Gregory IV named November 1st All Hallows' Day. There are many plant superstitions associated with this day, but the pranks of today are relics of ancient pagan days, rather than of the original religious observances.

Long ago the Roman and pagan priests celebrated the harvesting of crops with autumn festivities at a time corresponding with our Hallowe'en season, so that many of the superstitions about plants have today become symbolic of Hallowe'en.

Apples have been associated with Hallowe'en since the days when apple trees were held sacred. Fortune telling with the aid of apples is sometimes done with the entire apple and sometimes only the apple seed or peeling are used.

In some countries young girls gather yarrow on Hallowe'en and sleep with it under their pillows to make them dream of their future husbands. In the Hebrides it is believed that if one picks a yarrow leaf, wet with dew and holds it firmly against closed eyelids, anyone thought of will become visible.

The most powerful of all charms for expelling evil spirits is the root of the peony worn around the neck, but the peony root must be dug only at night when woodpeckers are asleep, since this plant is sacred to them and they will peck out the eyes of a person destroying it.

The nightshade plant should be strictly avoided on Hallowe'en as this plant is a good friend of the witches and will report anything that a person may say.

According to old folklore, Irish girls and boys on Hallowe'en would go into the garden blindfolded where each would pull up a cabbage. The shape of the heads and stems were suppose to indicate the physical peculiarities of the future spouse. The more dirt found clinging to the roots the greater the dowry.

Pumpkin Pie

Pumpkin pie is one of the chief articles of the Hallowe'en feast. There is an interesting legend about the origin of pumpkin pie. It is said that a pioneer who had never seen a pumpkin found one and carried it home in the belief that it got its yellow hue from particles of gold absorbed from the earth. Knowing that metals are extracted from baser things by means of heat, he had his wife cut it up and put it into a kettle, so it would melt. The contents of the pot soon became a yellow, pulpy mass and in his excitement he plunged in both hands, but quickly dropped the mass because it was too hot, letting it fall into a pan of dough, rolled out for an apple pie. Peeved, his wife said, "You have made your pie, now you shall eat it." and thrust it into the oven to bake. Still believing a sheet of gold would come from the mass, he waited patiently. He was disappointed in his expectations, but oh, that tantalizing aroma! He bit into the golden mass and tasted it, and cried out in glee.

—*Condensed from October,* 1944 *Bulletin National Council of State Garden Clubs, Incorporated.*

MAY STERILIZE THE GARDEN AND PREVENT WEEDS FROM GROWING

In the future we may spray our garden plots with a chemical, sterilize the weed seeds, and thus prevent weeds from coming up. Various experiment stations are testing these possibilities. Experiments with 2-4D as a sterilizing agent have been conducted at Michigan State College and elsewhere.

All types of weed seeds are weakened in germination when soaked for several hours in a solution of 2-4D when the chemical is mixed at the rate of 1 to 100 parts per million with water. Even grass seed was effected.

At this rate it is estimated that it will cost about $10 an acre for the 2-4D to sterilize the soil—less when mass production of the chemical begins.

Question is, what effect will 2-4D have on seeds which ordinarily lie dormant for several years? What will be the toxic after-effect in the soil? There is more work ahead for our scientists on this subject.

PRESERVING FLOWERS AND FOLIAGE IN SAND

Use a fine white sand such as is used for making glass or similar sand used in the bottoms of aquaria and obtainable from dealers in aquarium supplies. Similar fine white beach sand contains some salt and would not give good results.

Obtain a stout cardboard box large enough to hold the specimens and 4 to 6 inches deep with a cover. Cut out all but a ¾ inch margin of the bottom of the box and fit inside the box a piece of ½ inch mesh galvanized wire. Set the box into the cover and cover the wire-screened bottom of the box with one inch of sand. Lay the specimens on tthe sand and slowly sift sand over them until they are covered. During the sifting use a teaspoon to carefully flip some of the sand into each flower as the sand reaches each flower level. At least a ½ inch layer of sand should cover the upper part of the specimens.

If the sand is thoroughly dry at the start all but very fleshy specimens should be well dried in from 2 to 3 weeks. To remove specimens from the sand lift the box out of the cover and let the sand run out through the wire screen bottom without injury. The specimens can be set in vases or holes made of various sizes and shapes and painted and thus a small indoor flower garden is made for winter decoration. Most flower colors except autumn foliage will fade out in from 3 to 6 month's exposure to light, and no process is known for preserving the colors for a longer period in the dry states.

—*By Victor H. Ries, in Garden Notes.*

HORTICULTURE

Picture Courtesy of Reynolds Brothers Company

APPLES FOR JUICE AT STURGEON BAY

November 1946

"Today we shall take the frog apart and see what makes him croak," said the professor to his Zoology class. "I have a frog in my pocket here as a specimen."

He reached into his pocket and drew out a paper bag, which he emptied onto the table. Out rolled a badly squashed ham sandwich.

"My goodness!" he stammered. "I distinctly remember eating my lunch."

The Lord made the world in six days, but that was before anyone thought of the 40-hour week.

Don't worry when you stumble. Remember that a worm is about the only thing that can't fall down. From Wisconsin Agriculturist and Farmer.

FAIR VISITORS SHOULD EAT APPLES TOO

A news article by the Wisconsin Department of Agriculture states "Quality dairy products were very popular with visitors to the 1946 State Fair." During the nine days of the Fair more than 20 tons of dairy products were eaten or sold on the grounds. This includes 39,306 pounds of cheese.

In addition about 39,000 half-pints of milk were sold by the Dairy lunch and Dairy bar or used in cooking meals. There were 50,000 cheese sandwiches sold, the toasted sandwiches being the most popular.

Mr. Milton Button stated, "the sale of dairy food to Fair visitors shows that good cheese, butter and milk are in demand.

It Applies to Apples Too

The same applies to apples. We reported in our last issue that in one day 10,000 apples were sold to Fair visitors.

Why is the Fair interested in selling high quality dairy products at the Fair? Because, as Mr. Harvey Weavers, superintendent of Dairy department stated, "We want to give the Fair visitors a taste of good cheese so that when they get home they will be anxious to buy more good Wisconsin cheese."

The same applies to apples. We believe the Fair should sell good Wisconsin apples to its visitors to give them a taste for good apples so that they will buy more of them when they get home.

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Orchard News

APPLE JUICE FLOWS AT STURGEON BAY

Nearly two million apples in one week! It takes that many apples for just one week's production of apple juice at Reynolds Brothers apple juice plant in Sturgeon Bay.

This year, more than five million *pounds* of fresh raw apples will pour into the Reynolds outdoor bins for processing into 350,000 gallons of fresh apple juice. It takes about 100 pounds of raw apples to make from seven to eight gallons of pure apple juice, depending upon the size and variety of the apples.

Karl S. Reynolds reports that the plant there presses and produces probably one-half of the apple juice made in the entire state! Total cider production in Wisconsin is estimated at about 750,000 gallons, which includes apples pressed for vinegar, as well as the small cider and apple juice operations. Most of the apple juice in the stae is made in Door County, for in addition to the 350,000 gallon capacity Reynolds plant, there is also a vinegar processor who presses out about 100,000 gallons per season.

Mr. Reynolds points out that pure apple juice or sweet apple cider is the pure juice before fermentation takes place and the conversion into cider vinegar begins. Apple juice not pasteurized or otherwise preserved will not keep more than a day or two before it begins fermentation. Pure apple juice must be kept sweet and wholesome, and in this respect differs from the product customarily known as cider.

All types of apples are used for apple juice, except the very early apples which are apt to be mealy and unsuitable for juice. Fresh apples are brought in direct from the orchards and are separated as much as possible into separate bins, to permit a blending of various varieties according to a plan or "recipe," dependent on the characteristics of the various varieties. Apples which

fall into general groups, such as aromatic, sweet, astringent, bland, acid and neutral are used. Varying amounts of all these types produce a desirable blend. Apples such as McIntosh, Cortland, Snow and Delicious are classified as aromatic; the neutral class includes Wolf River, Northwestern Greening, and Dudley. Wealthy and Duchess are considered acid, Tolman Sweet and similar varieties classified as sweet. There are a few astringent varieties, such as Hyslop Crab and Florence Crab.

Reynolds Brothers ship their APL-FRESH apple juice to all parts of the country, and also to Cuba, Mexico and Hawaii.

CITRUS FRUIT GROWERS ORGANIZE CITRUS COMMISSION

The Texas Citrus Industry has formed a Citrus Commission for the purpose of advertising fresh and canned Texas citrus fruits.

The program. 1. To advertise Texas citrus fruits. The powers of the Commission would be restricted to this. 2. The Commission will do commodity and not brand advertising. 3. The Commission must be administered by the industry and advertising tax assessed against shippers on a per package basis.

"Well I do say," said the sweet old lady, upon tasting her first glass of beer."

"It tastes exactly like the medicine my husband has been taking for the last thirty years."

THE APPLE PRICE SITUATION

Customer Pricing Is Here

The retail prices of apples appeared to be settling into a groove this week. The customers have at last set the retail market, and have done so with striking uniformity the country over.

Three distinct levels of values have emerged in volume-market retail pricing. On a pound-sale basis, premium apples like best Delicious and Macs are priced in a range which has generally narrowed into 2 lbs. for 25 cents-29 cents with 27 cents as the tag in the greatest number of cases. The next level is 3 lbs for 29 cents, and this one price is probably tagged on more apples than all the others combined. The "economy" level is 3 lbs. for 23 cents-25 cents or 4 lbs for 29 cents.

These prices have come to the fore at practically the same time in the West, the Central states, the South, and the East. Note units of sale, as well as cents per pound. Pricing by units of 5 pounds or more is not common except for the various "take-home" packages. Original package pricing per bushel or box by retailers seems to be more general than in the past.

The erratic pricing experiments following the end of ceilings in which all distributive factors were jockeying for position, appear to have subsided. The cases of outlandish markups of 100% and even more, have become less and less conspicuous. The urge to make up for loss of meat profits by loading extra margin on fresh produce has generally been cast off. But actual increases in store operating expenses—doubled and tripled rents, higher wages, and all the little things like the present cost of paper sacks—are keeping strong pressure on the retail markups.

Until now it could be said that grower-shippers ideas on what ap-

ples are worth this season, and consumer ideas of what they are worth at retail, had been put to valid test. There were too many variables in between. The in-betweens appear to be rapidly stabilizing. For the moment at least, the all important scale of buying prices has come into focus. That these are in fact buying prices set by retail customers is evidenced by their emergence in so many parts of the country at the same time.

Apple Week Observance By Retailers

The latest issue of National Grocers Bulletin, organ of the Independent Grocers, carries a two-page illustrated spread on how to increase apple sales, by Ben Vail, produce merchandizing expert.

—By Truman Nold, Executive Secretary — From National Apple Institute Bulletin No. 254

GOLDEN MUSCAT GRAPE TOO LATE FOR WISCONSIN

While the *Golden Muscat* grape is highly recommended by the New York Fruit Testing Association and does well in New York where peaches can be grown, it is too late for our Wisconsin climate.

A grape to obtain its full flavor and sweetness should mature during periods of warm weather and sunshine. In October our weather is usually to cool and the days too short to enable late grapes to obtain their full sweetness.

A BIG APPLE CROP REPORTED IN WISCONSIN

The Federal State Crop Reporting Service for Wisconsin reported on October 1, 1946 that Wisconsin had the largest *commercial* apple crop in its history. The estimate for October 1 is 1,020,000 bushels.

Last year the crop was estimated at 316,000 and in 1944 at 805,000. The ten year average, 35-44 crop was 698,000.

SOME FACTS ABOUT APPLE PROCESSING

There may be more interest in Wisconsin in the near future in processing apples. Therefore, some items appearing in the Bulletin 248 by the National Apple Institute may be of interest to our members.

Growers prices for apples for processing are still under OPA ceiling. The class A variety list for New York State is "Northern Spy, R. I. Greening, Twenty Ounce, Northwestern Greening, Grimes Golden, Stayman, King, Stark and Baldwin."

The Importance Of Size

The great difference in value of apples according to size, considering the loss from peeling, coring, and trimming, and the labor cost for that work, is well known to processors but is not so widely understood by growers. New yield is what the processor is after and is willing to pay for. Here is an example taken from measurements of carefully sized apples of one variety:

100 lbs. of apples by size	Net Yeld after Peeling, coring, and Trimming, for Canned Apples.
2¼ Inches	53 lbs.
2½ Inches	66 lbs.
2¾ Inches	73 lbs.
3 Inches	78 lbs.

Problem Of Unusable Culls

Processors are on notice the Food and Drug Administration will maintain strict guard against allowing any apples to enter the process of manufacture which are objectionable for human consumption. Vinegar is the conspicuous example of the problem, not only as to standards for sanitation and purity, but also as to the position of the product in the market. Cider vinegar can no longer survive as an important outlet for apples on the basis of meeting the price competition of other vinegars; but can make its way competitively on the strength of distinctive character and quality.

How Many Apples Can The Processors Take?

Warehouse stocks, distributio pipelines, and retail counters are al practically bare of apple products The demand for most of them i strong. At least 32 million bushel of apples will be required by pro cessors to meet the demand, an the quantity processed could easil go over 35 million depending o availability of labor, containers sugar, and ability to store and mov the fruit so that plants in all area can operate near capacity. Accord ing to USDA, the 1939-43 averag of apples processed is 29,893,00 bushels.

MORE PEARS COULD BE GROWN IN WISCONSIN KIEFFER—YOU'VE BEEN AROUND LONG ENOUGH!

In the October issue of Tennessee Horticulture is an article entitled, "Kieffer You've Been Around Long Enough"! To give the history of the Kieffer pear which was originated by a nurseryman named Kieffer, it became popular because of being somewhat blight resistant. Says Tennessee Horticulture, "But many fruit growers, fruit breeders and consumers of pears now wish Mr. Kieffer had chopped it down the year he first found it."

All fruit growers recognize that varieties of the poor quality of Kieffer cannot long continue to maintain their place on the market. Varieties of better quality are coming in and will replace them. *No amount of advertising will help growers who produce fruit of poor quality.*

There is increasing interest in growing pears along the shore of Lake Michigan from Sturgeon Bay to Kenosha. The great demand for Bartlett pears this fall was an indicaton to many growers of the demand for this high quality variety. The Bartlett is still the standard of quality.

If we can grow it without blighting, it will be profitable because it produces heavily and sells readily

In The Orchard

STORAGE NOTES ON APPLE VARIETIES

As a general rule 32°F. and 90 per cent relative humidity provide the best storage conditions for apples. As would be expected some varieties keep longer than others under these conditions. The terminations of storage life, however, may be brought by varying causes as between different varieties. With some varieties physiological or fungal disorders may terminate storage life while with others it may be lack of quality or some other cause. There are exceptions also as to storage temperature. Frequently apples suffer from breakdown at 32°F. which can be avoided by storing at higher temperatures.

CORTLAND

The best storage conditions for this variety are 32°F. and 90 per cent relative huridity. Storage life is terminated about the middle of February by the onset of core flush and by the development of a dry woody texture. It is susceptible to an undetermined disorder which takes the form of hardening or drying out of the tissues in the core area. In samples observed this does not appear to be serious. As with McIntosh maturity of harvest seems to be important with cortland. If allowed to reach maturity on the tree the storage quality is very much improved.

Delicious

This is a mild flavored apple which depends on its high moisture content and crisp texture for appeal. At 32°F. and 90 per cent relative humidity it can be held until March before becoming mealy. Care should be taken with this variety to see that it can stand up a week at least after removal from storage before mealiness sets in.

Fameuse

If stored at 32°F. and 90 per cent relative humidity this variety can be held until December. At this time or later loss of quality is evident followed by the onset of mealy breakdown. Core flush usually develops during November if stored at 32°F. or higher.

Jonathan

When stored at 32°F. and 90 per cent relative humidity Jonathan can be held until the end of January. Jonathan breakdown may develop in several weeks if harvested too mature. Lower temperatures delay the onset of this disorder. When harvested and stored properly general softening, loss of quality and possibility Jonathan spot may determine the end of storage life.

McIntosh

At 32°F. and 90 per cent relative humidity this variety can be stored satisfactorily until the end of January. At this time McIntosh may still look acceptable but the quality will have depreciated to a very low level. High Nitrogen or unbalanced feeding, light crop, or immature harvest will cause core flush development when stored at 32°F. Apples harvested under these conditions had better be stored at 39°F. until the ground colour shows a slight tendency to yellow. By W. R. Phillips in STORAGE OF APPLES.

COST AND MANAGEMENT OF APPLE ORCHARDS

New Hampshire has been fortunate in having some unusually good work along the line of economics in apple production. We must not forget the lesson that these studies teach; hence I propose giving a brief discussion of some of the outstanding information contained in New Hampshire bulletin 279 by Woodworth and Potter, isssued in 1931. Some things are perhaps not applicable in detail today, but in general these lessons are worth consideration.

Large Investment

On 12 farms the land value was $5,464 per farm. The toaal investment was $19,792 per farm. The average expenses were $5,605 per farm and the receipts $7,855 per farm. The farm income, therefore, was $2,279, charging against this $943 for interest on investments. The labor income, therefore, would be $1,346; but the interesting point was that the actual labor income varied from $7 to 2,940 on these 12 farms for the three-year period.

Diversity to Reduce Cost

In order to reduce costs, the authors suggest using varieties that ripen in order, picking when the weather is good and in rush seasons, leaving the grading for other days. They found that on the average one man can pick as much as 50 McIntosh trees. They recommend diversification to utilize labor economically. Strawberries they find, fit in well with apples. Cherries are doubtful except to the extent that they can be sold on a local market. Beans, either dry or green, fit in well with apples. Potatoes are more difficult to work in to avoid conflict of time.. Timbering fits in quite well Cows are satisfactory if you are willing to work long hours. Poultry fits quite well if you do not raise your own pullets but buy them in the fall for winter laying. The observation is that small orchards are likely to be neglected. Three permanent workers should be able to handle 100 acres of orchard Orchards as small as three acres may pay if handled skillfully.

—Taken from—North and South Dakota Horticulture. July, 1946. By—Dr. A. F. Yeager.

POISONED OATS BAIT FOR MICE IN THE ORCHARD

Mr. Lester Tans, Secretary, Southeastern Fruit Growers Co-op, 227 Cutler Street, Waukesha writes that they have on hand a good supply of poisoned oats bait at the following prices: 10 lb. bags, $2.00; 25 lb. bags, $4.75, F.O.B. Waukesha. All orders must be shipped by Express.

Poisoned oats bait may also be obtained from Glenn A. Dunn Co. 2138 University Ave., Madison, the Door County Fruit Growers Co-op, Sturgeon Bay and the Bayfield Fruit Growers Co-op, Bayfield. Don't fail to control mice in your orchard as they are on the increase.

FRUIT GROWING AT DODGEVILLE

By Virgil Fieldhouse

Haralson surely outsells N. W. Greening apples for us. Then too the trees can be planted closer. By spraying Haralson trees with a mix sulphur, we get along fine with them. In late October we were sold out of everything excepting N. W. Greenings and another cooking apple. People just beg for our No. 1 Cortland at $4.00 per bushel. Fall apples sold slowly, but we found some spots without apples south of here so sold them.

Our plot of Sebago potatoes (small patch) yielded at the rate of 665 bushels per acre. People are buying them as they would Idaho bakers and think they are fine. We had perfect results in insect control by using DDT spray over the tops from one side of the patch.

GROW YOUR OWN MULCH IN THE ORCHARD

For a number of years we have advocated broadcasting nitrogen fertilizer over the entire orchard floor instead of under the trees. Nitrogen stimulates the growth of grass and cover crops just as well as increases the growth of trees. A heavy crop of grass allowed to remain in the orchard will eventually build up a thick mulch which prevents the wind and sun from drying out the soil during the hot, dry weather of mid-summer.

It was interesting, therefore, to read an item by Prof. C. W. Ellenwood of the Ohio Experiment Station, in the Country Gentleman on this subject. Here is the item:

"Growing mulch in the orchard seems to be one way to overcome the scarcity of mulching material. Results at the Ohio Experiment Station show that the use of additional fertilizers in the sod orchards can step up production of mulching material right where it is needed. By doubling the amount of fertilizer normally used and spreading it over the entire area rather than just under the tree circle, I. P. Lewis reported a gain of 2500 pounds of dry mulching material an acre. Under some conditions lime was required. Reseeding was sometimes necessary too."

OUR 1946 APPLE CROP

There Are 144 for Each of Us

Samuel Frazier, Secretary of International Apple Association, says our crop this year is 144 apples for each person in the United States. If we secur glass, tin, and some sugar, we may process one-third of this crop, leaving 96 apples for each of us to eat or two each week for 48 weeks. We have already eaten six of these apples during June, July, and August, so we really have only 90 left to be consumed between September and next July.

Of these 90 apples, 46 are good dessert apples, Delicious, McIntosh, Cortland, Jonathan, and Stayman, and can be eaten out of hand. We really must eat one apple a week and cook one apple a week to clean up the crop.

Of the 90 apples, we can expect 54 will be found in storage December 1st. That will leave 46 apples that must be eaten during September, October, and November, or three a week per person instead of two. If we fail to consume these three apples a week (3,000 car loads a week), we can expect trouble later. From Missouri Horticulture.

GOOD APPLES MOVING WELL

On October 27 Mr. Arnold Nieman, Cedarburg, Recording Secretary-Treasurer of the Wisconsin Apple Institute, wrote: "The demand for Cortland is better than two years ago. Good apples sell at a fair price, but poor grades are a drug on the market. We are grading Cortland out of our cold storage. They are firm and take a good polish."

(Continued From Page 60 Column 3)

We have seen some fine Anjou, Gorham, Flemish Beauty and Bosc this year. These are all high quality late pears and Anjou is one of the best, keeping until January in good storage.

At Sturgeon Bay there is increasing interest in pear culture and quite a few trees of good varieties have been planted.

The trouble with the world today is simply—"millions of me"—multiplied. From Wis. Agriculturist and Farmer.

WHAT TO DO WITH UNDERGRADE APPLES

All States Have the Problem of Selling Undergrade Fruit

Virginia has a new state apple marketing law. It provides that apples in closed containers must be labeled as to name of producer, variety, quantity, quality, and size of product. To help prevent selling undergrade apples as fresh fruit, the law is being enforced. The State Commissioner of Agriculture commented recently: "When the housewife is asked to pay 25 cents for two or three pounds of apples, she has a right to expect and demand quality. Certainly it isn't necessary this year to attempt to dispose of this low-grade fruit through fresh fruit channels. Processing plants are operating at full capacity and there is every indication that the price is good." His statement was made to the Chicago Packer.

Laws probably won't prevent poor apples from reaching the fresh fruit market. Wisconsin needs more processing plants to take care of undergrade fruit. The consumer will probably do the rest. Recently a commercial grower stated he found commercially packed apples were selling well, but growers with a poor pack were having difficulty in getting decent prices.

ELECTRICIAN'S RUBBER TAPE FOR TOPWORKING

J. D. Winter

The writer has used rubber tape making whip grafts and single coin cleft sucessfully for several years in grafts in topworking. It is handy and easy to use when a comparatively few coins are set. This worked O. K. with pre-war tape, but last year the wartime electrican's tape was found to go to pieces within 10 days, allowing the graft to dry out. This problem was solved by coating the tape and coin with orange shellac as soon as the tape was applied. At least, practically all the coins grew this year when this method was used. A few grafts were made using Scotch locker tape and these grew too, but later the tape had to be cut which was not necessary with the rubber tape.

—From The Minnesota Fruit Grower, September, 1946.

Nobody looks up to the man who looks down on others.

THE WISCONSIN CRANBERRY CROP

Wisconsin Cranberry growers should receive a return of about $3,500,000 for their 1946 crop, C. M. Chaney, general manager of the American Cranberry Exchange announced in October.

The American Cranberry Exchange is a cooperative sales organization made up of three organizations: the Wisconsin Cranberry Sales company, the New England Cranberry Sales company, and the Growers Cranberry Sales company which represents New Jersey growers.

Estimating that the United States crop top all records with a return to growers of about $20,000,000, Mr. Chaney credited this record-breaking return to the good yield, a firm demand, and a constant program of avertising waged by growers through their cooperative, as well as to the fact that for the first time since 1943 cranberries are moving in a free market.

"Sales through the Exchange have been brisk," Mr. Chaney said. "The Early Blacks have sold almost as fast as they were packed here in the East. I expect Wisconsin berries, which are harvested somewhat later than eastern berries, to sell equally well."

Mr. Chaney added that with an expected 4 5/10 pounds of turkey per capita for the nation this year as compared with last year's 4 3/10 pounds, there was every prospect of brisk consumer reaction to fresh cranberries on this year's retail market. *—By the American CranberryExchange.*

ARSENATE OF LEAD BURN

We saw one case of severe arsenate of lead burning in an orchard in Wisconsin this year. The grower stated he had diluted his lime sulphur 1 to 100 because of hot weather. This, according to Dr. G. W. Keitt, may cause arsenate of lead burning. The lime sulphur should never be reduced to less than 1 gallon of lime sulphur to 75 gallons of water.

NEW RASPBERRY IN WASHINGTON

A new raspberry named Washington has taken the lead in raspberry growing section of the state of Washington. The new variety is a cross between Cuthbert and Lloyd George, and has the hardiness necessary for Washington conditions. Cuthbert was not hardy, often began to grow during warm spells in winter, was then frosted when cold weather returned.

Yield of the new variety Washington runs five to eight tons per acre as compared to three to five tons for Cuthbert.

Wisconsin growers may wish to test the new variety, but should do so on a small scale. Varieties suitable to conditions in the far West have usually not been suitable for this state. The Cuthbert, of course, is not hardy here.

CONTROL OF RASPBERRY SPUR BLIGHT

Bulletin No. 710 from the New York Agricultural Experiment Station at Geneva gives the results of extensive tests in controlling spur blight on raspberries. Fermate, used at the rate of 2 pounds per 100 gallons of water, was much superior to other treatments tried. Two applications gave perfect control of this disease, the first appplied when the new growth was about 12 inches high gave excellent results. The spray should be directed at the new shoots, not at the fruiting canes.

Indian Summer and Taylor were susceptible to spur blight; Newburgh, Latham, and Milton, moderately susceptible; Ontario, Viking, Marcy, and Chief, slightly susceptible. Fields usually do not show any large amount of spur blight until they are 4 to 5 years old.

Growers who have trouble with this disease should read this bulletin.

—From The Minnesota Fruit Grower.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS ASSOCIATION

OFFICERS

Walter Diehnelt, Menomonee Falls, President
Robt. Knutson, Ladysmith Vice-President
H. J. Rahmlow, Madison, Cor. Secy.
Mrs. Louise Brueggeman, Box 60, Menomonee Falls, Recording Secretary-Treasurer

DISTRICT CHAIRMEN
S. C. Fox, Pewaukee
Robt. Knutson, Ladysmith
Newton Boggs, Viroqua
C. C. Meyer, Appleton
E. Schroeder, Marshfield
Ivan Whiting, Rockford

OUR 68th ANNUAL CONVENTION

Our 68th annual convention at Fond dup Lac brought the largest attendance in years. There were 170 at the banquet, with over 200 registrations. Attendance at the Auxiliary meeting was excellent with a fine program. Beekeepers came from far and near. The Superior Beekeepers Association sent their president, Mr. Elvin M. Braman as delegate. He came the greatest distance.

Highlight of the convention was adopting a report of the special committee on paying indemnity to beekeepers for colonies burned for A. F.B. Mr. John Long, deputy inspector had prepared an excellent bill which was discussed by the Board of Directors and Committee the night before the convention. Only a few changes were suggested. The committee is to continue their work of having the bill passed by the legislature. In brief, it provides for payment of $3.00 per normal colony found diseased and burned by inspectors. The inspector will make the certificate to the Department of Agriculture. The money will be taken from the bee tax fund. Only beekeepers who have paid their taxes are to be eligible to receive indemnity.

Out-of-state speakers, Mr. C. D. Floyd, St. Paul, and Maj. W. J. Nolan, assistant to Mr. Hambleton, U. S. Bee Culture Laboratory, gave excellent talks. Reports of their talks will be given elsewhere in this issue or early issues to come.

Officers Elected

Mr. Walter Diehnelt was reelected president in spite of his protests. Mr. Robert Knutson, Ladysmith well known district chairman of the Northwestern District was elected vice-president; H. J. Rahmlow continues as corresponding secretary; and Mrs. Louise Brueggeman as recording secretary-treasurer.

Everyone had a fine time at the banquet. The two movies provided interest and entertainment.

Mr. W. W. Vincent. Jr. Kenosha, has a fine flim on beekeeping, while Wildlife in Our National Parks and Forests is an excellent movie.

The Question and Answer Hour proved one of the most interesting sessions and it was voted to continue this feature. Some of the questions answered will be presented in future issues.

Vote Against Changing A.F.B. Law

A test vote was taken at the annual business meeting to find the sentiment of members in regard to changing the present law on inspection and control of A.F.B. The vote was practically unanimous *to leave the present law just as it stands* without any changes to incorporate the use of sulfa drugs. There is no law preventing the use of sulfa, but if the inspectors find A.F.B. present, they will continue to burn.

Woman's Auxiliary Meeting

The Woman's Auxiliary meeting was well attended with about 40 present at several sessions. Mrs. Henry Schaefer, of Osseo, vice-president of the Auxiliary, presided in the absence of the president, Mrs. C. C. Meyer, of Appleton, who was ill.

Officers elected for the coming year are: President: Mrs. Henry Schaefer; Vice-President: Mrs. Harold Knight, Dalton; Secretary-Treasurer, Mrs. Emerson Grebel, Beaver Dam.

The program was excellent. The speakers were Mrs. Harriet Grace, of the American Honey Institute; Professor O. B. Combs, Department of Horticulture; and Mrs. Hugo Sperling, Sheboygan, who made some fine arrangements for winter occasions. Mrs. Charlotte Buslaff, former home agent of Fond du Lac County, helped a great deal by judging and taking the place of Mrs. L. D. Dennett, who was ill.

Mrs. Grace stated that the Honey Institute needs $50,000 to carry on its work as a reserve fund.

Need Better Beekeeping Methods

Dr. C. L. Farrar mentioned the poor season of '45 when practically no surplus was produced at Madison. There has been much interest in better queens, but the system of management of many beekeepers is not yet adapted to better stock. They may not leave enough food for winter and spring, and starvation may be the result. We must make changes in our methods before we can get results from better stock. The laboratory is now breeding for improvement, but patience is necessary because we must evaluate the stock before it can be released.

Nosema disease is a big problem. In 1945 the yield of honey had a direct relation to the percentage of Nosema infection.

(TO BE CONTINUED)

SHOW PREMIUM WINNERS

Six 1 Lb. Jars Wisconsin No. 1 White Honey

1st prize, W. C. Lundgren, Amery; 2nd prize, Clarence Pfluger, East De Pere; 3rd prize, Ira Lubbers, Cedar Grove.

Six 1 Lb. Jars Wisconsin No. 1 Amber Honey

1st prize, M. G. Bohnert, Sparta; 2nd prize, E. F. Grebel, Beaver Dam; 3rd prize, William Braatz, Eden.

One Dozen Cookies, Not Less Than 50% Honey

1st prize, Mrs. H. H. Whiting, Lake Mills; 2nd Prize, Mrs. Joe Mills, Ripon; 3rd prize, Mrs. Walter Diehnelt, Menomonie Falls. Additional entries: Mrs. Milton Lundgren, Amery; Mrs. Clarence Pfluger, East De Pere; Mrs. Henry Schaefer, Osseo (3 entries); Mrs. Art Schultz Ripon; Mrs. Art Schultz, Woodland.

Honey Cake, Not Less Than 50% Honey

1st prize, Mrs. Wallace Freund, West Bend; 2nd prize, Mrs. Emerson Grebel, Beaver Dam; 3rd prize, Mrs. Henry Piechowski, Red Granite. Additional entries: Mrs. Joe Mills, Ripon; Mrs. Chas. Roy, Sparta; Mrs. Clarence Pfluger, East De Pere; Mrs. Art Schultz, Ripon; Mrs. Ira Lubbers, Cedar Grove; Mrs. Art Schultz, Woodland.

Hobby Show Exhibits

1st prize, Mrs. Art Schultz, Woodland; 2nd prize, Mrs. Emerson Grebel, Beaver Dam; 3rd prize, Mrs. Wallace Freund, West Bend.

W. C. SMITH HONORED AS OLDEST LIVING MEMBER

Mr. William C. Smith of Cottage Grove, Wis., was honored at the annual banquet as the oldest living member. He was presented with an engraved fountain pen as a mark of esteem by the State Association.

Mr. Smith has been a member for 45 years. He became interested and joined the State Beekeepers Association through the influence of Mr. G. A. Gross in 1901. He will be 83 years old next January, and still operates 80 colonies of bees.

Born in Jefferson County, they lived lived in Lake Mills for a time, but in 1905 moved to their farm home, two miles north of Cottage Grove. Mr. Smith became interested in bees when about 12 years old, when his father bought a few colonies and gave him one. He bought them from Adam Grimm, Jefferson, who first brought Italian bees direct from Italy. Mr. Smith had to destroy his bees and supplies twice because of foulbrood. He remembers using a smoker that had no bellows, but was blown by mouth.

Mr. Smith has been president of the Dane County Beekeepers Association for some years. We congratulate him for his success with bees and wish him many more years of health and happiness.

THE WIND AND THE HONEY FLOW

Mr. Fred J. Paepke, Burlington, Wis., writes: "During summer of '46 bees did not work on days when the wind blew from the east, but did work well on days when the wind was from the west or south. Can you explain?"

Answer: The U. S. Weather Bureau tells us that when the wind blows from the east, especially near Lake Michigan, the weather is usually cloudy, the temperature lower, and the relaive humidity higher than when there is a south wind. No doubt these conditions affect the secretion of nectar by plants. Plants require favorable weather and soil conditions for abundant production of sugars. During 1946 there were very few days of that kind, but in 1945 we heard a report that on three successive days the scale hive gained more than 20 pounds per day, or even over 60 pounds on three days.

OFFICERS DOUGLAS COUNTY BEEKEEPERS ASSOCIATION

Officers of the Douglas County Beekeepers Association are: President: Elvin M. Braman, Superior; Vice-President: Joseph A Deiser, 1110 Central Avenue, Superior; Secretary-Treasurer: Mrs. Harry Strand, Popular; Technical: Karl Helwig, Superior.

We recently published an older list of officers of this association in connection with an article.

WISCONSIN HONEY CROP ONE-HALF OF LAST YEAR

According to the U.S.D.A. semi-monthly honey report, the honey production for 1946 in Wisconsin is estimated to total 7,420,000 lbs. compared to 14,140,000 lbs. in 1945.

In 1946 there were 212,000 colonies while in 1945 there were 202,000. The average yield this year was only 35 lbs. as compared to 70 lbs. last year.

MICE IN THE APIARY

Some beekeepers report an unusual large number of mice in apiaries this fall. It may have been a favorable year for mice and if they are numerous and get hungry beware of damage to combs.

Poisoned oats bait may be obtained from the Southeastern Fruit Growers Co-op of Waukesha. See add in front part of this issue.

The bait should be placed in mouse runways; under the bottom boards or rubbish, wherever runways can be found. A teaspoonful of oats in a runway is enough. Cover the bait so mice can eat it undisturbed.

FRAME SPACERS DO SAVE TIME

BEEKEEPERS who have used the Schaefer Time Saver or frame spacers are enthusiastic about them.

They are made and patented by Mr. Henry Schaefer, Osseo, Wisconsin, well known beekeeper, who is to be congratulated for his contribution to helping beekeepers save a lot of time during supering operations.

In using the spacers, all of the frames are simply pushed towards the operator with a hive tool. The spacers are placed on as shown in the picture, with the pegs between each of the frames. Grasping the two spacers at the top, they are pulled outward until they are vertical, when the frames are perfectly spaced. The spacers are left on the super until they are placed onto a hive, when they are removed and the job is done.

A dollar won't do as much as it once did. But then, we don't do as much for a dollar as we once did either.

WISCONSIN BEEKEEPERS ASSOCIATION HAS LARGE MEMBERSHIP AND EXCELLENT FINANCIAL STANDING

Mrs. Louise Brueggeman, Recording Secretary Treasurer of the Wisconsin Beekeepers Association reported at the Annual Convention that the total membership for 1946 was 659. Of these 276 were Individual memberships at $1.00 each, 392 were County memberships at 75 cents each.

This is the largest membership we have had in years. We believe it is the largest membership of any State Beekeepers Association in the United States having dues of $1.00 or 75 cents for affiliation. If this is an error, will be glad to hear from states with a larger membership.

Commission on glass and pails amounted to $256.91. This is a real service to the Federation. We owe a great deal to our President, Mr. Walter Diehnelt for this arrangement.

The treasurer reported the following balance as of October 1946.

General Fund	$ 818.47
Label Fund	568.41
Advertising Fund	176.82
Total	$1563.70

A total of $218.86 was invested in Lithographed caps and this together with our label inventory of $204.85 gives us a NET WORTH in October, 1946 of $1573.68. There were no liabilities.

KENNITH HAWKINS

One of beekeeping's best friends and able champions, Mr. Kennith Hawkins of Watertown, Wisconsin, passed away on October 9.

Mr. Hawkins has been in charge of the beekeeping division of the G. B. Lewis Company for many years. He traveled all over the United States and spoke to beekeepers everywhere. He wrote many articles and bulletins on the subject. His advice and counsel were eagerly sought by all in the industry.

To the members of his family the beekeepers of Wisconsin express heartfelt sympathy.

A congressman said to Horace Greeley one day: "I'm a self-made man."

"That, sir," said Greeley, "relieves the Almighty of a great responsibility."

THE PRICE OF HONEY

In mid-October we went into a Madison grocery store, saw a dozen 5 lb. pails of honey priced at $2.79 each, and 8 oz. jars at 44 cents each. We don't remember honey going that high after the first World War.

It's the beginning of the end of government control, so it seems. Now what's going to happen? If there is too much price boom, will there be a bust sooner and longer?

It didn't do any good and never will do any good to urge beekeepers to keep the price reasonable because the beekeepers are not the only ones involved. Many beekeepers sold at ceiling prices. The honey mentioned above came from out-of-state through various commission houses and dealers and jobbers. The beekeepers may only have received ceiling prices.

While there is a sugar shortage and the workers and farmers of the country have money with which to buy, honey will sell. When there is plenty of sugar, prices and wages begin to go down, then we'll go through the same process as before.

We thought the people had learned something about controlling inflation and preventing depressions. No doubt we have, but the government can't enforce the steps necessary to prevent them.

The prices quoted in the Madison store are crazy and merely temporary and will settle down to a much more reasonable price.

"Rastus, do the people who live down the road from you keep chickens?"

"Dey keeps some of 'em sah."

Editorials

HONARY RECOGNITION EXTENDED TO PROF. WM. H. ALDERMAN, UNIVERSITY OF MINNESOTA, Dr. GEORGE H. SCHEER, SHEBOYGAN

Two outstanding horticulturists received illuminated Honorary Recognition Certificates of the Wisconsin State Horticultural Society at our convention at Oshkosh, November 14-15. They were Prof. Wm. H. Alderman, Chief of the Department of Horticulture, University of Minnesota and Supt. of the Minnesota Fruit Breeding Farm and Dr. George H. Scheer, Sheboygan one of Wisconsin's leading originators of new gladiolus varieties.

The certificate presented to Prof. Alderman read, ***"The Wisconsin State Horticultural Society recognizing the eminent services of William H. Alderman as Superintendent of the Minnesota Fruit Breeding Farm in breeding new fruit varieties of value to this area and advancing the science of horticulture through research and teaching presents this Testimonial"***

The certificate to Dr. Scheer read, "** recognizing the eminent services of George H. Scheer in originating outstanding new varieties of gladiolus and through his leadership in advancing their culture an popularity presents this Testimonial."**

Prof. W. H. Alderman

Prof. Alderman is best known to our membesrs as a speaker on our convention program and as superintendent of the Minnesota Fruit Breeding Farm where many of our fruit growers have visited and will continue to visit. Some excellent new fruit varieties have come to us from the Farm as a result of the work of Prof. Alderman and his staff. Foremost among them are the Latham

PROF. W. H. ALDERMAN

raspberry, the Minnesota varieties of plums and the new apples Haralson, Fireside, Prairie Spy and others. Because this work is of benefit to this area as much as it is to Minnesota the recognition is highly deserving.

Prof. Alderman was born in New York in 1885 and reared on a general grain and orchard farm in western New York. Received his Bachelor of Science Degree in Agriculture at Cornell in 1908. After that he was Student Assistant at Cornell, Field Agent for the Department of Pomology, Associate Horticulturist at the Experiment Station at Geneva, professor of horticulture and Chief Deparment of Horticulture West Virginia University, Acting Dean West Virginia University College of Agriculture and acting director of the Experiment Station.

He has been an officer in many horticultural organizations and received horticultural honors such as a Bronze Medal in 1937 awarded by the Minnesota Horticultural Society for "advance in the art and science of fruit growing" and in 1944 the Canadian Stevenson Memorial Award and Gold Medal for "Conspicuous achievement in Horticulture."

We congratulate Prof. Alderman and wish him continued success.

Dr. George H. Scheer

Dr. George H. Scheer was born in Sheboygan in 1878 in the same house he lives in at present. With the exception of the 8 years he spent studying at the University of Wisconsin and Rush Medical College, has always lived in Sheboygan.

When he completed his studies in 1904 he returned to Sheboygan to take up the practice of medicine and surgery and has practiced for 43 years. Was a member of the Medical Corps, Wis. National Guard for about 24 years and holds the rank of Lieut. Col., M. C., retired. Has been the local representative of the U. S. Public Health Service for 27 years.

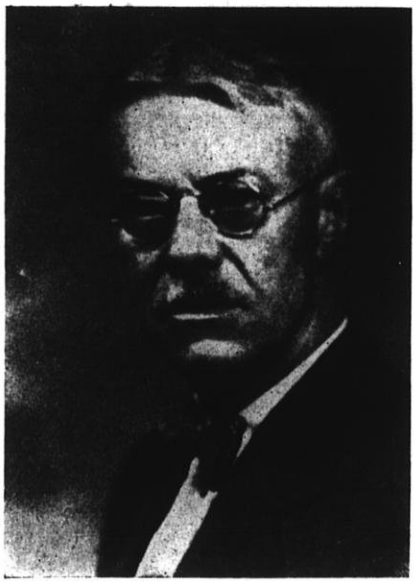
Relative to his interest in flowers, Dr. Scheer writes: 'Have always been interested in gardening—guess I inherited my interest in growing things from my maternal grandfather who was an ardent gardener and who had considerable reputation for his flower and vegetable garden. When only 4 or 5 years old I was given my own 'garden,' a bed some 4 feet by 6 feet in a corner of grandfather's garden where I tried to grow pansies and othr flowers that would beat grandpa's. Outside of the years I spent at college, I have always had my garden. My earliest 'breeding work'—if it can be called that—consisted in selecting superior plants of flowers

for seed.

My first work in pollinating was done with iris and I got quite satisfactory results but decided to switch over to gladiolus. I had grown gladiolus for a good many years. In the early 1930's I bought my first lot of named varieties of glads from J. D. Long, some 45 varieties which represented the cream of the glads of that day. They did very well (thrips had not yet made their appearance then) and the possibilities of creating new varieties through cross pollenation impressed me at once. I made some 70 carefully guarded crosses that year, covering each seed parent spike with a crinoline bag, and got a nice lot of seeds.

I then wrote to Prof. E. F. Palmer of Canada who had just achieved fame as originator of Picardy —a rather audacious move for an unknown beginner. I wrote a long letter, asking numerous questions and received a prompt reply, giving all the information I requested. I have never forgotten Prof. Palmer's courtesy and kindness. It was this letter that started me off right in the breeding game. One thing that he stressed particularly was the importance of keeping full and accurate data of all crosses and results: I have followed this advice religiously and I ascribe any success that I have had to living up to this rule, —that, and applying extreme discrimination in the selection of seedlings to be released for general dissemination.

Naturally, at the start of my breeding work I used only standard named varieties in commerce since they were the only material I had. As the work went on I began to use more and more of my own seedlings as parents until, in recent years, I have used standard named varieties only occasoinally. My reason for this is obvious: by consulting my records I can trace back a number of strains in my own seedlings, in some cases for as far back as three or four generations, and so am much better able to calculate the results that I can anticipate than I could with standard varieties.



DR. GEO. H. SCHEER

This write-up would hardly be complete without mentioning the part that my wife has played in the development of Scheer Gladiolus. Since the very beginning of the work in breeding she has taken a keen interest in it and she has become a very competent judge of glads. Not only does she do all of the book work and keep the mailing list up to date but has never failed to attend a show and to set up the display."

Varieties Introduced

The following are some of the fine varieties Dr. Scheer has introduced in recent years:

Scheer Gladiolus

Gardenia—A moderate sized cream of artistic form.

White Gold—Today the leading cream in most markets throughout Canada and the U.S.A. and grown by the millions.

Genghis Khan—A highly ruffled pink of large size.

Marseillaise—A brilliant, large red, very tall with extra long flowerhead.

Eglantine—A very large, ruffled pink, with up to 8-10 open. Has been described as 'perhaps the most beautiful glad to date'.

Phoebe—A beautiful soft pink of great appeal.

Burgundy—A formal red of exceptional brilliancy.

Shooting Star—A deep cream.

Patrician—The lastest addition to the list. A large lavender self like MINUET. (At this year's Boston Show of the N.E.G.S., Partician was given first place for color and size among recent introductions).

Deborah Sampson—A pastel, (introduced, with permission, by W. W. Wyman). (Won the 25 spike vase silver medal of the N.E.G.S. at this year's Boston Show.)

Nanette—A pleasing formal light pink, (introduced, with permission, by M. Steinpreis).

WANTED—LOCATION OF UNUSUAL PLANTS

Anyone who has or knows of an unusual woody plant (tree, shrub or vine), please communicate this information to Henry F. Leweling, Assistant in Horticulture, Department of Horticulture, University of Wisconsin, Madison 6, Wis. Mr. Leweling is making a survey of woody plants of Wisconsin, especially concentrating in Dane, Walworh, Racine, Jefferson, Rock, Waukesha, Kenosha, and Milwaukee Counties. The information should include the address where the unusual tree, shrub or vine is located.

For example, here in Madison we have found some ball cypress, several kinds of magnolias, viburnum tomentosa and carlsii, sweet and sour gum and tulip trees. In vines, the Euonyonous-winter creeper and Baltic ivy.

PROF. J. H. GOURLEY

Prof. J. G. Gourley, Chief, Department of Horticulture, Ohio University, passed away suddenly the last week in October. Prof. Gourley was the speaker at our our annual convention in 1945. He was an outstanding figure in horticultural circles.

Gladiolus Tidings

By the WISCONSIN GLADIOLUS SOCIETY

EXPERIENCES AT THE WISCONSIN GLADIOLUS SHOW

By F. M. Bayer

This year has been the most interesting and enjoyable for me since I have grown gladiolus. The results obtained from my own planting has been a real pleasure, insofar as competition at the various shows were concerned.

The Sheboygan Chapter Show at Kolher was successful in all respects, one would go far to find superior blooms. Of interest was a Dutch mill, built by Emil Jaschinski surrounded by a planting of galadolus in bloom. Also the interest displayed by the Misses Kohler who attended the show.

Our show at the State Fair on August 17 to 19 proved a success with more than 700 entries. The display of color was hard to equal. A few more commercial exhibits and artistic arrangements could have made this show outstanding.

Our show at Wausau County Fair Grounds on August 24 and 25 was certainly worth while. In fact visitors from the State of Washington remarked they had never been to a show of its equal. Archie Spatz surely deserves every compliment for its success. On Saturday evening, August 24, after our annual banquet, a gadiolus queen was crowned by our President, Mr. Shaw. As an added attraction the the Gladiolus Queen and her court were present at the Show Sunday. As promised us, a trip to Rib Mountain was made Sunday morning which was enjoyed by all. It sure was hard to break away late

Sunday afternoon after the fine treatment accorded us at Wausau.

The season of shows closed with a trip to Marinette to attend the Twin Cities Chapter Show. This show was held on the third floor of Lauerman's Department Store on August 30 and 31. The spikes and blooms grown in this section were outstanding; they surely grow them up here. I know of no place where they grow them better. Want to express my appreciation to Lauerman's for the exceptional dinner furnished Friday as their guests, also to Paul Ravet for showing us around , particularly for driving us out to Mrs. Hornick's farm in Menominee, Michigan. She grew the champion spike of the show, KING CLICK.

The figures on the two State Shows are still incomplete but all indications are that they were profitable to the Society.

GLADIOLUS NOTES

Dr. Scheer's new variety, Patrician, took first place at this year's Boston Show, N.E.G.S. Mr. Wyman entered a single spike which was awarded first for color and size among recent introductions.

Patrician is a lavender of the color of Minuet but somewhat deeper and richer. Florets 6", 6-7 open on a model formal spike. It makes a more impressive spike than Minuet, is a vigerous grower, healthy in plant and bulb and a good propagator.

There were 42 of the 60 members of the Sheboygan County chapter present at their fall meeting—not bad. Sheboygan had its first rain of any sort in a month on October 10. The drought was worse than at any time during the 1930's.

OPEN CLASSES FOR ARRANGEMENTS AT FLOWER SHOW

Allow Exhibitors To Use Their Imagination

Many Wisconsin Garden Club members have become adept and proficient in arrangement of flowers. Flowers shows have taken on new life with the introduction of schedules calling for imagination as well as skill in arrangements of various classes and styles. Note clases such as: "arrangement on a birthday table for a brunette" or for a blonde.

The fellow who keeps pulling on the oars does not have much time to rock the boat.

NOTES ON SHEBOYGAN COUNTY CHAPTER SHOW

The center of attraction at the Sheboygan County Chapter Show at Kohler August 10-11 was a Holland windmill pictured in our October issue.

Mrs. G. H. Scheer, Sheboygan sends the following notes on the show. (Condensed).

Miss Ossie Curtiss of Plymouth had the most points in the Artistic Arrangement section, winning a $25 Bond donated by the Kohler Company. Mrs. Hugo Sperling of Sheboygan was the judge.

Dr. L. C. Dietsch of Plymouth was first with 130 points receiving the Sheboygan Chapter Perpetual Trophy. Second was Emil Jaschinski, Sheboygan; third was August Bogen, Sheboygan and fourth, Archie Spatz, Wausau.

August Bogen, Sheboygan had the champion Formal. VISTA BONITA was champion of the single spike Formal and Informal section. Dr. R. W. Juers, Wausau received the Sheboygan Chapter Rosette for champion Informal spike and trophy for second best spike of the show, on CALIFORNIA. Dr. Dietsch had the grand champion three spike Informal — variety WHITE GOLD. Also won a Rosette on his three spike Formal entry, ELIZABETH THE QUEEN.

OTHER WINNERS

Division Champions.

Recent Introductions (400-500) Clarence Martny, Sheboygan on BENGASI.

Single Spike Formal (200-300) Dr. L. . Dietsch, Plymouth on BADGER EAUTY. (400-500) August Boggen, Sheboygan on VISTA BONITA.

Single Spike Informal (200-300) Emil Jaschinski, Sheboygan on CAMILLIE. (400-500) Dr. R. W. Juers, Wausau on CALIFORNIA.

Three Spikes Formal (200-300) Archie Spatz, Wausau on BIT OF HEAVEN. (400-500) Dr. L. C. Dietsch on ELIZABETH THE QUEEN.

Three Spikes Informal (200-300), Emil Jaschinski on LAVENDER QUEEN. (400-500), Dr. L. C. Dietsch on WHITE GOLD.

WISCONSIN GLADIOLUS SOCIETY FALL MEETING MEDFORD HOTEL, MILWAUKEE SUNDAY, NOVEMBER 17

A bulb show will be held in connection with the annual meeting this year at the Medford Hotel, Milwaukee on Sunday, November 17. Be sure to bring some bulbs.

The Schedule For Bulb Show

Class 1. Largest bulb (diameter) of any variety, grown from a bulblet.

Class 2. Largest bulb (diameter) of any variety, grown from a bulb.

Class 3. Six largest bulbs (weight) of any one variety, grown from bulblets.

Class 4. Six No. 1 bulbs of any one variety judged for uniformity, smoothness and health.

Prizes will vary somewhat in value, but will be about $3.00 for first prizes, and $2.00 for second prizes. All second prizes will be donated bulbs of new and good varieties. At any rate, there will be first and second prizes in each class.

The show will be set up during the noon hour or before and judged at 1 p. m.

The Program

11:00 a. m. Report by Recording Secretary-Treasurer F. M. Bayer of Directors meeting, followed by discussion.

Report of nominating committee followed by election of directors for 1947.

New business.

Educational

(1) Talk by Harold Janes—Impressions of the Empire State Show.

(2) Discussion by members with Dr. L. C. Dietsch as leader.

(3) Kodachrome slides of gladiolus varieties.

(4) Diseases of gladiolus and their Control. Discussion of how diseases spread and are carried over. By Prof. R. E. Vaughan, Dept. of Plant Pathology, U. of W. Madison.

MEMBERSHIP DUES FOR 1947 ARE NOW PAYABLE

Our memberships expired on September 30, 1946 and should now be renewed. These dues are as follows:

DUES FOR THE YEAR ENDING SEPTEMBER 30, 1947

1. Membership in the Wisconsin Gladiolus Society, Inc. including affiliation with the Wisconsin State Horticultural Society $1.00.

2. In addition to the above dues $1.50 more for Affiliated Membership in the New England Gladiolus Society including the 1945 yearbook, "The Gladiolus," and six issues of "The Gladiolus Magazine."

3. In addition to the W. G. S. membership dues 75 cents more for the four issues of "The Bulletin" of the North American Gladiolus Council.

4. A total of $3.25 for the combination of all three.

Send to F. M. Bayer, Secy-Treas. 4668 N. 41st. St., Milwaukee 9.

Garden Gleanings

Leland Brown of Sturgeon Bay grows fine flowers as well as apples and cherries. This year he grew the Burpee Tetra Snaps which were beautiful with much larger flowers and sturdier and larger plants. Had longer flowering spikes than other snapdragons.

Tetra Snaps were created by treating certain varieties with colchicine—a drug or chemical derived from the bulbs of fall crocus. Examined under a microscope they have double the number of chromosomes of ordinary snapdragons. Since a package of seeds is only 25 cents, he found it well worth while to grow this larger variety.

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African Violets can be grown from seed, but unfortunately no one sells it commercially. According to Victor Ries of Ohio, this isn't easy unless your African Violet has that insect pest called "thrips." They stunt the plant and get it to set seed. From all the different variations of African Violet seen in homes around the country, someone must have gotten the seed somewhere.

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DDT and Rotenone dusts have been found excellent for control of spittle bugs on various plants, including strawberries. In some sections these insects suck the juice from the berries making them seedy and distorted and of course. The froth is a nuisance to pickers.

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Beware of articles about winter covering of perennials, strawberries, roses and other plants found in national magazines and written for climates not as severe as it is in most of Wisconsin. When we read it is advisable to plant hybrid tea roses in fall, that all we need to do is cover them with a little mulch it is evident the article was written for a less severe climate than ours. Of course, articles in national magazines can't cover every climate. It's too bad we can't winter plants as easily as they do across the lake in Michigan, where however, they can grow peaches.

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Coarse marsh hay is the best mulching material we have found, bu it should be put on thick enough to do some good—three inches deep and extending several feet on each side of the plant. Four to six inches deep is still better. Under a good mulch conditions will be the same as under a nice loose snow and it's surprising the difference between soil and air temperatures under the mulch when the thermometer goes to 20 below zero or colder. A difference of about 40 degrees has been observed. Semi-hardy plants like roses are killed by severe cold.

•

For strawberries the critical point is the first cold snap which usually comes somewhere between November 10 and November 25, or thereabouts. It's been nice and warm; strawberries continue to grow. Suddenly there is a very cold snap when the temperature drops to 15 or 20 degrees above zero. Strawberries are unprepared. The crowns and roots are injured. That's when a mulch of three or four inches of marsh hay will really do some good. Later, in January, it's not so important because the plants will have hardened.

FUTURE OF THE HOME GARDEN

A release from an Eastern state says that despite the wartime surge in the victory gardening, home gardening is probably on its way out. This particular author believes that commercial freezings centers will replace home canning in the future. He does not say how soon The plan, it seems, is to have commercial freezing centers near to vegetable growing areas and to freeze food products on he spot, package them and deliver them to the home, much the same as milk is delivered now.

I have shown this news release to several home gardeners and their replies were generally snorts of indignation. These people claim that the financial income alone is not the only reason for people having gardens. Many people just like to garden and that is all there is to it. Others say that gardening is a great morale-buider and still others would rather eat things which they raised themselves.

There is no doubt that there is going to be great advances made in commercial freezing and packaging of vegetables and fruits. It is reported in some areas that freezer locker plants are not being installed as rapidly as formerly because people are afraid that the commercial freezing and packaging of vegetables and fruits will replace these plants.

The Iris family has 57 genera and about 1000 species, many from the Cape of Good Hope and subtropical America. The nine common genera include: Belamcanda, Crocus, Freesia, Gladiolus, Iris, Tigridia, Sisyrinchium (blue-eyed grass).

All three of these families belong to what the botanist calls monocots. They have only one cotyledon in the seed. They also have parallel veins in the leaves as do grasses, including the grains, palms, orchids, and other nonocotyledonous plants.

If you want some fun this spring and summer look at flowers with a magnifying glass.

—*From Garden Notes.*

During a grouse hunt two English sportsmen were potting birds from blinds situated close together.

Suddenly a red, indignant face showed over the top of one blind, and its owner said angrily, "Curse you, sir, you almost hit my wife just now!"

"Did I?" asked the other aghast.

"I'm terribly sorry, really. Tell you what, you can have a shot at mine."

Do Vine Crops Cross?

Pumpkins Do Not Cross With Squashes
O. B. Combs, Dept. of Horticulture

O. B. Combs, Dept. of Horticulture

The answer may be yes or no depending on what vine crops we are talking about. Generally speaking, they do not. That is, cucumbers do not cross with melons; true pumpkins do not cross with true squashes.

Our cultivated vine crops belong to the gourd family, Cucurbitaceae. This family is composed of three genera and six species. The botanist, then, classifies the cultivated vine crops as follows:

CUCURBITACEAE (family name)

Cucumis (generic name for cucumber and melon)
- Cucumis sativus (cucumbers)
- Cucumis melo (melons)

Citrullus (generic name for watermelon and citron)
- Citrullus vulgaris (watermelons and citrons)

Cucurbita (generic name for pumpkin, cushaw and squash)
- Cucurbita pepo (pumpkins and summer "squashes")
- Cucurbita moschata (cushaws)
- Cucurbita maxima (squashes)

Crosses between plants belonging to the three different genera (Cucumis, Citrullus and Cucurbita), natural or man-made, have never been reported. Neither do we have authentic reports of natural crosses between the different species (Cucumis sativus with Cucumus melo; or Cucurbita pepo with either Cucurbita moschata or Cucurbita maxima). Man-made crosses between plants from the three species of Cucurbita (pumpkins, cushaws and squashes) have been reported. In all cases, however, the resulting fruits were either seedless, the seeds failed to germinate, or the plants produced were weak and failed to perpetuate themselves.

The vine-crop crossing controversy arises largely from the fact that we are not always botanically correct in our designation and grouping of varieties. The different varieties of cucumber, melon, watermelon, pumpkin, cushaw and squash cross freely and readily with each other under field conditions. All of our summer "squashes," for example, are really true pumpkins and therefore may be expected to cross readily among themselves and with the regular varieties of pumpkin. None of these summer "squashes" (Cucurbita pepo) cross with the true squashes (Cucurbita maxima) or the true cushaws (Cucurbita moschata).

As a further aid in clarifying this question, the three groups of Cucurbita (pumpkins, cushaws and squashes) are listed below, along with some of the more common varieties which belong to each group:

Pumpkins (Cucurbita pepo)

Connecticut Field, Bush Scallop, Small Sugar, Table Queen, Summer Straightneck, Winter Luxury, Zuchini.

Cushaws (Cucurbita Moschata)

Butternut, Japanese Pie, Large Cheese, Golden Cushaw,, Striped Cushaw, White Cushaw.

Squash (Cucurbita maxima)

Banana, Buttercup, Delicious, Hubbard (all types), Mammoth Chili, Quality.

Crossing, then, between varieties within each group is common and may be expected under field conditions. Crossing between varieties from the different groups (species) must be man-made and even then it is accomplished with difficulty and, for the present at least, is of no practical value.

Gardeners are not likely to encounter crosses between plants belonging to any of these vine-crop groups (species). If crossing did occur, it would not be noticeable until the hybrid seeds were planted and plants grown in another season.

WHERE TO STORE ROOT CROPS:

1. In a cool, ventilated cellar or storage room.
2. In a garage, if heated, or until freezing weather arrives.
3. In a cellar window-well.
4. In a straw-lined pit in the ground and covered with dirt.
5. In barrels, boxes, or cans sunk into the ground and covered with a foot of soil.

Warning: The vegetables must **not** freeze!

LEAVE IN GROUND: Parsnips and salsify (oystetr plant) may be left in the ground all winter—in fact the flavor is improved by freezing. All members of the cabbage family will stand a good deal of rost. Broccoli will keep on bearing until late autumn, so will Brussels sprouts. Cabbage and cauliflower are frost resistant. But cabbage should be stored in a cool place after real freezing weather comes.

WISCONSIN NURSERYMEN'S MEETING HOTEL SCHROEDER, MILWAUKEE DECEMBER 4-5

The 30th annual convention of the Wisconsin Nurserymen's Association will be held at the Schroeder Hotel, Milwaukee, December 4 5. An excellent program has been arranged.

Membership in the Association is growing steadily and is now larger than ever before. Officers of the Association are: Mr. Ed. Eschrich, President, Milwaukee; Mr. R. C. Pippert, Vice-president, Cleveland; Mr. Thomas S. Pinney, Secretary-Treasurer, Sturgeon Bay.

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

PRESIDENT'S MESSAGE

Dear Members —

The most thrilling aspect of this my first message to you, is the fact that it is being written to each member individually. I have an ardent desire to be aware of your interests, your talents, your potentialities and your gardens but, since this is, in a measure impossible our work for a common cause should enable us to enjoy each other intimately and harmoniously.

Our Federation is an expression of the people who comprise its membership. Like the facets of a jewel, every personality produces an internal reflection that heightens its brilliance and beauty — As your leader for the coming year, I plead for your interest and enthusiasm both as groups and as individuals —Without this help little can be accomplished.

We are aware that our Federation is growing steadily and we have every reason to believe it will continue to do so. I know you agree we must provide an adequate and stable fondation to accommodate this most desirable progress. For sometime, it has been obvious to many of us who have kept in close contact with the functional work of the organization that this healthy and desirable growth had long since out-moded the Constitution and By-laws and placed demands on the working budget which could not be met. I know you all agree that the two, very construc-

tive steps taken at the annual meeting designating a revision of the Constitution and an increase in the Federation dues of ten cents per member will provide for a more stable progress and raise our standards of dignity and efficiency.

I know your leaders can bank on your keen interest and cooperation in the two Federation projects—our State Flower Show and a Judging School. Mrs. Thomas has already started her work on our 1947 Flower Show. The dates are May 23rd, 24th and 25th. Will the club program chairmen please keep this in mind so that conflicts may be avoided? As yet the Judging School plans are not complete but watch Wisconsin Horticulture for further announcements.

Some very worthwhile Junior Garden Club work has been done in Wisconsin and my hope for this year is to see it grow. Thus far, it is the younger children who are being guided. Some complaints have reached me from the busy adult groups who have assumed the responsibility of helping the children. It is apparently difficult to find the supervision necessary to carry on the movement. This may be a handicap but I hope it can be surmounted as time goes on. May I suggest a start with the teenage boys and girls? This well educated, alert, capable group needs little except a good idea presented with interest and fervor. Why not then, Teen Age Clubs organized and run by themselves? Certainly with all the hobby angles in gardening such as insect collecting, bird identification, good conservation habits, tree and plant studies, flower photography, flower arrangement and numerous others, there is a great deal to interest our future home-makers and much that will enrich their education and their lives. If the adult clubs will merely propose the plan with some thought and tact and stand by in an advisory capacity; if they will open their Flower Show Schedules to the boys and girls and remember that they themselves do not necessarily grow every thing they exhibit, I am sure this phase of Junior Gardening will appeal. Which Club will be the first to put this idea to work?

Cordially and sincerely,
Ruth St. John West

SUCH BEAUTIFUL THINGS

This World is so full of such beautiful things!
Like mountains at sunset or butterfly wings,
Or rivers or gardens and trees in the rain
Or thickets of roses and curves in the lane.
Some beautiful things are ever so small
You have to look twice just to see them all,
While some are so gorgeous and far-off and grand,
They give you a feeling you can't understand.
Oh! don't miss a rainbow while looking at mud
Or just see the thorn and not see the bud;
While looking for beauty your heart always sings
For the world is so full of such beautiful things.
From My Rainy Day Notebook,
Junior Garden Clubs of
America.

The Convention at Fond du Lac was a grand success in every way. The program was outstanding. The crowd was large and the meals good. Everything went off smoothly. Everybody was happy to be there. Old acquaintances were renewed and new ones made. It was a happy time to be together.

I wish to take this opportunity to express my deep appreciation to the officers and the committees and members who took part. It has been a great privilege to have served you as president during the Convention.

To the incoming president and all the other officers I offer my best wishes and may this year be a year of growth and service for the Federation.

Greetings to all the members of the Wisconsin Garden Club Federation.

Sincerely,

Alfred H. Otto.

Annual Convention Highlights

The 18th annual convention of the Wisconsin Garden Club Federation at the Retlaw Hotel, Fond du Lac, on October 10-11, was interesting and the attendance largest in the history of the organization. A total of 295 members registered, and 230 attended the banquet. The four noon luncheons each with a speaker were well attended and all interesting.

The program was excellent; very educational; very interesting. It kept the members in session until the last minute.

The Business Meeting

The Executive Committee met the evening before the convention in a three-hour session; the Board of Managers held an animated and warm two-hour session. Final results were:

(1) The dues of the Wisconsin Garden Club Federation will now be 75 cents per member per year. All member clubs should take notice and change their local dues accordingly. Dues are payable in January and must be paid by March 1.

(2) The educational fund established by the Executive Committee some years ago, was abolished and the remaining amount of $165.69 transferred to the General Fund. It was stated by the Executive Board that the separate fund is no longer practical or necessary.

(3) It was voted to place a reserve of $1,500.00 in the Flower Show Fund. It had formerly been $500. A profit of $1,153.65 was made at the last flower show. The Executive Board had recommended to increase the reserve in the fund to $1,200.00, thereby having $400 to place in the General Fund for carrying on Federation work. They held the Federation has been handicapped in its program for years due to lack of money. The additional $400 would enable the Federation to carry on a more active program.

This was over-ruled by the Board of Managers and at the business meeting; instead the sum of $1,500.00 was placed in the Flower Show Fund.

The candidates as nominated by the nominating committee were all elected. They will be found at the top of the Federation page.

Reports

The first forenoon was devoted to reports of officers, committee chairmen and district presidents. The reports were brief, interesting and indicating an active program. Many of the reports will be published in early issues of the magazine.

Noon Luncheon Meeting

The Noon luncheon meetings were a new innovation. Expecting a large attendance, the hotel was unable to furnish a single dining room large enough to seat everyone. It was decided to divide the group into four sections, each in a separate smaller dining room. This worked out very well. Programs were all interesting. More complete reports will be given elsewhere in this magazine.

Miss Helen McCabe of the U. S. Forest Service spoke to the Conservation Group on, "The World Is Your Garden." Our active state bird chairman, Mrs. Arthur Koehler of Madison had a very interesting session on "The Value of Birds in our Economy." Miss Merle Rasmussen took charge of the Horticultural Section showing colored slides on Daffodils and Tulips and discussed bulb culture.

Miss Olive Longland of Lake Geneva showed beautiful pictures of both New Mums and Hemerocallis. She brought with her lovely specimens of many new seedlings on trial at Wychwood Estate and also some beautiful new named varieties.

The Rev. Alfred H. Otto, President, directed the meeting in an efficient manner; kept things moving right along. Mrs. Lawrence Skillbred, District President of the Fox River Valley District, took a very active part in local arrangements and was responsible for the success of many projects.

Mrs. T. R. Walgren, Dixon, Illinois showed such interesting colored slides of her garden that the members didn't want her to quit. Prof. J. S. Elfner gave an excellent talk with illustrations on "Foundation Planning and Landscaping." Mrs. Arthur F. Durand of Highland Park, Illinois kept the members completely interested with her discussion of, "How to Grow House Plants and Gardening Indoors."

Highlight of the banquet was the talk with colored movie by Mr. Sam Campbell of Three Lakes, Wisconsin. Everyone was thrilled with his pictures and presentation.

Miss Helen McCabe had a very interesting message on conservation. Her topic was, "Trees for Tomorow."

Highlight of the convention came on the last afternoon when Hazel Peckinbaugh Dunlop of Detroit, Michigan gave a demonstration and lecture on arrangements. Almost 300 persons attended this session.

It never occurs to a boy of 18 that some day he will be as dumb as his father.

Awards At The Convention Flower Show

TABLES

Class: Table 35x72 in. set for 4 or 6.

Ratings: Excellent: Mrs. J. Kufahl, Cambridge. Comment: Simple—but very effective. **Very Good:** Miss Leila Janes, Community Garden Club, Fond du Lac. Comment: Very original and well proportioned. Arrangement especially well done, but wonder if it represents the Christmas spirit. **Very Good:** Menasha Garden Club. Comment: Christmas theme good, but lacking in originality.

Swags

Class: Swags—doors.

Ratings: Excellent: Omro Garden Club. Comment: Soft and lovely; beautifully executed. West Bend Garden Club. Comment: Excellent—beautifully done; Oakfield Garden Club. Comment: Well proportioned; lovely.

Windows

Class: Windows—no wreaths.

Ratings: Excellent: Mrs. Chas. Braman, Waupaca Garden Club. Comment: Fine proportion. Well executed.

Very Good: West Bend Garden Club. Comment: Upper arrangement excellent. Window ledge needs more weight to tie in with top—perhaps heavier candle.

ALTAR

Class: Altar — 13ft. space.

Rating: Excellent: Ledgeview and Community Garden Clubs, Fond du Lac. Comment: Spiritual feeling well brought out. Massed arrangement fine for this type of decoration.

SANTA ROOM

Class: Santa room 13ft., 60 inch window as fireplace.

Rating: Excellent: Oakfield Garden Club. Comment: Beautifully done—Mantel arrangement especially well proportioned.

Dooryard

Class: Dooryard.

Rating: Excellent. Menasha Garden Club. Comment: Very original and distinctive. Beautifully done.

Wreaths

Class: Wreaths 15 in. evergereens and cones, no other decorations.

Ratings: Excellent: Fond du Lac Community Garden Club. Comment: Lovely!

Very Good: Omro Garden Club. Comment: Lack color.

Good: Mr. Wm. H. Liebe, Wisconsin Rapids. Comment: Would suggest grouping cones.

Class: Wreaths 18 in. evergreens,, ribbons and other decorations.

Ratings: Excellent: West Allis Garden Club. Comment: Fine interest created by use of natural material. Home Garden Club of West Allis. Comment: Beautiful! Mrs. Stephen Cushman, Racine. Comment: Very original; has Christmas sparkle.

Good: Community Garden Club, Fond du Lac. Comment: Lacks rythm.

Artistic Arrangements

Class: Artistic arrangements featuring nuts or gourds.

Ratings: Excellent: Antigo Garden Club, Mrs. J. W. Knap, Comment: Very pleasing. Mrs. L. B. Schneller, Baraboo Garden Club. Comment: Can almost visualize the children climbing into the sleigh. Mrs. C. H. Braman, Waupaca Garden Club. Comment: Beautiful designed and well proportioned. West Bend Garden Club. Comment: Very clever.

Very Good: Mrs. B. F. Winn, Horticulture Club, Wisconsin Rapids. Comment: Amount of grain not sufficient to lend weight.

Good: Mrs. J. W. Knap, Antigo Garden Club. Comment: Nice combination of colors. Lacks proportion. Gourds too large for balance of charm string. West Bend Garden Club. Comment: God color harmony. Lacks design.

Class: Artistic arrangements featuring foliage or berries.

Ratings: Excellent: Mrs. Chas. Samphier, Omro Garden Club. Comment: Fine detail. Plymouth Garden Club. Comment: Beautifully executed. Milwaukee Garden Club, Mrs. C. Biebler. Comment: Artistic arrangement fea turing foliage and berries.

Good: Mrs. Irving Krail. Ledgeview Garden Club. Comment: Splendid Christmas idea. Arrangement lacking in good design. Miss Leila Janes, Community Garden Club. Comment: Too many points of interest. Arrangement itself lovely, but too heavy for size of container.

Class: Artistic arrangements suitable for Church, natural burlap background furnished.

Ratings: Excellent: Mrs. H. C. Morton, Ledgeview Garden Club, Fond du Lac. Comment: Well planned and executed. Sheboygan Garden Club. Comment: Lovely! Very appropiate for church. West Bend Garden Club. Comment: Horticultural material very fine —distinctive. Mrs. Charles Samphier, Omro Garden Club. Comment: Very effective.

Good: Miss Leila Janes, Community Garden Club, Fond du Lac. Comment: Good color harmony. Too many points of interest.

ADDITIONAL PROCEEDINGS AT THE BUSINESS MEETING

Mrs. Eric Martin, Edgerton, Recording Secretary-Treasurer of the Wisconsin Garden Club Federation, sends the following items of business transacted at the annual business meeting in addition to those listed above.

The Wisconsin Garden Club Federation voted to incorporate:

That registration fees at our annual convention be $1.00;

That transfer of funds be subject to the approval of the Board of Managers;

That the Federation adopt the proclamation of the National Council and the first week in June be designated "Wear a Garden Flower Week."

Recommended to the Executive Board that an invitation be extended to the Central Region, National Council of State Garden Clubs to hold its fall meeting in Wisconsin in October, 1948.

That $1.00 or more be sent to the Horticulture scholarship fund of the National Council by each club and that she in turn send it to the Nationil Council in the name of the Federation. This fund was started last year in New York with $600.00 and has increased to 6,844.00. A student can borrow up to $300.00 without interest.

Mrs. West's slogan for the year "WORK FOR YOUR FEDERATION AND YOU WILL LOVE IT."

QUESTIONS AND ANSWERS AT THE FEDERATION BANQUET FOND DU LAC CLUBS PROVIDED OVER 30 PRIZES FOR WINNERS

1. It is possible to grow potatoes and tomatoes on the same plant.

Right. It can be done by grafting.

2. If an apple tree is completely girdled by mice this winter, having the bark removed to the wood, it may still live and bear a crop of apples next year.

Right. The tree may still obtain moisture from the soil, even tho the bark is removed, but the roots will starve during the first year.

3. Sometimes when you buy a peanut, you buy a fruit, but sometimes you buy a seed.

Right. Unshelled, it's a fruit.

4. Dahlias are reproduced by using a dahlia root or portion of a root.

Wrong. Eyes are on the stem.

5. DDT has been known for more than 50 years.

Right

6. Mulching the soil early beneath a fruit tree is a good way to reduce the liability of frost injury to the blossoms.

Wrong. Tree will bloom according to air temperature.

7. The "love apple" is commonly grown by Wisconsin gardeners.

Right. The tomato.

8. DDT will control black spot on roses.

Wrong. It is an insecticide.

9. 2-4-D will remove white clover from the lawn if sprayed on the plant.

Right. It will kill many plants with round leaves.

10. Jonquils and daffodils are two names for the same plant.

Wrong. They are two different species.

11. Rotenone will control leaf spot of Iris.

Wrong. It is an insecticide.

12. A McIntosh apple tree can be produced by sowing seed from a McIntosh apple.

Wrong. Will not come true from seed.

13. If we plant seeds of cucumbers and squash near each other in the garden in spring they will be mixtures the next fall.

Wrong They will not cross because they are of different species.

14. The Wisconsin Horticultural Society is over 75 years old.

Right. Organized in 1865, 81 years ago.

15. A plant grows from food produced in the leaves.

Right. Raw materials come from the soil and air.

16. A plant obtains more of its raw materials for growth from the air than from the soil.

Right. Corbon dioxide from the air provides the most.

17. The Wisconsin Garden Club Federation was organized in 1928.

Right.

18. There are more than 120,000 species of flowering plants in the world.

Right, according to Standard Cyclopedia of Horticulture.

19. If we plant seeds of Crimson Glory rose the resulting plants will be Crimson Glory.

Wrong. Will be seedlings.

20. What spring flower is a girl's name, a color and a symbol of modesty.

Violet.

The Winners

There were 2 perfect scores of 100—by Mrs. Wm. Liebe, Wisconsin Rapids and Mr. Arno Meyer, Waldo. About 30 others received awards.

ME AND MYSELF

Some people can't bear to be by themselves,
They must have action and sound;
Left to their own devices,
They aimlessly flounder around;
Some folks don't seem to have what it takes
To spend an hour alone,
And thus they never really find out
What inner resources they own.
Now, as much as I like pepole
And enjoy their company,
There's a part of each day I must wander away
Just to talk things over with ME;
Try it sometime and you'll be surprised
At how little yourself you'll bore,
You'll sigh with delight, "Why this guy's all right!
Why haven't we met before?"
—Jazbo of Old Dubuque—

Submitted by Mrs. Peter Portman, Wausau

WANTED! NAMES OF GARDEN CLUB OFFICERS

Please send the names of your garden club officers for 1947 as soon as possible. Considerable correspondence about next year's work will go out during the next few months. We would like to publish the directory of officers in January issue if possible. This cannot be done unless all names are in by December 15.

THE CONVENTION FLOWER SHOW CHRISTMAS THEME CREATED BEAUTIFUL SETTING

Christmas comes but once a year but for those garden club members who passed through the Christmas trimmed entrance into the land of Christmas at our Annual Convention at Fond du Lac, it will seem to have come twice.

It won't be a matter of coincidence if many of the homes of these members will have the same Christmas decorations for the arrangements were truly beautiful and inspiring.

Very original, and distinctive were the doors tied like a package with red ribbons, with a spray of pine caught in the large bows. They were flanked on each side with tall red candles placed in the artificial snow. The Menasha Garden Club made this setting.

Immediately after passing through the door everyone paused a moment in reverence for in the distance an altar with lighted candles and massed evergreens could be seen.

Many were the stops before reaching it for along the hall were many wreaths, artistic arrangements and tables.

Waupaca trimmed a window with swags of evergreen that tapered from the top to the bottom and were tied with red ribbon. Three red candles on a board placed on the sill finished this fine proportioned and executed window setting.

A large red sleigh filled with gourds on a bed of evergreen and barberry was entered by the Baraboo Garden Club. The children climbing into the sleigh.

Wreaths with bells, wreaths with cones, wreaths with red ribbon, wreaths with candles, wreaths and wreaths and wreaths. All beautifully executed and each deserving a description could be seen at this Christmas show.

A blue ribbon was awarded the Ledgeview Club of Fond du Lac for their arrangement suitable for a church. The shepards and their flocks were climbing the hill to the creche at the top. This was set off by a deep blue star spangled sky, while the "Angels From the Realms of Glory" hovered over all.

The arrangements of foliage and berries were all very fine. One entered by the Plymouth Garden Club used holly grown in that city.

Omro Garden Club's mantle arrangement featured a silvered clinker highligthted with touches of gold and glistening sparkes.

The delight of all children, the Christmas tree was found in the Santa room arranged by the Oakfield Club. It was a temptation to sit in the comfortable chair placed by the fireplace and by a coffee table with an arrangement of white mums. The mantle was arranged with evergreens and kneeling angels holding candles.

The peace that comes to each of us on Christmas Eve could be felt

when pausing to gaze at this Christmas scene.

The spirit of Christmas was carried to the banquet tables where boxes wrapped in gay paper, tied with green ribbon with mums tucked under the bows were used with lighted tapers for the table decorations.

The windows in the Crystall Ballroom each contained a different arrangement as well as all table decorations were made by members of the Fond du Lac clubs. Lack of space prohibits a description of these deserving arrangements.

"Peace On Earth, Good Will Toward Man". Yes, indeed, for it was evident each moment at this convention.

—By Mrs. Wm. Curtiss, Plymouth, State Publicity Chairman.

START MEMORIAL LIBRARY AT WHITNALL PARK

In the September issue an item was included in "Between Clubs" that the "Whitnall Park Garden Club, Hales Corners, at its April meeting, voted to purchase at least one or more books per year for the reference library maintained in the Administration Building of the Whitnall Park Botanical Gardens, etc."

The Whitnall Park Garden Club has started a Memorial Library, which is a part of the Reference Library at the Whitnall Park Botanical Gardens.

This "Memorial Library" project of the Whitnall Club is in lieu of roadside plantings under the federation's "Living Memorial Projects."

Other clubs are invited to join in this project, and information on it is available from members of the Whitnall Park Club.

Mrs. Fred C. Marquardt.

Basing one's judgment on the spending proctivities of his generation, it would seem that a liberal government is one that belives our grandchildren owe us a deient living.

"LIVING MEMORIALS"

It has been my pleasure during the past year to serve as State Living Memorials Chairman, a practically "new" program in Federation work.

I have cooperated with National Council, pasing along suggestions and information turned over to me by Mrs. Vance R. Hood, National Chairman, to club chairmen or presidents.

I have been in contact at various times with Mr. Jas. R. Law, State Highway Commissioner, Madison, securing from him informantion on the possibility of our State cooperating with the National Council of State Garden Clubs in their endeavor to memorialize a coast-to-coast route, to be known as the "Blue Star Route". Work on this program has not progressed too fast as yet, *only* because it is such a huge one. However, I received several inquiries from different clubs, asking what they could do to establish a memorial, or cooperate with near-by clubs by joining them in their endeavors, and although nothing much has been accomplished directly in this respect, yet, a considerable number of very definite plans are in the making, I am sure that by spring of 1947 we will see buliding up of one of the most tremendous programs undertaken in the history of the Federation. Garden Cubs sponsoring memorials should plan them near the route passing thru their vincinity.

In September, I sent a card to each Club President asking for a report on any outstanding work that had been done or is partially under way. The response was most gratifying. 21 Clubs reported that so far nothing had been done in the way of memorializing. 20 Clubs reported that actual work was started sometime ago already, and was well under way, or that all plans were made to begin in 1947.

The program is varied — from awarding Scholarships, to buying tracts of land; donations of money, trees, shrubery, contributions of books and magazine subscriptions, and discussions on further highway development and conservation programs.

It is my sincere desire that this fine spirit of cooperation be continued. We are all working with one end in view, to be proud of our own State. Supporting the projects as outlined by State Officers and Chairmen will bring this to a happy realization.

Sincerely submitted
Esther E. Schaefer,
State Chairman

ROADSIDE STICKERS AVAILABLE

Small stickers with the map of Wisconsin and the satement, "I Favor Products Not Advertised on the Landscape of Wisconsin" are available from Mrs. Gilbert Snell, Roadside Development Chairman, 414 Erie Ave., Sheboygan. Price is $1.00 for 300 stickers.

Mrs. Snell announced this at the convention but other members may wish to have the stickers as well. They are used on envelopes for publicity purposes.

CONVENTION TALKS TREES FOR TOMORROW BY MISS HELEN McCABE

As Reported By Elizabeth Curtiss

Miss Helen McCabe began her talk on "Trees for Tomorrow" by telling how "Trees For Tomorrow" was started — by the pulp users of Wisconsin. An enormous amount of pulp wood is used in making paper etc. She mentioned that free trees may be obtained from the Conservation Commission for every tree that a farmer has cut since 1942 by filling out an application blank obtained from the County Agent.

Miss McCabe told of the camp at Eagle River and closed by reading what Gifford Pinchot said about conservation — the grand old man of Conservation in America.

THE ECONOMIC STATUS OF WISCONSIN BIRDS

By Mrs. Arthur Koehler, State Bird Chairman

Six Largely Detrimental

Cooper's Hawk-86% of food is poultry, game birds and song birds.
Great Horned Owl-39% of food is poultry, game birds and song birds.
Crow—A pest and a robber. 51% of food is grain mostly corn.
Starling—Dirty, noisy, annoys other birds. Eats many weed seed.
Cowbird—A parasite on more usefull birds. Eats weed seed.
Eng. Sparrow—Another pest!

Twelve of Doubtful Economic Value

Loon—Lives on fish mostly small. Loon has small gullet.
Great Blue Heron—Feeds on Frogs, snakes and small fish.
Canada Goose—Highly prized game bird. Often leaves the water and feeds on grain.
Pheasant Game—Bird which does some damage to farmer's grain and gardens.
Kingfisher—Lives on small fish. A pest at hatcheries.
Yellow Bellied Sapsucker—Injures trees, occasionally killing them. Eats insects.
Blujay—Quarrelsome, noisy. Eats other birds eggs and young.
Catbird—Likes raspberries and cherries. 66% of food consists of insects.
Brown Thrasher—Less than 10% of food is cultivated fruit. Mostly insects and wild fruit.
Robin—Only 4% cultivated fruit. He does like cherries.
Shrike — Eats some song birds, mostly Eng. Sparrows, also mice and large insects.
Grackle—A nest robber, food 48% grain and cultivated fruit.

Our Most Common Beneficial Birds

All ducks feed on mosquito larvae and insects. Furnish food and recreation. 21 species found in Wisconsin.
6 common beneficial Hawks eat rats and mice. Red-tailed, red-shouldered, broad-winged, rough-legged, marsh, sparrow.
Killdeer lives on the insects of cultivated fields, Grasshoppers, crickets etc.
Mounring dove lives largely on weed seed and waste grain. Never scratches.
2 Cuckoos eat hairy worms and caterpillars that other birds will not touch.
4 beneficial Owls eat mice, rats and other rodents. — Barred, screech, long-eared and short eared.
Whippoorwil and nighthawk, same famiy, feed on night flying insects.
Chimney swift lives entirely on insects caught on the wing.
Flicker, over 50% of its food is ants.
5 other beneficial woodpeckers feed on injurious insects and larvae in tree bark. Pileated, red-bellied, red-headed, downy, hairy.
6 most common Flycatchers live on insects. Kingbird, crested, phoebe, alder, least pewee..
6 Swallows feed on the wing mostly mosquitoes and other injurious insects. Tree, bank, rough-winged, barn, cliff, martin.
Chicadee, beneficial all year, tiny insects and eggs and larvae, some weed seed.
Nuthatch, same habits as chickadee.
Brown Creeper, not as common in winter but same food as above two.
Wren, feeds on tiny insects as aphis.
Wood Thrush, ground feeder on large insects as grasshoppers and crickets.
Bluebird, some wild fruit but mostly insects and a few weed seeds in spring.
All Vireos feed on insects. 3 most common, red-eyed, blue-headed, warbling.
All warblers feed on small insects and larvae. 32 species in Wisconsin.
Both meadow larks, 75% insects and 12% weed seed. Eastern and Western.
Oriole eats beetles, caterpillars, and grashoppers.
Scarlet tanger lives largely on worms injurious to orchards and forests.
Cardinal eats large insects, cutworms, rose chafers, cherry scale and weed seeds.
Grosbeak is very fond of potato beetles both adult and larvae.
Goldfinch lives on weed seed, dandelion, thistle and milkweed are favorites.
21 kinds of sparrows in Wisconsin all eat weed seeds.

SPEAKERS AVAILABLE FOR GARDEN CLUBS AND OTHER ORGANIZATIONS

Mrs. Victor Bergler, Route 1, Baraboo, Wis. Telephone 1632 F 1, 2.

Topic: "My trip from Holland via the Dutch East Indies and Australia to the U.S.A." "European Cookery and the Use of Herbs." "Life and Homes in Europe." Fee: $15.00 and costs of transportation 5 cents per mile.

John P. Schroeter, Box 284, Greendale 2, Wis.

Topic, "Atomic Energy (Nuclear Physics)," scientific discussion on atomic energy. "The Danger of the Atomic Bomb" and "The Outlook into the Future." Has a moving picture film. Fee is moderate by arrangement.

Miss Olive Longland· Wychwood, Lake Geneva, Wis.

Two topics:

1. Flower Arrangement.
2. Hary Chrysanthemums and Hemerocallis at Wychwood. Fee, $10 plus 5 cents per mile.

GARDEN CLUB HOLDS AUCTION

The Manitowoc Garden Club had an auction of vegetables, fruit, plants, seeds and bulbs at their October meeting, writes Mr. H. H. Groth, Manitowoc.

I naddition to providing funds for the club treasury, it also created a good deal of fun and amusement for the members. "It has become an annual custom in our club."

CALIFORNIA QUARANTINE BARS WISCONSIN APPLES

Many folks are being disappointed in their effort to ship Wisconsin apples to their friends in California due to a quarantine regulation in effect in that state.

Inquiries regarding the quarantine are being received by the state department of agriculture, according to E. L. Chambers, state entomologist. California officials claim the quarantine was established to prevent entry of the "apple maggot" or "railroad worm" into California.

While this insect does occur in Wisconsin, it is likewise distributed in other states.

A small variety of this same species of insect (Rhagolitas pomoella) is likewise known to occur in the Pacific coast states, where they claim it attacks only the snowberry.

Because of the presence of this insect in these infested states, the California quarantine officials will not permit the entry of apples *under any conditions.*

Girl's Father: "Young man, we turn out the lights at 10:30 in this house."

Boy Friend: "Gee that's nice of you, sir."

The young man had just driven home from college at the close of the term. "Did you pass everything?" asked his mother anxiously.

"Everything but two Studebakers. Darned if they mustn't have had airplane motors in them!"

Young Mother: "What makes you think our boy is going to be a politician?"

Young Father: "He says more things that sound well and mean nothing than any other human being I ever saw."

The easiest way to make fools out of some people is to tell them how wise they are.—*Phillips Bee.*

Short speeches are not always the best. But the best speeches all seem short.—*De Pere Journal-Democrat.*

WISCONSIN HORTICULTURE

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Our 78th Annual Convention

The 78th annual convention of the Wisconsin State Horticultural Society at the Athearn Hotel, Oshkosh, brought out about 250 members and friends. There were 241 at the banquet.

The program was excellent. The Woman's Auxiliary had some very interesting sessions and enjoyed their meeting very much.

The fruit show featured some high quality new and standard varieties. Prof. W. H. Alderman brought an exhibit of new Minnesota varieties, including Fireside, in which there was much interest.

The women had some very interesting exhibits of winter bouquets, arrangements and hobby work.

The Wisconsin Apple Institute held a very successful meeting. Interest in the Institute and its work indicated a promising future for the organization.

A telegram of greetings and best wishes was sent to Prof. C. L. Kuehner, his wife and sister, during the banquet. They were still in the hospital at Potsdam, New York, recovering from an automobile accident.

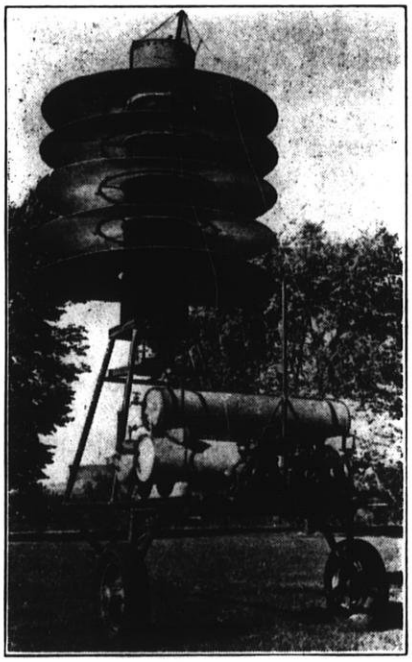
Greetings were received from Mr. H. H. Harris of Warrens, our oldest member, now 95. We sent our best wishes to Mr. Harris.

Summer Meeting at Sturgeon Bay

It was voted to hold a two-day summer meeting and tour early in September at Sturgeon Bay to study apple processing methods, new orchard machinery, demonstration of tree removal, and orchard practices. More announcements will be made on this later.

New Officers Elected

The following officers were elected: President, Wm. F. Connell, Menomonie; Vice-President, G. J. Hipke, New Holstein; Secretary, H. J. Rahmlow; Treasurer, E. L. Chambers.



FROST-PREVENTION MACHINE

Machine developed at Michigan State College, East Lansing to prevent late spring frosts in the orchard and fields. One machine is required for each acre. Cut courtesy the Florists' Review.

New Board Members for three years: Wm. Boese, Fort Atkinson; H. A. Dvorak, Casco; and R. L. Marken, Kenosha.

Woman's Auxiliary Officers

More than 50 women attended the meeting. Officers were elected for the coming year.

The Banquet

The banquet and program was an outstanding success. Prof. Asher Hobson, Department of Agricultural Economics, gave a splendid talk on the agricultural situation.

Entertainer for the evening was "Hoff" cartoonist of St. Paul.

Certificates of recognition were presented to Prof. W. H. Alderman, Minnesota, and Dr. Geo. Scheer, Sheboygan. Full details appeared in our November issue.

Delicious apple juice was provided by N. A. Rasmussen, Oshkosh; beautiful Starking apples were furnished by Dr. H. H. Roberts and his orchard manager Mr. Gerald Fleming, Gays Mills.

The appreciation and thanks of the Society are extended to Miss Merle Rasmussen, Oshkosh, general chairman; Mr. E. L. White, Fort Atkinson, and County Agent Vernon Peroutky, Oshkosh, in charge of the fruit show, and all local committee members for their help.

The Program

Interesting topics were presented by Dr. B. Esther Struckmeyer, Dept. of Horticulture, on apple pollination; Dr. C. L. Fluke, entomologist on insect control; and Dr. J. Duain Moore, pathologist, on orchard disease control. Their topics are reported in the discussion of the meeting at Chippewa Falls. Dr. R. H. Roberts gave interesting observations in Wisconsin orchards which we hope to print in more detail in an early issue.

Orchard Heating

Mr. Minard Farley, Jr. of the Michigan Apple Commission told of new experiments at Michigan Station on a frost prevention device. He described the machine illustrated at the beginning of this article. It operates at a cost of 75¢ per hour; will heat an acre of orchard to a temperature between six and eight degrees higher than surrounding air by means of an oil burning heater which sends out infrared heat waves. The reflectors are aluminum. It consumes 50 gallons kerosene in 7.6 hours of operation. It is hoped the

machine can be made at a cost of less than $100. Further tests are being made. It is, of course, effective only when there is no wind. He mentioned there is no way to prevent frost which comes from a cold blast of air from the North Pole with high winds. The only other successful method of frost control has been to use a large number of small orchard heaters, 30–40 per acre, burning low-grade fuel. There is a good bulletin on the subject published by the Experiment Station at Berkeley, California.

On the subject of red bud sports, Mr. Farley said most success has been with the Red McIntosh and Delicious. Red color in McIntosh may be due to cool nights. A new red Spy is very good, some growers insisting it produces better than the old Spy. Starking seems to be the best of the red Delicious; Richared is a shy bearer and not satisfactory according to growers.

Need Better Varieties

Prof. W. H. Alderman, Chief Department of Horticulture, Minnesota, said: "Until we have varieties able to compete with those grown in any other fruit section of the country, we should not expand our orchard acreage." He thinks we have some good varieties now. "Surely," he said, "Haralson is as good as the old Winesap which has been grown so extensively." We should quit growing low quality apples like Ben Davis and he questioned continued planting of N. W. Greening because it is not a high quality apple.

A new variety just named Redwell does not drop, has a beautiful red color, is a good eating and cooking apple. Fireside is an excellent eating apple; Prairie Spy is better than Northern Spy. He urged more testing of new varieties to find kinds adapted to our conditions, because after all, varieties are adaptable to a relatively small area.

Apple Marketing

Mr. Gordon Crump, Department of Agriculture, publicity chief, said the food industry is going in for food packaging. Thousands of dollars have been spent to find a cover for cheese and he recommended packages for apples. He suggested we label our good apples better. If we have *good apples* the consumer wants to know *where they came from. The same is true if they are very poor.* The U. S. government has appropriated $20,000,000 to study food marketing. He suggested we ask that research on apple marketing be conducted in this state.

Apple Promotion

Mr. Minard Farley said that it's easy to sell the top grade apples. The lower grades should be processed, but it's the big middle class that creates a problem in selling and they determine whether or not we make a profit on orchard operations. We must have both national and state apple promotion. We must interest young people in apples or they will turn to other fruits. Old folks are usually set in their ways; if they learned to eat apples when young, they will keep on doing so, but we must guide young folks towards our product.

In Michigan the fruit industry put through a law by which all apples excepting cider and vinegar grade, are assessed 1¢ per bushel for the Michigan Apple Commission. Their commercial crop is around 7,000,000 bushels and expect to take in about $42,000 from assessments. The first 300 bushels are exempt, which leaves out the small growers. This year they spent $11,000 on radio advertising. There were posters in an Oshkosh store window of a little girl with an apron full of apples and a display of apples. As several growers said, these displays did not hurt the sale of Wisconsin apples either.

The Business Meeting

The Board of Directors of the Horticultural Society met twice during the convention. Some of the important items of business were as follows.

Mr. Arnold Nieman reported that the Wisconsin Apple Institute had voted to pay the Society $200 for office help in carrying on their program. A summer meeting in September in Door County is planned as previously stated.

At the annual business meeting secretary H. J. Rahmlow reported an increase in membership. From about 600 paid members in 1927 the Society now has 5,600 paid members.

A resolution suggested by Mr. Arno Meyer of Waldo was adopted asking that we request the Wisconsin College of Agriculture to study the possibility of a *horticultural short course* for young commercial fruit growers at the University.

Life Members

Life memberships were granted to Robert E. Grover and Henry M. Grover of Galesville, L. P. Brown of Sturgeon Bay, and Arnold Nieman of Cedarburg.

The nominating committee for nomination of officers for the 1947 convention will be Mrs. Arno Meyer, Waldo, Mr. Arnold Nieman, Cedarburg, and Mr. Dawson Hauser, Bayfield, chairman. The appointment of this committee was approved by the Board of Directors. Mr. Walter Diehnelt was appointed a member of the Executive Committee.

A resolution was adopted that we request fruit marketing research in Wisconsin to be included under the federal appropriation for marketing research.

Western Wisconsin Fruit Growers Meet

Northern Hotel, Chippewa Falls, November 7 and 8

There was a very interesting meeting of western and northwestern Wisconsin fruit growers at the Northern Hotel, Chippewa Falls on November 7–8. The program was very good and everyone who came enjoyed the meeting very much. With the assistance of the speakers, Dr. C. L. Fluke, Dr. Dewey Moore, Dr. B. Esther Struckmeyer, Mr. Ben Dunn, Rochester, Prof. W. H. Alderman and Dr. W. G. Brierley of the University of Minnesota and County Agent H. G. Horne of Chippewa Falls there was much of interest in the discussion.

Apple Maggot Control

Dr. Fluke discussed thoroughly the program for control of apple maggot and codling moth. Apple maggot was not a serious problem this year due to dry weather, but look out for next year in case we have more rain in July he said. He urges the use of bait pans so we can more closely determine when to spray for the maggot fly. They lay about 10 days to 2 weeks after they first emerge. Lead arsenate is still the best for control.

He gave some interesting history of the apple maggot. They were first described in 1867 in Northern Illinois by a Mr. Walsh, an entomologist.

The maggot matures rapidly when apples are mellow so there is little chance of preventing some of them from getting into the soil if they are present in the fruit.

Codling

DDT gave good results for codling moth control this past year. Where 1 lb. of actual DDT was used in 100 gallons of water, there was 97% clean fruit. Rothane gave 95.5% clean fruit and Methoxy and Genicide were about as good. This compares with lead-arsenate 3 lbs. to 100 gallons of water, 87% clean fruit, 666 with 85% and the check 83% clean fruit. He said 666 should not be used for several reasons; one of them is that it smells badly.

Red Mite

More work should be done on Red Mite control. Dr. Fluke is reluctant to recommend a dormant oil spray due to the risk involved. D1–11 must be put on the under side of the leaves to get results and so a regular spraying may not hit the insects. For Oyster shell scale DDT was fine last year when put on at about the time of the 10-day spray. (10 days after calyx) At this time the young insects were crawling on the twigs. One must be careful to spray at the right time. Use a hand lens and watch for young scale. *Always use mild sulphur sprays with DDT* instead of lime sulphur.

Scab Control

Dr. J. Duain Moore said that if scab is a serious problem in the orchard a ground spray of elgetol should be applied. If the trees blossom during a cold rainy spell, delaying bloom, it may be necessary to spray with lime sulphur during bloom, but arsenate of lead should be omitted.

Fungicides Compared

Dr. Moore gave the results of spray tests this past year using lime sulphur and other fungicides for scab control. In these tests, 3 applications were made before bloom and 6 sprays after bloom excepting 5 sprays of lime sulphur were used after bloom.

Test of Fungicides

	% Scab	*Leaf Injury*
Lime Sulphur 1 to 75 (5)	1.9	50%
Corona	1.1	11%
Sulforon–X	1.4	11%
Flotatron	2.	19%
Lime Sulphur (1–60) (5)	.7	62%
Mike	1.2	11%
Fermate (all time)	1.1	6%
Fermate after	.8	8%
Micro-flotex	1.3	13%
Kolosprany	3.3	22%
Compound 341	1.6	50%
Omilite	14.5	50%
Omilite plus Mike	1.3	14%

Mr. Ben Dunn of the Mayo Foundation, Rochester, Minnesota gave a very interesting talk on the work of the National Apple Institute and the Annual Meeting in Washington. He urged support of the Institute. He also told of the new Forestry and Horticultural Experiment Station established by Mayo Foundation. They have planted a variety test orchard of 230 old and new varieties of apples. 75 varieties of strawberries, 53 of raspberries, 29 of pears, 29 of cherries and many plums, currants and grapes. This will be a station worth visiting in the future.

Pollination

Dr. B. Esther Struckmeyer reviewed the frequent poor set of Delicious apples due in part to the structure of the blossom on Delicious which permit bees to get nectar without touching the stigmas. A poor set may also be due to frost. Pollinating insects may prefer other varieties in preference to Delicious such as Duchess. Delicious also seem to require more pollen than many varieties. All of this means that the pollinating varieties must be *close to Delicious* and *bees plentiful.* Hand pollination is not practical here as in the west. Bees should be set fairly close to the trees to be pollinated. In large blocks of Delicious the grower might graft Northwestern Greening into every other Delicious tree.

Minnesota Apples

Dr. W. G. Brierley talked on new varieties of apples at the Minnesota Fruit Breeding Farm. Haralson and Minjon he said need thinning. They had no crop at all at the Fruit Breeding Farm this year due to frost. A new variety, just named, is Redwell, formerly No. 638. It has excellent red color and is a good eating and cooking apple. Several samples of Fireside apples were exhibited from the University orchard at Madison. They were of excellent color, size and quality which is encouraging. Dr. Brierley also talked on the hardiness of plants. The Latham raspberry withstood a temperature of —49° below zero a number of years ago without injury. However, when there is warm spell of several days, growth may begin and if this is followed by a cold spell, the canes are killed. It is, therefore, necessary to prevent this breaking of dormancy and he recommended covering the tips of the canes or covering them completely.

It looks as if varieties which are very hardy to cold cannot stand warm spells in winter. Varieties which are not hardy to cold can not stand real low temperatures.

Conditions causing injury to raspberries do not seem to hurt strawberries because the plants are usually mulched or covered by their own leaves. An ice sheet does not kill strawberries by smothering but because low temperatures penetrate through the ice.

Hardy Fruits

Prof. W. H. Alderman said a great deal has been published on the relation of scion to stock in producing fruit trees. In the orchard we want a

long lived good producing tree. He emphasized that Nurserymen are beginning to use a new type of seed, from Northern grown apples for growing seedling roots for grafting. Seed from southern grown apples or non-hardy varieties such as Delicious may result in considerable loss the first three years in the Nursery. He said one year Minnesota Nurseries lost 50 to 80 per cent of their stock because they used western grown seeds of non-hardy varieties.

After grafting it makes little difference where the young tree is grown if the right stock is used. He felt there is considerable value to top-working good varieties onto hardy stocks. The scions should be grafted onto branches about 12 inches from the trunk. Sometimes such top-worked trees do not kill back as easily as standard trees. Delicious seems to produce best on Hibernal stock.

TO TEST PRE-PACKAGING OF APPLES

Pre-packaging of apples has been talked about a great deal but many growers are still in doubt if consumer packages can be merchandised successfully.

Washington apples will be put up in consumer packages and by the middle of December sold on the Los Angeles market in a test to determine whether it will pay. The Washington State Apple Commission will cooperate. The packages will contain from 2 to 5 lbs. of apples and 12 carloads will be put up. Various types of packages will be used in the test. Little is known at present of the best type and size of package. The test will be watched with interest in other producing sections.

THE MENDEL PEAR UNSUITABLE FOR WISCONSIN

Having eaten the Mendel pear for the last two years we considered it advisable to advise growers that it is not of good quality—somewhat bitter tasting though it might be alright for canning. However, since we should plant trees of highest quality fruit, Mendel should not be included in the list.

THE FRUIT SHOW

THE WINNERS

New Apple Varieties

Milton: Very Good, L. H. Stringer, Milton. *Good,* W. E. Aeppler, Oconomowoc.

Macoun: Very Good, W. E. Aeppler, Oconomowoc; Ward Bros., Fort Atkinson. *Good,* Waldo Orchards, Waldo; Otto Ruelke, Oshkosh; J. K. P. Porter, Evansville; L. P. Brown, Sturgeon Bay.

Haralson: Excellent, Winghaven Orchards, Galesville; Virgil Fieldhouse, Dodgeville. *Very Good,* Guth's Hillside Orchard, Bancroft.

Kendall: Excellent, W. E. Aeppler, Oconomowoc. *Very Good,* Otto Ruelke, Oshkosh. *Good,* L. P. Brown, Sturgeon Bay.

Perkins: Good, L. H. Stringer, Milton.

Prairie Spy: Very Good, Winghaven Orchard, Galesville. *Good,* L. B. Irish Orchards, Baraboo.

Any other variety: Excellent, Emil Beyer, Malone on Lawfame; Waldo Orchards, Waldo on Newfane. *Very Good,* Wm. R. Leonard, Fort Atkinson on Joan; Leonard Bros., Fort Atkinson on Joan. *Good,* A. Plummer, Oshkosh on Joan.

Standard Varieties

McIntosh: 1st, A. K. Bassett, Baraboo; 2nd, Guth's Hillside Orchard, Bancroft; 3rd, W. E. Aeppler, Oconomowoc; 4th, Emil Beyer, Malone; 5th, L. H. Stringer, Milton; 6th, L. P. Brown, Sturgeon Bay.

Delicious—any type of red: 1st, Niemann Bros. Orchards, Cedarburg; 2nd, L. B. Irish, Baraboo; 3rd, Winghaven Orchard, Galesville; 4th, Emil Beyer, Malone; 5th, R. V. Gilbert, Sturgeon Bay; 6th, Harvey Rabe, New Holstein.

Golden Delicious: Excellent, A. K. Bassett, Baraboo. *Very Good,* L. B. Irish Orchards, Baraboo; Hipke Orchards, New Holstein. *Good,* Emil Beyer, Malone; L. H. Stringer, Milton.

Snow: Excellent, Emil Beyer, Malone. *Very Good,* A. K. Bassett, Baraboo; N. A. Rasmussen, Oshkosh; Elias Kapp, West Bend. *Good,* A. Plummer, Oshkosh; Ward Bros., Fort Atkinson; Otto Ruelke, Oshkosh.

N. W. Greenings: Excellent, A. K. Bassett, Baraboo. *Very Good,* Guth's Hillside Orchard, Bancroft; Emil Beyer, Malone. *Good,* L. H. Stringer, Milton.

Cortland: Excellent, A. K. Bassett, Baraboo; Wm. F. Connell, Menomonie. *Very Good,* W. E. Aeppler, Oconomowoc; Emil Beyer, Malone; L. H. Stringer, Milton; Nieman Orchards, Cedarburg. *Good,* L. B. Irish, Baraboo; A. Plummer, Oshkosh.

Any other variety: Excellent, Guth's Hillside Orchard, Bancroft on Russet. *Very Good,* Winghaven Orchards, Galesville on Jonathan; J. K. P. Porter, Evansville on Winesap; A. K. Bassett, Baraboo on Gem City; J. V. Gilbert, Sturgeon Bay on Wagner; Emil Beyer, Malone on Russet; J. V. Gilbert, Sturgeon Bay on Russet. *Good,* Hipke Orchards, New Holstein on Winter Bananna; L. H. Stringer, Milton on Grimes Golden.

Consumer Package: Excellent, W. E. Aeppler, Oconomowoc.

Gift Package any type fruit: Excellent, W. E. Aeppler, Oconomowoc; A. K. Bassett, Baraboo. *Very Good,* Mrs. Arno Meyer, Waldo.

IN THE ORCHARD

FIRE BLIGHT IN PEARS

Fire blight is such a serious problem in pear growing and in the apple orchard as well that one wonders what control measures are in effect in large pear growing areas.

In the November issue of the American Fruit Grower there is an article entitled "Profit and Pleasure From Yakima Pears." Relative to the fire blight problem the author says, "Yes, we have fire blight or pear blight. It has been severe in several localities in some seasons, but we have never had an epidemic so bad that the industry has been seriously imperiled. About the only control measure used is careful pruning during the dormant season to remove all infections. Seldom do growers cut blight in the summertime for the chances seem to be that it will spread throughout the trees worse than when left until it checks off at the end of the growing season. Young trees more subject to this disease than old ones.

Pruning Pears

Pruning pear trees is even here a rather controversial matter. It really seems that each pear grower has a special system of his own. On the whole it can be said that pear trees are pruned rather severely. Much heading in and spur thinning is necessary in most orchards to keep up the vigor and size of fruit. Fertilizing alone does not seem to give the results desired. In this region medium to heavy pruning almost invariably gives better and more regular crops. The long pruning system is not much used because the fruit becomes more wind whipped, and the limbs have more of a tendency to break unless much propping is done. Most mature trees will hold an immense load with out much propping when pruned according to a medium short pruning method. Pear trees unlike apples react favorably to rather heavy pruning."

Orchard Notes

There seems to be a lot of enthusiasm about airplane dusting to control insects and diseases of crops. The project leaves us mighty cold. We can't conceive how human beings can favor broadcasting poison dust in the wind where it may be blown who knows where. Laws will surely have to be passed making the operator responsible for any harm done.

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The Macoun apple resists frost, is the news that comes from the Michigan Experiment Station. Mr. Walter Toenjes, superintendent of the Michigan Station at Grand Rapids, thinks the Macoun may become a major commercial apple. When frost damage was severe in 1945–46 the Macoun still came through with flying colors.

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During November we gave a Macoun apple to a number of consumers to see what their reaction would be as to quality. Exclamations of "that's the best apple I have ever eaten," were received. A crisp, juicy Macoun as grown in many parts of Wisconsin is far superior to the average Delicious grown in this state. We cannot agree with the idea that we can grow Starking apples, put them on the market green or let them become mealy and still have consumers demand them. Before setting out any acreage of Starking trees, consider carefully the quality you can produce under your soil and climatic conditions. The trees will be in the orchard a long time (if they survive severe winters). If their quality is not the best, they will be increasingly hard to sell as better varieties come on. H. J. R.

COST OF REMOVING FRUIT TREES WITH A BULLDOZER

In the Eastern Fruit Grower for August, Kenneth K. Varian, East Canton, Ohio gives his experience and cost of removing apple trees with a bulldozer. He stated, "When the driver approached the tree he raised the blade up in front of his radiator and crushed the limbs to the trunk of the tree. He continued his forward motion until the tracks of the machine reached the humped up roots. At this point he reversed and dropped his blade behind the humped up roots. Now he moved forward pushing the entire tree from the ground and proceeded to his destination. An experienced driver is imperative because only such a driver could keep the trees aimed in the desired direction.

A good portion of the dirt fell off the roots while the tree was being pushed and at the same time, many of the holes were fairly leveled.

Cost per Tree

In these two blocks 140 trees were removed and out of the way completely in nine hours of operation. The average cost per hour (including hauling to and from job) was $11.80. Therefore, nine hours work would give a total cost for 140 trees of $160.20 or 76¢ per tree. Not considered in this figure is an additional 18 trees pushed out while the bulldozer was enroute from the first two blocks to another part of the orchard.

The next block consisted of 110 apple trees and 40 large cherry trees. In this case there was no excavation near by in which to push the trees, so the driver pushed them into a loosely packed row extending across the orchard. In this block he had to maneuver in and out of

trees that were to be left standing. It took 7½ hours for him to do this job of 150 trees. This cost averaged 58¢ per tree.

These trees are not completely disposed of as yet, but on the basis of the cost of what part has been done we estimate the cost at $2.02 per tree for removal and disposal. This cost could be lowered if a market were found for the wood still to be disposed of.

Taking into account the entire job, the average cost of removal and disposal of the 290 trees would come to $1.41 per tree.

I believe that our cost per tree could easily be lowered to less than a dollar if we would have had previous experience to go on.

What this country needs is some paper money bearing the legend "guaranteed not to shrink."—*Elmira (N. Y.) News.*

If matters get any worse in this laundry soap mess, it will be easy to tell the hoarders. They'll be the clean ones!—*L. M. K., Adams County Times.*

THE STANLEY PLUM

Stanley, due to its productiveness and good quality, has become of commercial importance very quickly. Its trees may overload during certain seasons but this fault can be remedied by thinning. Again, some years its flesh has a tendency to cling to the stone. However, it makes a good canning and dessert variety and it is far superior in quality to many of the old varieties, such as Lombard, Quackenboss, and Grand Duke.

Stanley has proved to be a reliable and early bearer throughout the northeastern states and as far west as Colorado and as far north as Wisconsin. Two growers reported that it has borne annually since the trees were 3 years old. Fruit usually ripens about the middle of September or just ahead of the Italian Prune. The fruits vary from medium to large, and are bulged on the suture side like a prune.

By Richard Wellington and G. L. Slate, Geneva, New York, Farm Research, October 1, 1946.

FUNGICIDES AND LEAF FUNCTION

Scientists have realized that the benefit a tree gets from spraying for disease control is not all gain when the books are balanced. That is because the tree's leaves, which use light as a source of power to manufacture materials to build tree and fruit, are made less active by the coatings of certain sprays. Leaf sampling tests by scientists at the Plant Industry Station, Beltsville, Md., show a wide variation in this photosynthetic activity.

Lime sulphur spray, for example, reduced the leaf activity of apples and pears by about 60 per cent. Wettable sulfur cut it down 50 per cent. Fermate reduced it only 15 per cent, and an organic mercury-phenyl compound called Puratized has no effect on photosynthesis.

From Horticulture Illustrated, November 1, 1946.

Those who sing their own praises seldom receive an encore.—*Wisconsin Dells Events.*

IN THE BERRY PATCH

SPRAYING DID NOT CONTROL STRAWBERRY ROT

During a wet spring strawberry growers often suffer severe losses from berry rot. In the spring of 1946 Indiana berry growers estimated they suffered about 60% loss. Consequently, Dr. J. A. McClintock, Department of Horticulture started a series of tests by spraying the plants with a fungicide.

In May, while late varieties were still in bloom, and early varieties bore green fruits a spray of wettable sulphur was applied using a 250-gallon Bean sprayer and a spray gun turned to the fog spray at 400 pounds pressure. The plants were thoroughly drenched and straw mulch as well. Leaves of fruits were coated with wettable sulphur and straw mulch was soaked.

Rainy weather continued with rain falling 19 days during the month of May. This was favorable to infection of green fruits. It resulted in a large percentage of berries becoming more or less decayed before they matured. By picking time, rotting of both ripe and partly ripe fruits had developed to a serious extent.

Comparison of the foliage between sprayed and unsprayed lots disclosed that leaves of all varieties sprayed appeared to be in the early stages of injury. This developed into serious leaf scorch by harvest time. Their was no evidence at the first picking to indicate spraying had reduced fruit rots.

However, there was a greater difference between the amount of fruit rotting between varieties than between two sprayed and unsprayed plots. Soft fruited varieties like Premier and Dunlap had a higher percentage rotten fruit than Dorsett, Blakemore and Robinson.

Subsequent pickings showed no fungous control from spraying according to the report.

The workers reported that Botrytus was the major cause of fruit decay. Fully 50% of these commercial berries showed well developed Botrytus infection when shopments we upacked.

Dr. McClintock concluded that if pre-harvest sprays are to be effective in reducing strawberry fruit rots at harvest time, spray materials must be more effective against fungi, such as Botrytis, and less injurious to strawberry leaves.

—Reported In Hoosier Horticulture, November 1946. *(Condensed)*

WATCH THE ROBINSON STRAWBERRY

There have been some enthusiastic endorsements of the Robinson strawberry recently. One Wisconsin grower is trying them, Mr. Olaf Selfors of Bayfield, Wisconsin, so wrote for his opinion. He says:

"My wife packed the strawberry crop last season, which she has done for several years, so after talking it over with her, we give our opinion as follows.

"One—The Robinson is a very prolific plant producer.

"Two—The Robinson produces a berry which in appearance surpasses any variety ever grown on this farm. It is a rich, waxy appearing berry. It holds its size to the last picking and is rated an excellent shipper.

"Three—We noticed that the Robinson variety topped the market in Chicago. The berries came from Benton Harbor, Michigan area.

"Four—Other growers here at Bayfield are divided, about 50% are neutral and 50% enthusiastic about the variety.

"Five—I am planting more of this variety.

"As you know, my farm has a soil of light sandy loam. The berries did even better on a farm near here with a heavy sandy soil. Will be glad to give further opinions at the end of the next season as 1946 was the first we had seen of this variety."

A NEW STRAWBERRY INTRODUCED BY MINNESOTA

Minnesota No. 1118 strawberry has been named *Arrowhead* and introduced by the University Fruit Breeding Farm. Describing the variety in the Minnesota Horticulturist the Fruit Breeding Farm staff states,

Minnesota No. 1118, is being introduced as a new variety because of its plant characters of hardiness, vigor, and runner-setting ability and its fruit qualities of attractiveness, large size, and desirability for market, freezing and jam-making. It is a June-bearing variety.

Because of their free runner-setting habit, vigor and hardiness, the plants are well suited to thrive under the climatic conditions of Minnesota. They quickly form a wide, matted row and are highly resistant to winter injury. They produce satisfactory crops of fruit of mid-season to medium late range.

The berries are large, regular in shape, and have a deep but bright color. The richly colored flesh has a pleasing flavor, sprightly and a trifle tart. They have a firmness that enables them to ship well. They are excellent for freezing and very good for jam-making, both purposes for which their color is especially valuable. They are also good for canning.

Although June-bearing in habit the *Arrowhead* is a sister seedling of the *Evermore,* an everbearing variety introduced here in 1945. The *Arrowhead* is a cross between the Duluth and Dunlap varieties.

SOME SOIL MANAGEMENT TREATMENTS WITH BLACK RASPBERRIES

Straw mulch systems for black raspberries have often been advocated but with little definite information as to the extent to which they might affect production. Recent results reported by Judkins of the Ohio Agricultural Experiment Station indicate that completely mulching a field of black raspberries will give yields which are equal to, and in some cases higher than, yields from clean cultivated plants although the increased yields obtained with black raspberries was not as great as had been reported for red raspberries. The greatest yield obtained with black raspberries was 16 per cent.

In one of the experiments four systems of management were used: (1) clean cultivation, (2) Straw mulch in and between the rows, (3) straw mulch in the row and sheep's fescue sod between the rows, and (4) straw mulch in the row and bluegrass sod between the rows. The mulched area extended about 1½ feet on either side of the plant row giving a strip about 3 feet wide. In the other experiment only clean cultivation and straw mulch systems were used.

Yields

Yields in 1943 and 1944 from the bluegrass sod with mulched strip were 8.8 and 6.4 per cent less than the cultivated plats and 21.4 and 19.3 per cent less than the completely mulched treatment. The fescue sod plus mulch reduced yields 14.6 and 12.3 per cent as compared to clean cultivation and 26.4 and 24.4 per cent as compared to the completely mulched plats. In the other experiment there was little difference in yield between summer cultivation and straw mulch treatment.

In general it appears that a straw mulch or other similar mulching material around black raspberries would be a desirable practice when material is available at a reasonable price. The use of straw at its present price is prohibitive. On soils which are not too erosive and which have at least moderately good water retaining capacity, summer cultivation with winter crops can be expected to give yields that at least approach those obtained with mulches. Grass sod middles with mulch strips along each side of the plant rows would seem to have a place only on land which is quite subject to erosion.

H. G. Swartwout in Missouri Horticultural News, November, 1946.

NEW MINNESOTA APPLE NAMED

Number 638 is Redwell

Minnesota apple No. 638 was named *Redwell* by the University of Minnesota Fruit Breeding Farm. A crab apple, Minnesota No. 240 was named *Chestnut,* and the strawberry No. 1118 was named *Arrowhead.*

Relative to the *Redwell* apple, the Minnesota Horticulturist states:

"Important attributes of an apple variety for commercial production are attractive color, regular annual production, fruits well distributed with absence of clustering and a strong stem attachment to resist high winds at harvest time. The name "Redwell" was chosen for the fruit because the all red apple colors so well and also because in size and appearance it closely resembles a very highly colored Wealthy.

"The mother parent of Redwell was Scott's Winter, open pollinated.

"The trees produce a head of medium size, well shaped with strong main branches on which the younger wood is slightly drooping.

"It hangs to the tree very well and should be about the last variety to be harvested. It is ready to use soon after picking in mid-October and will keep until about January 1."

SET NEW APPLE PICKING RECORD

An apple-picking record of 203 *bushels in a single day* was established by Melvin Pettit, a resident of Stanley, Va., working at Charleston, W. Va. during the harvest period.

He set the mark on October 28, working under supervision of Gilbert Willingham.

Mr. Pettit also set a record for a week-long production with an average of 196 bushels per day.

Pickers in this county this year have been paid an average of 15 cents a bushel for picking, including a bonus arrangement. His one-day record at that rate would yield him $30.45. From The Packer.

For four years the club steak has been something you had to beat with a club before you could chew it.

The auto is a great moral force. It has stopped a lot of horse stealing.—*Ripon Weekly Press.*

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS ASSOCIATION

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Annual Convention Highlights

(Continued from our Nov. issue)

In his talk on beekeeping methods Dr. C. L. Farrar mentioned the poor season of 1946 (by error it was stated as 1945 in November issue). The 1945 season was very good but Nosema proved an important factor in honey production. Packages were checked for amount of Nosema infection in the spring of 1945. Those in which from 0 to 20% of the bees showed Nosema spores, produced considerable more honey than packages with from 60 to 100% of the bees infected. Package colonies where queens were superseded produced only about half as much surplus honey as those in which the queen was not superseded.

Dr. Farrar commented on the work of breeding to produce better queens. Inbred queens are often poor and sometimes their eggs do not hatch well. If these inbred queens are crossed with drones of a different strain, we get hybrid vigor. It will take a long time to evaluate and produce improved strains of bees but encouraging progress is being made. He mentioned two groups of sister queens. One was mated to certain drones and the bees proved very ugly but good producers. Another mated to a different strain of drones, proved gentle and almost as good in production. We want to breed high producing stock which is gentle and also pay some attention to beauty.

As to what the beekeeper can do at the present time, Dr. Farrar stated we can judge queens critically and requeen whenever our queens are not doing well. We should keep a reserve supply of queens on hand throughout the season. We can also raise some queens from our best stock.

SWARM CONTROL

Swarming is the result of crowded population or a failing queen said Dr. Farrar. However, a colony may have plenty of space and still swarm if the space is not well organized. A colony needs space in an upward direction. When the honey flow begins, nectar is crowded into the brood nest and above. So we must keep the brood nest open; place honey below and the oldest brood above, in the three brood nest method of management.

If a colony reaches full strength before the honey flow, we may find it necessary to divide it by giving a queen or letting bees raise one, to prevent demoralization.

THE BANQUET

The annual banquet at our convention was a very pleasant affair. There were 170 members present. We appreciated especially the cooperation of Mr. W. W. Vincent of Kenosha who showed his colored movie on beekeeping. This kodachrome film won second prize in the national contest by the Amateur Cinema League in New York in 1945. Mr. and Mrs. Vincent were present and furnished music to accompany the picture. Another film was loaned us by the Wisconsin Conservation Commission. It was a talking movie picture entitled, "The Realm of the Wild" and showed wild animal life in our national parks and forests.

Major W. J. Nolan of the U. S. Bee Culture Laboratory, assistant to Mr. James Hambleton, gave two interesting talks. He said that the Department is setting up an extensive program to study the pollination of clovers and other plants. The great danger is spray poisoning from poison dusts and sprays and the question was raised if laws can be passed to regulate the practice and make the user responsible for damage. In many cases package bees do not work out well for pollination in orchards because of the small field force. The age of bees is an important factor in their value as pollenizers. For the apple orchard we must super-saturate an area with bees to get results. We may have to train bees to work on certain plants. Mr. Nolan described the work of Von Frisch in Germany.

Mr. C. D. Floyd of St. Paul, chief inspector for Minnesota gave two very interesting talks. He said that Wisconsin, Minnesota and Iowa this year produced more honey than any other three states in the nation and last year these three states produced more than any other six states. The quality of our honey

is unsurpassed. He urged everyone use a scale colony and study yield records.

NUMBER ALL COLONIES

Mr. Floyd urged adoption of a plan to mark each colony and each super used on the colony with a permanent number and letter so in case A. F. B. breaks out, we know where supers were used. He showed a stamp with letters and numbers and said we could buy such stamps from the St. Paul Stamp Co., St. Paul, Minn. We must use *waterproof ink.* Mr. Diehnelt said the Schwab Stamp and Seal Co., Milwaukee also has stamps.

With a clever use of miniature hives made of small boxes, Mr. Floyd demonstrated how to control swarming when a colony has begun to build queen cells, by dividing the colony. A brood chamber of brood with honey and pollen was placed above a bee-tight inner cover and given an entrance to the rear and allowed to produce a new queen. Some such drastic step is usually necessary to stop swarming in a colony that has made preparation. Variations of the method can be used to shorten the amount of time used to do the operation.

WINTER WORK IN THE APIARY

There is likely to be heavy loss of overwintering colonies by spring this year. This is the opinion of many qualified observers. Main reason is lack of food. Many colonies may not have the proper make-up to come through the winter well—another big factor in winter survival.

Is it advisable to inspect the colonies before April 1st or established warm weather? That question has often been asked. Why there should be any doubt as to whether colonies can safely be opened in mid-winter we do not know. We have annually inspected most of our colonies in late February. We often have nice days when it is quite safe to do so. A normal colony can be indetermined at a glance but if a colony needs attention, it will pay to give it. A cluster may be formed in a lower brood chamber with all of the honey and pollen in the top one. If the cluster is small, it may starve during a long cold spell. In that case we may move the entire cluster into the upper body by moving all frames occupied by bees in a group.

A colony may be running out of stores within reach of the cluster. Move honey close to it, or in case there isn't much honey left in the hive, fill frames with sugar syrup and place them next to the cluster. This can be done at any time during the winter.

Filling frames is not difficult. Mix 2 parts or more of sugar in one part of boiling water. Stir thoroughly. When cool enough so it will not melt wax, pour or spray into empty combs. This can be done indoors and frames taken to the apiary and inserted next to the cluster.

SOUTHERN WISCONSIN DISTRICT BEEKEEPERS MEETING

JANESVILLE, Y. M. C. A.

THURSDAY, FEBRUARY 13

You are invited to attend the annual meeting of the Southern District Wisconsin Beekeepers Association in the Janesville Y. M. C. A., Thursday, February 13 beginning at 10:00 a. m.

PROGRAM

10:00 a. m. Call to order by Ivan Whiting, President.

Remarks on beekeeping problems.

The advantages and disadvantages of sulfa drug for treatment of A. F. B., by John F. Long, Deputy Inspector, Madison.

11:15 a. m. What happened at the Florida meeting of the Apiary Inspectors of America, by James Gwin, Chief, Division Bees and Honey, Madison.

12:00 M. Luncheon. (Note) During luncheon hour Mr. John Long will examine bees brought in for identification of Nosema. Bring either dead bees or spots from around the entrance.

1:30 p. m. The Honey Bee. Colored movie which won second prize in a National Cinema contest in 1945 made by W. W. Vincent, Kenosha.

2:00 p. m. Question and answer hour. Any kind of question welcome. Send questions on postcards in advance to Wisconsin Horticultural Society.

3:00 p. m. Can we prevent winter losses now. Demonstration of spring management and swarm control by H. J. Rahmlow, Madison.

3:45 p. m. Observations on Ladino clover by Mr. Grant Ritter, Janesville, Director W. C. L. O. Farm Program.

WEIGHT OF VERMICULITE HIVES

The weights of the vermiculite hives made by the Veimar Products Ltd., South Africa, are as follows:

	Vermiculite	*Wood*
Bottom Board	16¼ lbs.	7 lbs.
Brood Chamber	22½ "	9½ "
Shallow Super	12 "	7 "
Inner cover	5½ "	3 "
Outer cover	21½ "	7 "
Total	77¾ lbs.	33½ lbs.

Although these figures suggest that the vermiculite hives are about three times heavier than the wooden ones, the difference is really not so great in the case of the frequently handled brood chamber, shallow super, and inner cover, which are roughly only twice as heavy as the wooden ones. The total weight of the concrete hives as listed above was just five and a half times heavier than the wooden ones.

—*From The South African Bee Journal, October, 1946.*

A plow horse never won the Kentucky Derby. But if all farmers owned race horses lots of us would be lots leaner.—*Republican Journal, Darlington.*

Observe the turtle. He makes progress only when his neck is out.

1946 APIARY INSPECTION REPORT

County	Colonies Inspected	Colonies with AFB
Ashland	19	--
Barron	1,066	1
Brown	2,839	21
Buffalo	846	18
Calumet	327	6
Chippewa	2,081	23
Clark	3,142	4
Columbia	790	18
Crawford	976	75
Dane	1,957	166
Dodge	2,145	107
Door	140	--
Douglas	50	1
Dunn	422	1
Eau Claire	908	7
Fond du Lac	330	41
Grant	1,518	13
Green	2,501	17
Green Lake	77	--
Iowa	78	9
Jackson	102	1
Jefferson	1,011	22
Juneau	118	22
Kenosha	93	--
Kewaunee	42	--
La Crosse	740	6
Lafayette	188	--
Lincoln	214	5
Manitowoc	1,284	11
Marathon	31	4
Marinette	--	--
Milwaukee	486	19
Monroe	25	--
Oconto	289	18
Outagamie	815	11
Ozaukee	842	5
Pepin	865	--
Pierce	1,060	8
Polk	357	5
Portage	44	2
Racine	576	28
Richland	254	--
Rock	2,270	51
Rusk	287	19
St. Croix	722	2
Sauk	557	54
Sawyer	329	--
Shawano	1,371	16
Sheboygan	1,607	22
Taylor	1,086	--
Trempealeau	1,777	4
Vernon	337	24
Walworth	1,055	104
Washington	441	1
Waukesha	189	10
Waupaca	1,001	41
Waushara	72	--
Winnebago	644	37
Wood	1,585	4
	46,978	1,084

When you stop to think, don't forget to start again.—*Ripon Weekly Press.*

QUESTIONS AND ANSWERS ABOUT WISCONSIN BEE-KEEPING ASSOCIATION

Organization of State Association, District Associations, County Associations, Affiliation with State Horticultural Society, Annual Dues

Question: How is the Wisconsin Beekeepers Association organized as to membership?

Answer: Membership in the State Beekeepers Association may be obtained by individual membership of $1.00 or by affiliation through either a district or county association.

Question: What are the annual dues?

Answer: Annual individual membership dues are $1.00 per year. To affiliated county or district associations the state dues are 75¢ per year. To this is added the dues of local organization. For example: the county association may have annual dues of $1.25 per year. They send 75¢ to the state association—Mrs. Louise Brueggeman, R. 1, Box 238, Menomonee Falls, Wis., and retain in their own treasury the 50¢. The same applies to district organizations.

Question: What is the arrangement as to membership in the Wisconsin Horticultural Society?

Answer: The Wisconsin State Beekeepers Association is affiliated with the Wisconsin State Horticultural Society. Membership dues in the Horticultural Society are $1.00 per year for individuals but only 50¢ per year through affiliated organizations. Therefore, the Wisconsin Beekeepers Association pays to the Horticultural Society 50¢ per year for each membership it receives.

Question: What is the value of the affiliation with the Wisconsin Horticultural Society?

Answer: The Wisconsin Horticultural Society publishes Wisconsin Horticulture which then goes to all beekeepers. In it is *Wisconsin Beekeeping* each month. The magazine costs the Society about 50¢ per member per year. The secretary of the Horticultural Society becomes the corresponding-secretary of the Beekeepers Association and because the beekeepers are members he works for them as an extension specialist holding and arranging educational meetings of the state and district associations and speaking at county association meetings the same as he does with all organizations affiliated with the Society. The Horticultural Society receives a State appropriation which enables it to carry on this educational program.

Question: What is the value of district associations as parts of the state association?

Answer: 1. A number of counties do not have County Associations. Beekeepers in such counties may still take part and attend meetings by joining the district association.

2. District organizations can have meetings larger in scope and with more speakers than county meetings. Illustration: our district summer meetings in various parts of the state and all day spring meetings with a number of speakers.

Question: I am a beekeeper in a county that does not have a county association. How can I receive Wisconsin Horticulture?

Answer: Join your District Association by sending your dues to the district secretary-treasurer. The dues are $1.00 per year. He will send 75¢ of this to the Wisconsin Beekeepers Association of which 50¢ goes to the Wisconsin Horticultural Society. You are then a member of three organizations and will receive the magazine.

The district president becomes a member of the State Board of Directors. Their names are listed here.

HISTORY REPEATS ITSELF

In the report of the history of the Wisconsin Beekeepers Association as published in the history of the Wisconsin Horticultural Society in November 1943 we find this statement about prices after the first World War.

Good Honey Prices

"In the *October 1920* issue of Wisconsin Beekeeping we find that honey was selling at very high prices. The wholesale price of 60 lb. cans was 25¢ per pound. To retail stores 10 lb. pails about $3.00; 5 lb. pails $1.60. To the consumer 10 lb. pails $3.60; 5 lb. pails $1.80. This price may not have prevailed in all sections of the state."

Yes, history repeats itself. Sometimes we think we have become very wise and can change things materially but there is still an opportunity for increase in wisdom. The price went up then as now. Will it go down again as it in the 1930's—time will tell.

THE PRICE OF HONEY

The November 1 semi-monthly honey report by the U. S. Department of Agriculture indicates a wide variation in the price of honey in various parts of the country. From 20¢ per lb. in 5 lb. pails in Florida and Louisiana to the Chicago report on Illinois and Wisconsin white clover, "cases 2 doz. 1 lb. glass jars, $12.00." That is 50¢ per 1 lb. jar and means the consumer will pay 75¢ or more per lb. for it.

Those who have the good of industry at heart are warning beekeepers not to let the price go too high. Their warnings have little effect as usual. It isn't the beekeeper alone who will charge too much. Let the beekeeper sell his honey for 12¢ per lb., will the consumer be able to buy it at a low price? Certainly not. Somewhere along the line, a margin of profit will be added so that the price will be in line with what consumers will pay.

Supply and demand is again in operation. When the supply becomes larger, sugar available, then prices will go down. Will prices go lower than they should because of too high prices now? We don't know. We know the demand will be much less than now because many are using honey for cooking who will not do so when they can get plenty of sugar.

One thing is sure, we must keep up the quality and the reputation of honey so friends who use it all the time, will not desert us. Furthermore, we'll have to put a lot more effort into marketing in the not very distant future.

After all honey isn't the only thing that's gone up. A recent report by the Wisconsin Department of Agriculture states that wages paid by farmers in October averaged $92.57 dollars a month with board compared with $30.25 per month with board in 1939.

MEAT

When you see the statement made that there is lots of meat in storage, in fact on September 1, '46 there were 356 million pounds of meat stock in cold storage, or about one million pounds for every day in the year, it seemed like a lot. A year ago there was almost twice that much.

In the United States we eat about 15 million pounds of meat per day so the meat in cold storage was hardly enough to feed us for a week.

You really can't blame the kids. How do you expect them to learn good manners when they have no place to look for them?

WANTED—BEES ON SHARES

Wanted to lease on shares or buy about 300 colonies by two veterans trained under Dr. C. L. Farrar. Write Robert Kelba, 1113 W. Johnson Street, Madison, Wisconsin.

Editorials

THE WOMAN'S AUXILIARY MEETING AT THE CONVENTION

By Mrs. Arthur Bassett, Jr., Baraboo, Vice-President

The Woman's Auxiliary program at the annual convention was especially interesting this year. It was opened by our president Mrs. Don Reynolds introducing Mr. E. L. Chambers who gave a timely lecture on insect control and proper insecticides to be used. He mentioned that we knew about insects and diseases way back in biblical times, but it was thought wrong to destroy them. Control of insects and diseases isn't easy and it is essential to know insecticides by trade name. Mr. Chambers gave an example of products and uses: we know that sulphur will preserve raw apples; that charcoal will deodorize the ice box; and that salt peter will preserve meat and keep it red, but if we put all three together we have gunpowder. He mentioned uses and precautions to take when using DDT in various forms and which still needs further study. Its use is very good for controlling thrips when storing gladiolus bulbs. Use 1 teaspoon of DDT powder in a paper sack and shake up and down. This won't cause injury to the one using it. Best to use from 1 to 5% without oil base.

Spraying trunks of elm trees in November and again in spring with 5% oil base DDT seemed a timely suggestion with the present infestation.

Mrs. Buslaff used charts to demonstrate her lecture on food and nutrition. The present day trend is to put emphasis on flavor and attractiveness in

serving food as we are changing our eating habits. Vegetables seem to show the greatest trend upward with people realizing their nutritive values.

Mr. Combs gave an illustrated lecture on "New Developments in Vegetable Production". It was very good. Prof. J. S. Elfner gave an illustrated lecture. He said that we plant shrubs to attract bird friends as well as for a beauty sight. Proper border plantings carry on to foundation plantings. We get better results not to use too many shrubs for effect. Keep it simple but use variety and attain dominant feeling.

Friday, Mrs. N. A. Rasmussen read a greeting letter to the auxiliary from the first president, Mrs. E. Roloff of Madison who is an invalid, but in spite of her handicap, was able to print in her beautiful fashion a version of "Methuselah" which caused much laughter.

We were happy to have Prof. W. Alderman, from the University of Minnesota with us. He gave us his views of his dining-room rug (9 x 12) garden. He felt that 3 bushels of apples could be produced from this plot and that his first attempt was a bit wasteful as he couldn't consume all the lettuce it produced for a family of three so had to dispose of four bushels.

Here are the number of meals which can be served from this plot: 179 meals of one vegetable at a value of $12.00 to $15.00 so the garden is of economic importance.

From a 40 x 60 foot lot one could reap $50.00 worth of vegetables. A garden expresses artistic ability as well as flowers do; the use of both really is a beautiful combination. He suggested bordering the plot with strawberries.

Mrs. N. Rasmussen composed a very lovely poem "My Garden". It had a lovely sentiment.

Hobbies exhibited were discussed. Mrs. Arno Meyer suggested to let nature cure gourds. Toss them along a fence row and gather ones needed for craft work in spring.

Our business meeting was a short one. The resolutions committee resolved that the society send thanks to all who made our meeting successful.

On Friday, after a delicious luncheon, Miss Merle Rasmussen presided with a "Tour Around Oshkosh". Then offered possible suggestions for holiday decorations, a very fine way to wind up the program.

From numerous questions asked the speakers, I would gather, that the program was fine.

The following officers were elected by the Auxiliary for 1947.

President, Mrs. Wm. Connell, Menomonie

Vice-President, Mrs. Arthur Bassett, Jr., Baraboo

Secretary-Treasurer: Mrs. Irving Lorentz

THE FLOWER AND HOBBY SHOW

The Winners

Class 1. Hobby Show. *Excellent*, Mrs. E. Brismaster, Oshkosh. Lovely. Mrs. C. Braman, Waupaca. Excellent specimen. Mrs. C. Braman. Artistic arrangement of gourds. Mrs. Walter Diehnelt, Menomonee Falls. Unusual arrangement. Mrs. Arno Meyer, Waldo. Feeding Station very clever. *Good*, Miss Bessie Pease, Oshkosh. Very clever.

Class 2. Winter bouquet. *Excellent*, Miss Agnes Phillipson, Oshkosh. Realism between container and arrangement very good. Mrs. Arno Meyer, Waldo. Mrs. E. Brismaster, Oshkosh. Lovely. Mrs. Walter Diehnelt, Menomonee Falls. Original, distinctive, proportion and balance good. *Good*, Mrs. Ward Davis, Oshkosh. Mrs. Walter Diehnelt. Miss Bessie Pease, Oshkosh.

Class 3. Arrangement in dustpan. *Excellent*, Mrs. Arno Meyer, Waldo. Combination splendid. *Very Good*, Mrs. E. Brismaster, Oshkosh. Crowded. *Good*, Anna Phillipson, Oshkosh. Material poor (wilted). Good arrangement. Mrs. Walter Diehnelt.

NURSERYMEN HAVE SUCCESSFUL CONVENTION

The Wisconsin Nurserymen's Association held a very successful convention in Milwaukee on December 4. Officers were reelected. They are: President, Mr. Ed. Eschrich, Milwaukee; Vice-President, Mr. R. C. Pippert, Cleveland; Secy.-Treas.: Mr. Thos. S. Pinney, Sturgeon Bay.

The association had 59 members, 9 associate members and 3 honorary members during the past year.

On the program were E. L. Chambers and staff, Madison; Alex Klose, Milwaukee; C. N. Fletcher, Milwaukee; Prof. L. C. Chadwick, Ohio; Ken Law of Jewell Nursery Co., Minn.; Anthony Wuchterl, Milwaukee; Mary Jean Uecke, Oshkosh and J. Ilgenfritz of the American Association of Nurserymen. Mr. T. Perry Jones of Sheboygan was the banquet speaker.

DECEMBER AND JANUARY ISSUES COMBINED

On December 12, without warning, we were informed by the State Printing Division, that the new contract for state printing beginning January 1 would be 45% higher than during the past year.

This means an increased cost of more than $100 per month, for printing Wisconsin Horticulture. We were about ready to print the December issue which had been delayed because the printer moved to another building. But we decided right then to combine the December–January issue as the first step in reduction of cost.

Every effort will be made to keep up the quality of Wisconsin Horticulture and maintain its educational value. We expect to work out some plan by which we can maintain our standards.

CONSUMER REACTION TO HIGH PRICES

A casual remark by a housewife on Thanksgiving day set us thinking about how consumer psychology effects the producer.

The lady remarked that about a month before Thanksgiving her butcher told her that due to shortage turkeys might be as high as $1.00 per lb. After talking it over with her husband they decided to order duck which was about half as much. Then just before Thanksgiving they found turkeys were lower in price than ducks, and there was no shortage.

When there is a good supply of any crop, whether apples or honey or other items, is it wise to let consumers think the supply is short? Chances are they will think the price will be higher than a competitive food and buy the competitor. That may cause "overproduction" and result in lower prices.

WE DO IT TOO

Mr. Wheeler McMillen, editor of the *Farm Journal* wrote in his December issue;

"Each Farm Journal editor has schooled himself to write in plain direct English. Good at that as they all are, one editor does litle else than to go over each article to remove any needless word, to rearrange any sentence that can be made to tell its story more plainly, and to see that each word is the right one."

So if you find your article in Wisconsin Horticulture changed around a bit, remember that editors expect the same thing to happen to their articles. We have had members wonder why we change their articles but we don't do near as much of it as larger magazines.

Man is a strange creature. He will go fishing and time after time will have no success. But just let one row of garden seed fail to come up and he declares it is useless to plant a garden!—*Arcadia News–Leader.*

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

GLADIOLUS SOCIETY HOLDS LIVELY ANNUAL MEETING

The annual meeting of the Wisconsin Gladiolus Society held at the Medford Hotel, Milwaukee on November 17th proved to be one of the liveliest in years, about 75 members attending. The Board of Directors met at 11 and again from 4:30 until 6 p. m. Considerable business was discussed, but there were no speakers, and a good speaker would have added to the program. This will be corrected at future meetings because sentiment was expressed that we could well afford to bring in competent outside speakers on timely subjects.

Officers Elected

The following officers were elected for 1947, including members of the Board of Directors: President, Mr. Archie Spatz, Wausau; Vice-president, Mrs. A. E. Piephorn, Plymouth; Recording Secretary-Treasurer, Mr. Frank Bayer, Milwaukee; Corresponding Secretary, H. J. Rahmlow, Madison. Board Members: Dr. L. C. Dietsch, Plymouth; Harold Janes, Whitewater; Walter C. Krueger, Oconomowoc; Walter Kurtz, Chilton; E. A. Lins, Spring Green; Walter Miller, Sun Prairie; Miss Marie Peterson, Marathon; David Puerner, Milwaukee; Paul Ravet, Menominee, Michigan; Leland Shaw, Milton.

Our 1947 Shows

On invitation of Mr. Paul Ravet of Menominee, Michigan of the Twin City Chapter, it was voted to

hold the 1947 State Gladiolus Show in Marinette on August 23-24.

The seedling show will be held at Walter Miller's gardens, Sun Prairie, on Sunday, August 3.

The Marathon County Chapter and the Twin City Gladiolus Chapter were voted to membership. We welcome these organizations.

N. E. G. S. Invited

It was voted to invite the New England Gladiolus Society to hold their 1948 annual meeting in Milwaukee. An invitation has been extended to the Society.

Mrs. A. E. Piepkorn of Plymoutth was appointed chairman of the Auction committee for auctioning bulbs at our spring meeting in March.

Next Meeting At Fond du Lac

It was voted to hold the next meeting of the Sociey at the Retlaw Hotel, Fond du Lac on Sunday, March 30.

Several committees were appointed. On changing the constitution and by-law, Mr. Walter Krueger, David Puerner, Harold Janes.

On a bulletin on show management, H. J. Rahmlow, chairman, Harold Janes, Leland C. Shaw and E. A. Lins.

Financial Report

Treasurer, Frank Bayer reported the Society in very healthy financial condition with cash available on September 30, 1946, of $703.43.

Income from the State Fair Gladiolus Show was $300.00 with total expenses of $213.98 leaving a balance of $86.02. Income from the Wausau Show was $200.00 with expenses of $196.24 leaving a balance of $3.77.

Total dues received from membership in the Wisconsin Gladiolus Society was $250.30. The bulb auction brought in $384.90.

ALBERT S. HAUGEN

Mr. Albert S. Haugen of Stoughton, former president of the Wisconsin Gladiolus Society and long time member of its Board of Directors, leading gladiolus grower of southern Wisconsin passed away at his home on December 16. Mr. Haugen had been ill for some months.

He was a real gladiolus lover and excellent grower. For many years he and his wife exhibited at the State Fair. He grew fine glads for the local and Madison markets.

Members of the Wisconsin Gladiolus Society extend sympathy to the bereaved family.

FAVORITE GLADIOLUS VARIETIES

More interest than ever before was shown this year in the symposium of best gladiolus varieties. A total of 73 members sent in cards giving their selections.

The number of varieties receiving votes this year is terrific. A total of 187 varieties were listed. Can there be that many good varieties? There is bound to be a terrific mortality of varieties in the near future as the favorites take the lead and the others are dropped by the wayside.

This listing gives an idea of the varieties the rank and file of our members like best. Some excellent new varieties may not have received a large number of votes, perhaps because they are not well known as yet, and the ratings will change again next year.

Best Variety of Any Color

Twenty-nine varieties received votes in this class. Leading Lady was the winner with 15; Corona was second with 5. The following received 3 votes each: Picardy, White Gold, Burma, Miss Wisconsin. The following received 2 votes each: Elizabeth the Queen, Shirley Temple, Ethel Cave Cole, Lady Jane, Glamis and Summer Gal.

The following received one vote each: Exclusive, Alcan, Minstrel, Dieppe, Poet's Dream, Hindenburg's Memory, Christine, Margaret Beaton, Oriental Pearl, Dream Girl, High Command, Sunburst, Spic and Span, Daisy Mae, Madonna, Candy Heart and Color Marvel.

The Whites

Twenty-six varieties received votes in this class, with Snow Princess an easy winner, with 18; Leading Lady had 13, but was the winner as a cream. Silver Wings was third with 8, while Snow Bank and Myrna received 4 votes each. White Gold again received 2 votes but a majority of votes were cast for it as a cream.

Cream or Buff

Nineteen varieties received votes in this class. Leading Lady was first with 17 votes. Can't we determine whether it is a cream or white and stick to it? This accounts for the fact that while it was considered the best of any variety, it was only second as a white, but received a total of 32 votes in the two classes.

White Gold was second with 12 votes, Oriental Pearl third with 11 votes, and Lady Jane fourth with 10. Corona received 8, and Marimba 5.

Salmon Pink

This was a large class with 34 varieties receiving votes. Picardy was an easy winner with 27 votes. Then the votes dropped down to Glamis with 4 votes, Ethel Cave Cole with 4, and Big Top with 3. Genghis Khan, Spic and Span, Grace Estella, Smiling Maestro and H. B. Pitt received 2 votes each, with a big list of varieties receiving only one vote.

The Pinks

Another big class with 34 varieties listed. Ethel Cave Cole received 15; Spic and Span 9, Corona 6, Rosa Van Lima 5, California 3, Bengasi 3, Pink Paragon 3, and Pink Radiance 3.

The Yellows

Seventeen varieties were listed in this class. Crinkle Cream was first with 17 votes, followed by Mother Kadel with 12, Spot Light with 10, Sir Galahad with 8, Van Gold 6, Golden State 5. Others receiving votes were: Gold Cup, Amberglow, Gold Dust, Vee Cream, Ophir, Golden Gate, Martha Dean, Lady Jane, Oregon Gold, Golden Chimes.

The Lavendars

Only 13 were listed in this class with Elizabeth the Queen way ahead with 41 votes. Badger Beauty was second with 6 votes. The following received 4 each: Minuet, Minstrel and Lavender Prince.

The Reds

There were 18 varieties listed in this class. Red Charm was easily the winner with 30 votes, and Algonquin 12, Stoplight 9, King Click 8, Intruder 4.

The Purples

With 19 varieties listed, Purple Supreme was way out in front with 29 votes. King Lear was second with 19, Lancaster third with 6, Mrs. Mark's Memory, 5 and Purple Beauty, 4.

The Violets

There were 21 in this class. Blue Beauty was first with 19, Blue Lagoon second with 4. The following received 2 votes each: Joseph Haydn, Milford, Blue Admiral, Elizabeth the Queen, and Ray Sheen.

Smokies

The smokies are coming to the fore. A class formerly not too popular, this year there were 22 varieties listed. The votes were as follows: High Finance 11; Tunia's Mahomet 10; Flying Fortress and R. B. each 8; Chief Multnomah and Bagdad 3 each. The following each received 2 votes: Buckeye Bronze, Recado, Tecumseh, C. W. Gannett, Vagabond Prince, Voodoo, Pastel.

Any Other Color

Another big class was the designation "any other color"' with 28 varieties listed. First was Vagabond Prince with 8 votes; Buckeye Bronze, 7; Miss Wisconsin 5, R. B. Burma and Color Marvel 4; Pinocchio 3. The following received 2 each: Harmau, Chamouny, Robinson Crusoe and Corona.

The Seedlings

Ordinarily not many seedlings receive votes, but this year was an exception, 18 seedlings receiving votes, with 42–06, F. Beardmore, the winner with 5, and Palmer's 41053 with 4 votes. The following also received votes: Scheer's 34C–129–x; Wood's Yellow, 10–343–43; Tabruck; Oriental Pearl; Minnesota Giant; Pal Pink; Beardmore Yellow Seedling; Judd 31E–23x03; Ruby Red; Allen's Lavender; Burma; 7–43–26; Chuck's Daisy Mae; Alcan; Krueger's 1005–61; Lady Marion.

A lover in Glarus, one of the Swiss cantons, proposes by putting a flower pot holding a rose on the windowsill of his beloved. She takes the flower only if she is agreeable to his proposal. If not, she lets the rose die.

It doesn't take long to make you hard boiled after you've been in hot water a few times.

STORAGE CONTROL OF GLADIOLUS THRIPS

Paul T. Ulman

Dr. Farrar, formerly of the Illinois Natural History Survey, made the recommendation last year that bulbs dusted with anywhere from a 1 to 10 percent DDT dust, preferably as soon as the bulbs are dry in the storage, would eliminate any thrip infestation that was present.

The writer dusted some 40,000 bulbs that had a light thrip infestation and the infestation was eliminated in a matter of days.

Different methods of applying the material to the bulbs were tried out. The small grower can best apply the dust by putting a small amount of the dust in a paper sack with the bulbs, about one ounce to one bushel of number one bulbs, and shaking thoroughly so as to get a uniform coating of dust on all the bulbs. The bulbs should then be placed back in the storage trays or open paper sacks.

The larger growers will find the above method very laborious and consequently dusters were tried out with good results. Either a hand or rotary duster can be used.

The DDT dust was blown over the tops of the filled trays being sure that the dust got into the corners of the trays. The bulbs were then stirred by hand and another application of the dust made over the top of the bulbs. This method of application gave a uniform coating of dust over the bulbs and a 100 percent kill of the thrips.

The operator using the duster method should use a mask over the mouth and nose to avoid breathing in the dust where large quantities of bulbs are to be treated.

There are several DDT dusts on the market ranging from one to ten percent in strength. Some of these dusts may have either sulphur, rotenone or pyrethrum or all three of these materials incorporated into the mixture. None of these materials will injure the bulbs. One to three percent dusts can be made from higher concentration dusts by diluting with dusting sulphur. Be sure that the dusting sulphur is thoroughly mixed with the DDT dust in preparing the dust at home. Higher concentration of DDT dusts will not injure the bulbs and Dr. Farrar told the writer last winter that he had used a 40 percent concentration without injury. High concentrations are a waste of material and increase the cost, therefore the writer would advise using anything over a 5 percent dust.

Thrips are hard to find on the bulbs in the late fall or early winter due to the very light thrip population brought into storage on the bulbs. A safe rule for each and every one to follow will be to dust the bulbs in storage regardless of whether or not they know that thrips are present on the bulbs.

DDT dusted bulbs are not dangerous for humans to handle. In large quantities it is toxic to humans and should not be taken internally. Bulbs are, after all, grown for the flowers and not for their food value. DDT dust on the skin is not toxic but DDT oil solutions should not be allowed to remain on the skin of humans or animals. It can be absorbed through the skin and injurious results may occur if not washed off at once with soap and water.

—Condensed from Gladland News, by Indiana Gladiolus Society.

THE AFRICAN HABITAT OF GLADIOLUS

Mrs. Pearl M. Jordan

Geologically, the country of Natal consists of a monoclinal fold affecting Karroo rocks.

The rainfall averages 25 to 35 inches and occurs during the months October to March. The average amount of the bright sunlight received each day throughout the year is 7.51 hours. Evaporation is high which diminishes the value of the rainfall to vegetation. Owing to the small rainfall, the high rate of run-off and evaporation, South Africa is poorly supplied with forests. The country is covered with grasslands where Glads grow wild.

I presume the soil is rich in humus from decaying grass. One would expect the soil to be sandy and to contain some iron oxide or some other iron compound from the sandstone disintegration, some clay from the shale along with lime and magnesia from dolerite.

Perhaps blue Glads need more iron in the soil.

Condensed from Gladland News, April 1946.

As I understood it, the question is not who won the peace, but who gets the biggest piece.

GARDEN GLEANINGS

COVERING STRAWBERRIES

In a recent radio talk over WHA we called attention to experiments by Dr. R. H. Roberts of the Department of Horticulture conducted in the 1930's indicating strawberry plants should be covered before hard freezes early in November. In years when plants grow late, snow covering fails to appear and a sudden cold snap freezes the ground, temperatures of 15° to 20° above zero will severely injure the crowns and roots. The crop may be greatly reduced in case of a dry season at picking time or before.

A listener objected, writing that mice will ruin the plants if a mulch is applied early. She said the proper way is to put the mulch between the rows until after New Year's. Then spread it over the plants to prevent alternate freezing and thawing.

We have heard little complaint from strawberry growers of mouse damage and if there is any they should use poisoned oats bait to control them. Furthermore, we have heard little complaint from injury from freezing and thawing because, the plants being low, may be covered with snow or protected by leaves from thawing. At any rate, early November covering will protect them from both early fall and late winter injury.

SAWDUST MULCH

Sawdust may be used as a mulch for raspberry beds, strawberry beds and other crops. It helps to retain moisture but nitrogen fertilizer should be applied under the sawdust to prevent the decomposing woody material from robbing the soil of nitrogen and adversely affecting the plants. Complete fertilizer with nitrogen, ammonium sulphate or manure may be put on first. As the sawdust decomposes it later furnishes some nitrogen to the plants.

WINTER INJURY

The problem of winter injury to plants is a complicated one. Far too often we are inclined to give just one reason for injury to any kind of plant. We may say the injury is due to "alternate freezing and thawing during the winter." It does seem as if the hardier a plant is, the more apt it is to be injured by a thaw and then hard freezing. However, semi-hardy plants such as hybrid tea roses are unable to stand our severe Wisconsin winters and are just frozen by low temperatures. Plants which are adapted to the far north and can withstand low temperatures, cannot stand warm spells in winter. Plants adapted to conditions farther south cannot withstand our very low temperatures.

BEGONIA BULBS

This fall we stored our tuberous rooted begonia bulbs in empty glass jars. Some of these have wide openings which allows the larger tubers to be placed in them. The cover was put on tight and they were then placed in the basement where the temperature will be about 45° or 50°. Our biggest problem in a furnace heated basement has been to prevent them from drying out so sealing them in jars solved the problem. However, we inspect them about once a month after December to find if they are becoming moldy. If so, they are dried a little more and replaced. It doesn't seem to make any difference if soil adheres to them or not. This year we removed all the soil. If the temperature is too high, they will begin to grow in January or February with sprouts.

A cellar that is damp enough to winter dahlias well will be all right for begonias.

Black Walnuts ruin tomatoes. This information comes from the Experiment Station at Geneva, N. Y. A field of tomatoes grown near black walnut trees were affected by severe wilting of the plants. That the trouble is directly related to a toxin given off by the roots of the black walnut trees is the conclusion of the scientists. They suggest that one should hesitate to plant tomatoes, alfalfa and even cabbage or certain nursery stock in fields which border black walnut trees.

The chemical believed to cause the injury which has been extracted from the hulls and roots of black walnuts is known as Juglone.

Grasses, corn, beans and beets do not appear to be affected by the toxin.

UNUSUAL HOUSE PLANTS THAT DO WELL

Here are some unusual and some common tender bulbs that can be purchased now for growing in the house this winter, writes Victor H. Ries of Ohio in the Country Gentleman: that dainty little vine, Ceropegia, the gorgeous salmon-flowered clivia, the several different kinds of oxalis, the hybrid amaryllis, the Regina hybrid amaryllis, the so called African Hyacinth (Lachenalia), the Aztec Lily (Sprekelia), the Veltheimia, and different calla lillies.

HOUSE PLANTS GROW BEST UNDER LOW TEMPERATURES AND HIGH HUMIDITY

Flowering plants grow best in greenhouses where they have a temperature of about 65 degrees during daytime, and about 55 at night. In the greenhouse also, the humidity is high, kept that way by watering the benches, hundreds of plants and even the floor. It is often impossible to provide these conditions in the house. The more closely we approximate these temperatures and humidity, the better our house plants will grow.

Light is essential to develop blossoms on geraniums, begonias, fuchsias, and some other flowering plants. Sudden changes from the greenhouse to a warm living room wil cause blossoms to drop form plants in a short time, but there isn't much we can do about it excepting to provide conditions as favorable as possible.

When the hours of daylight are short, temperatures low, the plant does not need as much pant food as when growing vigorously. The idea that all we need to do is feed our plants liberally is erroneous. Potted plants coming from the greenhouse usually have sufficient plant food to last several months.

SHADE TREES CAN BE GROWN IN SOD

Prof. L. C. Chadwick, Department of Horticulture, University of Ohio, stated at the convention of the Wisconsin Nur-

serymen's Association that blocks of shade trees grown with a cover crop of alsike clover or small grasses did as well or a little better than those grown on cultivated ground. Tests are being made at the Ohio Experiment Station along this line. The shade trees have deeper roots than grasses used and so there was no competition. Results with small evergreens such as Taxus were not as favorable because of root competition. It may be different when the evergreen roots grow deeper.

Soil temperatures are usually lower under sod than in a cultivated area which may be beneficial. Use of sod in the nursery would increase organic matter for the next crop and save cost of cultivation. A nitrogen fertilizer would no doubt be necessary for best results on sod.

APPLES LOSE MOISTURE IN DRY BOXES

The Rhode Island Experiment Station calls attention to the fact that apples continue to lose water after they are harvested. When from five to seven per cent of the water in the fruit is lost, shrivelling results and the general quality and value of the fruit is greatly reduced. The rate of water loss is greatest immediately after harvest, then decreases slightly, and increases again in the spring toward the end of the storage season.

One of the most important factors causing loss of water from the fruits may be the wooden boxes in which the fruit is packed. A large dry storage crate was found to absorb as much as one and one-half pounds of water, and apples placed in dry boxes lost twice as much water as similar fruits in moist boxes.

Prefer Wet Boxes

Apple boxes exposed to rain and dew in the orchard for one or two weeks prior to harvest operations were sufficiently moist under most conditions, but in cases of extremely hot, dry weather it may be necessary to wet the boxes with water. There is no measurable increase in decay of the fruit in the moist boxes.

From Horticulture Illustrated, Nov. 15, 1946.

PLASTIC GLAZING MATERIALS

Two plastic glazing materials were used in covering coldframes at the Ohio State University this past Spring. These materials consist of two thin plastic sheets, one on each side of a quarter inch netting. They are called Sunfed and Doplex and both transmit ultraviolet light. As reported in the Monthly Bulletin of the Ohio Florists Association, they were tacked to lightweight coldframe sashes and were compared with glass for penetration of light and temperature maintained in the frame.

Sunfed retained less heat than did Doplex or glass. There was little difference in temperature below between Doplex and glass except on very bright sunny days. On such days the air beneath the glass was much warmer. The light intensities beneath these two plastic materials were very nearly the same throughout the test. They were much lower than that found under glass, probably because of the string in the middle layer of the plastic materials.

Sashes which are covered with these materials should be stored in a vertical rather than a horizontal position to prevent collection of water puddles on the upper surfaces. Such standing water will cause separation of the plastic layers above and below the string net. Weighing less than glass and requiring a much lighter frame, the plastic sashes are easier to handle than those containing glass. From Horticulture Illustrated, September 15, 1946.

TEST YOUR HORT SENSE

By Dr. L. C. Grove Extension Service, Ames

1. How does garden soil do for potting up house plants?
2. How can the gardener secure the proper soil for house plants?
3. What is an easy way to sterilize soil for seed sowing at home?
4. Can hardy herbaceous garden perennials be planted or lifted, divided and transplanted satisfactorily in the fall?
5. Is it advisable to water house plants from the bottom by setting in dishes of water?
6. During what period should we fertilize our house plants?

(Answers on page 111)

LECTURE ON WISCONSIN

Its Beauty Spots, Homes and Flowers

Mr. Walter Bubbert, 1516 N. 37th St., Milwaukee 8 is available for lectures with kodochrome slides on a large number of interesting subjects. Among them are, Milwaukee Homes and Gardens, Jefferson County Jaunts, Ozaukee County Observations, Racine County Ramblings, Waukesha County Wanderlust. Fee for these is $20 and expenses. Another set includes, The Indians Uses of our Native Trees, Shrubs and Plants for Food and Shelter. Hales Corners Monthly Market Days. Along the Abandoned Portage Line of the Soo Line. Wild Flowers Along the Abandoned Portage Line. For these the fee is $40 and expenses.

"Another mouthful like that, Junior, and you'll leave the table."

Junior—"Yes, daddy; another mouthful like that and I'll be finished anyway."

The Indoor Fern

The fern is comparatively easy to grow, gives perfect foliage in a short time, is long-lived and remarkably free from pests.

Since we're right in the middle of the winter season, I am going to discuss only the house fern, the most reliable of which are the more tender varieties from southern latitudes. The reason for this is that many of these ferns are able to thrive if the atmosphere is kept moist and temperature above 50 degrees and below 80 degrees fahrenheit. The present-day home is too dry and warm for complete success with native ferns. And, too, most of the native ferns are deciduous and dormant through the winter.

The best ferns for indoors are:

Birds Nest Fern—An excellent house fern. Has broad, bright-green fronds with dark midribs, growing in a crown.

Boston Fern and Its Varieties—This fern can stand a great deal of neglect. For best results, however, it is advisable to provide plenty of light, a porous soil, a north exposure—as with all ferns—and ample water at the roots. It is also wise to repot in spring and allow it to rest in the shade during summer.

Cretan Brake—A fern highly valued for its beauty.

Hares Foot Fern—Has broad fronds about a foot long. Prefers a wide pot.

Maidenhair Fern—Among the most popular and lovely of the ferns.

Stags Horn Fern—A large and tropical-appearing fern. Prefers a basket or woody wall pocket and requires careful watering and plenty of indirect light.

Tender Holly Fern—An excellent indoor fern. Water sparingly in winter and allow it to rest occasionally in a cool, dark place.

In growing the indoor fern, it is very important that the pots be spotlessly clean. A thorough washing with hot water and soap is good. When the pots are dry, place a concave piece of broken pot over the drainage opening and fill with about ½ inch of gravel. Follow this with a soil composed of good garden earth, peat moss and sand. Allow enough room at the top of the pot so that when the fern is set in place there will still be ¾ inch of unused space in the pot.

Select a pot just large enough to hold the plant and no larger.

Watering—Water thoroughly every few days, standing the pot in a bowl of water until saturated. Do not water until soil apparently needs it and avoid keeping the soil too soaking wet. During these winter months it is all right to wash the leaves once a month but do not let them dry in the sun.

Feeding—A method of feeding that enables you to give ferns complete plant food and still have the utmost in convenience is the use of tablets. Plants should be fed at the rate of 2 tablets for a 6-inch pot. For plants in 10-inch pots, use 4 tablets. Vary the number of tablets proportionately for plants in larger or smaller pots. Always place the tablets along the edge of the pot about an inch away from the rim. Space them about 6 inches apart. Make holes about 1 inch deep and drop the tablets in these holes, then cover with soil and water thoroughly.

By the Master Gardener.

Mr. Charles Vautrain of Holyoke, Mass., president of the American Delphinium Society is known as the inventor of the chromatic chart of color interpretation.

SQUASH BORER CONTROLLED

C. V. Goodman, Madison

A 3% DDT dust was used exclusively this season for the control of squash borers and the results were phenomenal.

The varieties planted were Buttercup, Green Gold, quality and Blue Hubbard. The soil was Miami silt loam and the size of the patch about one-fourth acre. All varieties were planted seven and one-half by eight feet apart, except Blue Hubbard, which was planted eight by nine feet apart. About ten seeds were thinly planted in each hill so that when the plants were in their third leaf they could be thinned to three with about one foot distance between each plant.

Fertilizers Help Yield

Eight hundred pounds of 2–12–6 per acre were cultivated in before planting and about three-fourths quart of pulverized sheep manure, in addition to a small handful of 3–12–12 was worked into each hill over a radius of 2½ feet at the time of planting. No additional fertilizer was added and in spite of the dry season the yield was very good.

The dusting was started at the time the plants were thinned or when in their third leaf and at regular intervals of eight days until August 10. Due to the residual effect of DDT, it

(Continued on page 108)

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

PRESIDENT'S MESSAGE

Dear Members:

At this time Federation, District and Garden Club officers are busy with organization plans. Because this is one of the most important phases of our work, I want to take this opportunity to urge all officers to focus their most conscientious efforts on the selection of capable and interested personnel. For, in the final analysis, people do best what they like to do, particularly if they are giving their time.

There is a shocking lack of leadership in our Federation, not because we haven't the potential leaders but because we have failed to capture their interests. It is true we have many faithful, loyal workers who have gone on year after year, giving time they cannot easily spare. There are others who have become diverted and find it hard to fall back in line. I believe both these groups love their Federation more than those who have not served it. I also believe they stand ready to help and encourage new workers.

Do let us strive toward a closer cooperation between the vital departments of our organization. Not only will it bolster our Federation but it will give our work importance and vigor. As officers, let us choose people whose talents and force fit the jobs they must do and offer our Districts and our Clubs as proving grounds for future *Federation leadership*.

Despite the fact we dread the discomforts and restrictions of winter,

I think we welcome it. Preparing our sleeping gardens to withstand the vicissitudes of ice and zero temperatures presents a challenge which deepens our responsibility toward our growing treasures and heightens the thrill of anticipation, the main-spring of our garden consciousness. We also get a chance to share our joy and accomplishments with others. Let us take advantage of this season of "Peace On Earth Good Will to Men" and use our talents as Garden Club members to give others happiness.

In every community there are hospitals and institutions housing lonely, pain-ridden people who love Christmas and feel the need of personal contact and thought at this festive season. There are countless individuals even more remote and alone than those in institutions who could be made happy by ever so small a symbol of our mindfulness. Maybe a basket of home-grown vegetables and fruit would be welcome—A pretty, winter bouquet might lift the morale in a bleak, cheerless home, or a small gift tied with evergreens and berries. Why not invite a homeless "G. I." and his family to share our decorations and celebrations? The artistic Christmas wreaths and sprays Garden Club members make so beautifully will add a festive touch anywhere. Shall we plan something unusual for our church decorations and add to the splendor of the festival by lighting our home grounds and promoting city-wide lighting projects? Our friends might like a Nursery Credit Slip or two—there are endless possibilities.

Christmas is significant to all of us in a very personal way—usually harking back to our childhood conception of it. I never see a handsome tree laden with shining tinsel and glass balls or work with other sophisticated trappings associated with Christmas, but I remember the thrilling journeys to the woods as a child to fetch a fragrant hemlock and later help adorn it with strings of popped corn, cranberries, paper chains and gingerbread men; nor will I ever forget one grim Christmas in New York State when my four sisters and I stole downstairs during the dim shadows of a winter dawn to see what Santa had left us and found five big golden oranges and ten pairs of long, black, ribbed stockings draped over the sagging limbs of a sparse hemlock tree, each pair bearing a red label marked "Bear Brand" made in Beaver Dam, Wisconsin.

My warm Christmas greetings to you all and a New Year full of joyous accomplishment.

Ruth West

FEDERATION EXECUTIVE BOARD MEETS

Plan Coming Year's Program

The Executive Board of the Wisconsin Garden Club Federation held an interesting meeting at the Medford Hotel in Milwaukee on November 21. Committees for the coming year were appointed, a budget adopted, and program of work outlined.

Next Convention at Madison

It was voted unanimously that the annual convention of the Federation in October, 1947 be held in the Lorraine Hotel, Madison if suitable arrangements can be made. A committee consisting of Mrs. Wm. J. Armitage of Milwaukee, Rev. Wm. Emigholz of Platteville and H. J. Rahmlow, Madison was appointed to make plans.

The Board voted to abolish *half-year* dues which have been permitted during past years. Members joining after July 1 could pay one-half the regular amount and then pay the full amount in January because we operate on the calendar year. This created a great deal of work for the Recording Secretary-Treasurer and henceforth dues will be 75¢ per year for the calendar year. However, it was agreed that dues coming in after November 15 to January 1 be considered dues for the next calendar year.

Regional Meetings

Schedule of Regional Meetings was adopted as follows:

February 24 at Wausau
February 25 at Milwaukee
February 26 at Port Washington
February 27 at Delavan
February 28 at Madison.

Registration fee of 35¢ will be charged to pay traveling expenses of speakers and officers who attend all the meetings.

You Are Members of the Wisconsin Horticultural Society

To correct a wrong impression, when the statement was made that members pay the Wisconsin Horticultural Society "for the magazine," it was pointed out that Garden Clubs are affiliated with the Federation and the Federation is affiliated with the Wisconsin Horticultural Society—that the Society has members all of whom receive the official magazine, Wisconsin Horticulture.

All affiliated Garden Club members are, therefore, *full members of the Wisconsin Horticultural Society* and thereby entitled to receive Wisconsin Horticulture.

It was suggested that inexperienced presiding officers consult a parliamentarian or someone with experience and study methods of procedure in holding meetings. Correct methods should be used but the *friendly spirit of Garden Club meetings should not be destroyed by too serious or too critical discussion at business meetings.* Our meetings should be conducted in a friendly and informal method. Most important of all is not to let the business meeting drag out too long. *Make it snappy but friendly.* Much business can be taken care of by committees or Board of Directors.

Committees For 1947

General Chairman: Mrs. Clarence Schultz, 112 N. Commercial St., Neenah

Membership: Mrs. H. W. Schaefer, 4416 Taft Road, Kenosha

Publicity: Mrs. William Curtiss, Route 1, Plymouth; Mrs. Walter Patitz, 110 N. 87th St., Milwaukee

Legislation: Mrs. Fred C. Marquardt, Elm Arches, Hales Corners

Nominating: Mrs. F. J. Vea, 1010 Tumalo Trail, Madison

Historian: Mrs. Otto Hobson, 2313 No. 6th St., Sheboygan

Birds: Mrs. Arthur Koehler, 109 Chestnut St., Madison

Conservation: Mrs. Max Schmitt, 1912—84th St., Wauwatosa

Radio Garden Centers:

Flower Show: Mrs. Chester Thomas, 2579 N. Downer Ave., Milwaukee

Horticulture: Miss Olive Longland, Wychwood, Lake Geneva

Junior Garden Clubs: Mrs. Frank P. Dunn, Route 3, Madison

Judging School: Miss Emma Schipper, 510 E. Homer St., Milwaukee

Program: Mrs. Sam Salan, 112 Harrison St., Waupaca

Program Awards: Mr. Norbert Roeder, 6807—3rd Ave., Kenosha

Roadside Development: Mrs. Gilbert Snell, 414 Erie St., Sheboygan

Living Memorials: Mrs. Norma Robinson, Lake Shore Drive, Lake Geneva

Revision of Constitution and By-Laws Committee

Mrs. Fred C. Marquardt, Elm Arches, Hales Corners, Chairman—Milwaukee District

Mrs. A. J. Hancock, 137 Wilson Ave., West Bend—Sheboygan District

Mrs. Lawrence Skilbred, 198 E. First St., Fond du Lac—Fox River Valley District

Mrs. Martha Lowry, 204 Kensington Dr., Madison—Madison District

Mrs. Edward Holberg, Route 1, Jefferson—South Central District

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REPORT OF THE GENERAL COMMITTEE CHAIRMAN

The duty of the General Chairman of the Wisconsin Federation of Garden Clubs is to contact national and regional chairmen to obtain information on particular objectives set up for the National program.

Each district chairman was requested to submit names of all chairmen and a list was forwarded to the proper state chairman. All reports and outlines were transmitted to National and Regional chairmen.

In March Five Regional meetings were held: at Sheboygan March 10th, Waupaca, March 11th, Madison, March 12th, Milwaukee, March 13th, and Whitewater, March 14th. Meetings were Round Table Discussions with everyone participating in the activities. Each chairman was instructed to lead the discussion and later present the HIGHLIGHTS of the meeting. Three Officers and twelve chairmen made the journey and the fine message and enthusiasm of the chairman were very helpful and an inspiration to all who attended.

Attended all Board and District meetings, and interested chairmen in preparing articles for Wisconsin Horticulture. Visited the State Flower Show, also judging schools held in the Fox River Valley and served as judge at Flower Shows. Attended the Chicago Flower Show and the Manitowoc and Sheboygan Flower Shows.

Your General Chairman served as Program Chairman for the Convention held in Fond du Lac, October 10–11, 1946.

Wish to express my sincere appreciation to our past President, the Rev. A. Otto for his unfailing support of all officers and District Presidents. To the State Chairmen who have worked so loyally and cooperated in every way, your kindness during this year shall not be forgotten.

To the Ledgewood and Community Garden Clubs of Fond du Lac I am deeply grateful for their untiring efforts in helping make the 1946 CONVENTION long to be remembered for its Beautiful decorations, instructive speakers, and lovely Flower Show carrying the Christmas theme. I thank you all for the cooperation you so willingly gave me.

Mr. F. J. Fitzgerald,
General Chairman.

Between Clubs

N-E-W-S

North, East, West, South are the words
Whose initials four spell NEWS—
A familiar word, indeed,
Which we ev'ry day now use.

It originated when
Once a London chronicle
At the head of "new" reports
Weather-vaned points cardinal.

Comprehensiveness implied
These initials, thus disposed,
And the "new" thus pluralized
Is since used when news is "nosed."

Soon its use grew popular
Through apt force and brevity,
And we would, indeed, feel lost
Lacking what spells NEWS today!

Yes, indeed, we would be lost if we didn't have news today especially the interesting news of different Garden Clubs in the state.

There are almost a hundred clubs in the Federation today. Last year only 35 clubs sent news items. What about the rest of the clubs? Surely you have news. Won't you please help by sending news of your club. Items should be short and helpful to others.

As a follow up to their annual flower show at which Mrs. Chester Thomas, Mrs. B. Armitage, Milwaukee and Miss Merle Rasmussen, Oshkosh were judges, the A. A. U. W. Garden Club of Manitowoc had a table setting, flower arrangement demonstration and lecture by Mrs. Irwin Burger and Mrs. J. Kelly of Woodstock, Ill. They especially emphasized textures and color harmony.

From the Brodhead Garden Club comes news of a hobby show held in September at the High School Gym. The proceeds from the silver donation will be used for Brodhead's Community House fund.

The Whitewater Garden Club toured to Wychwood at Lake Geneva while the chrysanthemums were at their best. Of special interest were the blooming mums in the experimental gardens. New varieties are being developed with the ideals of stronger stems, resistance of foliage and flowers to frost and greater beauty.

Earl G. Wright, director of the Neville Public Museum, Green Bay, was guest speaker of the Plymouth Garden Club at their annual banquet meeting in October. With his lecture "Nature's Calendar in Color" the speaker showed colored moving pictures, which were wonderful in their clearness of detail, especially the flight pictures of the Whiltling Swans, gulls and Caspian Terns and the intimate pictures of the old and young birds on the nest.

Respectfully submitted,
Elizabeth Curtiss.

JUNIOR GARDENS

It has been my great privilege and pleasure to serve the state as Junior Garden chairman for 1946. The five regional meetings in March were a source of inspiration. We had no specific plan for juniors so I sent out a form letter covering the Lake Geneva program for the past several years. I noted with pleasure, some of my suggestions were followed, i.e., six kinds of vegetables on a tray or in a basket can make a beautiful arrangement!

Mrs. Dunn of Madison gave a most comprehensive report which I submitted in full,—so that all would know the amount of time and effort she has given to this project. I recommend (from her report) that each Junior Garden Group be taken on a tour of a green house with an adult who can explain details properly. Such a trip will teach the importance of leaf mold —the compost heap and culture. Perhaps through our Junior Clubs competition and prizes, we may promote a compost heap as a state project. Baraboo's suggestion of a tray garden illustrating a poem should interest all communities—could be used as a shop window display for special occasions.

Mrs. Lawrence Skilbred of Fox River Valley suggests that garden clubs give support to Brownies and Scouts and do Junior Garden work through this medium. Let these established groups sponsor a special planting. I am enclosing article regarding Fond du Lac's success in "Wildwood Retreat" as printed in the Milwaukee Journal some time ago. Let us boost them 100%.

May I suggest for a spring planting that all clubs promote First Lady petunia—a delicate pale pink that lends itself to most color schemes—and is a special favorite of our 1947 State President.

Respectfully submitted,
Norman R. Robinson,
Lake Geneva,
Junior Chairman.

Random Garden Notes

By Genevieve Dakin

Each issue of the National Bulletin contains interesting articles. Does your club make the most of the three copies received by your president? Our National President reminds us that one copy is for the club president, one for the program chairman, and the third is to be given to a member who is to give a brief resume of its contents to the club. You may subscribe for the Bulletin for $1.00 for two years.

The Garden Club of Illinois holds a school monthly for its Junior Garden Club leaders. A calendar of lessons is presented for the month.

Garden Glories the publication of the Garden Club of Illinois, is issued bimonthly. Always distinctive in both cover and contents its every detail reflects the efficiency of its editorial staff.

Indiana's Roadside Council has set aside a "rest area" near Ernie Pyle's birthplace, Dana. A bronze plaque mounted on field stone serves as a marker.

Iowa clubs are reveloping a monthly newsletter which will go to each member of the Federation. It is "Iowa Gardens."

Massachusetts clubs have raised $12,000. for their Garden Club Services Inc. They serve the hospitals of the state. Last spring a plane filled with flowers was flown to a Newfoundland hospital. Each garden club in the state takes two or three days a year at the hospital to which it is assigned.

Michigan's project "Help for Holland" resulted in collections of $1300 in cash and merchandise consisting of 350 pounds of seed, packeted, 120 sets of tools, 6 tons of fertilizers, 200 pounds of insecticides, three hand cultivators—all sent abroad in Dutch ships to bring gladness to gardeners in the low country.

New Jersey won the Kellog Award this year for its Blue Star Drive. New Jersey clubs raised the $25,000 necessary to complete the project. The value of the project, adding the gifts of land to the state, labor and services of planting, is well over $2,000,000.

Each fall Ohio's regional vice-presidents, corresponding to our district presidents, invite the presidents of clubs in their regions to round table discussions of garden club and state problems.

Pennsylvania, besides highway beautification, is advocating the planting of community forests as living memorials.

A recent bulletin of the National Rock Garden Society is devoted entirely to penstemons. Preferred pronunciation places the accent on the second syllable, by the way. Penstemon is a vast group of plants which with one exception is confined to North America. There are at least 150 species. Mr. Ralph W. Bennett, 5607 North 22nd Street, Arlington, Virginia is secretary of the Penstemon Society. Its members are ordinary dirt gardeners scattered all over the country who have an enthusiasm for penstemons and want to succeed in growing them. The group is divided into eleven round robin circles and the secretary of the society will issue a bulletin several times a year summarizing the information secured.

If one is inclined to save his own vegetable seed it is well to remember that seeds naturally cross-pollinate and are not satisfactory. Seeds from hybrid vegetables should never be saved.

"Packeted seed left over need not be discarded, however. Oily seeds like parsley, carrots, parsnips and celery will seldom germinate the second year. Store left over seeds in a ventilated metal box in a dry, cool place."

"Winter rye may be used at the rate of 1½ quarts to a plot 25 by 40 ft. Broadcast evenly, then rake the soil in one direction so that the cover is ¼ of an inch deep."

When your catalogs come around Christmas check petunia Cheerful as a must have. No annual in my garden has received more favorable comments. It ties in with salmon rose phlox and with Else Poulson roses equally well. Peace rose and Goldilocks more than met expectations. Both bloomed into November. Morden's lythrum came up to specifications, too. New shrubs include forsythia spectabilis, weigela Bristol Beauty, and the beauty berry, callicarpa Japonica.

Salsify and parsnip may be left in the ground all winter. Freezing improves the flavor.

In five years a Massachusetts professor picked and counted 37,369 weeds from a plot ten feet square. The American Nursery Association says "A weedy lawn is as needless as it is ugly—and the day may not be far distant when a crop of dandelions will be as socially unpopular as a garlic breath."

Does your Christmas Rose, Helleboros niger, get confused on dates? Last year mine was exquisite at Thanksgiving. This year it started to bloom in October. Weak manure water insures fine bloom.

Design in Flower Arrangement

By Emma C. Schipper, Milwaukee

"Many people are intimidated and confused by the word 'design' as it is applied to flower arrangement," said Mrs. Cochrane Cole of Bronxville, N. Y. before the students at the Judging School sponsored by the Illinois Garden Club Federation in Chicago on October 23. As she explained it, design in flower arrangement is a composition of plant material in a pattern which will help the eye to see its particular beauty in form, color, and texture, and will therefore convey the idea. Look to the plant material at hand and what you contribute to it is design. Emphasize your idea! Before you start an arrangement visualize the finished picture. It is important that you do this. Don't approach flower arrangement in a technical manner. You have to have fun with it."

The five characteristics of design which were outlined to us were as follows: 1. Proportion and balance. 2. Relationships of material, textural and otherwise. 3. Color. 4. Distinction. 5. Condition.

Good Proportion

"Good proportion in a flower arrangement," it was explained, "would mean that the flower arrangement should be at least one and one-half times the height or width of the container. The highest point should be over the center of the container."

Regarding balance we were told to have the weight through the center of the axis; outer edges to be thinned out. The center of the axis our speaker compared to the hub of a wheel.

Combining Different Textures

In the relationship of plant material used in demonstrating, Mrs. Cole showed interesting variety. There were no inhibitions about combining different textures. For example, roses, snapdragons, thermopsis seed heads, lambs ears, echeveria and coleus foliage were skillfully arranged in an old-fashioned pressed brass lamp base which had been painted with a dull paint of a moldy green color. The deep pink roses and snapdragons easily predominated in this assembly of color and texture, and as a result there was harmony. Certainly monotony has no place in Mrs. Cole's repertory. Very freely she combined dried material with fresh material and exotic with ordinary garden plants. If the color, texture or form supplied the right touch, what difference whence it came and where it grew?

About color she reminded us that the same principles which applied to design in general also applied to color. To secure proportion and balance in color the advancing or reflecting colors, which are light and bright, should be used in lesser amounts than the absorbing colors which do not reflect light.

Distinction our speaker defined as "unlikeness" or "the artist's touch."

Regarding the condition of plant material, especially for show purposes, we were admonished never to use material unless it had been conditioned by soaking in deep water over night.

"Modern arrangements," we were informed, "show dramatic use of plant material; striking color combination, sometimes achieved by using a colorful container; massing of material for sculptured effect, and exotic plant material combined with native plant material."

Mrs. Cole also saw no reason for not using highly colored figured backgrounds if the horticultural material were strong and dominant enough to subordinate the background. "You can use anything," she said. "It's not what you use but how you use it."

OUR GARDEN AND FLOWER SHOW

May 23–25

Our State Garden and Flower Show date for 1947 has been set. May 23–24–25 is the time, and again at the Recreation Building, Wauwatosa.

Last year's show was highly successful. It provided us with ideas and suggestions for improvements, which will not be overlooked in planning this year's project.

The show committee will welcome ideas and suggestions which will enable the committee to better plan and create the many classes necessary for our 1947 garden and flower show.

PROGRESS is our watchword.

Mrs. Chester Thomas, Garden and Flower Show Chairman.

(Continued from page 103)

should not be necessary to dust more often. Great care should be exercised in applying dust to *avoid harming plants.* The dust gun should be in good working condition and one puff directed to *the base of each plant* is sufficient until the vines make strong growth, at which time an additional puff may be given each vine about one foot from its base. This method will prevent borers entering vines a short distance from base as they sometimes do.

YEARBOOK AWARDS

The 1946 Year Books will again be on display at Regional meetings next spring. Will be attractively mounted in the handsome scrap book which is being presented to the Federation by our former State Program Chairman, Miss Katherine Melcher, now of Joliet, Illinois. This is the second scrap book Miss Melcher has donated. Books cannot be sent to clubs.

1946 YEAR BOOK PROGRAMS SHOW IMPROVEMENT

It is a pleasure to report a substantial increase over 1945—in the number of garden club year books received for the 1946 contest.

There has been great improvement in the program work—being logically planned, specifically stated, and interesting. Every club submitting an entry is to be congratulated!

Year Books rating *Excellent*, blue ribbons award winners (Score 93–100) were sent by the following garden clubs: Antigo, Blue Beech (Milwaukee), Community (Fond du Lac), Edgerton, Federated Home (Wausau) new organized, Delavan City, Home Gardeners of West Allis, Kenosha County, Madison Garden Club, Platteville, Ravenswood (Wauwatosa), Ripon, Spring City (Waukesha), Two Rivers, Waukesha Town, Waupaca, Wausau, West Allis, West Side (Madison).

Of the 19 firsts, the four following garden clubs rated a "Special Mention" for having outstanding year books: Kenosha County, Ravenswood of Wauwatosa, Spring City of Waukesha, and Ripon.

Those winning ratings of *Very Good*, or red ribbons (Score 85–92) are: A. A. U. W. of Manitowoc, Baraboo, Bluemound (Wauwatosa), Galecrest (Milwaukee), Namekagon (Hayward), Iola, Ledgeview (Fond du Lac), Little Garden Club (Madison), Marinette, Menomonee Falls, Manitowoc, Omro, Portage, Sunset (Madison), Tess Corners (Hales Corners), Wausau Valley, West Bend.

The following received ratings of *Good*, or white ribbons (Score 80–84): Ceresco (Ripon), Elkhorn, Darlington, Hillcrest (West Allis), Horicon, Lake Geneva Town and Country, Lodi, Oakfield, Sheboygan, Horticulture (Wisconsin Rapids).

All comments were made by the judges as to be instructive and encouraging.

JUDGES

The judges were: Mrs. R. H. Sewell, Past State President, Milwaukee; Mrs. Harold W. Peterson, Milwaukee; Mrs. G. Alan Kriz, Elm Grove.

This fine committee is to be commended for their very splendid work in judging the 1946 year books.

By Mrs. Wm. J. Armitage, Program Awards Chairman.

TO GROW BULBS INDOORS

Question: I would like to grow some tulip and daffodil bulbs in pots indoors. How can this best be done?

Answer: Plant the bulbs in ample sized pots, in regular potting soil. Then place the pots in a cool place where the temperature is about 40 degrees or a little below. If there is a good root cellar they can be placed there; if not, place outdoors and cover with a heavy covering of marsh hay or straw to prevent freezing, but enable the bulbs to develop a good root system. A well covered cold frame is a good place. Then along in January or February when the tops begin to grow, bring the pots into the home, water, place in a sunny window where the temperature is not too high, around 60 to 65 degrees, and allow them to grow. With good humidity and low temperature flowers should develop well. If the bulbs are grown in a warm room from the beginning, they will not make an ample root system and never do well.

Question: Should the paper white Narcissus be grown in a cool place?

Answer: Yes. Stimulate root development by growing them in a cool place at a temperature of 40 to 50 degrees. Then when the tops begin to grow, bring them to the light—after about six weeks, and let them come into bloom in a sunny window where the temperature is not too high. If we try to grow them entirely in a room where the temperature is about 70 degrees with a relatively dry atmosphere, the flowers are not likely to be very good.

Question: I do not have any luck in growing flowering plants, especially those that come from the florist in my home. What is the trouble?

Answer: The trouble is probably high temperature and low humidity. If these conditions cannot be corrected, we suggest you grow plants of the cactus family, Sansevieria, Philodendron, and others of that type which can withstand those conditions.

MEMORIAL SCHOLARSHIP SPONSORED BY LAKE GENEVA CLUBS

The Lake Geneva Town and Country Garden Club has established a fund for a scholarship to be awarded a Lake Geneva high school boy graduate who will plan to major in conservation at the University of Wisconsin, according to an item in the Lake Geneva News.

The scholarship is to be awarded annually, providing a boy qualifies each year. It is to serve as a living memorial to all those who helped win World War II.

When presenting the plan to the club, Mrs. H. H. Clemons, last year's president stated: "One of the greatest dangers confronting this country is the constant depletion of our usable surface soil. This results from the loss of our forests and from incorrect agricultural practices."

The club unanimously decided that a project to stimulate interest for training men or women in the field of soil conservation would be the finest memorial they could make.

The Roadside Beautification Committee reports that hollyhock and sweetrocket seed had been sown on the roadsides leading out of Lake Geneva.

The club raised its dues from $2.00 per year to $4.00 to assure an adequate fund each year.

ORIGINAL IDEAS FOR FLOWER SHOWS

Our flower show last June was quite original. We carried it out along antique lines. Flowers were arranged in antique vases with old-fashioned, shadow-box types of square or oval walnut frames. The old walnut frames were about 10 inches square, or oval.

We also had antique arrangements in our shadow boxes, with arrangements in antique vases plus antique assessory to complete the arrangement.

Then to top off the idea of an antique show, we had a display of hooked, crocheted and braided rugs, done by an adult class in our Vocational School. They were displayed amid old rockers, sofa with needlepoint, antique tables and one Garden Club member loaned a small heirloom melodeon.

We also had a display of floral paintings done by another adult class in our local Vocational School.

Does that give you a new and interesting idea? Over 1000 people visited the show.

—By Mrs. J. B. Polo, Program Chairman, Fort Atkinson Garden Club.

MILWAUKEE DISTRICT MEETING

The annual meeting of the Milwaukee District was held September 26 at the Y. W. C. A. with Mrs. O. J. Reuss, president, presiding. At the morning session the secretary and treasurer's reports for the year were read. Committee chairmen also made reports. The election of officers was held, with the following being elected for the coming year: President, Mr. Wm. J. Armitage, Milwaukee; Vice-president, Mrs. Gerald Otto, Menomonee Falls; Temporary secretary-treasurer, Mrs. Carl Hofstetter, Wauwatosa.

At the afternoon session, a very interesting talk was given by Mr. R. L. Williams of the State Highway Department. Mr. Williams is a roadside development engineer for the state of Wisconsin and talked on the "Long-range Roadside Development" in our state.

By Mrs. W. E. Patitz, Wauwatosa.

TREASURER'S REPORT
WISCONSIN GARDEN CLUB FEDERATION
By Mrs. Eric Martin

GENERAL FUND

Receipts

Balance as of Nov. 15, 1945	$ 406.40	
Fed. dues to and incl. Nov. 11, 1946	439.85	
Stationery sold to Dist. Presidents	7.50	
Balance at close of War Service Fund	15.42	
Sale of Handbooks	2.00	
Living Memorial Donation	5.00	
Convention Registration fees	121.70	
Dividend—Sale Mrs. Dunlop's book	16.50	
Transfer of funds:		
From Educational Fund (Discontinued)	165.69	
From Flower Show Fund	153.65	
TOTAL RECEIPTS		$1,333.71

Disbursements

National Council Dues	$ 135.40	
Roadside Council Dues	10.00	
National Council Meetings		
Registration—President	36.00	
President's Expense Allowance	10.00	
Toward President's General Expenses	40.00	
Executive Board Meetings (2)	64.98	
Treasurer's Bond	5.00	
Secy-Treas. Salary & Clerical Help	25.00	
Secy-Treas. Postage & Supplies	25.12	
General Stationery & Supplies	54.60	
Committee Chairmen Expenses	37.53	
General Chairmen's Expenses	14.50	
Gift: Flower Show Chairman	38.55	
Convention Expenses (detailed separately)	393.54	
TOTAL DISBURSEMENTS		890.22
BALANCE AS OF NOV. 11, 1946		$ 443.49

FLOWER SHOW FUND

Receipts

Balance as of Nov. 15, 1945		$ 500.00	
Repayment of cash adv. to Fl. Show Chrm.		200.00	
Receipts from 1946 show	$2,636.54		
Expenses	1,482.89	1,153.65	
TOTAL			$1,853.65

Disbursements

Cash adv. to Fl. Show Chrm.	$ 200.00	
Transferred to General Fund	153.65	
TOTAL DISBURSEMENTS		$ 353.65
FLOWER SHOW BALANCE 1946		$1,500.00

PERMANENT FUND

Balance (No disbursements)	$ 250.00	
TOTAL IN ALL FUNDS NOV. 11, 1946		$2,193.49

WISCONSIN STATE HORTICULTURAL SOCIETY

Collected and disbursed for memberships and magazine	$ 950.90

FINANCIAL REPORT—19th ANNUAL CONVENTION
Fond du Lac, October 10–11, 1946

Receipts

295 Registrations at 50 cents each	$147.50
Dividend of 50 cents each on sale of 33 books "Let's Arrange Flowers" Hazel P. Dunlop	16.50
	$164.00

Disbursements

5 guest tickets for banquet	$ 5.00	
1 luncheon ticket for registration asst.	.80	
To Retlaw Hotel for loud speaker	20.00	
Sam Campbell, Speaker	60.00	
Mrs. Chas. Walgreen, Speaker	50.00	
Mrs. A. F. Durand, Speaker	20.00	
Mrs. Hazel P. Dunlop, Speaker	131.73	
Miss Olive Longland, Speaker	5.00	
Rev. A. H. Otto, President's Expenses	11.85	
Mrs. John D. West, 1st vice president, Expenses	5.50	
Mrs. F. J. Fitzgerald, 2nd vice president, Expenses	9.20	
Mrs. Eric Martin, Secy-Treas., Expenses	7.18	
Mrs. Jean Steinmetz, Asst. Secy., Expenses	11.95	
Mrs. F. J. Fitzgerald, Program Chairman	14.27	
Mrs. C. H. Braman, member Program Committee:		
Telephone calls Convention $ 3.35		
Gift-Program Chairman 5.60	8.95	
Mrs. Clarence Schultz, Program Committee:		
Convention Flower Show Exhibit 16.91		
Program expense 2.00	18.91	
Ribbon and Exhibit tags for Flower Show	1.50	
Commonwealth Reporter, Cut	2.50	
Allowance for music, prizes and decorations	35.00	419.34
DEFICIT—paid out of General Fund		$255.34
Fox River Valley District Expenses		$ 53.50
Received from material sold	$ 7.50	
Contributions from:		
Fox River Valley Dist.	5.00	
Ledgeview Garden Club	3.00	
Community Garden Club	3.00	
Federation allowance	35.00	
		$53.50

Answers To Test Your Hort Sense

(See page 102)

1. Very poor. The soil dries out fast and is usually too hard. A crumbly soil, high in humus and sand is necessary to grow good house plants.
2. Secure some coarse sand if possible and some leaf mold, granulated peat, or fine well rotted manure. Take the best garden soil you have. Mix 2 parts of it with 1 part of the organic matter plus 4 tablespoonsful of superphosphate. Most house plants will do well in such a mixture. Begonias, African violets, and gloxinais like a little richer soil. The same formula may be used for these except use only 1 part garden soil.
3. Place the soil in a pan and set in the oven with a medium sized potato. When the potato is baked, destructive soil borne organisms are likely to be destroyed.
4. Yes. Many perennials such as veronica, phlox, meadow rue, and coreopsis can be transplanted in the fall. Iris and the Madonna lily are exceptions and perferably should be planted in August.
5. Not too advisable for the average person. There is danger of forgetting to remove the water not taken up by the soil. Soggy soil causes roots of many kinds of house plants to decay. This naturally makes the plants look sickly. If the wick method of automatic watering is used to water house plants from the bottom, the soil is kept just moderately moist. It usually produces very good results.
6. During the time of their best growing period which is summer spring and early fall. Liquid fertilizer tablets may be used once each month. Soft, weak growth, is likely to occur if we fertilize during dark days.

REPORT OF RADIO CHAIRMAN

The Antigo Garden Club president, Mrs. D. B. McIntyre, reports her club prepared to give a radio program last winter, but due to illness plans were delayed until fall.

The Marinette Garden Club radio chairman, Mrs. Joseph J. Geren, states two programs were given over the Marinette Station. On August 12 Mrs. F. O. Wild spoke on some of the interesting origins of the names of flowers.

On August 14 Mr. Paul Ravet spoke on the history of gladiolus. The station also advertised the spring and summer flower show of the Marinette Club held at Lauerman's Department Store in Marinette.

The Wausau Garden Club radio chairman states quite a lot of material was taken to the radio station there to be used during broadcasts. Mrs. Brimmer prepared a paper on zinnias which the station used.

Another member prepared a paper on immigration of birds for the station. The Wausau Club had 50 bird houses built and put up. The radio station cooperated by announcing that the houses had been put up and asking rural children to look after them. The station gave the history of the blue bird trail and other information about birds. This station also announced the regular club meetings.

The report from Wisconsin Rapids by Mrs. R. Seehagen is as follows:

Mrs. Fred Braun was selected by the Lake Wazeecha Club and she gave the first talk on herbs May 4th.

Mrs. R. A. Mullenix was chosen by the Two Mile Club.

On May 11th Mrs. S. G. Corey talked on Gardeners Plans and Planting. Mrs. R. A. Mullenix talked on birds on May 18th. Fertilizers and garden pests was the topic of Donald Rowe on May 25. On June 1 the ragweed problem was presented by Mrs. John Murgatroyd.

The Oshkosh Horticultural Society presented a radio program starting April 21 during National Garden Week.

The Iola Garden Club, Mrs. J. L. Larson, president, reported they gave a radio program on Saturday, April 13 over the Stevens Point Station. Topic was: "I Like Uncle Sam's Bird," a condensed article read by Mrs. J. C. Jerdee.

Then there was a short original sketch called "The Farmstead Can Be An Attractive Place," by Mrs. Myron Erickson, Mrs. Arthur Thompson and Miss Leah Ambroson. Three poems "My Garden," "For All Who Have a Garden," and, "Come Into the Garden" were read by Mrs. J. L. Larson.

By Mrs. E. F. McNaughtan, Radio Chairman.

Wisconsin Horticulture

February
1947

MANY GROWERS ARE MENTALLY TIRED AT THE SEASON'S END

M. A. Blake

The growing season of 1946 was more wearing on many growers than at any time during the war. It was more difficult to obtain needed equipment, materials, and supplies.

Laborers were too often like mechanical tools. Unless the grower supplied the mental spark and devoted more than the usual amount of time to supervision of details, progress was slow and costly errors were all too common.

Try to relax during the winter months and become refreshed before spring opens. —*From Horti-Cultural News, New Jersey Horticultural Society*

Dr. Donald Wyman of the Arnold Arboretum tells the story of Mark Twain who when visiting a California friend remarked about the garden's beauty. His friend, pleased, said, "We have a wonderful place here; soil and climate are just right; I have plants growing in this garden from all over the world; over there you see a Natal plum growing side by side with the Alaska cypress; over there is the Chinese Ginkgo growing right beside the Scotch rose and back a little farther is the English Hedgerose and the Sugar Maple from the eastern United States; everything growing perfectly side by side." Well, Mark Twain came upon one plant whch was obviously having a struggle. He grinned a bit and said, "Yes, they are all growing side by side, but some of them hate like hell to do it."

ABSENT-MINDED

Professor: "Didn't you have a brother in this course last year?"

Student: "No,sir; it was I. I'm taking it over again."

Professor: "Extraordinary resemblance, though—extraordinary."

WISCONSIN HORTICULTURE

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FRUIT GROWING IN THE WEST

An Easterner Visits America's Largest Orchard Section

Carroll R. Miller, Secretary, Appalachian Apple Service

We can only guess at how many millions of acres of solidly planted peaches, cling and freestone; apples, apricots, cherries, plums, olives, walnuts, grapes, nectarines, tomatoes, beets, beans, oranges, lemons and grapefruit we saw:—or how much we ate of them, fresh off the tree. And another million acres is "coming in" for water within the next several years: 440,000 acres in the Columbia River basin alone.

A Fabulous Country

A main impression most of us brought home is that all America must eat long, hearty and often—and drink almost as much—to keep cool ahead of the well-spaced loads carried by all those millions of close-packed, vivid green, uniform and vigorous trees that fill the wide valleys solidly, mile after mile, for hundreds of miles. It is a Fabulous Country. Those Westerners haven't been exaggerating. No fruit grower can really know his industry until he has seen and studied this Fruit Basket of the World.

Yields of 20 tons per acre (800 bushels); an occasional 30 tons; terminal growth of 7 or 8 feet per season; nursery stock seeds planted in February; budded in May and 6-foot whips by November; 2 year old peach orchards yielding respectable crops; 3 way interplanting of apples, apricots and peaches as insurance against the unknowable future; trees planted so close as to almost bar sunlight from the ground, but a tremendous growth of cover flourishing underneath and the trees sharply limited as to height and their centers well opened up for sunlight, to promote bearing thru the whole tree instead of on the

outside only; and water gurgling everywhere. These things leave an Easterner a little dazed, like Alice in Wonderland. But from the 15-day tour, your Secretary comes up with the following main impressions:

Cooperation Rules

Cooperation rules in the West. They have it in all degrees. For some growers, the association does the spraying, picks, packs, stores and markets, and processes the by-products. For other growers the units do the packing and marketing only. . . . We say in the East:—"The Westerners have been forced by conditions to cooperate." That's a half-truth—or less.

Many growers once did their own packing and marketing. Many can and do get their own water, from beneath their own acres or from nearby streams. They don't *have* to work together. They cooperate because they have found it pays. For most growers, there as here, only through central packing houses can a professionally finished pack be produced. An amateur fruit salesman can do only an amateurish job of fruit selling—as of packing. And only by cooperative effort can growers have any control over the processing which so vitally affects their price levels and their net returns.

Acreage Small

Acreage of Western growers averages small;—perhaps 15 acres. But they have plenty of large growers, who are cooperating. Are we in the East dealing in opiates instead of facts when we say:—"Western growers cooperate because they were forced to?" Hadn't we better really find out about that? To us, that is the No. 1 lesson of the tour.

Fruit grows more easily in the West; but fruit growing is not easier. Their soil *averages* much deeper—and richer. They have more and brighter sunlight. They have water, as much as they need when they need it. Fungus and some other troubles are little known in that dry air and climate. So fruit grows more prodigally there. But they have other large troubles;—markets, for one. Their growing practices are better than ours. We speak of averages now. They prune religiously, methodically and uniformly. They thin intelligently, effectively and expensively. They "chase water" endlessly. They have just as many problems as we have—or we should have. Fruit does grow more easily there; but fruit growing is not easier. In fact, it is tougher. Without cooperation, they would probably have had to quit, busted. We haven't, quite. But that's no reason why we shouldn't work together, if there is more profit in it. And we are going to need that help that comes with the combined best judgment and combined resources of many instead of the individual.

Water

"Water is our life-blood." This is a by-word in the West. We stepped often across a 4-foot water ditch;—out of a lush

green Eden into bare, hard hot desert. Out of a solid dark-green orchard loaded with golden 'cots, peaches, pears, other fruit standing in a rank, waist-high cover crop, we stepped across a ribbon of clear water into hot gray barrens where only stunted sagebrush could survive. That's water. We can have it—when we want it badly enough. They put water just about where they want to: on terrain just like a lot of ours. There are lots of good methods;—furrows, flood, seepage, sprinklers, ooze hose.

The water cost varies widely; from $1 per acre to $16 per year, not including labor to furrow or tend ditches, etc. In Colorado it ran mostly $4 to $6 per acre; in Washington some cost $3.50 but mostly more. In California one district got water for $1 a year, delivered, and expects shortly to get it for nothing. They are selling power from the dams, and profiting. Another big section of Central California is underlain with gravel. Growers drill their own wells and get huge quantities—enough for "flood" irrigation, at small cost for pumping. When frost threatens, they flood with the slightly warmer water.

They do wonderful things with the precious water; take it over hills and down into valleys; through mountains and under rivers, believe it or not. In Washington they told us of a "ditch" being stymied for some time when, as they took it by tunnel through a "hill" (mountain to us) they ran into a huge stream of water!

What of the future? Washington has another million acres coming under irrigation shortly: 440,000 acres within the next 4 years. Other great land projects are coming in. They grow double or treble the tonnage per acre that we average in the East. Trebled production means per-bushel costs cut way down. We face some terrific competition from the West in the next decade or so. We'd better get ourselves some water!

Condensed from Bulletin of Appalachian Apple Service.

RECOMMENDATIONS TO WISCONSIN APPLE GROWERS ON THE USE OF DDT IN THEIR 1947 SPRAY PROGRAM

Spray Time	Materials For 100 Gallons
Preblossom	Lead Arsenate plus fungicide
Calyx	Lead arsenate 3 lbs. plus fungicide
First cover about 10 days after calyx	DDT 2 lbs. of 50% wettable powder plus fungicide
Second cover about 10 days later	DDT 2 lbs. of 50% wettable powder plus fungicide
Third cover about 14 days later	DDT 2 lbs. of 50% wettable powder plus fungicide
Fourth cover about July 15 to 24.	Lead arsenate 3 lbs. plus fungicide
Fifth cover 2nd brood codling moth	*DDT 2 lbs. 50% wettable powder, or lead arsenate 3 lbs., plus fungicide

Precautions

1. If mites develop, add DN-111 at rate of 1¼ lbs. to each 100 gallons of spray (Undersides of leaves must be thoroughly wetted to control mites).
2. DDT is not recommended for the calyx spray since it does not control plum curculio. Growers who have never had trouble with curculio may wish to use DDT in the calyx application, but they should be sure to wait until bloom is over.
3. The fourth cover spray is primarily for apple maggot control; if apple maggot is a problem, put on an extra lead arsenate spray 10 to 12 days after fourth cover.
4. Lime sulfur should not be used with DDT, use a milder fungicide.

*** Do not apply this spray to apples within 2 weeks of harvest whether lead arsenate or DDT is used.**

By: C. L. Fluke and E. J. O'Neal

THE MELBA APPLE

Melba, an early apple that ripens with the Duchess of Oldenburg, that is, about the middle of August, is far superior to this old Russian variety for the home orchard and local market. Possibly one might object to the term new, as Melba is the same age as the Cortland. In 1898, seed of McIntosh was sown by the Horticultural Division, Experimental Farm, Ottawa, Canada, and in 1902 the tree that produced Melba was set out for fruiting. When seven years old, it bore fruit. Later, when its merits were better known, it was named Melba by the late W. T. Macoun in honor of the famous Australian actress.

The tree of Melba is vigorous, hardy, and an annual and early bearer.

Melba on standard roots planted in 1929 in the Station orchard at Geneva bore a light crop in 1933, or at an age of four years. Since then, with an exception of one year, it has borne some fruit each year. The last few years it has given a good crop every other year and a light crop on the alternate year.

Melba has received favorable comments from numerous sources. In Wisconsin it has proved hardy and is recommended by a large apple grower as the best early apple. He states further, "It has won a permanent place in the hearts of Wisconsin horticulturists."

Red Melba, a Melba sport, has likewise fruited early and differs mainly from its parent in having a solid red color, in localities where Melba does not color well.

Preliminary Investigations on the Pollination of the Delicious

By B. Esther Struckmeyer

Many growers have experienced poor yields in crops of Delicious, and this may be due to a great extent to lack of pollination. It is now certain that the extent of pollination needed to secure a good crop varies with the variety. However, fewer varieties have a lower set of fruit than Delicious.

Some Reasons For Crop Failure

Some reasons for failure to get a crop of Delicious are as follows:

(1) It has been noted that the structure of the Delicious blossom is such as to permit honeybees to extract the nectar without pollinating the blossoms in a high percent of their visits. The upright position of the filaments and the spreading peals permit honeybees to extract nectar without touching the anthers or pistils. This is quite in contrast to the spreading filaments and cupped petals of some other varieties, where it is not possible for bees to go directly to the base of he filaments, but must crawl over the stamens and stigmas to gather nectar and in so doing pollinate the blossoms; (2) The pistils of Delicious are so much shorter than the stamens that bees which collect pollen rather than nectar do not always touch the stigmas; (3) Heavy second and June drop may also contribute to a poor crop; (4) Delicious seems more subject to frost than some other varieties; (5) There may be a preference of bees for other varieties than Delicious.

Growers in Washington believe the central blossom to be important in the set of fruit. The importance of the center blossom was determined by thinning he number of blossoms on a cluster and hand pollinating those remaining with a mixture of several varieties of pollen. Interest was primarily concerned in the importance of the center blossom as regards set, and the number of blossoms in a cluser needed to be polinated to insure a good set. Results of the test for Delicious show that there were slightly more spurs with fruit when the center blossom was present, but when pollinating the center blossoms only there were not enough of the centers that set to insure a good crop. At one orchard all blossoms on a cluster of Delicious were pollinated on all spurs. The set of fruit was much greater where all blossoms were pollinated when compared to the control. To obtain a normal set of Delicious by hand pollination, at least three blossoms per cluster and one of them being the center blossom would be necessary. Since rarely more than one fruit per spur is set, it would also be desirable to place the pollinating distance to every three to four spurs. However, this method is too laborious and expensive for hand pollination. At any rate it appears that more pollination must occur in Delicious than other varieties. The number of blossoms pollinated on McIntosh was less significant since the percentage of spurs with fruit was high enough to insure a good crop regardless of number of blossoms pollinated. This is quite different when compared with Delicious where the number of blossoms pollinated and the position was quite imporant in geting a good set. There were more spurs with fruits from those clusters which had the central blossom than in those where the central blossom was removed and only the side ones pollinated.

The diameter and weight of fruit from the different treatments such as number of blossoms pollinated and position of blossom was measured. The positon of the blossom in a cluster or the number of blossoms pollinated seems to have little effect on the diameter or weight of the fruit, since they were similar for all treatments. This was true of both Delicious and McIntosh. This may be explained by the fact that there was an average of about one fruit per spur regardless of the number of blossoms pollinated.

The set of fruit was about the same regardless of the number of stigmas pollinated. However, the size and weight of the fruit became increasingly less as fewer number of stigmas were pollinated. From these preliminary investigations, it does not seem practical to hand pollinate in this region. The great number of blossoms needed to be pollinated to assure a good crop would be too time consuming and expensive.

Distance Of Bees Important

Since this method is not practical, other methods must be tried to get a good set of Delicious. It is not practical to bring in too many bees since it might result in a heavy set of other varieties which would necessitate thinning. However, the distance the bees are from Delicious is very important. Bees must be close at hand to get a good set. A good procedure is to interplant a variety of a good pollen source close to Delicious. Best sets are secured with late blossoming varieties as *Northwestern Greening* and *Rome*. One tree away from Delicioos of these varieties would be satisfactory. Another method which can be used is to place a graft of Northwestern Greening or Rome in the Delicious trees. If these procedures are not practical or have not been carried out, bouquets with blossoms of some good pollen source for cross-pollination should be kept in the orchard during the blossom period. One bouquet for every other Delicious tree seems adequate.

LAYING OUT ORCHARDS ON THE CONTOUR

Dr. John T. Bregger, orchard conservationist, U. S. Soil Conservation Service, says the most satisfactory way to lay out a contour is to establish a graded terrace line for each full row of trees. This practice has given good results in Illinois. To lay the contour, start at the steepest part of the orchard slope and locate the tree-row lines at approximately the desired spacing. Then run trial lines across the slope, using a regular surveyor's level; hand levels or carpenter's levels are not recommended for use in an orchard. After the lines are located, waterways must be built to serve as outlets for surface runoff in heavy rainstorm. These waterways should be shaped, fertilized, and seeded according to standard recommendations. If possible, the waterways should be established a year before the orchard is planted.

By laying out a line for each full row of trees, a terrace can be constucted by plowing after the trees are planted. This pocedure allows the trees to grow more uniformly because of favorable soil and moisture conditions along the terrace ridge, according to Dr. Bregger. On the flattter parts of the slope where the lines spread sufficiently, short rows of treees can be fitted between the terraces. These secondary rows should not be planted until the space is almost twice as wide as the regular spacing.

A Chinese laundryman phoned his dentist for an appointment.

"Two-thirty all right?" the doc asked.

"Yes," replied the laundryman. "Tooth hurty all right, but what time I come?"

IN THE ORCHARD

NEWS ABOUT FRUIT GROWING

Deer Repellent: Deer have caused considerable damage to orchards these past years. An article, therefore, from the Ohio Conservation Bulletin was read with interest. It stated: "Orchard men in Michigan have found an effective method of preventing deer damage to fruit trees. They add a pint of stock dip to 100 gallons of standard spray mixure."

Here is another case where a repellent may be satisfactory if there is other food available—the stock dip repels from one source of food to another. During seasons when food supply is short or when deer are so numerous, that over-grazing causes a shortage, repellents will be no more effectve than rabbit repellents have been under similar circumstances. It then becomes a question of reducing the number of deer to a point where they will not become too hungry.

BETTER FLAVORED APPLE JUICE: "That fresh, delicious apple flavor found in apples when they are picked at harvest time can now be incorporated into apple products purchased at the store," says the American Fruit Grower.

The eastern Regional Research Laboratory of the U.S.D.A. has developed a process to capture the vapors that rise during heating apple juice; condense, concentrate and then dissolve in water. This flavoring may be added to any apple product, even baked apples or apple pie and will restore or intensify the fine flavor which was lost.

Apple processing is becoming an imporant assest to the apple growing industry as time goes on.

ANOTHER NEW INSECTICIDE OF PROMISE

Hexaethyl Tetraphosphate is another new insecticide that promises to be better than DDT for certain insects. It was first used as an insecticide in Germany during the war and was called Bladan.

Laboratory tests at Beltsville, Maryland, showed that all codling moth larvae were killed with a spray containing one pound of relatively pure Hexaethyl Tetraphosphate per 100 gallons of water. It is very effective against Psyllid in tests in Wisconsin last year, against cabbage aphids and pea aphids. As a 3% dust it was more effective than nicotine sulphate at the same strength. We may hear more of this material.

HELICOPTERS TO DRY CHERRIES

One of the most unusual things that has come to my attention recently is the use of helicopters to knock water off cherries. One of the great problems of cherry growers on the West Coast is rain just at harvest time. The water collects in droplets on the fruit and when the sun comes out the skin splits, spoiling the cherries for market.

So, to avoid this, some enterprising person conceived the idea of flying a helicopter up and down the rows just above the trees at about four or five miles an hour. Apparently, the experiment proved a success, for the vigorous downblast of air from the great rotors shook each tree vigorously knocking the water off the fruits. All I can say is, "Will wonders never cease?"

From Horticulture Illustrated, November 1, 1946.

FERMATE PROTECTS GRAPES

The New York State experiment station at Geneva has reported that in one vineyard of Concord grapes near Branchport, N. Y., where the 1945 crop was completely destroyed by black rot, over four tons of grapes to the acre were harvested this past season from vine-sprayed three times with Fermate 2-100 in tests conducted by Dr. A. J. Braun, station plant disease specialist. Only slightly over one ton to the acre was obtained from unsprayed vines in this same vineyard.

The sprays were applied immediately before bloom, after the blossoms had set fruit, and two weeks later. From Horticulture, Mass. Horticulture Society, December, 1946.

EUROPEAN RED MITE ON APPLE TREES

Thrives In Hot Dry Weather. Injury Serious If Not Controlled

Mite infestations in apple orchards appear to be increasing in distribution and severity during the past few weeks. The European red mite thrives in hot ,dry weather, causing a bronze failure of the leaves to function propcoloration of the foliage, indicative of erly through the loss of chlorophyll, the green color of leaves.

The injury by these microscopic animals is so serious that reduced production may result next year from heavy infestations that are not controlled this summer. Destruction of the chlorphyll will reduce the size of the fruit in the curent year's harvest. red mites are presesnt on the foliage

A simple way to determine if the is sto pull a few leaves off the trees and rub the underside of the leaves mites are present red streaks from over a piece of white paper. If red the crushed mites will appear on the paper.

Control

Red mites can be controlled by the proper use of DN-111, or summer oil. DN-111 will not kill red mite eggs. However it will last until most of the eggs present at the time of spraying have hatched, and the newly hatched mites will be killed. DN-111 should never be used in combination with any spray containing lime, or should not be applied to an orchard within 12 days after a Bordeaux spray has been applied. Lime is incompatible with DN-111 and reduces its effectiveness. DN-111 is safer on foliage than summer oil and is equally if not more effective. It should be used at the rate of 1¼ pounds per gallons of spray. Summer oil is recommended for the control of red mite if a spray is necessary within 12 days after a codling moth spray has been applied that contained Bordeaux mixture. It is effective against both the adults and the eggs. It should be used at the rate of 6 quarts per 100 gallons of spray. Oil is not compatible with sulfur and should not be applied to an orchard for 10 days after a sulfur spray has been used.

—From Maryland Experiment Station Circular.

HENRY MILLER ON FOREIGN TRADE

Excerpts from an address by Henry W. Miller, Jr., President of the National Apple Institute at the convention of the American Farm Bureau Federation in San Francisco:

"The very nature of our business is such that only a optimist can survive. And yet, we can be dangerously optimistic. Today we are again producing more of certain fruits and vegetables than can be sold to the people of the United States at fair prices. As a grower, I am against enforced or even encouraged governmental crop reduction of fruits and vegetables until every possible effort to expand exports has been made.

"Fruit ranked first on the list of of food exports in the ten years prior to World War II, with an average dollar value of $87,000.000. Among all agricultural exports, fruit was out-ranked in value only by cotton and tobbaco. Thus it is plain that we are very directly interested in exports.

"The United States is taking lead. An encouraging number of nations have already indicated a willingness to follow. Our State Department has recently announced the opening of Trade Agreement negotiations with 18 countries and the basic rules of procedure have just been agreed upon at an international conference in London.

"As producers, all of us like the idea of expanding our markets by selling abroad and we have a perfectly natural impluse to demand that our domestic markets be reasonably protected from conflicting imports. We must, however, not forget the fact that the United States offers the most tempting and attractive market on earth. This clear fact may be turned into a real trading opportunity if wisely and practically used in our negotiations with other nations. The ability to export will enlarge as our ability to accept imports grows, be-

IN THE BERRY PATCH

cause the will to deal and the buying power of foreign customers will be directly associated with their shipments to this country." —*From National Apple Institute Bulletin No. 257, Dec. 16, 1946.*

STRAWBERRY BEDS MAY NEED THINNING TO AVOID ROT

When there is an abundance of moisture throughout the growing season, many strawberry plantings have matted rows in which there are too many plants. With this condition it is very possible to have excessive rot next season if a period of rainy weather occurs during the time when the fruits are being harvested. It will be especially important to avoid any additional fertilization during the spring unless plant growth has been very poor.

—*From Horticultural News, New Jersey Horticultural Society, Nov.,* 1946.

USE OF NITROGEN INCREASES RASPBERRY YIELD

Prof. G. M. Slate of the New York Experiment Station reports that black raspberry yields in commercial plantings in central New York have been greatly increased by fertilizing with nitrogen fertilizer such as sulfate of ammonia. The fertilizer was applied at the rate of 300 lbs. per acre.

In raspberry growing sections especially on lighter soils the use of ammonium sulfate in Wisconsin will no doubt likewise increase yields. This type of fertilizer is quickly available in spring, will stimulate cane growth and its effect will be over before fall so the canes can become dormant for winter.

When a man is born people say. "How is the mother?" When he marries, they say: "What a lovely bride?" And when he dies they say, "How much did he leave her?"

STRAWBERRIES NEED MULCH

The value of mulching strawberry fields was greatly emphasized during the fruiting season of 1946. Many fields which were not mulched last winter started to grow well during the early spring, but when the fruits began to ripen the plants wilted and dried. This condition was due to a partial winter injury to the roots which merely limited the amount of absorbing root surface rather than completely killing the plants. Even partial winter injury would probably not have occured if the fields had been thoroughly mulched during the winter months.

—*From Horicultural News, New Jersey Horicultural Society.*

WHAT VARIETY OF STRAWBERRIES DO YOU PREFER

Results Of Survey Show All Varieties Have Their Faults

During the fall of 1946 Prof. C. L. Kuehner made a survey of Wisconsin strawberry growers to determine their preference of varieties and which of the varieties they would recomend for future planting or to be discarded.

The results of the survey are given in the table. It is interesting to note that not a single variety seems satisfactory to all because each one was recommended for discard by a large percentage of the growers. Why is this true. Are the older varieties running out due to disease and have the new varieties been found lacking in good qualities. We wonder if sometimes we blame a variety for lack of productivity when it is really caused by lack of organic matter in the soil and lack of moisture.

The survey was made at the request of the American Pomological Society to compile a national report on fruit varieties.

Premier Most Popular

From the results of the survey Premier leads in popularity having the largest number of growers recommending it for new planting and the least number who would discard it. Dorsett seems the least popular because so few would plant it and 15 would discard it.

Of the everbearings, Gem is the most popular with Mastadon the least popular. We were surprised that Wayzata is not more popular because it has such high quality. It does not produce plants well which may be the cause of its decline.

The variety Fairfax is still being grown by a few due to its high quality but most growers would discard it for future planting.

RESULTS OF WISCONSIN STRAWBERRY SURVEY 1946

VARIETY	Growers Having This Variety	Would Select It For New Planting	Would Discard Variety
Beaver	22	19	13
Catskill	15	15	10
Dorsett	4	5	15
Dunlap	21	18	14
Fairfax	2	3	14
Gem	17	13	4
Premier	29	25	4
Mastadon	5	3	11
Wayzata	4	2	4
Evermore	2	3	

MODERN POTATO STORAGE

Results of storage experiments with culinary quality of potatoes show that those stored at temperatures above 40 degrees Fahrenheit have the best cooking quality. Reducing sugars accumulate in excessive amounts in potatoes stored at 40 degrees Fahrenheit or lower, causing an undesirable brown color of potato chips and objectionalbe discolorations in dehydrated potatoes. Hence, a material that permits higher storage temperatures and also prevents or retards growth of sprouts and subsequent weight losses of potatoes would be extremely valuable to growers. Such a material is now available in the form of the methyl ester of alpha naphthalene acetic acid.

According to a report by Ora Smith in *Farm Research,* this chemical may be applied in any of the several forms, such as (1) shredded or confettied paper that has been soaked in or sprayed with the chemical; (2) inert dusts such as talc, walnut-shell fiour, and Pyrax, with which the chemical has been thoroughly mixed; (3) atomized through a paint spray gun onto the potatoes as they are placed in the bin; and (4) applied to the potatoes as they are placed in the bin as a aerosol with methyl chloride.

—From Horticulture, Mass. Horticultural Society, December, 1946.

STORING WINTER SQUASH

Success in storing Winter squash depends to a large extent on the resistance of the squashes to decay organisms. Mature fruits of seven standard varieties were stored at the Rhode Island Experiment Station in a basement room at mean temperature of 62½—72½ degrees and low relative humidity.

In general, varieties with green colored rinds kept better than similar varieties with yellow or orange rinds.

Before storage, the squashes were dipped into solutions of antiseptic chemicals which might prevent rotting. Under the conditions used, none of the seven formulations gave evidence of controlling rots on any of the squashes. *—From Horticulture, Mass. Horticultural Society, December,* 1946.

2, 4-D HELPS PEARS KEEP LONGER

Information from reliable source says that 2, 4-D will help pears keep longer. Dip them quickly into a 1/10 of 1% solution before puting the fruit into storage. The article says that pears will keep for eight months without any internal brown spotting. Also, that the fruit will take on a more yellow color during ripening.

If that's the case, then we will probably wish to use 2, 4-D for dipping winter pears next fall.

It certainly is odd what chemicals will do. Here we have just learned to use 2, 4-D as a weed killer an dnow we are told to use it as a preservative.

Life is not so short but there is always time enough for courtesy.—Ralph Waldo Emerson.

There is no road or ready way to virtues.—Sir Thomas Browne.

Said the little polar bear as he rose hurriedly from the block of ice on which he was sitting: "My tale is told."

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS ASSOCIATION

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SULFA AND A. F. B. CONTROL

Division Of Bee Culture Gives Sound Advice On Today's Leading Question.

By Jas. I. Hambleton

The Division of Bee Culture is receiving many letters asking for an opinion as to the use of sulfathiazole for treating colonies infected with American foulbrood. The Division is in the process of experimenting with the drug both on the basis of cultural studies in the laboratory and actual feeding tests in the apiary. With respect to the former it is evident that sulfathiazole when incorporated in an artificial medium which promotes good growth of bacillus larvae, the causative organism, that is the formation of rods, but it does show a slight retarding effect upon the germination of spores. Spores, however, continue to form even in the presence of high levels of the drug.

The Division first tested sulfathiazole in its cultural studies in 1942. Since it was found that the drug neither inhibited vegetative reproduction nor sporulation of the causative organism, the work was dropped since it had been more or less done as a side issue inasmuch as the Division was not set up to carry on a full time research project on the drug.

Cultural results are useful in giving background or pointing to certain pitfalls that might be encountered in actual field tests with the drug. It is often not possible, however, to predict what will happen in actual field tests on the basis of results obtained in the laboratory. Sulfathiazole treatment of AFB is an outstanding example of this.

Following the report of the work done by Dr. Haseman and Mr. Childers in Missouri, the cultural work was repeated with results similar to those previously obtained and, in addition, some field tests were inaugurated at the Laramie, Wyoming, laboratory under the supervision of Dr. A. P. Sturtevant.

The results obtained with the field tests have been essentially the same as those obtained in the hands of many beekeepers who have fed the drug. All visible evidence of disease had disappeared in some colonies while in others in which the disease has not completely disappeared the number of affected cells has been reduced. Unquestionably sulfathiazole has a beneficial effect when fed to infected colonies but it is certainly too early to recommend the sulfathiazole treatment without qualification.

Larvae that receive the infective organism, and they must be under 2 days of age to become infected, seem unaffected when worker bees have access to syrup containing sulfathiazole. It would appear, therefore, that continuous feeding would be necessary so long as infection remains in the hive, or so long as bees from a certain hive are picking up the disease eleswhere through robbing. It still remains to be determined to what extent colonies receive protection if a certain amount of the medicated syrup is stored in the hive. There is no chance for the drug to destroy the spores that are in honey or in scales and so long as such spores remain in a colony the potentialities of a fresh outbreak of disease are always present.

DO NOT GAMBLE

Until more is known as to how the drug actually functions and whether or not any protection is conferred on a colony through the feeding of the drug. beekeepers would be taking an unnecessary gamble in relying completely upon the drug to solve their foulbrood problem.

It is doubtful that any State apiary law could prevent a beekeeper from resorting to the use of the drug in treating infected colonies unmarked by an official inspector. In the current wave of enthusiasm many beekeepers are bound to try the drug treatment, and it is only fair to add that a person plagued with this disease should not be criticized too severely for wanting to resort to the drug since in many cases it might reperesent an economic saving. As economic saving is particularly welcome today with the scarcity and high cost of bee supplies and the unprecedentedly high prices being received for honey.

SPORES NOT DESTROYED

These economic and pyschological factors are bound to bring headaches to apiary inspectors. There is certainly not an apiary inspector in the country who does not want to be progressive and who is not willing to institute something more efficacious and more economical than burning for the control of the disease. Yet these facts must be faced. First, if the drug is efficacious only in destroying or rendering inviable bacilli which actually come in contact with the drug within the alimentary tract of the young larvae there remain the potentialities of an outbreak of disease because of the spores that are in honey or in scales which the bees may not disturb during the period when the bees have access to the drug.

If this is the case and beekeepers conclude that the disease is eradicated and resort to the interchange of equipment, there certainly remain the possibilities of inadvertently spreading the disease throughout an apiary. One might answer this by saying, what is the difference so long as the disease can be cured so easily by feeding sulfathiasole. This, however, is not a good answer since the routine feeding of a large number of colonies in an apiary could well become one of the most expensive items in management.

SUGAR SHORTAGE

A second point to be considered is the present method of feeding the drug in sugar syrup. During ordinary times sugar is plentiful but it is difficult to

obtain now, and the indications are that during the coming season sugar is going to be more scarce than it has been any time during the war. A sudden cut-off of supplies of sugar to beekeepers would mean that they would have to feed the drug in diluted honey. Perhaps feeding in a water medium or some other medium might prove satisfactory but such a method has still to be found.

Third, certain colonies have not responded to the drug and the Division has examined samples of combs taken from colonies in which several times the recommended dose of the drug has been fed without effect. The systematic feeding of sulfathiazole may, therefore, eliminate the less virulent strains of AFB and perpetuate the more resistant ones. This may not be bad and may generally lessen our foulbrood problem and bring us face to face with AFB in its most virulent form.

NOT EFFECTIVE AGAINST NOSEMA

There is no well-supported evidence thus far that sulfathiazole is effective against either Nosema or European foulbrood. In recapitualation, it would appear unprogressive not to determine the limitations of the sulfathiazole method for treating AFB. Beekeepers who use the method should do so with utmost precautions. Small badly diseased colonies should be burned to start with. A long period of treatment means that an infected colony is maintained as a poential soure of infection to healthy colonies. While apiary inspectors might supervise the actual feeding of the drug and advise beekeepers what colonies should be fed and what colonies should be burned, there is no way in the world for an apiary inspector to make the necessary number of re-examinations or to be able to give the equipment from a treated colony a clean bill of health. Therefore, until someone has compiled accurate figures of colonies in various stages and degrees of infection which have been treated without reoccurrence of disease for a period of 3 or 4 years at least, risks will be involved in the indiscriminate use of the drug and indiscriminate movement of combs and other hive parts from treated colonies.

Mother: "What is the matter, Mary?"

Mary: Tearfully, "Johnny ate the biggest piece of pie, and it's not fair. He was eating pie four years before I was born.

INSPECT BEES IN FEBRUARY

During the latter part of February we often have days when the temperature goes up to 40 degrees with sunshine. On such days it is well to inspect our bees to see if they have stores at hand to prevent starvation. Brood-rearing is usually heavy from now on if pollen is available. We should encourage it because it means young bees for spring work.

Be sure to have combs of pollen and honey right next to the frames containing brood. It won't hurt to open the colonies now. In fact it will be a good thing to study conditions and to see what is going on

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To feed sugar syrup now, it may be best to sprinkle or spray warm syrup (2 parts sugar to 1 part water) into empty combs at home. Catch the drip in a pan; when dripping stops place in hive body and take to the yards while an inspection is being made. Slip in combs of syrup next to brood frames whenever needed.

Remember that in late March and April a good colony may use a pound or more of honey or sugar syrup each day for brood rearing.

WISCONSIN WELL REPRESENTED AT NATIONAL MEETING

With 16 beekeepers and their wives from Wisconsin present at the meeting of the National Federation of Beekeepers Associations at Tampa January 15-16, our state was well represented.

Present were, Mr. and Mrs. S. P. Elliot, Menomonie; Mr. and Mrs. Henry Schaefer, Osseo; Mr. and Mrs. Walter Diehnelt, Menomonee Falls; Mr. and Mrs. James Gwin, Madison; Mr. and Mrs. Wm. Michaelsen, Arkansaw; Mr. Mrs. H. J. Rahmlow, Madison; Mrs. Harriett Grace, Madison; John Kneser, Milwaukee; L. W. Parks and Steve Parks, Watertown.

Registration for he various meetings including the National Association of Inspectors, Southern Conference and the National Federation approached the 500 mark. However, the attendance at any one session was not large. Iit was unfortunate that sessions were held in an exceedlingly large auditorium—more than a mile from the headquarters hotel, which was distracting.

The National Women's Auxiliary held a very successful program both forenoons and an interesting tour of Tampa gardens the first afternoon. About 50 women attended.

ARE YOUR BEES WINTERING WELL

According to a few reports received, bees are wintering unusually well this year.

One day late in January, Mr. John Long, assistant state inspector and Mr. Boehm, Dane County inspector suggested we take a look to see how bees were wintering, if Nosema was present and if stores were ample. It was a nice mild day so we drove out to a yard of about 40 colonies and found them wintering exceptionally well. Every colony sseemed in good condition. The weather was warm enough for a flight but they were not flying. No evidence of restlessness or dysentery and all were clustered quietly when we tipped up the top brood chamber. We wintered in 3 hive bodies with only a sheet of asphalt felt over the cover. There is an auger hole in the top body, a small winter entrance below.

Dr. Farrar reported at that time that brood rearing had started and conditions in the yards of the Central States Bee Laboratory were similar to those described above.

While the stores appeared adequate, nevertheless, we must watch carefully from now on because heavy brood-rearing will use up stores rapidly, some colonies using more than others depending on number of bees and amount of pollen available to the cluster.

NEW DISCOVERIES ABOUT BEES

ON DIRECTING THE FLIGHT OF BEES

No insect had been so much studied as has the honey bee, no insect has been the subject of so much discussion, of so many books and articles. Yet there is still a great deal to be learned. For example, it was not until the year of 1923 that the significance of a peculiar "dance" of the bees became known, a "dance" consisting of certain shaking and circling movements that bees, individually, performed on the combs. Although quite commonly observed and frequently remarked on by beekeepers, it required, finally, the work of Karl von Frisch, one of the reall outstanding biologists of today, to so.·e this age-old riddle along with that other problem of how a bee informs its hive-mates of a newly found source of food.

It may be recalled that in one of his earlier papers vonFrisch had demonstrated that bees readily distinguish the scents of various flowers from each other. This ability plays an important role in the means of communication within the hive, i. e., in the "language" of the bees.

THE ROUND DANCE

When a bee has found a good source of nectar, that bee will spread the news of the discovery to her hive-mates by means of these circling "dances" that she performs on the combs. These dance performances attract the attention of the other bees to the discoverer and to the flower scent that clings to her body. Thus the hive-mates are "told" that there is a nectar-source with the particular odor and they are persuaded to search until, finally, all the blossoms having that odor and within flight range of the hive are being exploited for nectar.

DIRECTING BEES TO CLOVER

A few years later, in 1927, von Frisch suggested that this phenomenon might have a practical application. If, for example, a few bees are fed sugar solution in the presence of the scent of red clover blossoms (by placing a little dish with sugar on a layer of blossoms covered by a course screen), these bees will, by means of their "dances," stir up many others in the hive to go out and search for the clover scent and thus come to frequent the clover fields. This idea was put to use by the Russians, beginning about 1936. In order to encourage the flight of bees to the red clover fields to improve the seed crop, the Russian practice is to soak clover blossoms in the sugar solution that is used in training the bees. The solution is fed within the hives at night, in order not to incite "robbing." Recently, von Frisch has been checking the results obtainable by the Russian method against those gotten by his own original method, as well as with several modifications. Preliminary work indicates that both methods work well with clover, but that the outdoor training method is more economical of sugar. However, not all flowers will impart their scent to a sugar solution; rape is a case in point and the blossoms themselves must be used for training. Also to be noted is that the training scent must be identical with the flower scent, not merely similar. Oil of thyme, for example, is useless for training bees to visit thyme.

These methods of directing the flight of bees to certain plants by training them to the scent are useful, reportedly, in increasing bee visits to plants that would otherwise be relatively neglected by reason of poor nectar secretion or completion with other plants. The aim generally, is to secure more effective cross-pollination. During a heavy nectar flow from some dominant honey plant it may not be possible to train bees to a lesser source. However, success may even then be achieved by the use of colonies containing many young bees that have not yet begun to gather nectar.

The method may also be used to persuade bees to visit flowers that are without odor. In one case bees were trained by feeding 100 cc. of sugar solution to which one drop of oil of lavender had been added. About 30 drops of the same oil were distributed here and there on the blossoms of a nearby potato field. During the first hour of training 36 bees were counted on the field although before the training began no bees at all could be found. They visited not only the flowers to which the oil had been applied, but search diligently wherever the air was scented. Only rarely, however, did a bee actually try to suck nectar from a blossom. Thus, although the method will direct bees to blossoms, visits that are really effective from the standpoint of pollination cannot be secured in the absence of yield.

RESULTS WITH RED CLOVER

German experiments on red clover in two different localities also illustrate this point. At Poing, directive pretraining was unsuccessful in establishing bee visits to the clover, while at Markt Schwaben, 4 km. distant, visits were increased 22-fold. It was found that at Markt Schwaben the corolla tubes averaged 0.28 in. in length; at Poing 0.32 in. Thus, in tubes at Poing were .04 in. longer and the nectar probably out of reach. The average amount of nectar per flower was about the same, or slightly greater at Poing, being 0.030 mg. per flower per 24 hours as compared with 0.023 mg.

Other results of the training are that the bees may be made to begin work on a given species of plant sooner, that they will work more intensively and may extend their working hours. Some beekeepers have reported an increase in honey production and there should be a better seed crop. R. G. Schmieder. — From Entomological News, January, 1946.

NEED MORE BEES FOR POLLINATION

Mr. Harold J. Clay of the U. S. Department of Agriculture writes that the department has recognized the need for more bees for pollinating many farm crops by proposing a goal of 6% more colonies in 1947 than in 1946.

At the same time, the department points out advisability of *not expanding* above that figure. Present high prices for honey may prompt some beekeepers to increase their colonies more than is wise at this time.

SHALL WE WEAR GLOVES IN THE APIARY?

To wear gloves, or not to wear gloves in the apiary is a question that has been discussed for generations, and it may go on for many more, without agreement. The reason is some people will always wear gloves; others will always argue they should not be worn. Let each one then do as he likes about it.

Miss Annie Betts, editor of The Bee World, comments on it in this way: "Similarly, does not the surgeon use gloves when operating at least as much for his patient's safety as for his own? Propolis is at best a nuisance and it may possibly be unwholesome to allow one's skin

to become continually ingrained with it. Some persons,too, who must have presentable hands for their main occupation, may reasonably wear gloves in the apiary. We agree entirely that bare hands should be the rule for dealing with brood diseases or Nosema, since a thorough wash, with a nail brush under a running tap after removing all propolis with spirit or soda, is the best method of disinfection."

SHALL WE CONTINUE TO BURN A. F. B. COLONIES

To the Editor:

In reply to your letter from a Manitowoc county beekeeper, who asked the question. "Do you believe in burning colonies affected with A.F.B.?" As a method of "State Eradication and Control" of American foulbrood, I am in favor of buring all colonies that are found infected. Below are listed a few reason why I think infected colonies should be burned:

(1) In State Control and Eradication you must have a method of clean-up that will work in 100% of the colonies treated. 99% is not good enough.

(2) It must be a method that can be used in any apiary or in all apiaries in the state.

(3) It must treat all beekeepers the same.

(4) It must be a method where nothing is left for the beekeeper to do himself which might spread the infections.

(5) It must be an economical method from the standpoint of time necessary to clean up a colony as a unit.

(6) It must leave nothing which may prove dangerous to the rest of the colonies in the apiary.

From the above you will see that any other method will not meet all conditions. We do know that the burning method does net results by decrease we have year after year in the A.F.B. found in the state. Further, the card file of the department will show that burning has, and is continuing to eradicate A.F.B. from hundreds of apiaries in Wisconsin. Where any beekeeper uses any othr method, in almost all of those apiaries **I can still show you active A.F.B.**

—**John F. Long, Ass't Chief Apiary Inspector.**

THE HONEY MARKET

Honey prices had stabilized at around 30 cents per lb. wholesale and up to 65 cents retail by the first of the year.

Imports of honey during the first 11 months of 1946 totaled 15,000,000 lbs. However, in 1943 there were 37,000,000 lbs. imported.

Consumer resistance to high prices along all lines is real. We can expect to see retail food prices drop sharply during the coming year. Most beekeepers admit present prices are high and only temporary. Many beekeepers say they would rather see honey at around 20 cents per pound than the present high level.

Lumber for hives is still scarce which prevents expansion in beekeeping.

In New York City light colored imported beeswax ranged from 56 to 60 cents per pound. In Chicago, country run stock was 46-48 cents per lb.

Editorials

SOME RED MELBA APPLE TREES AVAILABLE

We were fortunate in being able to secure some trees of the *Red Melba* apple from a Canadian nursery.

The Melba has become an accepted early variety for Wisconsin orchards. It is an open-pollinated seedling of McIntosh, developed by the Dominion Experiment Station at Ottawa, Canada. In northern climates it is an apple of high quality maturing about the middle of August. It was the most popular eating apple sold at the Wisconsin State Fair, beginning last August 17th.

Red Melba is a bud sport selection made in Canada. The red color of this variety should make it a still more popular early eating apple.

Red Melba can be safely recommended for those who *have a market* for early eating apples of high quality.

PRICE

Red Melba trees, per tree ___ $1.25
Limit of 5 trees per member.
Send check with order.

RECORD CITRUS PRODUCTION

Quoting from he USDA December Crop Production report: "Total U. S. orange production for the 1946-47 season is indicated at 120.2 million boxes—a record large crop, 20 percent larger than produced in 1945-46 and 53 percent larger than the 1935-44 average. Total early and midseason oranges are placed at 56.0 million boxes—20 percent more han last season and 54 percent more than average. The grapefruit crop is now estimated at a record total of 67.3 million boxes—6 percent more than the 1945-46 production and 68 percent more than the 1934-44 average." —*From the National Apple Institute Bulletin.*

NEW SECRETARY FOR MASSACHUSETTS HORTICULTURAL SOCIETY

Mr. Arno H. Nehrling has been appointed executive secretary of the Massachusetts Horticultural Society. The organization publishes Horticulture, well known in this state. The Society is 119 years old. Mr. Nehrling succeeds Mr. Edward I. Farrington, secretary of the society for many years who is retiring.

Mr. Nehrling received his early education in the public schools of Milwaukee and Concordia College. Since 1934 he has been in charge of all Flower Shows for the Massachusetts Society including tthe big New England spring show.

We congratulate Mr. Nehrling on his appointment.

ANNUAL MEETING AND BULB AUCTION WISCONSIN GLADIOLUS SOCIETY

Retlaw Hotel Fond Du Lac, Sunday, March 30

The big bulb auction and spring meeting of the Wisconsin Gladiolus Society will be held at Fond du Lac this year at the Retlaw Hotel. It is an excellent place. They have a fine room for the meeting on the mezzanine floor—the Civic Room.

Fond du Lac is centrally located.

Reserve Sunday, March 30 for a trip to Fond du Lac.

FRUIT GROWERS MEETINGS

County Fruit Growers Associations To Hold Annual Meeting in March.

Eight County Fruit Growers Associations will hold their Annual Meetings the first two weeks in March. Speakers will be Prof. C. L. Kuehner, Dept. of Horticulture, H. J. Rahmlow, Secretary Horticultural Society, Lester Tans, Southeastern Fruit Growers Asn., County Agents and growers.

All meetings begin at 10:00 a. m. with a noon luncheon.

This has been a very popular feature and results in excellent attendance of growers and their wives. It is the annual spring get-together for hundreds of growers to consider their problems and plan for the coming year.

The Meetings

Tuesday, March 4 — Waukesha County
Wednesday, March 5, — Milwaukee County
Thursday, March 6 — Racine County
Friday, March 7 — Jefferson County

Tuesday, March 11 — Ozaukee County
Wednesday, March 12, — Sheboygan County
Thursday, March 13 — Manitowoc County
Friday, March 14 — Washington County

NATURE LECTURE IN MILWAUKEE

Members Invited To Hear Mr. Murl Deusing of Milwaukee Museum

Mr. Walter Knuth, president Milwaukee County Horticultural Society writes that the Society extends to all horticulturists and garden club members an invitation to hear Mr. Murl Deusing lecture on "Outlaws of Nature." The meeting will be at the Milwaukee Public Museum the evening of Tuesday, February 25.

Somebody says that ten years from now on we will be laughing at the kind of hats women are wearing today, but we can't hold in that long.

THE QUICK-FREEZING PROCESS

The quick-freezing process was discovered little more than two decades ago by a somewhat fabulous character named Clarence Birdseye. The name is no more striking than the man. Far from being a food tycoon or an orthodox scientist, Birdseye is a chronic tinkerer and inventor—the sort of person who is always seeking to patent one or more gadgets of the Rube Goldberg variety.

Experimented With Cabbage

However, Birdseye modestly claims no credit for "discovering" the quick-freeze process, the secret of which he says had been known to the Eskimos for a long time. There may be some people in the food business today who would just as soon give it back to the Eskimos and forget the whole thing.

Oct. 5.

He stumbled onto the frozen food idea during a period when he was interested in the fur business in Labrador. A quick-freezing experiment with a barrel of cabbage in below-zero outdoor temperatures was remembered later when Birdseye was engaged in the wholesale fish business back in the States. He did some experimenting with the fish, finally hit upon the right freezing formula.

From The Packer, Chicago,

IN APPRECIATION

We are glad to have the opportunity to express our sincere appreciation to friends and members of the Horticultural Society for the many greetings and letters of cheer sent to us while we were confined to the hospital. We were much pleased with the telegram from the Society banquet table and the resolution tendered us by the Resolution Committee of the Society. Every friendly gesture helped us much in our recovery effort.

Mr. and Mrs. Conrad L. Kuehner

EXTRA!

We regret to report that on January 31, Prof. C. L. Kuehner while shoveling his driveway slipped, fell and broke the same leg that had been broken in his auto accident, but in a different place—at the knee. He will be confined for a number of weeks. His home address is: Arboretum Drive, Madison 5.

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

GLADS IN FEBRUARY

BULBS MAKE EXCELLENT GIFTS

Inspect your bulbs during February to make sure they have not been stored too damp. Bulbs not sufficiently dried, will mold. Mold, if checked in time, will do no harm, but it is a definate indication that the bulbs should be thoroughly aired and dried for a few days.

Have you ever thought of giving glad bulbs as a gift for special occasions? Good gladiolus bulbs, used as a gift, can express your thoughtfulness of a gardening friend better than any other gift you can select. Last year I shipped out a large number of gift orders of bulbs and received letters from both the donors and receipients expressing their appreciation of the bulbs. When bulbs are ordered as gifts, I send to the donor an acknowledgement of the order, and at the proper time, to the receipient a beautiful photographic card stating that bulbs have been ordered, the name of the donor, and giving shipping date. The cards are custom made to fit the occassion: A Glad Father's Day, a Glad Easter; A Glad Birthday, etc. Your friends will appreciate the cards, they will thank you for your thoughtfulness when they receive the bulbs, and they will enjoy your gift fully when the glads bloom.

—Roger Russell, Madison. In Gladiolus Catolog.

BULB SHOW WINNERS AT ANNUAL MEETING IN MILWAUKEE

There were about 50 entries in 4 classes at the bulb show held in connection with the fall meeting in Milwaukee. Prizes were donated by Harold Janes, Whitewater; Walter Krueger, Oconomowoc; Ed. Lins, Spring Green; David Puerner, Milwaukee; Walter Miller, Sun Prairie; Dr. Geo Scheer. Sheboygan and Leland Shaw, Milton.

Winners were as follows:

Class 1

1. Harold Janes with **Miss Wisconsin**
2. Leland Shaw with **White Gold**

Class 2

1. Walter Miller with **Orange Gold**
2. David Puerner with **Oriental Pearl**

Class 3

1. Willis Miller with **White Gold**
2. Harold Janes with **Leading Lady**

Class 4

1. Harold Janes with **Autumn Gold**
2. John Flad with **Candy Heart**

SILVER MEDAL OF N. E. G. S. AWARDED TO E. A. LINS, SPRING GREEN

The New England Gladiolus Society has awarded its silver medal to E. A. Lins, Spring Green, Wisconsin. The citation which is given with he medal states as follows:

THE NEW ENGLAND
SOCIETY
AWARDS
ITS SILVER MEDAL
TO
E. A. LINS
SPRING GREEN, WISCONSIN

For his courage in pioneering Gladiolus Test Gardens; completing in 1946 his sixteenth annual season. Working as a volunteer, his past efforts provided some of the yardsticks now generally used in seedling scoring. This garden first opened, to many hybridizors, an opportunity to comparative seediolus growers owe to his single efforts much more than is yet realized.

CONVENTION DELEGATES

Delegates to the National Gladiolus Council meeting in Columbus, Ohio to represent the Wisconsin Gladiolus Society will be Mr. Archie Spatz of Wausau, delegate; E. A. Lins, Spring Green, alternate.

Delegates to the N.E.G.S. meeting at East Lansing, Michigan will be Paul Ravet, Menomonie, Mich., delegate; and Theo. Woods, Madison, alternate.

Delegates were appointed by Leland Shaw, Milton former president as requested by motion at the Annual meeting.

GLADIOLUS INSPECTION

Regulations Clarified

With the increased culture of gladiolus the diseases and insect pests that threaten the health of the plants have multiplied to an alarming extent.

Uniformity of regulations for gladiolus inspection does not exist throughout the United States. There are, however, four sections of the country—the eastern, western, southern and north central—in which there is uniformity in the regulations of the states comprising each section.

In spite of the efforts of the state plant inspectors, many of the growers regard state inspections as necessary evils to enable them to sell their corms in other states. Much laxity has been noticed among both the growers, who do not always abide by the rulings of the inspectors, and some of the plant inspectors who make only superficial inspections or do not recognize the ailments.

Central Plant Board Committee Reports

A committee, appointed by the Central Plant Board to consider drafting new, uniform inspection requirements, reported at the meeting of the Central Plant Board in March at St. Louis, Mo.

Revised Version of Regulation

After consideration of the recommendations made by the N. A. G. C. the Central Plant Board committee for the revision of the gladiolus inspection regulations presented a revised version of regulation No. 25, as follows:

"Gladiolus corms in order to be eligible for certification must have at least one field inspection on or about flowering time and at least one storage inspection after the bulbs have been dug and cleaned.

"Thrips: Where thrips are present, all corms, if certified, are to be treated with a recognized method that will eliminate the infestation.

"No shipments of corms under certificate are to be permitted showing more than two per cent infection of any diseases with the exception of fusarium rot, on which no tolerance will be allowed on visible symptoms."

After a short discussion, the revised regulation was accepted by the Central Plant Board.

Condensed from The Florists' Review, October 10, 1946.

MICHIGAN GLADIOLUS TRIALS

Made at East Lansing

(Condensed)

The first season of the gladiolus trial gardens at Michigan State College, East Lansing, resulted in four varieties' scoring 85 or more points and eighteen varieties' scoring 80 to 85 points. Highest score was obtained by *White Magic*, entered by C. F. and D. J. Kuhn, of Lakeside Gardens, New Baltimore, Mich.

There was a total of eighty-two varieties entered from 12 states.

The Michigan Gladiolus Society trial gardens committee consists of A. M. Grootendorst, chairman; Professor Wildon, Professor Kuhn, Mr. Sheeley, Mr. Everhart, James Odell, H. H. Holmes, Mr. Stancer, M. J. Elenbaas and Dr. C. J. Gilgut.

Varieties scoring 85 or more points included the following:

B*15–13* with 86.2 points, entered by Stephen Chase, Dunedin, Florida. Color, yellow, edged pink; class, formal. Picardy x Bit O'Heaven, total cormels produced, 3,870.

White Magic, with 88.3 points, entered by C. F. and D. J. Kuhn, of Lakeside Gardens, New Baltimore, Mich. Color white; class, ruffled formal.

Firebird, with a score of 85 points, entered by C. F. and D. J. Kuhn, Lakeside Gardens, New Baltimore, Mich. Color, scarlet; class, informal; size of floret, four and one-fourth to four and three-fourths inches; cormels produced, 2,340.

Cor. S., with a score of 86 points, entered by Roy Mikle, 3600 Hillcrest Street, Harrisburg, Pa. Color, pink and cream; class, informal; size of floret, three and one-half to four and one-half inches; cormels produced, 281.

Other entries which scored more than 80 and less than 85 points were No. C 12–2, Dainty, Queen Charlotte, No. 1514, No. 5LC, No. 18Ze, Gold Standard, No. L–61–40, Nancy, White Challenge, No. 421913, Trojan, No. 421507, Golden Dragon, Red Rascal, Summer Gal, No. 274R and No. 1937AP.

By C. E. Wildon in Florists' Review, December 5, 1946.

NATIONAL GLADIOLUS MEETING IN WISCONSIN NEXT YEAR

N.E.G.S. Votes To Hold Annual Meeting Here in 1948

At the annual fall meeting of the Wisconsin Gladiolus Society members present voted to extend an invitation to the New England Gladiolus Society to hold its 1948 annual meeting in Wisconsin. The invitation was forwarded to the Board of Trustees.

Early in January the following letter was received from Mr. Albin K. Parker, Secretary of N. E. G. S.

"At a meeting of the Board of Trustees of the New England Gladiolus Society held on Dec. 20, it was unanimously voted that we accept the invitation of the Wisconsin Gladiolus Society to hold our Annual Meeting in Wisconsin in 1948.

"We appreciate this invitation very much and are looking forward to the opportunity of being of service to your Society and also for the opportunity of being of service to your Society and also for the opportunity of meeting with the members in and around Wisconsin. I feel sure that this will further cement the friendship between our Society and the Wisconsin Society which has already existed for a number of years."

The meeting will no doubt be held in Milwaukee in February, 1948. Every effort will be made to bring to the convention the nation's leading authorities on all phases of gladiolus growing and marketing.

GARDEN GLEANINGS

You will hear a great deal next spring about the beneficial results of planting *earth worms in the garden.* A number of firms are beginning to advertise, and will offer earth worms for various purposes at good prices.

The question came up at the Wisconsin Nurserymen's convention in early December. Said one member: "Of course you will get good results from earth worms. You'll invest a lot of money in them so you won't fail to follow directions. You will add a lot of humus to the soil because earth worms can't live without organic matter. You will water frequently because earth worms will not do well in dry soil, and then of course you can't help get good results."

We were glad to learn too that at least one experiment station has set up a comprehensive experiment to test whether earth worms are responsible for good results claimed. They have taken similar plots of soil, added earth worms to one; sterilized the other and kept free from worms. Both plots are treated alike in every way. At the end of the first year there was no difference in plant growth between the plots. This is the type of experiment we must have to get the facts, and we will be looking forward to final results after another year or two.

Fibrous rooted plants like blue grass, produce more organic matter in the top soil, than do coarse rooted plants like soybeans, according to experiments conducted recently. Of course, legumes increase the nitrogen in the soil. However, as some soils experts argue, we can add nitrogen very easily in the form of fertilizer, so if these fiberous rooted plants produce the most organic matter, they are the best. In fact, blue grass is said to have *ten times as many roots* as soy beans. To increase the organic matter in nursery or garden soils, it is advisable to have the area in grasses for several years. A mixture of Timothy, blue grass, alfalfa and clovers such as alsike would be most desirable. Peat moss and manure are excellent sources of organic matter, but usually not available in sufficient quantity for our needs.

NO REASON TO FEAR BATS - - -

They are gentle, friendly and beneficial and do not get into women's hair.

Bats are often held in abhorrence because of their mouse-like appearance and the silly superstitions to which a few still cling. Many fear them because of stories they have read about blood-suckers or vampires but vampires inhabit the tropics and are never met with unless one travels in such places. Our bats are weak and harmless. As a matter of fact, they are bright engaging little animals and the superstitions which link them with evil do them a grave injustice.

Bats are adapted, almost entirely, for flight and are not at all fitted for walking. Their hind legs are twisted around in such a way that their knees bend backward in a direction opposite from ours. This makes it exceedingly difficult for them to walk and when they attempt to do so they succeed only in a flapping shuffle.

There are many species of bats in the United States but one of the most common in the northeastern part of the county is the brown bat. One may find this species almost everywhere but especially about towns and villages. It is nocturnal and sleeps during the day. Shortly before dusk it leaves its daylight retreat from behind a shutter, a loose piece of bark, the recesses of a cave or the attic of a house and launches forth upon its nightly flight, perhaps, heading first for some nearby pond for a drink before it sets out to break its fast.

Bats do not detect obstacles in their path by sight as do birds but presumably by emitting supersonic notes and hearing these sound waves as they are reflected by the obstacle. The membrane which serves as wings is equipped with sensitive nerves which apparently respond to the sound waves and by localizing the source of the reflected sound the animal is able to locate the obstruction.

While the bat obtains its food, which consists of insects, on the wing it does not do so in the same manner as birds. It makes a collecting net of its membrane, doubling it up like an apron and then deftly removes them with its strong teeth or flies to a nearby tree where it can manage the larger victims with greater facility.

Our bats are also highly beneficial and destroy vast quantities of noxious insects. Such fears that they get into ladies' hair and bring bedbugs into the house are senseless. The bat would be more frightened than the lady and to say that it carries bedbugs is to slander it when its quest is for insects. Furthermore, the bat is very particular about its personal cleanliness and takes pains to keep its face and body clean, washing its face with the front part of its wing and then cleaning the wing with its tongue.

By Richard Headstrom. HORTICULTURE—Illustrated, Boston. June 1, 1946.

Asters

Harrington's Pink aster with its lovely soft pink flowers of large size and splendid habits is the most exciting in its line but *Mount Everest* and *Mount Rainier* in white and *Beechwood Challenger* in red cause many a heart to flutter. These Michaelmas daisies deserve far more attention from gardeners east of the Rockies than they get. They are not only fitted to cope with the vagaries of the climate but they seem to fit into garden schemes. It is true that some are subject to mildew and other disorders, but, if one has neither the time to keep the foliage clean nor the ability to let the beauty of the flowers overshadow the foliage, the susceptible kinds may be put in the background.

A man was moving to a house a short distance away, and not wishing to trust a valuable grandfather's clock to the movers, decided to move it himself. After carrying it a short distance, he would set it down and inspect it to see if it was still okay. After watching the procedure for some time, a man who was slightly inebriated, stopped him and asked: "Why don't you just wear a wrist watch?"

WHAT IS A LILY?

By Victor H. Ries, Ohio

Hardly a week goes by but someone writes in asking about some plant of which we have never heard. They give some common name, such as Wax Geranium or Angel Lily, that our reference books do not list. Consequently we must ask them to send in a sample. As we suspect, it is usually some very common plant with a new name that Aunt Jenny or Grandfather Jones has given it; or, that some commercial concern has used to lead folks into believing it's something new. Quite often these plants are called lilies. Let's now find what a lily really is!

The name lily is very loosely used to apply to any flower having a more or less bell-shaped flower. Some are really lilies or true lilies; many merely belong to the lily family. On the other hand, we find many are lilies by courtesy only, as they belong in some other plant family.

To be a true lily, the scientific name or genus must be Lilium. That means any plant listed as Lilium is a true lily. There are about 100 species of lilies found in the north temperate zone of the world. Most of these have common names. Those listed are among the more common—besides, these species of lilies there are selected named varieties of some of them. And, then there are many man-made hybrids which number is being rapidly increased.

Lily Varieties

Aureliense, Baker, Bateman, Browns, bulbiferum, Canada, Carolina, Catesby, Caucasian, Chalcedonian, Columbia, Dahurian, David, Easter, Formosa, Giant, Goldband. Hanson, Henry, Humboldt, Korean, Leopard, Madonna, Martagon, Maxwill, Morningstar, Nankeen, Nodding, Parry, Regal, Rubellum, Sargent, Speciosum, Thunberg, Tiger, Turkscap, Wallace.

The genus Lilium is characterized by the plant having a bulb made up of individual scales. The bulb is not covered with any protective covering as in the case of other members of the lily family such as tulips and hyacinths. There are leaves up and down the entire length of the stem.

The lily family has opposite leaves, regular flowers, the three parts of the calyx (sepals) and three parts of corolla (petals) are usually similar. They are seldom differentiated into a green calyx and a colored corolla as in Trilliums. There are six stamens. The ovary (bottom part of pistil where seeds are produced) has three divisions or cells. The upper part of pistil-style and stigma may be one or three.

Not True Lilies

The following plants belong to the lily family and are called lilies, but they are not true lilies, because their scientific name is not Lilium but something else as indicated.

Checkered lily—Fritillaria meleagris
Mariposa lily—Calochortus
Butterfly lily—Calochortus
Globe lily—Calochortus
Climbing lily—Gloriosa
Toad lily—Tricyrtis
African lily—Agapanthus
Lily-of-the-valley—Convallaria
Day-lily—Hemerocallis
Plantain-lily—Hosta (Funkia in most catalogs)
Lemon day-lily—Hemerocallis
Torch-lily—Kniphofia (Tritoma in catalogs)
St. Bernards-lily—Anthericum liliago
St. Bruno-lily—Paradisea (Anthericum liliastrum)
Avalanche-lily—Erythronium

Oddly enough quite a number of the members of the Amaryllis family are called lilies. They are as follows:

Belladonna-lily—Nerine
Josephines-lily—Brunsvigia
Jacobean-lily—Sprekelia
Aztec-lily—Sprekelia
Zephyr-lily—Zephyranthes
Atamasco-lily—Zephyranthes atamasco
Crinum-lilies—Crinum
Swamp-lilies—Crinum americanum
Amazon-lily—Eucharis
Spider-lily—Hymenocallis (Ismene)
Scarsborough-lily—Vallota
"Magic lily—Lycoris squamigera

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

PRESIDENT'S MESSAGE

January, 1947

This is the beginning of a new year, the time when every one takes a quiet, personal inventory of his past year's accomplishments and disappointments.

In reflection it is always possible to see more clearly how better we might have done things, and if we probe a little deeper into the facts we are bound to find our most satisfactory achievenents were those for which we planned. Garden Clubbers are far too busy to work without a plan.

These short, winter days are few indeed—we must take advanage of them. The sun is already stealthily returning to us and before long that relentless task-master, Growth, will drive on night and day with little regard for those who have no definite course of action. Are we going to let things go, lose a whole season in our gardens, apolize for them all summer and just mark time until autumn, or are we going to start at once and plan to harness this tremendous force to our advantage?

Just so must we prepare for our Garden Club work. We all want to contribute but we cannot do so effectively unless we avoid frustra. tion No one can do fine creative work if disracted and certainly no Garden Club member is satisfied with inferior performance.

Your officers and leaders have gone to great lengths to lay plans

before you in the Clubs, the Districts and the Federation. The amount of pleasure and worth they have depend on your participation. Plans are frameworks. Their development and glorification depends on those interested enough to build on them.

This is the most inspiring time in our club life. There is reorganization, zest, new vigor, new manipulation and revived interest. Try to preserve this spirit all through the year and make your contributions felt through the medium of plan.

With cordial New Year greetings,
Ruth West

P. S. Do you realize it is possible for one person to stop a complete phase of work in an organization by failure to answer a letter? How about a New Year's resolution? I WILL ANSWER ALL GARDEN CLUB CORRESPONDENCE PROMPTLY.

STATE JUDGING SCHOOLS

The National Council of State Garden Clubs, advisory committee for judging schools and committee on judging and accrediting recently held a joint meeting. The findings of the committee were reported in the November Bulletin of the Council. Some of the questions discussed and action taken will be of interest to our members. The following is a condensed report:

"It was decided that there shall be no major change in the outline of the courses. Different States have raised the question of two certificates, one for Horticulture and one for Artistic Arrangement, and the committee felt that too much emphasis cannot be placed on the fact that these are general courses which give a foundation in the art of judging and that such differentiation should come when and if the Council decided to offer advanced courses.

"Regarding the complimentary issuance of Judging Certificates—which is a point that has frequently arisen—the committee points out that there are many ways of training to become a judge but the only way to reveive the National Council Certificate is to fulfill the requirements as outlined in the Handbook.

"It was brought to the committee's attention that in some cases holders of the National Council Certificate are demanding payment for acting as judges. While it is not within the province of the National Council to dictate in such matters,

it was felt that judges trained only by our five courses are still amateurs in the field of professional judging and it was recommended that they continue to serve for no more than their expenses.

"The committee decided to accumlate data on lecturers who have served in schools and to keep such a list for the convenience of the States. Such list is not to carry with it the Council's recommendation of the speakers nor is it to be the only source of lecturers for the schools.

"It was decided that a passing mark of 70 must be attained in every subject — that an average of all the marks in one course would not be acceptable—and that any subject failed may be retaken without repeating that entire course.

"It was decided that from now on National Council Certificates will be awarded only to candidates who hold membership in some garden group which is a member of the National Council."

SLIDES AVAILABLE ON JAPANESE FLOWER ARRANGEMENT

Some years before the war, the Wisconsin Horticultural Society made some very fine lantern slides of Japanese flower arrangements. These were taken from authentic colored pictures found in books written by Japanese artists, printed in Japan and sold by dealers in this country.

The set is accompanied by a lecture. Members interested in Japanese arrangements will find them beautiful and instructive. The slides are of the large size 3 x 4 inch, made of glass. They will be sent free of charge to any organization affiliated with the Wisconsin Horticultural Society — the organization to pay express both ways.

WINTER SCENE WITHOUT SNOW

Winter trees make broken, slender shadows;
And sharp black etchings on steel-cold sky.
Dun marshes, dogwood trimmed,
Frame a shadowless lake
Gray-white, unyielding.

—Effie Anne Orth, 729 Oneida Place, Madison, Wis.

REGIONAL MEETINGS

Wisconsin Garden Club Federation Regionals will be held the week of February 24th, 1947.

Registration will begin at 10:00 o'clock. At 10:30 meeting will be called to order by the Disrict President—a short business meeting of the District will follow, after which the meeting will be turned over to the General Chairman.

The State officers and State Chairmen will give a resume of their prepared plans of the work they hope to accomplish in the coming year. Each chairman will be prepared to answer questions, and give help if requested.

Revised Regional Schedule.

Wausau, Feb. 24—First Methodist Church, 3rd and Franklin.

Madison, Feb. 25—Kennedy Manor, 1 Langdon St.

Delavan, Feb. 26—Lake Laura Hotel, Delavan Lake, 2 miles out of city on highway 50.

Racine, Feb. 27—Plymouth Congregational Church, 12th and Wisconsin Ave.

Port Washington, Feb. 28—First Congregational Church.

Mrs. Clarence Schultz, 112 N. Commercial St., Neenah, General Chairman.

GARDEN CLUB NEWS

Many inquiries have been received pertaining to Memorial Library recently started by the Whitnall Park Garden Club for the Reference Library of the Botanical Gardens, Whitnall Park, and all will be answered very shortly; however, in the meantime will anyone having the 1916 issue of The American Rose Society, please notify Mrs. Fred C. Marquardt, R. 1, Box 63, Hales Corners.

GARDEN CLUB SPEAKER

TOPICS: "Will your plants be clean next summer?" The latest in new insecticides and fungicides along with the proper use of the old standbys.

(2) "Modern impliments of War" — A Day in the modern gun powder plant. (The writer spent three years as a member of the tech. staff in Wisconsin's largest powder plant).

Fee: $15.00 plus 5 cents per mile.

S. C. Foll, Tech. Director-Laboratory, Holton & Hunkel Co. 797 N. Milwaukee St., Milwaukee 1, Wisconsin

1947 MEMBERSHIP DIET

With new Garden Club Officers now coming into Clubs with enthusiasm and ideas, I would like to bring a message to all Membership Chairmen.

For as long as any one of us can remember, I guess, there has always been the one big question in all Clubs, "How can we get new members, and *keep them!*"

Last year showed the Federation had a steady increase in growth. We were 96 Clubs with a membership of 2888—almost 3000. This is *definite evidence* of the fact that the Federation must be offering "plenty" to attract.

This year again extensive plans are being made to interest *every single individual* who is a Garden Club member. If you know of any Club who is not affiliated, contact it and explain the benefits it derives thru such affiliation. Your District Chairman, or I, will be so glad of the opportunity to be of further service with suggestions on how to organize new clubs, how to increase membership in existing clubs — also how to approach non-federated clubs.

Brush up your membership lists and get that good old experienced material back into your club again. YOU need these people, and the Federation needs them too.

And the clubs which have long "Waiting Lists," why not create another group or two? Develop new leaders who can carry on in future years.

Don't slip up on a single opportunity to increase the membership in your locality. Not one of you can afford to miss even one thing the Federation is offering for 1947.

We cannot remain tight, pleasant, little social groups. We *must* expand, because just as no man lives unto himself so no man gardens to himself.

That means *we have* a responsibility to our community.

Mrs. H. W. Schaefer,
4416 Taft Road Kenosha, Wis.
-- *State Membership Chairman*

YEAR BOOK CONTEST

Send Year Books To Awards Chairman At Once

Now is the time for all good Garden Club members to come to the aid of their year book chairman, with ideas for bigger and better year books! The last several years have seen a marked improvement in the Garden Club year books, and assuredly this is a goal worth striving for.

It is the thought of the Program Awards Chairman that the substance of the programs presented to the clubs is the most important item to be considered in judging the program. Accordingly, the yard-stick of performance by which programs will be judged this year has been changed a bit, and is presented herewith:

General Rules:

Program submitted must be identical to the one supplied to each member of the club.

Programs will be scored numerically according to the values indicated below:

100-93 will rate excellent, blue ribbon;
92-85 very good, a red ribbon;
84-78 good, a white ribbon;
77-70 fair, a pink ribbon.

Programs winning blue, red and white ribbons will be arranged for exhibition.

Points considered in judging will be as follows:

I. CLUB INFORMATION — 25% Considered here will be such items as officers, committees, club directory, meetings, dates of flower shows and special events, pertinent or seasonal garden items, etc.

II. THE YEAR'S PROGRAM-50% Does the club present a consistent plan for the year's study? Is there a balance between the recognized fields of Garden Club activity, as practical gardening, flower arrangement, conservation, bird study, garden aesthetics (color and design in the garden), community projects and services, book reviews, etc.?

III ARTISTRY And FORMAT-25% Effective cover design: good type styles; readability; interest catching devises; appropriate size and binding; materials used,etc.

All clubs are urged to send one copy of their year book to —

Mrs. Val Suttinger,
6709 W. Monona Pl.,
West Allis 14, Wis.

Careful wrapping will prevent damage to your entry. And, **please** include your return address so that an acknowledgment may be sent to you. Entries should be in by May first..

Last year the Program Awards Chairman suggested the slogan "Every Garden Club a Year Book." May we suggest "Every Garden Club a Year book —sent to the Awards Committee!"

Norbert W. Roeder,
Program Awards Chairman

Ed. Note. Mr. Roeder has resigned as Program Awards Chairman due to illness.

NEW PROGRAM AWARDS CHAIRMAN

Due to sudden illness, Mr. Norbert Roeder of Kenosha was forced to resign chairmanship of the committee on Program Awards.

President, Mrs. John West has appointed Mrs. Val Suttinger, 6709 W. Monona Place, West Allis 14 as Chairman for Program Awards.

We were sorry to hear of Mr. Roeder's illness and wish him a speedy recovery.

TREE PLANTING INCREASES

More than 1,333,000 acres have been planted to young trees in Wisconsin, Michigan and Minnesota since 1944, it is reported by Forest Experiment Station, St. Paul, Minnesota. Nearly 400,000 acres were planted in Wisconsin, by public agencies and by farmers.

Last year, Wisconsin farm wood lots alone brought in $21,542,000, as a modest estimate.

Trees planted in this state by public agencies were: Jack pine, 138,-904,000; Norway or red pine, 131, 340,000; white pine, 26,558,000; white spruce, 20,173,000; other evergreens and hardwoods, 19,802,-000.

If lumber companies and pioneer farm operators years ago had begun plans for planting, we would have been further along. It is not too late, but we should keep at it.

—*Condensed from Wisconsin Agriculturist and Farmer.*

Cast thy bread upon the waters; for thou shalt find it after many days.—*Old Testament.*

Random Garden Notes

By Genevieve Dakin, Madison

House Plants

"When your Christmas poinsettia begins to drop its leaves it is merely yawning before bed. Put it away in a cool place, water it occasionally, and let it sleep."

According to an article in House and Garden: Water house plants only when they need moisture. You can tell by tapping the outside of the pot. A sharp clear ring means the plant is dry. Blooming plants require plenty of water. Gloxinias, African violets and most begonias react badly to water on their leaves. Use tepid water.

In the dark days of the year when growth is slow hold off feeding. When the stalks lengthen start it. Bulbs and begonias need a slow fertilizer—a tbsp. of steamed bonemeal to a gallon of water. For azaleas poinsettia and hydrangeas scratch in a small amount of complete fertilizer. Tablets are available. The main consideration is when to feed. Certainly not when plants are ailing or resting since the capacity of a plant to absorb food depends on the size and healthiness of the roots. Turn plants around every couple of days, pick off leaves and flowers and on zero nights pin newspaper across the glass to prevent chilling.

Lilies

Have you thought of Garden Lilies as a program subject? You will find Lilies for American Gardens by George Slate an excellent source of information. Just out is Garden Lilies by Alan and Esther MacNeal. It is published by the Oxford Press. The authors of these two books are considered the leading authorities on lilies in the United States.

In this matter of growing lilies a friend who is making a collection says by all means buy American grown bulbs. They come mature and freshly dug. Recommended sources are Sandyloam, North Springfield, Vt. and Esperanza Lily Gardens, Langley Prairie, British Columbia, Canada. They are delivered in the fall at planting time.

Pop corn needs moisture. If your corn doesn't pop soak it in water for a few minutes and dry off the kernels in a towel.

There is no doubt in our minds that nature is an abundant propagator when we read that the average foxglove spike produces 100,000 seeds and one plantain plant 14,000 in a season.

The Ohio Federation has Shut-In Garden Club members, people interested in horiculture who are unable to attend a regular garden club meeting. They may be members of the Garden Club of Ohio by paying 50 cents a year. There is a Shut-In Chairman with assistant chairmen in regions and cities who meet frequently to outline programs of activities for the members.

From the English magazine "My Garden" I made a few notes which interested me: The tulip became known in western Europe in 1554—it was introduced into England about 1580.

The name Gentian bears the name of Gentius, King of Illyria, who discovered the medicinal properties of the plant.

The florentine iris, the old white variety, is used in the production of orris root.

Teucrium gets it name from Teucer, a Trojan prince.

The earliest records of lilies are found as decoration of Cretan vases 1500-2500 B. C.

The edible pea was introduced into England in the 16th Century.

Primula Japonica was introduced into England by Robert Fortune nearly 100 years ago and was called Queen of all tthe Primroses by its discoverer.

The orange belongs to the rue family.

Captain T. Kingdon Ward is distinguished both for his plant collecting and for his geographical discoveries.

Richardson Wright tells us we need not drain our garden pool in winter. Merely throw in a couple of logs. When the ice expands it will push up the logs instead of cracking the walls of the pool. In a bird-bath two good-sized stones will serve as an anti freeze device.

Terrariums make an excellent indoor sport for any gardener. Then, too they make excellent gifts for shut-ins or convalescents.

Along with the flood of January catalogs comes a renewed interest in garden books, in old favorites and in some of the new ones.

Do you use the Traveling Library located in the State Office Building in Madison? In communities which have a Public Library which is open more than ten hours a week, the books must be ordered through that library. Where there is no library open ten or more hours a week write direct to Traveling Library, State Office Building, Madison 2,Wisconsin.

Miss Jennie Schrage, Chief Librarian, tells me they are glad to stock books in demand by organizations. At her suggestion I will check with the library from time to time so that I may list additions.

Some of the newer books include:

Edna Blair—The Food Garden

Lawrence Blair — The Garden Clinic

Clarence J. Hylander — The World of Plant Life

Farnham and Ingham—Grounds For Living

P. J. Van Melle — Shrubs and Trees for the Small Place.

Elmer D. Merrill — Plant Life of

the Pacific World
Helen K. Morse—Garden Easily —Gardening in the Shade
J. I. Rodale—Pay Dirt
George L. Slate — Lilies for American Gardens.
Cynthia Westcott—The Gardener's Bug Book
Ordered: (*available in January*)
Louise and James Brush—Brown America's Garden Book
Wm. R. Dersal — Ornamental American Shrubs.
Montague Free — All About House Plants
Dorothy H. Jenkins — Annual Plants from Seed to Bouquet
Alan and Esther MacNeal — Garden Lilies
Reg Manning — What Kind of Cactus Izzat?
T. C. Mansfield — Shrubs in Colour and Cultivation.
R. H. Pough—Audubon Bird Guide
L. E. Yokum — Plant Growth
Helen Van Pelt Wilson—Geraniums

MORE PLANTS TO NAME

About a million plants are known by name to botanists, Professor Liberty Hyde Bailey, veteran Cornell University plant scientist, stated before a recent meeting of the American Philosophical Society in Philadelphia. as reported by **Science News Letter**, Dr. Bailey said that the task of botanists is less than half accomplished, for he estimates that at least another million plant species await naming and exact description.

This situation makes a sharp contrast with the botany of less than two centuries ago when the great Swedish naturalist, Linnaeus, beleived that the total number of plant species in the work was not greater than 8,000. In the second edition of his classic **Species Plantarum** published in 1763 he described 7,540 of them.

Exact knowledge and description of plant species is important, the speaker declared, if the applied plant sciences such as agriculture, horticulture forestry and pharmacology are to make progress. Of two plants that look almost alike yet are distinct species, one other useless or one may be poisonous and the other harmless.—**From Horticulture Illustrated, Nov. 15, 1946.**

GARDEN CLUB RADIO PROGRAMS

South Central District Reports

Last spring I proposed that each club give a broadcast in accordance with its position in the alphabet but this didn't work well. The suggestion was made that old programs proven attractive in previous years be boiled down to the length of time of the broadcast, or a pot-pourri of small articles be given by several people and a car full of broadcasters and guests go down to the station and make a party of it.

From now until December our program is not so ambitious. The station will save the second fourth Fridays for us.

The following are topics we have had this year:

October 12, Fort Atkinson G. C., "Care of Rural Cemeteries," by Mrs. Alice Parker.

October 19, Lake Geneva, book review of Pleasant Valley, by Louis Bromfield, read by Mrs. Katherine Ferguson Chalkley.

October 26, Whitewater, substitute for Elkhorn. Mrs. Marion Slocum on digging and storing dahlia tubers; Mrs. Bertine Cleland, rooting of rose cuttings; and Miss Avis Cleland, Aims of Our State Federation.

November 2, Jefferson. Tulip culture, by Mrs. Gilbert Schlaugenhauf. History of tulips, by Mrs. Neta Holberg. Music with tulip theme, "Tiptoe Through the Tulips."

November 5, Edgerton. "Symbolic Evergreens," by Mrs. A. F. Ratzloff. Very appropriate for Christmas.

December 14, Lake Geneva. Miss Ruth Dickinson on house plants for Christmas—origins and legends.

January 21, Delavan. Mrs. Floyd Heerdis read a script on actual experience with tuberous begonias.

December 7, Whitewater sponsored a musical program.

February 25, Orfordville had a question and answer program.

Cambridge had a broadcast by the district bird chairman, Leander Lillesand.

On March 15, Lake Geneva on planning for community beauty.

Cambridge had a broadcast on "Plant Life on Saipan."

Whitewater sponsored three students who gave broadcasts on garden subjects.

By Avis I. Cleland, Whitewater, District Radio Chairman.

HOW TO FORCE FLOWERING BRANCHES

MANY varieties of shrubs can be forced into bloom during the late winter months. The best shrubs from which twigs may be used are those which flower normally in the early spring, or the kind that produces their flower buds the preceding fall. Late blooming shrubs may flower on new wood grown next year, but spring blooming shrubs of course must produce their buds the preceding year.

Early blooming shrubs bloom naturally during cool weather and this condition must be provided, and not excessive heat.

It is important for good bloom to fill the stems with water in a cool dark place before bringing them into the heat. Florists recommend that the stems be hammered at the ends, placed into a pail of water, set in a cool cellar, and left there for some time before attempting to force them. Oftentimes florists cut such branches as Forsythia before Christmas because severe cold weather may injure the blossom buds. In fact, tender shrubs may have been injured during the severe cold of January this year. It is therefore well to force the more hardy varieties.

It is recommended that the blooms be forced rather slowly, in a fairly cool atmosphere. Cut the branches in plenty of time so that they need not be forced.

Oenothera triloba sends out yellow flowers with long calyx-tubes, in fact so long that they are often mistaken for flower stems. The calyx-tubes are from 7 to 8 inches in length. The flowers are 2 inches across and several are in bloom at one time on a plant. They are persistent bloomers.

GARDEN CLUB DIRECTORY

State Committee Chairmen

STATE COMMITTEE CHAIRMEN
General Chairman: Mrs. Clarence Schultz, 112 N. Commercial St., Neenah
Membership: Mrs. H. W. Schaefer, 4416 Taft Road, Kenosha
Publicity: Mrs. William Curtiss, Rt. 1, Plymouth; Mrs. Walter Patitz, 110 N. 87th St., Milwaukee
Legislation: Mrs. Fred C. Marquardt, Elm Arches, Hales Corners
Nominating: Mrs. F. J. Vea, 1010 Tumalo Trail, Madison
Historian: Mrs. Otto Hobson, 2313 No. 6th St., Sheboygan
Birds: Mrs. Arthur Koehler, 109 Chestnut St., Madison
Conservation: Mrs. Max Schmitt, 1912 84th St., Wauwatosa
Radio Garden Center: Mrs. Wm. H. Liebe, Box 341, Wisconsin Rapids
Flower Show: Mrs. Chester Thomas, 2579 N. Downer Ave., Milwaukee
Horticulture: Miss Olive Longland, Wychwood, Lake Geneva
Junior Garden Clubs: Mrs. Frank P. Dunn, Route 3, Madison
Judging School: Miss Emma Schipper, 510 E. Homer St., Milwaukee
Program: Mrs. Sam Salan, 112 Harrison St., Waupaca
Program Awards: Mrs. Val Suttinger, 6709 West Monona Place, West Allis
Roadside Development: Mrs. Gilbert Snell, 414 Erie St., Sheboygan
Living Memorials: Mrs. Norma Robinson, Lake Shore Drive, Lake Geneva

Revision of Constitution And By-Laws Committee

Mrs. Fred C. Marquardt, Elm Arches, Hales Corners, Chairman, Milwaukee District
Mrs. William Wilke, 440 Grand Ave., Port Washington, Sheboygan District
Mrs. Lawrence Skilbred, 198 E. First St., Fond du Lac, Fox River Valley District
Mrs. Martha Lowry, 204 Kensington Dr., Madison, Madison District
Mrs. Edward Holberg, Route 1, Jefferson, South Central District

FOX RIVER VALLEY DISTRICT

Fox River Valley District Officers

Pres.: Mrs. S. G. Corey, 1011 E. Two Mile Ave., Wisconsin Rapids
Vice-Pres.: Mrs. Vernon L. Rosholt, Rosholt
Secy.-Treas.: Mrs. John Ferwerda, Waupaca

Fox River Valley District Chairmen

Bird: Mrs. Reuben Jensen, Scandinavia.
Conservation: Mrs. R. A. Mullinix 2710 Third St. So., Wisconsin Rapids
Horticulture: Mrs. J. L. Larson, Iola
Hospital Service: Mrs. Wm. Liebe, Box 341, Wisconsin Rapids
Membership: Mrs. D. B. McIntyre, 929 Clermont St., Antigo
Nominating: Mrs. D. C. Kenyon Oakfield
Program: Miss Merle Rasmussen, R. 4, Oshkosh
Publicity: Mrs. Wilbur Pfeifer, R. 1, Fond du Lac
Radio: Mrs. Roy Kelly, Rothschild
Roadside Development: Mrs. Clarence Schultz, 112 N. Commercial, Neenah

Garden Club Officers

Antigo Garden Club

Pres.: Mrs. D. B. McIntyre, 929 Clermont St.
Vice-Pres.: Mrs. W. G. Thayer, 832 Deleglise St.
Secy.-Treas.: Mrs. George A. Zehner, 1210 Deleglise St.
Meeting: 1st Tuesday, 2:30 p. m.

Berlin Home Garden Club

Pres.: Mrs. Earl Kolb, R. 2
Vice-Pres.: Mrs. J. A. Younglove, 312 Noyes St.
Secy.: Mrs. N E. Wood, 915 Pearl St.
Meeting: 4th Wednesday, 3:00 p. m.

Brandon Community Garden Club

Pres.: Mrs. Maud Tank
vice-Pres.: Mrs. L. Ruenger
Secy.: Mrs. R. Austin
Meeting: 2nd Friday

Fond du Lac Community Garden Club

Pres.: Mrs. Earl E. Borsack, 150 South Hickory St.
Vice-Pres.: Miss Edna Peebles, R. 4.
Secy.: Mrs. Wilbur Pfeifer, R. 1.

Fond du Lac Ledgeview Garden Club

Pres.: Mrs. Wayne Clore, 234 Ledgeview Ave.
1st Vice-Pres.: Mrs. C. F. Seeley, 182 S. Park Ave.
Secy.-Treas.: Mrs. H. C. Grantman, 270 Rose Ave.
Meeting: 3rd Tuesday, 2:30 p. m.

Green Bay Garden Club

Pres.: Mrs. Charles F. Kelley, 632 S. Webster Ave.
Secy.: Mrs. R. E. Markell, 1261 S. Quincy St.
Meeting: 1st Monday, 7:30 p. m.

Horicon Garden Club

Pres.: Mrs. Henry Bodden
Secy.-Treas.: Mrs. Geo Neill
Meeting: 3rd Monday, 7:30 p. m.

Iola Garden Club

Pres.: Mrs. Reuben Jensen, R.F.D., Scandinavia
Vice-Pres.: Mrs. Harris Amundson
Secy.-Treas.: Mrs. Albert Kitzman
Meeting: 1st Friday March thru October.

Marinette Garden Club

Pres.: Mr. Paul Ravet, 820 Ogden ave., Menominee, Mich.
Vice-Pres.: Mrs. Elmer Grimmer, Shore Drive
Secy.-Treas.: Mrs. J. A. Faller, 1009 Pierce Ave.
Meeting: 2nd Tuesday, 8:00 p. m.

Menasha Garden Club

Pres.: Mrs. George Loescher, 429½ 360 First St.
Vice-Pres.: Miss Ethel MacKinnon, 360 First St.
Secy.-Treas.: Mrs. H. O. Fenner, 338 Oak St.
Meeting: 2nd Monday, 7:30 p. m.

Oakfield Garden Club

Pres.: Mrs. D. C. Kenyon
Vice-Pres.: Mrs. E. Kneisel
Secy.-Treas.: Mrs. H. F. Tannehill

Omro Garden Club

Pres.: Mrs. Ethel Bishop
Vice-Pres.: Miss Grace Carter
Secy.: Miss Elizabeth M. King

Oshkosh Horticultural Society

Pres.: Miss Merle Rasmussen, R. 4
Vice-Pres.: Mr. Carl Koch, 228 Evans St.
Secy.-Treas.: Miss Katherine Plummer, R.F.D. 4
Meeting: 1st Monday evening of month.

Ripon—Ceresco Garden Club

Pres.: Mrs. Herbert Chaffin, 534 Scott St.
Vice-Pres.: Mrs. Lano Mann, 310
Secy.: Mrs. Noel Thiel, R. 2
Meeting: 3rd Monday, 2:00 p. m. Hall St.

Ripon—Home Garden Club

Pres.: Mrs. Lee Miller, 832 Watson St.
Vice-Pres.: Mrs. Fred Kohl, Thorne St.
Secy.-Treas.: Mrs. Allmen Hamman, 331 Spaulding Ave.
Meeting: 3rd Monday, 8:00 p. m.

Ripon Garden Club

Pres.: Mrs. R. C. Labisky,, 116 Lane St.
Vice-Pres.: Mrs. Lester Burr, Lane St.

Secy.: Mrs. C. W. Clausen, 636 Woodside Ave.
Meeting: 3rd Monday

Ripon—Yard And Garden Club

Pres.: Miss Maud Russell, 320 Thorne St.
Vice-Pres.: Mrs. Mary Cole, 815 Metomen St.
Secy.: Mrs. Faye Eckstein, 825 Watson St.
Meeting: 3rd Monday, 2:30 p. m.

ROSHOLT GARDEN CLUB

Pres.: Mrs. Myron Paulson
Vice-Pres.: Mrs. Perry Carter
Secy.-Treas.: Mrs. Norman Rosholt
Meeting: Last Thursday, 3:00 p. m.

Scandinavia Garden Club

Pres.: Mrs. Simon Floistad
Vice-Pres.: Mrs. Orin Jorgens
Secy.-Treas.: Miss Josephine M. Voie
Meeting: 3rd Friday, 2:30 p. m.

Seymour Garden Club

Pres.: Mrs. Arlene Lother
Vice-Pres.: Mrs. Lulu Milchert
Secy.-Treas. Mrs. Irma Swann
Meeting: 3rd Monday, 8:00 p. m.

Stevens Point—Park Ridge Garden Club

Pres.: Mrs. Lewis Wood, Park Ridge
Vice-Pres.: Mrs. Melvin Clarin, Park Ridge
Secy.: Mrs. Warren Jenkins, Park Ridge
Meeting: 3rd Monday, 8:00 p. m.

Sturgeon Bay Garden Club

Pres.: Mrs. Milton Westfall
Vice-Pres,: Mrs. Robert Laurie
Secy.-Treas.: Mrs. William N. Beck
Meeting: 2nd Friday, 2:30 p. m.

Waupaca Garden Club

Pres.: Mrs Geo. Haebig, 303 Jefferson
Vice-Pres.: Mrs. Maynard Atkinson, 615 S. Main St.
Secy.-Treas.: Mrs. John Ferwerda
Meeting: 2nd Monday, 2:00 p. m.

Wausau—Federated Home Garden Club

Pres.: Mrs. L. A. Sabatke, 2212 Mt. View Blvd.
Vice-Pres.: Mrs Carl Magnus, 529 Grant St.
Secy.-Treas.: Mrs. R. W. Widstrom, 2201 Elmwood Blvd.

Wausau Garden Club

Pres.: Mrs. L. J. Snapp, 2317 Midway Blvd.
Vice-Pres.: Mrs. R. J. Bauer, 2211-7th St.
Secy.-Treas.: Mrs. P. E. Treadwell, 662 La Salle St.

Wausau Valley Federated Garden Club

Pres.: Mrs. B. F. Quade, 705 Fourth Ave.
Vice-Pres.: Mrs. J. A. Held, 627 Hamilton St.
Secy.-Treas.: Mrs. M. Roberts, 525 Minton St.
Meeting: 1st Monday, 2:00 p.m.

Wisconsin Rapids—Horticulture Club

Pres.: Mrs. John Miller, 551-13th Ave., N.
Vice-Pres.: Mrs. Fred Steinfeldt, 550-13th Ave., N.
Secy.-Treas.: Mrs. John Murgatroyd, R.F.D. 5
Meeting: 1st Monday, 8:00 p. m.

Wisconsin Rapids—Lake Wazeecha Garden Club

Pres.: Mrs. Herman Koch, R. 1, Box 275
Vice-Pres.: Mrs. Kryn Hamelink
Secy.-Treas.: Mrs. R. G. Bannes, R. 1, Box 270
Meeting: 1st Tuesday, 1:00 p. m.

Wisconsin Rapids—Two Mile Garden Club

Pres.: Mrs. R. A. Mullenix, 2710 3rd St., S.
Vice-Pres.: Mrs. Wm. H. Liebe, P. O. Box 341
Secy.-Treas.: Mrs. John E. Peterson, 2951 Sampson St.
Meeting: 2nd Wednesday, 8:00 p. m.

MADISON DISTRICT

Madison District Officers

Pres.: Rev. W. Emigholz, 443 W. Main St., Platteville

Vice-Pres.: Mr. Wm. E. Sieker, 2633 Stevens St., Madison 5

Secy.-Treas.: Mrs. T. C. McConnell, 1304 W. Dayton St., Madison 5

Madison District Chairmen

Bird: Mrs. W. T. Stephens, 3706 Nakoma Road, Madison 5

Conservation: Mr. Luther Zellmen, Platteville

Historian: Miss Dagny Borge, 862 Terry Place, Madison 5

Membership: Mrs. Leo Ender, Platteville

Program: Mrs. H. B. Morrow, 310 Jay St., Platteville

Roadside: Mrs. H. C. Culver, Platteville

Living Memorials: Mr. Wm. E. Sieker, 417 Insurance Bldg, Madison

Horticulture: Mrs. H. E. Consigny, 722 Miami Pass, Madison 5

Judging School: Mrs. Theo. F. Wisniewski, 4341 Hillcrest Dr., Madison

Junior Garden Clubs: Mrs. Earl House, Baraboo

Garden Club Officers

Baraboo Garden Club

Pres: Mrs. O. F. Isenberg, 433-3rd St.
1st Vice-Pres.: Mrs. L. Schneller, 221-8th St.
Secy.: Mrs. Clarence Kasdorf, 736 Ridge St.
Meeting: 2nd Tueday, 2:30 p. m.

Lodi Garden Club

Pres.: Mrs. Carol Bartholomew
Vice-Pres.: Mrs. Cassie Lang
Secy.-Treas.: Mrs. Mayme Demynck
Meeting: 3rd Thursday, 2:30 p. m.

Madison—Little Garden Club

Pres.: Mrs. F. E. Nordeen, 713 Huron Hill
Vice-Pres.: Mrs. E. R. Welch, 2233 Fox Ave.
Secy.-Treas.: Mrs. H. H. Persons, 146 Kensington Drive
Meeting: 1st Monday, 1:15 p. m.

Madison Garden Club

Pres.: Mr. Wm. E. Sieker, 2633 Stevens St.
Vice-Pres.: Miss Mabel Griswold, 1158 Sherman Ave.
Secy.: Mrs. A. H. Staedtler, 1319 Randall Ct.
Meeting: 1st Tuseday, 7:30 p. m.

Madison—Sunset Garden Club

Pres.: Mrs. Conrad Lewis, 217 East Sunset Ct.
Vice-Pres.: Mrs. Marguerite Halvorson, 14 Farley Ave.
Secy.-Treas.: Mrs. Clem Fagan, 4244 Bagley Pkwy.
Meeting: 1st Wednesday, 8:00 p. m.

Madison—West Side Garden Club

Pres.: Mrs. F. M. Distelhorst, 3630 Spring Trail
1st Vice-Pres.: Mrs. Paul H. Rehfeld, 4010 Cherokee Drive
Secy.: Mrs. W. T. Stephens, 3706 Nakoma Road
Meeting: 4th Tuesday, 2:00 p. m.

Platteville Garden Club

Pres.: Mr. J. C. Brockert
Vice-Pres.: Mr. D. C. Pettyjohn
Secy.: Mrs. Wm. Goke
Meeting: 1st Thursday, 6:30 p.m.

Portage Garden Club

Pres.: Mrs. R. O. Klenert, 320 Edgewater
Vice-Pres.: Miss Olive Rhyme
Secy.-Treas.: Mrs. B. C. Taylor, 138 W. Franklin

MILWAUKEE DISTRICT

Milwaukee District Officers

Pres: Mrs. Wm. J. Armitage, Hotel La Salle, Apt. 321, Milwaukee 3

Vice-Pres.: Mrs. G. L. Otto, Menomonee Falls

Secy.-Treas.: Mrs. Carl F. Hofstetter, 136 N. 88th St., Wauwatosa 13

Milwaukee Diistrict Chairman

Conservation: Mrs. Russell D. Meyas, 2579 N. Downer Ave., Milwaukee 11

Flower Shows: Mrs. Chester Thomas, 2579 N. Downer Ave., Milwaukee 11

Historian: Mrs. H. W. Harries, R. 1, Box 31A, Hales Corners

Horticulture: Mrs. Ervin Kulow, R. 2, Box 464, Waukesha

Parliamentarian: Mrs. Fred Marquardt, Elm Arches, Hales Corners

Living Memorials: Mrs. O. H. Burgermeister, 2127 S. 87th St., West Allis 14

Membership: Mrs. O. J. Reuss, 2131 N. 62 St., Wauwatosa 13

Nominating: Mrs. Lloyd E. Cadieu, 8202 Richmond Court, Milwaukee

Program: Mrs. G. L. Otto, Menomonee Falls

Publicity: Mrs. Arthur Patzer, 1928 N. 83rd St., Wauwatosa 13

Roadside Beautification: Mrs. Robert La Phillipli, 1335 S. 127th St., Milwaukee

Garden Club Officers

Brookfield Garden Club

Pres.: Mrs. Elva L. Lewis, R. 5, Box 280, Waukesha

1st Vice-Pres.: Mrs. Roger Strachota, R. 5, Box 240, Waukesha

Rec. Secy.: Mrs. Ben Patterson, R. 2, Pewaukee

Burlington Garden Club

Pres.: Mrs. Louis H. Zimmermann, 449 Kendall St

Vice-Pres.: Mrs. Henry Heidermann, 381 Edward St.

Secy.-Treas.: Mrs. B. C. Pankratz, R. R. 1

Meeting: 2nd Wednesday, 2:30 p.m.

Cedarburg Garden Club

Pres.: Miss Elsie Dehmel, 147 Highland Drive

Secy.: Mrs. John Rasmussen, 239 N. Washington Ave.

Meeting: 3rd Friday, 7.30 p. m.

Dousman — Ottawa Garden Club

Pres.: Mrs. John Clay, R. 4, Oconomowoc

Vice-Pres.: Mrs. Guy Dana, R. 1

Secy.-Treas.: Mrs. George Jeffery

Elm Grove Garden Club

Pres.: Mrs. C. R. Dix, Box 161

Vice-Pres.: Mrs. C. F. Codrington, R. 14, Box 391, Milwaukee 13

Secy.: Mrs. J. L. Kern, R. 14, Box 357, Milwaukee 13

Meeting: 1st Monday 8:00p. m.

Hales Corners—Hawthorne Garden Club

Pres.: Mrs. Wm. R. Holz, Box 67

Vice-Pres.: Mrs. Gladys Dineen, 3, R. 1

Secy.: Mrs. H. Harries, R. 1, Box 31A

Meeting: 2nd Tuesday, 12:30 p.m.

Hales Corners—Tess Corners Garden Club

Pres.: Mrs. Herman Immc, R. 3, Box 187, Waukesha

Vice-Pres.: Mrs. Wm. Boldt, R. 2, Box 401B

Secy.: Mrs. Lewis W. Gaulke, R. 2, Box 403J

Meeting: 2nd Wednesday, 2:15 p.m.

Hales Corners—Whitnall Park Garden Club

Pres.: Mrs. G. William Warner, R. 1

Vice-Pres.: Mrs. H. Voight, R. 1

Secy.: Mrs. J. R. Ambruster, R. 1

Meeting: 2nd Wednesday, 1:00 p.m.

Kenosha County Garden Club

Pres.: H. M. Pauley, 2610 Lincoln Road

Vice-Pres.: Mrs. E. G. Bruss, 4221 Wilson Road

Secy.: Mrs. Raymond Toft, 6515-31st Ave.

Meeting: 2nd Wednesday, 7:30 p.m.

Menomonee Falls Garden Club

Pres.: Mrs. Fleetwood Schunk, Elsie Ave.

Vice-Pres.: Mrs. Otis Motz, 109 N. Grand Ave.

Secy.: Mrs. John J. Johnston, 203 Donald Ave.

Meeting: 4th Monday, 8:00 p.m.

Milwaukee—Art Institute Garden Club

Pres.: Mrs. Clarence H. Fiebrantz, 3006 N. Downer (11)

1st Vice-Pres.: Mrs. Alfred Abelt, 1575 E. Blackthorne Pl.

Rec. Secy.: Miss Edith Boltz, 1627 238 E. Park Lane

Meting.: 3rd Friday, 2:30 p. m.

Milwaukee—Blue Beech Garden Club

Pres.: Mrs. Rudolph Malisch, W. Green Ave., Hales Corners

Secy.-Treas.: Mrs. John Le Feber, 3900 N. Lake Drive

Milwaukee-Galecrest Garden Club

Pres.: Mrs. Rudolph Petersen, 2767 No. 72nd St.

Vice-Pres.: Mrs. Elmer Sieber, 2829 No. 73rd St.

Secy.-Treas.: Mrs. J. W. Beck, 2856 No. 78th St.

Milwaukee—Green Tree Garden Club

Pres.: Mrs. Haskell Noyes, 1030 W. Bradley Rd.

Vice-Pres.: Mrs. Clyde H. Fuller, 7165 North River Road

Rec. Secy.: Mrs. Walter V. Johnston, 2140 W. Dean Road

Meeting: 2nd Tuesday

Milwaukee County Horticultural Society

Pres.: Walter Knuth, 6301 W. Girard Ave.

Vice-Pres.: Mrs. G. A. Strohm, 2666 N. 41st St.

Secy.: Mrs. Al Dess, 1325 S. 22nd St.

Meeting: 4th Tuesday, 7:30 p. m.

North Prairie Garden Study Club

Pres.: Mrs. Stanley Zamorski

Vice-Pres.: Mrs. Frank Miller

Secy.-Treas.: Mrs. Marvin Treader

Meeting: Last Wednesday, 2:00 p.m.

North Prairie Voilet Garden Club

Pres.: Mrs. Harry Vanderberg

Vice-Pres.: Mrs. Henry Hill

Secy.-Treas.: Mrs. Wilbur Rolfe

Meeting: Last Wednesday, 8:00 p.m.

Oconomowoc—La Belle Garden Club

Pres.: Mrs. George Hanson, 364 W. Wisconsin Ave.

Vice-Pres.: Mrs. J. Taylor, La Belle Village

Secy.: Mrs. H. C. Bush, 308 N. Oakwood Ave.

Meeting: 1st Friday, 2:00 p. m.

Pewaukee Garden Club

Pres.: Mrs. Lloyd Bartlett

Vice-Pres.: Mrs. Ernest Plater, R. 1

Secy.: Miss Beulah Hext

Meeting: 1st Wednesday, 8:00 p.m.

Racine Garden Club

Pres.: Miss Grace Miller, 614 Wisconsin Ave.

Vice-Pres.: Mrs. Milo Griffith, 1604 Park Ave.

Secy.: Mrs. Stanley Overson, R. 3

Meeting 2nd Monday

Thiensville—Mequon Garden Club

Pres.: Mrs. Alois Zenker

Vice-Pres.: Mrs. Ray Reuter

Secy.: Mrs. Herbert Ohm, R. 1

Meeting: 4th Tuesday

Waukesha—Rocky Knoll Garden Club

Pres.: Mrs. Elsie Pheil, R. 4, Box

Vice-Pres.: Mrs. G. Weber, R. 4, Box 101

Secy.-Treas.: Mrs. Bertha Trapp, 1530 S. 56th St., Milwaukee 14

Waukesha—Spring City Garden Club

Pres.: Mrs. John L. Engler, 210 S. Greenfield Ave.

Vice-Pres.: Mrs. F. G. Zietlow, 211 Oxford Drive

Secy.: Miss Edith Granicher, 215 S. Greenfield Ave.

Meeting: Last Wednesday, 7:30 p.m.

Waukesha—Sum-Mer-Del Garden Club

Pres.: Mrs. R. O. Eirckson Hartland

Vice-Pres.: Miss Mary Lowerre, Delafield

Secy.: Mrs. W. F. Whitman, Nashotah

Waukesha Town Garden Club

Pres.: Mrs. Stanley Boyd, 602 Linden Ave.

1st Vice-Pres.: Mrs. Phil Olson, 1109 Ellis St.
Secy.: Mrs. L. Van Alstine, 136 So. James

Wauwatosa—Blue Mound Garden Club

Pres.: Mrs. E. A. St. Clair, 2418 No. 65th St.
Vice-Pres.: Mrs. Elmer Rohan, 2808 Hartung Ave., Milwaukee 10
Secy.-Treas.: Mrs. L. L. Cannon, 7123 Cedar St.
Meeting: 1st Tuesday, 1:30 p.m.

Wauwatosa—Ravenswood Garden Club

Pres.: Mrs. Mark E. Pfaller, 8525 Ravenswood Circle
1st Vice-Pres.: Mrs. Ned E. Dumdey, 8611 Hawthorne Ave.
Rec. Secy.: Mrs. S. W. Price, 8472 Ravenswood Circle
Meeting: 2nd Monday, 1:00 p. m.

Wauwatosa Garden Club

Pres.: A. Kornacki, 2414 N. 88th St.
Secy.-Treas.: Ernest Lefeber, 7500 Hillcrest Drive
Meeting: 3rd Tuesday, 8:00 p.m.

West Allis—Hillcrest Garden Club

Pres.: Mrs. E. Meyer, 2177 S. 86th St.
Vice-Pres.: Mrs. O. Burgermeister, 2127 S. 87th St.
Secy.: Mrs. R. Schissler, 7909 Stickney Ave., Wauwatosa 13
Meeting: 3rd Monday, 1:30 p.m.

West Allis—The Home Gardeners

Pres.: Mrs. Lloyd Cadieu, 8202 Richmond Ct., Wauwatosa 13
Vice-Pres.: Mrs. George Johnson, 2042 S. 82nd St.
Secy.: Mrs. J. W. Dooley, 7724 W. Rogers St.

West Allis Garden Club

Pres.: Mrs. Henry J. Moody, 1101 S. 32nd St., Milwaukee 4
Vice-Pres.: Mrs. Ray Luckow, R. 14, Box 125, Milwaukee 13
Secy.: Miss Janet Buckeridge, R. 1, Box 228, Nashotah
Meeting: 3rd Wednesday, 1:15 p.m.

SHEBOYGAN DISTRICT

Sheboygan District Officers

Acting Pres.: Mrs. Fred Wilkerson, 724 National Ave., Sheboygan
Vice-Pres.: Mrs. Kurt Schneider, Port Washington
Secy.-Treas.: Mrs. Fred Wilkerson, 724 National Ave., Sheboygan

Sheboygan District Chairmen

Nominating: Mrs. Walter Dunwiddie, 1016 W. Grand Ave., Port Washington
Flower Show: Miss CatherineDanehy, 851 N. 13th St., Manitowoc
Radio Garden Center: Mrs. Francis Kadow, 835 N. 5th St., Manitowoc
Horticulture: Mrs. Charles Schultz, Route 3, Sheboygan
Conservation: Dr. Harvey Vollendorf, 715 N. 6th St., Manitowoc
Publicity: Mrs. Leland Dietsch, Oak Lee, Plymouth
Junior Garden Clubs: Mr. Harold Groth, 1615 Wisconsin Ave., Manitowoc
Membership: Mrs. Harvey Vollendorf, 715 N. 6th St., Manitowoc
Living Memorials: Rev. Alfred Otto, 210-7th Ave., West Bend
Historian: Mrs. Walter Roehrborn, 1922 Georgia Ave., Sheboygan
Birds: Mrs. Lewis Arndt, 2601 S. 7th., St., Sheboygan
Program: Mrs. Frank Hoehn, Port Washington

Garden Club Officers
Kohler GardenClub

Pres.: Lillie B. Kohler, 606 New York Ave., Sheboygan
1st Vice-Pres.: Mrs. F. W. Eppling, 238 E. Park Lane
Secy.: Mrs. Albert L. Treick, 435 Church St.
Meeting: 3rd Tuesday, 7:00 p. m.

Manitowoc—A.A.U.W. Garden Club

Pres.: Mrs. Roman Herman. 916 Lincoln Blvd.
Vice-Pres.: Mrs. Harold Kallies, 723 N. 8th St.
Secy.-Treas.: Miss Ruth Ritchie, 407 Park St.
Meeting: 3rd Tuesday, 7:30 p. m.

Manitowoc Garden Club

Pres.: G. H. Thompson, R. 5
Vice-Pres.: Dr. Harvey H. Vollendorf, 715 N. 6th
Secy.-Treas.: Eleanor J. Gielow, 913 S. 13th

Plymouth Garden Club

Pres.: Mrs. Wm. Curtiss, R. 1
Secy: Henry Winn, 415 Fremont St.
Meeting: 2nd Thursday, 7:30 p.m.

Port Washington Garden Club

Pres.: Mrs. Joseph Ubbink, Saukville Road.
Vice-Pres.: Mrs. Marshall W. Moeser, 215 So. Eva St.
Secy.-Treas.: Mrs. Arno Ubbink, 129 S. Madison Ave.
Meeting: 2nd Monday, 8:00 p.m.

Sheboygan Garden Club

Pres.: Mrs. Otto Hobson, 2313 N. 6th St.
Vice-Pres.: Mrs. Arthur Boley, 514 Park Ave.
Secy.: Mrs. Fred Wilkerson, 724 National Ave.
Meeting: 2nd Thursday, 7:30 p.m.

West Bend Garden Club

Pres.: Mrs. Austin J. Hancock, 137 Wilson Ave.
Vice-Pres.: Mrs. Ida Wiebe, 324 N. 8th Ave.
Secy.-Treas.: Mrs. Herbert G. Kahl, 119 Mayer St.
Meeting: 1st Tuesday, 7:30 p.m.

SOUTH CENTRAL DISTRICT

South Central District Officers

Pres.: Mrs. M. H. Johnson, 7 Burr Oak Ct., Delavan
Vice-Pres.: Mrs. Chas. Jahr, Jr., 114 N. Church St., Elkhorn
Secy.-Treas. Mrs. J. T. Murphy, 603 McDowell, Delavan

Garden Club Officers
Cambridge And Lake Ripley Garden Club

Pres.: Mrs. Otto Kufahl
Vice-Pres.: Mrs. Edson Jones
Secy.-Treas.: Mrs. Orlow Moen
Meeting: 3rd Tuesday.

Delavan City Garden Club

Pres.: Mrs. Henry O. Gardner, 524 McDowell
Vice-Pres.: Mrs. H. A. Turner, 226 S. 4th
Secy.: Mrs. Bradley H. Nelson, 717 Walworth

Edgerton Garden Club

Pres.: Mrs. Carl Lein, 309 N. Swift St.
Vice-Pres.: Mrs. Clara Swift, 319 W. Fulton St.
Secy.: Mrs. Walter Borgnis, 510 Blaine St.

Elkhorn Garden Club

Pres.: Mrs. Chas. Jahr, Jr. 114 N. Church St.
Vice-Pres.: Mrs. John Hughs, 243 Winsor St.
Secy.: Mrs. Roy Dunbar, 223 Randall Pl.

Fort Atkinson Garden Club

Pres.: Mrs. Harold C. Poyer, 308 Edwards St.
Vice-Pres.: Mrs. J. B. Polo, 13 N. 3rd St.
Secy.: Mrs. E. S. Engan, 312 Frederick St.

Honey Creek Garden Club

Pres.: Mrs. Alfred Zechel, 841 Chestnut St.
Vice-Pres.: Mrs. Everett Mueller, R. 2, Burlington
Secy.: Mrs. Roy Cole
Meeting: 1st and 3rd Wednesday

Jefferson Garden Club
Pres.: Mrs. Ed Holberg, R.F.D. 1
Vice-Pres.: Mrs. George Krause, 1312 Sanborn St.
Secy.-Treas.: Mrs. Bernice L. Shashesky, 912 Dodge St.

Lake Geneva—Lake Como Beach Garden Club
Pres.: Mrs. Clara Hussey, R. 2
1st Vice-Pres.: Mrs. Charles Deischel, R. 2
Rec. Secy.: Mrs. R. Coquillette, R. 2

Lake Geneva Garden Club
Pres.: Mrs. Arthur W. Wakeley, Williams Bay
1st Vice-res.: Mrs. John Eliot Warner
Rec. Secy.: Mrs. Howard Vaughan, Fontana

Lake Geneva Town And Country Garden Club
Pres.: Mrs. John Raup, 1123 Park Row
1st Vice-Pres.: Mrs. Katherine Chalkley
Secy.-Treas.: Mrs. E. R. McNair
Meeting: 3rd Monday, 8:00 p.m.

Orfordville—Better Homes And Garden Club
Pres.: Mrs. H. F. Silverthorne
Vice-Pres.: Mrs. Marcus Lewis
Secy.: Mrs. E. R. McNair
Meeting: 2nd Tuesday, 2:00 p.m.

Whitewater Garden Club
Pres.: Mrs. Louis Zimmerman, 801 Pratt St.
Vice-Pres.: Mrs. Chester Bishop, 700 Main St
Secy.-Treas.: Mrs. Walter Rohde, 316 Jefferson St.

Williams Bay Garden Club
Pres: Mrs. M. C. Spence
Vice-Pres.: Mrs. John Vosatka
Secy.-Treas.: Mrs. William F. Corbett, Box 272
Meeting: 1st Tuesday, 2:00 p.m.

Zenda Garden Club
Pres.: Mrs. Earl York
Vice-Pres.: Mrs. Gordon Polyock
Secy.-Treas: Mrs. O. L. Bakkom
Meeting: 3rd Wednesday, 2:30 p.m.

The following clubs are not as yet in a district:

Clubs Not In An Organized District

Hayward—Namekagon Garden Club
Pres.: Mrs. A. A. Hampton
Vice-Pres.: Mrs. Alvin Johnson
Secy.-Treas.: Mrs. Arnold Swiler

La Crosse Garden Club
Pres.: Miss Bertha Shuman, 136 So. 19th St.
Vice-Pres.: Miss Gabriella Brendemuhl, 2516 Edgewood Pl.
Secy.-Treas. William Bringe, 715 So. Fourth St.
Meeting: 1st Wednesday, 7:30 p.m.

Sparta Senior Garden Club
Pres.: Eugene Hensel, 318 W. Main
Vice-Pres.: Miss Alice Beebe, 111 W. Montgomery
Secy.-Treas.: Mrs. Geo. H. Seidel, 215 No. Water St.
Meeting: 2nd Friday, 7:30 p. m.

Superior Garden Club
Pres.: Mrs. C. E. De Mars, 1732 East 6th St.
Vice-Pres.: Mrs. Carl Sandberg 1516 East 5th St.
Secy: Mrs. Harry F. Mortensen, 7B Hayes Court

Washington Island Garden Club
Pres.: Mrs. Al Stelter
Vice-Pres.: Mrs. Orville Joss
Secy.-Treas. Mrs. Claude Cornell
Meeting: 2nd Tuesday, 2:15 p.m.

Berlin—Grow-em And Show-em Fox River Valley District
Pres.: Mrs. James Brewer, Route 2
Vice-Pres.: Miss Leola Evans
Secy.-Treas.: Miss Audrey Tauer, C/O Mrs. Water Mendleski, Capron St.

NATIONAL FLOWER SHOW IN CHICAGO

The National Flower Show will be held in Chicago on March 16-23. In connection with it Roses, Inc., will stage their annual Rose show.

Roses, Inc., will also stage a show in connection with the International Flower Show in New York City on March 17-22.

Schedule Of Coming Events

March 10-15. New England spring flower show, Mechanics Building, Boston, Mass.

March 16-23. National flower show, International Amphitheater, Chicago.

March 16-19. Convention and national show of American Carnation Society, headquarters in Congress Hotel, Chicago.

March 17-22. International flower show, Grand Central Palace, New York.

March 18-23. Annual spring flower and garden show, Kiel Auditorium. St. Louis, Mo.

Wisconsin Horticulture

March
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ROPING OUT THE BRUSH

C. L. Burkholder, Purdue Experiment Station

Brush removal is always a labor-consuming orchard operation and growers have tried many short cuts such as pole brush wagons, sections of wire fence and tank carts which burn the prunings while moving through the orchard. One grower has worked over a hydraulic tractor manure hoist that he likes very well and which not only gathers the brush but also lays it right on the fire.

Last spring a neighboring farmer and his boy took care of all the apple brush hauling in the Purdue Orchards. Over the weekends, the staff and students gathered the brush into piles about five feet high and twelve to fifteen feet wide. Our farmer friend then passed a rope about the pile about twelve inches from the ground and back to the tractor draw-bar. When he arrived at the burning area he fastened one end of the rope to an anchor or "dead man" and with the other end still attached to the tractor he quickly circled the pile of brush bringing the rope this time about half way to the top of the pile and dumped it directly on the fire. The compressed mass of green brush burned very easily when given an occasional dash of waste crank case oil diluted about one-fourth with kerosene.

—From Hoosier Horticulture, Dec. 1946.

FRUIT GROWERS HELP FINANCE RESEARCH

The regents of the University have accepted a grant of $7,500 from the Fruit Growers Cooperative, the Martin Orchard Company, and Reynolds Brothers, Inc. of Sturgeon Bay, for establishment for a three-year period of an industrial fellowship for study of methods of controlling virus diseases of cherries, especially cherry yellows. This project has been assigned to the Department of Plant Pathology, to be supervised by G. W. Keitt and J. Duain Moore. The work done under this grant will supplement and expedite the research program already in progress on these virus diseases, which present an increasingly serious problem to cherry growers.

WISCONSIN HORTICULTURE

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Apple Scab Control Experiments With Ground and Tree Spraying for 1946

G. W. Keitt and J. Duain Moore

An Elgetol or Krenite ground spray followed by various tree spray programs gave excellent control of apple scab both in the experimental work and in well-sprayed commercial orchards.

The 1946 season was not as difficult for scab control as those of 1942, 1943, 1944, and 1945, but severe enough that the disease got out of control in many orchards that were not well sprayed.

Reduction In Spore Discharge of 96.5%

In the experimental work either Elgetol or Krenite was used for the ground treatment. The ascospore discharge studies made in connection with these treatments indicated equally good results with Elgetol or Krenite. In the large orchard operations the Elgetol (or Krenite) was used at one gallon in 200 gallons of spray and applied at the rate of 600 gallons per acre by means of the special spray boom described in earlier reports. For all the experimental work of this season with this standard dosage an average indicated reduction in ascospore discharge of 96.5% was obtained by the ground spraying. In small scale tests in orchards with a very heavy carry-over of scab, the use of either 1% Elgetol applied at the rate of 600 gallons per acre or two treatments of ½% Elgetol applied at 600 gallons per acre and about one week apart gave a somewhat better indicated reduction in ascospore discharge. With the one treatment at 1%, the indicated reduction was 99.0%, and with the two treatments at ½% it was 99.4%.

The Spray Program

Various tree spray programs were applied to McIntosh plots in the large experimental ground-treated orchard on the Horseshoe Bay Farms near Egg Harbor. In all

programs except one, liquid lime-sulphur, 1-50, was used in three applications before bloom, followed by either five applications of lime-sulphur, 1-60, or six applications of a wettable sulphur or an organic fungicide after bloom. In one program Fermate was used in three pre-blossom and six post-blossom applications. Lead arsenate, 1-50, was used in all applications.

Results In Scab Control

Very satisfactory scab control was obtained on all plots receiving a complete spray program except the one of lime-sulphur before bloom and Omilite (a latex product), 1-200, after bloom. There was very little difference in control among the other programs. The percentages of scabbed fruit at harvest ranged from .7 for the program of lime-sulphur, 1-50, before bloom and 1-60, after bloom, to 3.3 for the program of lime-sulphur, 1-50, before bloom and Kolospray, 5-100, after bloom. The program of lime-sulphur, 1-50, before bloom, and Omilite, 1-200, after bloom had 14.5% and the unsprayed trees had 99.3% scabbed fruits at harvest.

Leaf Injury

There was much more leaf injury on plots receiving lime-sulphur or Omilite after bloom than on those receiving the milder sulphurs or the other organic fungicides. The most leaf injury (total of leaves fallen plus remaining leaves with injury) occurred on plots sprayed with lime-sulphur, 1-50, before bloom and 1-60 after bloom. On these plots the total injury was 62%. Among the milder materials used, Corona Micronized Sulphur, Sulforon-X, Flotation Sulphur Paste, Mike Sulphur, Fermate, Micro-Flotox, Compound 341 (2-heptadecylglyoxalidine, Kolospray), the Compound 341 and Kolospray plots had significantly more leaf injury than any of the others. On the plots sprayed with Corona Micronized, Sulforon-X Mike Sulphur, and Fermate, the total injury was 11 percent, 11 percent, 12 percent and 8 percent, respectively. The least leaf injury (6%) occurred on the plots that received Fermate both before and after bloom.

Injury To Fruit

The most spray injury (sulphur russet) to fruits occurred on the plots receiving Omilite after bloom (21%). The plots sprayed with lime-sulphur both before and after bloom had more russet than those receiving a wettable sulphur, Fermate, or Compound 341, while the least fruit russet occurred in the full-season Fermate plots. The plots sprayed with lime sulphur, 1-50, before bloom and 1-60 after bloom had 9% russeted fruits at harvest; those sprayed with wettable sulphur ranged from 3% (Kolospray) to 6% (Micro-Flotox); those sprayed with lime-sulphur, 1-50, before bloom and Fermate, 1-100, after bloom had 2%; and those sprayed with Fermate, 1½-100, before bloom and 1-100 after bloom had less than 1%.

Conclusion

In the past season, therefore, good control in ground-sprayed orchards was again obtained without serious injury to leaves or fruit by programs of lime-sulphur before bloom and milder materials, such as Mike Sulphur, Corona Micronized, Sulforon-X, or Fermate after

bloom. This type of program has the added advantage that DDT can be used in connection with it for insect control, whereas DDT cannot be used with an all-season lime-sulphur program.

Directions for applying the ground spray are given in the March, 1946, issue of Wisconsin Horticulture (p. 166-67 and 177). A copy of this statement can be obtained by writing to the Department of Plant Pathology, University of Wisconsin, Madison 6, Wisconsin.

SOUTHEASTERN FRUIT GROWERS CO-OP HAS SUCCESSFUL YEAR

Sales Greatly Increased Over Previous Year

The Southeastern Fruit Growers Cooperative Inc. has issued an annual report to memberes which indicates a most profitable year with greatly increased sales. The report covers a period of 9 months because the co-op has changed its fiscal year to end September 30 to better facilitate bookwork. Previously this coincided with the heavy shipping season.

The following figures indicate the activity of the organization.

Comparative Statement

	For Nine Months of 1946	For 1945 (12 months)
Net Sales	$128,503.62	$117,273.96
Cost of goods sold	111,594.85	103,966.95
Gross Profit	16,908.77	13,307.01
Operating Expense	9,930.87	8,636.19
Net Operating Costs	6,997.90	4,670.82
Other Net Income	1,027.11	217.13
Net Savings for Patronage Distribution	8,005.01	4,887.95

The savings for patronage distribution amounted to 6.2% on all sales. The Board of Directors voted a 6% patronage dividend on all purchases to be paid in preferred stock. The Board also voted to recapitalize at $58,000; $56,000 to be in preferred stock and $2,000 in common stock.

Officers of the Co-op are: Pres.: Martin Wiepking of Cedarburg, Vice-President, Charles Patterson of Franksville, Secretary-Treasurer and Manager, Lester Tans, Waukesha.

Directors: Oscar Conrad of Hales Corners and Louis Gundrum of Hartford.

Apple Varieties to Plant and Discard

At the request of the American Pomological Society Prof. C. L. Kuehner conducted a survey of Wisconsin growers to determine which varieties of apples they would select for planting and which they would discard. The table is very interesting. It shows that 12 out of 13 growers would discard Ben Davis and 36 out of 54 would recommend Cortland for new planting.

If we judge varieties by number of growers who recommend certain kinds be discarded, we must conclude that the least popular varieties in Wisconsin are: Ben Davis, Duchess, Golden Russet, Northern Spy, Tolman Sweet and Yellow Transparent.

The Yellow Transparent ranks next to Ben Davis in that 17 out of 26 growers would discard it.

Golden Delicious seems in doubtful popularity. While 11 would discard it, 13 recommend it for planting.

New Varieties

Milton and Macoun are the most popular of the new varieties as 10 out of 19 recommend them and only one would discard Macoun. None would discard Milton. Melba, Prairie Spy and Secor also have good reputations. Perhaps Secor has the best of all in that 11 out of 13 would plant more of them and none would discard it.

RESULTS OF WISCONSIN APPLE VARIETY SURVEY

Conducted by C. L. Kuehner for American Pomological Society

Variety	Growers Having Variety	Growers Who Select It For New Planting	Growers Who Would Discard Variety
Beacon	15	4	3
Ben Davis	13	1	12
Cortland	54	36	3
Early Red Bird	6	2	3
Red Delicious (old)	44	15	7
Starking	31	16	3
Duchess (old)	49	10	12
Dudley	20	13	6
Early McIntosh	22	12	5
Snow	46	28	3
Golden Delicious	29	13	11
Goden Russet	25	5	13
Haralson	30	7	9
Jonathan	44	23	6
Kendall	13	1	4
Macoun	19	10	1
McIntosh	57	49	6
Melba	23	10	3
Milton	19	10	—
Northern Spy	26	8	11
N. W. Greening	51	36	5
Prairie Spy	10	9	1
Secor	13	11	0
Stayman Winesap	14	1	7
Tolman Sweet	31	10	13
Wealthy	68	35	8
Winter Banana	12	4	8
Wolf River	28	13	8
Yellow Transparent	26	1	17

WHAT VARIETIES OF APPLES DO COMMERCIAL GROWERS RECOMMEND?

Results of a Survey Among Members Wisconsin Apple Institute

Recently a postcard containing names of apple varieties which have been planted in Wisconsin during the past generation or two, was sent each member of the Wisconsin Apple Institute. They were asked to check those they would recommend for future planting in their locality. These members are commercial growers with experience both in growing and marketing apples.

Varieties For North Central Wisconsin

The following early varieties were listed by North Central Wisconsin growers: Duchess, Early McIntosh, Melba, Milton, Dudley.

Midseason and late varieties: McIntosh, Wealthy, Red Delicious, N. W. Greening, Snow, Cortland, Haralson, Jonathan, Yellow Delicious, Wolf River, Tolman Sweet.

Of the new varieties Macoun led with largest number of votes, Perkins and Secor each receiving one vote.

Pears favored were Bartlett and Flemish Beauty. The best crab was Whitney.

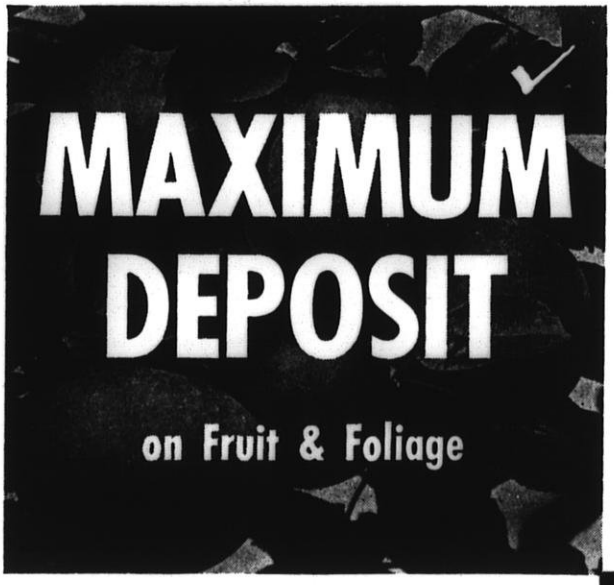
THE BAYFIELD AREA

Early varieties: Melba, Milton, Dudley.

Midseason and late: McIntosh, Wealthy, Cortland, Haralson, Minjon, Victory.

New Varieties: Macoun and Fireside. Kendall received one vote. No pears were listed.

(Continued on Page 151)



GENITOX† S50

Micro-Particle 50% Wettable DDT Powder

Genitox S50 is milled to micro fineness . . . none finer available. Due to its extremely fine particle size and the action of special component ingredients, Genitox S50 gives a finely-divided "floc" in the spray mixture which results in maximum deposit on fruit and foliage with minimum run-off of the DDT insecticide.

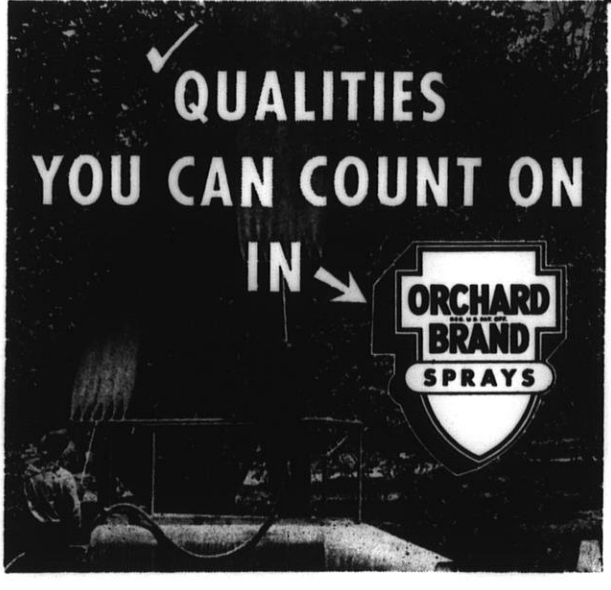
From coast to coast, grower reports on 1946 spray operations confirm the excellent mixing and non-foaming qualities, and the all-around spray efficiency of Genitox S50. Wherever used, it gave exceptionally even and unbroken film deposits . . . contributing to better control of codling moth and leaf hopper on apples; Oriental fruit moth on peaches; also Japanese beetle and many other insects attacking fruits.

†Trade Mark of General Chemical Company

STANDARD & ASTRINGENT

LEAD ARSENATE

Year after year, Orchard Brand Lead Arsenate has consistently given better protection against codling moth and the other fruit insects for which it is used. Its fine flake-like particles (an original development of General Chemical Research) make possible a flocculated spray mixture . . . tend to stay put when the spray hits the fruit, and to form a smooth, unbroken spray cover. The run-off is practically clear water. The value of this feature has been proven time and again by the "standout" performance of Orchard Brand—and the commanding grower preference for it—in orchards where the codling moth problem is toughest (particularly in the Pacific Northwest)



Micro-Particle

APPLE DRITOMIC* SULFUR

Made especially for apples and pears, Apple Dritomic Sulfur is unsurpassed for its particle fineness. This quality *plus* its special built-in depositing agents result in a spray mixture the grower can count on for maximum sulfur deposits on fruit and foliage with minimum run-off of the scab controlling fungicide.

DRITOMIC* SULFUR

Always a leader in use and performance, Orchard Brand Dritomic Sulfur has become the peach growers' "old reliable" for spray performance in the control of peach brown rot and scab . . . another example of the widespread grower acceptance gained by Orchard Brand products.

*Reg. U. S. Pat. Off.

GENERAL CHEMICAL COMPANY

40 Rector Street, New York 6, N. Y.

Sales & Technical Service Offices
Serving Agricultural Centers From Coast to Coast

APPLE VARIETIES TO PLANT

(Continued From Page 148)

DOOR COUNTY

In Door County area Early McIntosh received the most votes as best early variety, McIntosh and Cortland led the later varieties; N. W. Greening a close third.

In order of votes, the following varieties were listed: Early; Early McIntosh, Dudley, Milton, Yellow Transparent and Duchess.

Midseason and late: McIntosh, Cortland, N. W. Greening, Red Delicious, Wealthy, Golden Delicious, Wolf River. Tolman Sweet and Haralson received one vote each.

New varieties: Macoun led with Fireside and Turley receiving one vote each.

Crabs: Hyslop led the crabs, with Whitney receiving two votes.

Best pears were Bartlett, with Clapp"s Favorite and Mendel receiving one vote each.

SOUTH CENTRAL WISCONSIN

Early varieties: Melba, Duchess and Milton led the early varieties, with Early McIntosh, Dudley and Beacon next in order. Red Duchess and McMahon received one vote each.

Midseason and late: Cortland and McIntosh led the field in midseason and late varieties, with Wealthy in third place. Snow, N. W. Greening, Red Delicious and Jonathan ranked next in order. Golden Delicious, Tolman Sweet and Haralson received scattering votes, with Gem City and Forest Winter one vote each.

New varieties: Fireside and Prairie Spy led as the best new varieties, with Macoun third, and Secor fourth.

Best Crabs: Whitney was out in front as the best crab. Others were Sweet Russet, Transcendant, Success and Dolga.

Best pears: These pears were mentioned: Bartlett, Flemish Beauty Lincoln and Vermont.

GAYS MILLS AND WESTERN WISCONSIN

Early varieties: Dudley, Melba and Duchess received a few votes.

Midseason and late: Varieties ranked in the following order: Red Delicious, Jonathan, McIntosh, N. W. Greening, Cortland, Golden Delicious and Haralson.

New Varieties: Fireside, Prairie Spy Minnesota #638.

Best Crab: Red Flesh, Dolga, Whitney.

NORHWESTERN WISCONSIN (Menomonie Area)

Early varieties: Melba and Beacon.

Midseason and late: McIntosh, Snow, Wealthy, Cortland, N. W. Greening, Wolf River and Haralson.

New varieties: Macoun, Fireside and Prairie Spy.

Best Crab: Whitney.

NORTH CENTRAL WISCONSIN

Early varieties: Duchess, Early McIntosh and Yellow Transparent.

Midseason and late: McIntosh, Snow, Wealthy, Red Delicious, N. W. Greening, Haralson and Tolman Sweet.

Best Crab: Whitney.

New varieties: Macoun.

LAKE SHORE AREA

This area has the largest number of members in the Institute and consequently the largest number of votes for varieties.

Early varieties: Milton, Melba, Early McIntosh and Duchess were the most popular early varieties. Others mentioned were Red Bird, Beacon, Red Duchess and Dudley.

Midseason and late: Cortland led the field with McIntosh secind, and Red Delicious third in popularity. Following varieties received votes in this order: Cortland, McIntosh, Red Delicilous, Golden Delicious, Snow, N. W. Greening, Jonathan, Wolf River, Wealthy, Haralson, Tolman Sweet. The following received one vote: Minjon, Joan, King David.

New varieties: Secor led the field of new varieties, with Prairie Spy second, Fireside third. Macoun, Perkins, Starking and Victory were next.

Best Crabs: Whitney, Hyslop, Florence.

Best Pears: Bartlett was the only one highly recommended. The following received one vote. Anjou, Parker, Lincoln, Flemish Beauty.

"What we had in mind was about 7 rooms with 2 baths, a modern kitchen, hot water heat, and a 2-car garage, on a corner lot close to schools and stores, for around $4,000."

Why do they call money "dough" is hard to understand. Dough is something that sticks to the fingers.

"Well, darling, and what did you learn your first day at school?"

"Nothing, Mummy," sighed Emily hopelessly. "Ive got to go back tomorrow."

How to Prune Your Apple Trees

By Conrad L. Kuehner

Radio Talk (Condensed) Over Stations WHA and WLBL. Questions By Mr. Milton Bliss, Director of the Farm Hour.

Question: We have an old farm orchard which needs to be pruned. How would you suggest that we go about to prune these trees?

Answer: In getting ready to prune an orchard I think it is a help to study the pruning needs of the different trees before you do any pruning. The needs of the different trees vary considerably. Briefly, the different kinds of pruning required in most old orchards are about as follows:

1. First there are the long neglected trees which have dead, diseased and broken branches and usually also have a wild growth of crowding suckers or watersprouts on the main lower branches and along the main trunk. These trees need one kind of treatment.

2. Secondly, there are always some trees which have high tops which need to be lowered and other trees which have dense, crowded heads which need to be opened to admit light to the lower and inside parts of the tree.

3. Then there are the trees that produced heavy crops of nice fruit for many years but no longer do so. Instead, they now bear much small, poorly colored fruit, especially on the lower inside branches. Trees in this condition need the kind of pruning treatment which will eliminate much of the small, undesirable fruit.

After this preliminary study of the different trees has been made, I'd suggest that you prune the long neglected trees first. Go about it by removing all dead, broken and diseased branches from all of the trees which require this kind of pruning. Then follow up by thinning out the suckers. In thinning these suckers, aim to leave a husky, well branched one about every three feet along the main lower branches and the main trunk. This means all of the crowded, more spindly suckers are entirely removed and only some of the larger, well branched ones remain to serve as new fruiting wood. You'll find it pays well to rejuvenate neglected old trees in this way.

Those Big Trees With High Tops

Question: It seems easy enough to prune the first type of trees. How would you suggest that one go about to prune the big trees with high tops or those with dense heads?

Answer: The trees which have excessively high tops can usually be lowered, where necessary as much as 8 or 10 feet. This is best accomplished by removing several of the highest upright branches at points where one or more branches of about the same diameter grow outwardly in a horizontal direction. The upright part of the branch is cut away at the point close to the outwardly g r o w i n g horizontal branch. If possible, the diameter of this cut should be somewhat smaller than the diameter of the branch which remains, at the cut. In this way the wound usually heals better than if it is larger in diameter than the remaining branch. Most growers need to be warned not to remove too many upright branches one season. It is better to take two or even three years to lower the top of a high tree. In this way, sunscalding and heavy top suckering may be avoided.

In the case of trees which have dense tops but are not high headed, insufficient light reaches the inside and lower areas of the tree. There is too much shading of the lower and inside branches to allow satisfactory fruiting. Such dense tree tops may be readily opened by relatively light pruning. It consists of removing some of the slender, upright branches wherever several of them crowd each other no matter where they may be in the tree top. Again one must not remove too many branches at one place. It is better to distribute this pruning over the entire top so it will be only moderately opened where more light is needed.

PRUNE FOR BETTER FRUIT

Question: So far, this takes care of two types of pruning which most orchards need. Now can you also explain how to prune old bearing trees so that they'll again bear more large fruit and less small, poorly colored fruit?

Answer: You are referring to cull pruning. It is called cull pruning because it removes the culls from the crop. This kind of pruning pays good dividends at harvest time. In this cull pruning you will need to learn to recognize the difference between the parts of branches which bear large fruit and those which bear small fruit. Once you have learned this you are ready to do a good job of cull pruning. Surely in picking apples from an older heavy bearing tree you have noticed that the top and outside of the tree bears fruit which is uniformly larger and better colored than you find on the inside lower branches. By comparing both kinds of branches, it becomes apparent the branches which carry larger fruit have a heavier growth and more luxuriant foliage than the inside lower branches which bear small fruit. You will find branches which bear small fruit are m o s t l y underneath the strong, husky branches which bear the large fruit. Most of these weak branches hang downward, are very thin in diameter, and their bark is dull and lighter colored than the upper, more husky branches. It is these weak, shaded, more or less hanging small branches on the under-

(continued on Page 165)

HEAVY PRUNING AND FREDONIA YIELDS

By Nelson Shaulis, Geneva, New York Exp. Station

Although the Fredonia grape yield large crops in some years, its performance in the last several seasons has been erratic. An experiment to study the effect on yield of four training systems was started in 1942. The training system include the Chautauqua, Umbrella Kniffen, 4 cane and 6 cane Kniffen. Each system is practiced on six 29-vine rows. Two of the six rows are pruned lightly.

Where only a small amount of fruiting wood (28 buds for vines with 2 pounds of prunings) was used, the production was lowest (2½ tons per acre). Where a moderate amount of wood (38 buds of vines with 2 pounds of prunings) was used, the yield was increased by almost a ton to the cre in 1946. Using the longest pruning (48 buds to a vine producing 2 pounds of prunings), the acre yield was increased by another ton. For the three Kniffen training systems, cluster size was not affected by severity of pruning as tried here. With the Chautauqua system, cluster size was increased by the longer pruning. The yield data for 1945 and 1946 are in the same order

It is apparent that severe or short pruning of vigorous Fredonia vines reduces yield. Longer pruning of vigorous vines is suggested.

—Condensed from Farm Research, Geneva, New York, Jan. 1, 1947.

THE VALENTINE STRAWBERRY LOOKS PROMISING

By Bert Copeland, Platteville

A new commercial strawberry, cross between Premier and Vangard released by the Central Experimental Station, (Ottawa, Canada was rated an All-American award for 1944.

Valentine is the earliest strawberry yet introduced and while it blossoms with mid-season varieties it ripens its fruit much ahead of Premier.

The plant growth is remarkable for so early a variety, individual plants are exceptionally large. The past dry season they made some of the best plant rows we had. The fruit is large and firm and will keep longer after picking than most varieties.

The large plants and the extra large rooting system have sufficient capacity to withstand considerable dry weather without injury. This strawberry should become a leader in the northern middlewest and make plenty of friends in Wisconsin.

Teacher: "Johnny, can you tell me what a grudge is?"

Johnny: "A grudge is a place where they keep automobiles."

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS ASSOCIATION

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Robt. Knutson, Ladysmith Vice-President
H. J. Rahmlow, Madison, Cor. Secy.
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E. Schroeder, Marshfield
Ivan Whiting, Rockford

THE POLLEN SUPPLY

Be Sure Colonies Have Pollen Available Within The Cluster in Late March and April.

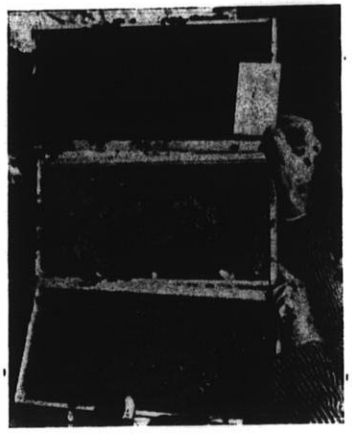
"To be available for brood rearing winter pollen reserves must be within the cluster. Once they have stored pollen in the combs, the bees do not move it as they do honey." This statement is made by Dr. C. L. Farrar in Circular 702 on beekeeping by the U. S. Department of Agriculture.

When wintering in more than one brood chamber, it is well then to inspect combs and move those containing pollen within reach of the cluster during late March.

It is also important to feed soy bean flour mixed with sugar syrup *right on top of the combs.* It not only provides a supplement to the pollen which may come in from the field or already be in the combs, but *acts as a stimulant.* The bees work on the cake taking up the sugar syrup and storing the soy bean flour, thereby creating activity which increases brood-rearing.

Inspect Colonies Every Week

In order to get ready for that honey flow we expect from white and Alsike clover early in June, every effort must be made to stimulate early brood-rearing and have a large field force of bees by that time. Colonies should be given a quick inspection once each week in late March and during April to determine their condition; to see that they have pollen available; that there is plenty of honey within reach of the cluster and that the queen is getting along well. If she is failing, there is still time to replace her. Late March is a good time to requeen.



Winter Brood

A few minutes spent with each colony during periods of good weather early in the season will pay big dividends later.

Brood Rearing Started In January

Letters from beekeepers during late January gave the opinion that the warm weather during the middle of January stimulated brood rearing which might result in heavy consumption of stores and starvation.

Dr. C. L. Farrar states that 9 years out of 10, a good colony of bees will start brood rearing sometime about the middle of January, or a little before. It's a normal condition. The amount of brood will depend upon the number of bees in the cluster, but still more upon the amount of pollen available within the cluster.

This winter brood rearing is a good thing. The colony produces young bees which take the place of the bees which die normally. Such colonies come out strong in the spring with young bees which continue to raise brood at a maximum rate.

However, brood rearing requires stores, both honey and pollen, and starvation will follow if stores run out.

To Feed Syrup

We believe every beekeeper who is not quite sure of whether a colony has enough stores or not should inspect all colonies on the first warm day—when the temperature gets up to 40 or 45 degrees F. and the sun is shining. To do a quick job, we suggest spraying combs full of sugar syrup—two parts sugar to one of water, sprayed into the combs warm; then slipping them next to the cluster wherever needed. Don't worry about opening up your colony whether it's February or March if the temperature is up to 40 degrees F. It won't hurt them at all and you won't stimulate brood rearing because that already started in January.

Order Sugar Now

All beekeepers should apply immediately for application blanks to register their colonies for the year 1947 in order to obtain sugar for feeding. Sugar is issued for the calendar year. Apply to the OPA in your district, either Milwaukee or Green Bay. The amount allowed is 10 lbs. per colony where needed for spring feeding. An additional 15 lbs. is available on certification that the bees will starve unless fed. This amount must last, however, for the calendar year 1947, so don't use it all this spring.

Best information we have received is that sugar rationing will continue throughout 1947.

IT WILL PAY TO FEED SOYBEAN FLOUR TO BEES

It will pay to feed soybean flour to bees beginning the last week in March or soon thereafter, even though you may not have pollen to mix with it.

At beekeepers meetings held in 1946, we made a survey asking how many beekeepers had trapped pollen for this spring's feeding. Very few, if any indicated they had trapped pollen. That being the case, this suggestion is for those who do not have any pollen available.

The Central States Bee Laboratory recommends the feeding of a mixture of one part pollen and three parts soybean flour as being equal to pollen alone. If pollen is not available for feeding, soybean flour will give good results alone if there is a small amount of pollen in the combs or available from the field.

The last week in March is a good time to start feeding. By opening up colonies and inspecting at that time, we can also tell if stores of honey are sufficient and may prevent starvation.

Sources Of Soybean Flour

We have information from the following manufacturers of soybean flour as to prices:

The Glidden Company, 5165 W. Moffat Street, Chicago 39, Illinois. Price, expeller process flour "Soyalose" in 100 lb. bags, 5.90 per cwt. F. O. B. mill, Chicago.

The Otto L. Kuehn Co., 403 E. Detroit St., Milwaukee 1, Wis. LO-FAT Soy Flour in 100 lb. bags at $6.56 cwt. F. O. B. warehouse, Milwaukee in 5-bag lots or more. In less than 5 bags 50 cents per cwt. more.

The Spencer-Kellogg Co., Decatur, Illinois, 100# bags, $6.50 per cwt. in 3 bag lots frt. paid to Madison.

In 5 lb. bags $1.00; 10 lb. bags, $1.75 post paid. Cash with order. Will quote prices on 100 lb. bags on request, delivered your station.

A. E. Staley Mfg. Co., Decatur, Illinois. Staley's Lo-Fat Soy Flour in 100# bags at $6.00 per 100 lb. bag f. o. b. plant, Decatur, Illinois.

DISTRICT BEEKEEPERS MEETINGS

FOX RIVER VALLEY DISTRICT MEETING COURTHOUSE — CHILTON, WIS. THURSDAY, APRIL 3

NORTH CENTRAL MEETING MARSHFIELD — ODD FELLOW HALL WEDNESDAY, APRIL 9

PROGRAM

10:00 a. m. Call to order by Pres. Cornelius Meyer at Chilton, and Pres. Ernest Schroeder at Marshfield meeting. Remarks on beekeeping problems.
The advantages and disadvantages of sulfa drug for treatment of A. F. B. by John F. Long, Deputy Inspector, Madison, Wisconsin.

11:15 a. m. What happened at the Florida meeting of the Apiary Inspectors of America, by James Gwin, Chief, Division of Bees and Honey, Madison.

12:00 M. Luncheon. (Note) During luncheon hour Mr. John Long will examine bees brought in for identification of Nosema. Bring either dead bees or spots from around the entrance.

1:30 p. m. The Honey Bee. Colored movie which won second prize in a National Cinema contest in 1945 made by W. W. Vincent, Jr., Kenosha

2.00 p. m. Question and answer hour. Any kind of question welcome. Send question on postcards in advance to Wisconsin Horticultural Society.

3:00 p. m. Can we prevent winter losses now. Demonstration of spring management and swarm control by H. J. Rahmlow, Madison.

3:45 p. m. Observation on Ladino clover and Legume growing in this locality by County Agent Donald Rowe at Marshfield meeting and County Agent, Orrin Meyer at Chilton.

MORE DISTRICT BEEKEEPERS MEETINGS

A program similar to that presented in this issue for district beekeepers meetings will be given at the following places:

TUESDAY, MAY 6, MAUSTON, COURT HOUSE. 10 a. m. — 4 p. m.

WEDNESDAY, MAY 7, CHIPPEWA FALLS, Moose Hall 421 Bridge Street. 10 a. m. —4 p. m.

THURSDAY, MAY 8, SUPERIOR. Afternoon and evening.

HOW TO INSTALL PACKAGE BEES

Practically all Wisconsin commercial beekeepers have adopted the spray and direct — release method of installing package bees as recommended by Dr. C. L. Farrar in circular No. 702 available from the U. S. Dept. of Agriculture, Washington, D. C. or the Central States Bee Laboratory, Madison.

Must Have Pollen

More and more beekeepers are ordering their packages for early April delivery. It is well to remember that package bees will not do well *unless pollen is available* as well as sugar syrup or honey. Beginners who must establish packages on foundation will have better luck if they wait until warmer weather when pollen is available from the fields unless they have a good substitute.

WANTED—BEE INSPECTORS

Word from the office of the Bee and Honey Section, Department of Agriculture, would indicate an all-time high in the number of counties making a county appropriation for Bee Disease Eradication and Control for 1947. To date, forty-five counties have made county appropriations varying from $50.00 to $400.00 each. The total amount of the appropriations so far is $7,-660.00. This would indicate that more and more the members of the County Boards are recognizing the value of bees for pollination purposes.

With the increase in the number of counties appropriating money, the question of finding good, capable inspectors to do the work is becoming very serious. If you believe you would enjoy doing inspection work and are interested in becoming an inspector, you should write to the Bee and Honey Section, Room 342 North, State Capitol, Madison, Wisconsin, for further information. The Bureau of Personnel will be giving examinations for this position in the near future.

DDT MAY NOT BE HARMFUL TO BEEKEEPERS

DDT may not be as harmful for bees as arsenate of lead has been. In the January issue of Gleanings in Bee Culture, Roy Hastings of Arizona makes this statement in connection with their crop from cotton: "Then came the cotton. Tests and experiments conducted by U. S. entomologist, with DDT proved to be a very satisfactory insecticide for both the farmer and the beekeeper. The effects on harmful insects were good, yet the bees made surplus honey all through the blooming season."

Son: What is executive ability, father?"

Father: "Executive ability, my boy, is the art of getting the credit for all the hard work somebdoy else does."

WE SEE BY THE PAPERS THAT ;

A committee representing the beekeeping industry met in Washington to *try to get lumber for bee hive manufacturers.* They were able to get some relief from the lumber shortage. While the supply of lumber continues to be short and there will not be enough hive bodies to meet the demand manufacturers are no longer tied by government regulations as they were previously.

Articles on the use of sulfa for A. F. B. control are confusing. Some state we can take any colony, no matter how badly diseased, feed sulfa and they will clean up and be free of disease. Others recommend removing all infected combs in the brood nest, substituting clean combs and then feeding sulfa. Some state that if A. F. B. re-occurs after feeding sulfa to destroy the colony and burn the combs.

Editor G. H. Cale of the American Bee Journal says, "Whenever colonies are fed, sulfa is added to the syrup at the rate of a half teaspoon of soluble sodium sulfathiazole to a 10 lb. pail of feed regardless of the strength of the colony." Mr. Cale continues, "Drive the bees off of their bad combs and down into a good set of drawn combs with a carbolic board. Give the colony a resistant queen if you can and at least one feeding of sulfa. If you keep common stock use 3 feedings of sulfa."

THE HIVE AND THE HONEY BEE

Fine New Book on Beekeeping Just Out

Dadant and Sons, Hamilton, Illinois, are to be congratulated on publishing a fine new book, "The Hive and the Honey Bee," edited by Roy A. Graut. It is a new book on beekeeping to succeed the book "Langstroth on the Hive and the Honey Bee."

It is really a monumental work of 633 pages. Each chapter is written by a leading American authority on a particular phase of beekeeping. Frank C. Pellett has written the chapters, The Development of Beekeeping, The Honey Bee as a Pollinating Agent, Sources of Nectar and Pollen. Races of Bees.

The Anatomy of the Honey Bee is by R. B. Snodgrass. The Life History of Bees by O. W. Park, who also wrote Activities of the Honey Bee; The Honey Comb is by H. C. Dadant; Bee Hives and Beekeeping Equipment by M. G. Dadant; also a chapter on The Apiary.

G. H. Cale, editor of the American Bee Journal, writes the chapter for beginners, First Steps in Beekeeping, and also, Management for Honey Production, and Removing the Extracted Honey Crop.

Extracting the Honey Crop is by Roy A. Grout, who also wrote the chapters, Marketing the Honey Crop, Production and Uses of Beeswax.

Dr. C. L. Farrar, Madison, has written the chapter, The Overwintering of Productive Colonies. The Production of Comb Honey by Newman I. Lyle.

V. G. Milum of Illinois has written a chapter on honey which is very complete. The production of queens and package bees is by M. G. Dadant, and Injury to Bees by Poisoning by J. E. Eckert of California.

The concluding chapter is by our leading authority on bee diseases A P. Sturtevant of Wyoming on

Diseases And Enemies of the Honey Bee.

This book will be of great value to students and to those who wish to study beekeeping from a scientific angle.

Price of this book from the American Bee Journal, Hamilton, Illinois is $4.00 per copy, post paid. Combination offer with American Bee Journal for one year at $5.00.

WORK ON RESISTANCE TO AMERICAN FOULBROOD ACCELERATED

Studies on resistance to American foulbrood are being materially accellerated through recent progress in the technique for the artificial insemination of queen bees. In 34 colonies headed by artificially mated queens from 2 inbred and crossbred resistant strains, only the brood of 4 inbred queens of the strains showed any sign of disease and these recovered, making the season's record for all colonies 100 per cent resistance. In colonies headed by naturally mated queens of the sixth generation of the latter strain, 28 percent became infected but recovered, while 39 percent showed no infection. For the other strain, which was tested in the seventh generation, 5 percent of the colonies recovered after infection, and 50 percent showed no disease. The ninth generation of a third resistant strain showed resistance in 62.5 percent of the colonies tested, and for the colonies of a new strain being tested in the first generation of two lines the figures were 70 and 86 percent. The artificially inseminated inbred queens and some of the hybrids produced brood of poor quality and did not develop strong colonies. A few of the artificially inseminated hybrid queens were outstanding as regards quality of brood and production of honey. European foulbrood was again present in colonies headed both by naturally and artificially mated queens. One hundred and seventy-five queens of resistant stock were distributed to State agencies.

—From Annual Report, U. S. Bureau of Entomology.

THE PRICE OF HONEY

Many beekeepers are wondering what the price of honey will be next fall. It's too early to make predictions but we like to do a little thinking about it.

It looks very much as if sugar rationing will be continued until the spring of '48. The government is insisting on it because of the world shortage of sugar and they are afraid if rationing is discontinued there will be uneven distribution and very high prices. There may, however, be an increase in the amount of sugar available next summer and fall to both consumers and industrial users.

Many economists think farm prices in general will drop somewhere between 15 and 25%. A few crops such as oranges and grapefruit, where there was over-production, are already low in price. Over-production is always a factor but there should be no over-production of honey as long as there is a shortage of sugar.

Some observers think that corn syrups, jellies and processed sweets will compete with honey. Anything in the sweet line will compete if the price of honey it too high. Therefore, we can expect honey prices to level off by next fall which will be a good thing. If we have a good crop and it sells at around 15 to 20 cents per lb. wholesale, most of us will be satisfied.

At least we can be sure that the price of honey will be much better than it was before the war for another year.

Editorials

SOME FACTS ABOUT THE WISCONSIN HORTICULTURAL SOCIETY

Question: How many organizations are affiliated with the Wisconsin State Horticultural Society, and what are the names of the most important ones?

Answer: In all there are about 150 organizations affiliated with the Society, if we count all the individual garden clubs, fruit growers associations, and the county and district beekeepers associations.

The state-wide organizations affiliated with the Society are: The Wisconsin Garden Club Federation; the Wisconsin Apple Institute; the Wisconsin Beekeepers Association; the Wisconsin Gladiolus Society; the Wisconsin Nurserymen's Association; and the Wisconsin Cranberry Growers Association.

Some of the largest local groups include: The Fruit Growers Co-op (Door County); The Reynolds Company (Door County). There are 12 county fruit grower associations affiliated with a membership of almost 1,000.

Question:Are all members affiliated through these organizations regular members of the Society and entitled to vote?

Answer: Yes, all affiliated members have the same privileges as individual members, can vote, and receive the magazine. The Society also pays salary and expenses of the secretary in attending meetings of affiliated organizations in giving talks, usually illustrated with slides or movies.

Question: When was the Wisconsin Horticultural Society organized and where was the first meeting held?

Answer: The Society was organized 1865. The organization meeting was held in the Court

Room in Janesville, September 29, 1865.

Question: How long has the Society had an appropriation from the State legislature to support its program of work?

Answer: The Wisconsin Legislature appropriated the first aid to the Society in 1879—the sum of $600. This was increased in 1885 to $2,000. In 1890 the legislature considered the work of the Society so highly that this resolution was passed, "that room No. 27 in the Capitol is hereby set aside for the permanent use of said Horticultural Society."

BOIL BUTTERNUTS TO CRACK SHELLS EASILY

Mr. W. T. Harvey of Racine who is an ardent horticulturist makes the suggestion that to crack butternut shells easily boil them in water for 5 minutes. This will soften the shells and the meats will come out whole. Use an old kettle, however, that you won't mind having stained. The water gets very dark and Mr. Harvey reminds us that pioneers used it as a dye for clothing.

He adds that Mrs. Harvey thinks that butternut meats are excellent for use in cooking.

MEN'S GARDEN CLUB CONVENTION

The Men's Garden Clubs of America, will hold its annual convention in Portland, Oregon, May 21-24 next spring. The Portland club, host to the convention, will combine its annual spring flower show from May 23 to 25.

Tours will be held on the first two days of the convention. Mount Hood loop will be one of the tours. A big barbecue will culminate the tour part of the program, the place to be decided upon later.

Between 300 and 500 are expected to attend the convention, a special train being made up at Chicago for the eastern contingent.

By setting the date late in May, the committee hopes to influence most of the delegates to stay over for the rose Festival in June.

This is the first convention of the nation group to be held in the west. Portland is the largest club in the United States and Oakland, Cal., second and both are planning to use every effort to make this the greatest convention the national has ever had.

PUBLIC POLLINATION CONSCIOUS

Probably at no time has the public been more conscious of the need for bees to serve as pollinators than during recent years. In their efforts to meet war-production goals seed producers, orchardists, and producers of other insect-pollinated crops have been brought to a greater realization than ever before, not only of their dependence on pollinating insects, but also of the fact that the honeybee is the only pollinating insect that can be obtained in any desired numbers to be placed where needed when needed.

—From Annual Report, U. S. Bureau of Entomology.

PRUNING BACK APPLE TREES IMPROVES QUALITY

By Fred Sacia, Galesville

Pruning back apple trees has the effect of reducing *quantity* and improving *quality* of the fruit.

Cutting back is being done all over the country now. We did it last season and we are well pleased.

The county agent is in the best position to get to the irresponsible grower where apple growing is a side line.

I advise pruning demonstrations for teaching a method of cutting back for the different varieties.

We are cutting back to twenty feet. It is a matter or removing branches that extend upwards from remaining limbs!

And then there is the problem of prevailing upon every producer to mend his ways, for we have a slogan— "Extra Flavor, added Zest, Wisconsin Apples *Always* Best."

POLLEN — SOYBEAN FLOUR SUPPLEMENT PROVES ITS VALUE IN FURTHER TESTS

Feeding pollen and soybean flour to unprotected colonies in winter resulted in better colony development early in the spring than did the generally accepted method of heavily packed colonies for winter without supplemental pollen feeding.

In limited tests bees fed clover pollen supplemented with soybean flour reared more brood than did those fed unmixed ryegrass, starthistle, partrige-pea, and clover pollen alone, the figures being 32,400 bees (over 6 pounds) per pound of supplement against 2,350 bees (about ½ pound) per pound of unmixed ryegrass pollen.

—From Annual Report, U. S. Bureau of Entomology.

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

VALUE OF PRE-PEELING GLAD BULBLETS

Letter from Paul E. Hoppe, Madison

Dear Henry:—

I've looked over the article you sent me from the December, 1945 issue of THE NOTEBOOK, Illinois Gladiolus Society entitled "Pre-Peeling Gladiolus Bulblets Saves a Year in Blooming Period." by Rev. Fred Gray, of Phillipi, W. Va. and think it contains some worthwhile information.

The gist of the article is that peeling bulblets about 4 weeks befor planting time will result in increased germination and larger bulb growth than when the bulblets are peeled at the time they are planted. I suppose nearly everyone is familiar with the advantages gained from cracking or peeling bulblets, but the added advantage which follows pre-peeling, as described by Rev. Gray, probably is not generally known; at least it's new to me.

Rev. Gray warns that extreme care must be taken in peeling the bulblets to avoid injuries. Bulblets with broken surfaces dry out rapidly and soon lose their viability. He also states that while most varieties respond favorably to pre-peeling there are a few which do not. These include varieties which make bulblets late in a short season. Bulblets formed under these conditions usually are small and relatively immature and are apt to dry out if they are not pre-peeled. Actually, whether the response is favorable or bad, depends not so much on the variety of glad, but rather on the physiological condition of the bulblet. The general principle is that large, mature bulblets respond favorably to pre-peeling and small, immature ones do not.

Rev. Gray made no reference concerning effects from dip treatments on peeled bulblets. My guess is that some of the mercury-containing compounds might be found very injurious.

While on the subject of bulblets let me give you a hot tip. John Flad, of the Madison Gladiolus Society has an excellent method of growing bulblets. I saw John's glads last summer and can truthfully say he has the best technique I have ever seen. He grows No. 1 bulbs from Englantine bulblets — and that's somethig! Really, Flad's got the ticket. What's more, he is willing to share with others information he's learned the hard way

"PRE-PEELING" TESTS OF PICARDY BULBLETS

Bulblets all graded to pass through four mesh to inch, but not through six mesh to inch. 220 bulblets planted in each row.

Planted May 13, 1944

Dug Oct. 25, 1944

Planted 1-2 inches apart in rows 14-16 inches apart.

Watered in very dry weather.

	"Check", not peeled nor cracked nor opened. Planted "as is"	**Peeled** the same day they were planted	**Cracked**, by gentle pressure between the thumb and forefinger	**Opened**, by taking a sliver of shell off one side	**"Pre-peeled"** March 20, nearly 8 weeks before planting
Average weight of bulbs produced	.48+ oz.	.73+ oz.	.64+ oz.	.76+ oz.	.77+ oz.
Smallest bulbs in the row	3/8 in.	1/2 in.	9/16 in.	5/8 in.	3/4 in.
Largest bulbs in each row.	1¾ in.	2 in.	2 in.	1¾ in.	2¼ in.
Number above 1 inch in diameter	42	127	76	101	144
Number below 1 inch in diameter	89	62	76	51	71
Total number produced per row	131	189	152	152	215

Very few in "check" bloomed—nearly all "pre-peeled" bloomed with many good commercial cut. The larger bulblets not put in this test, made fine commercial cut with excellent bulbs and many bulblets and as good as number 6.

Varieties That Do Not Stand "Pre-Peeling"

Azurine	H. B. Pitt	Purple Beauty
Evening Light	Lantana	Rosa Van Lima
Glamis	Mohawk	(small ones)

The large bulblets of Rosa Van Lima stand up under "Pre-peeling" and give fine commercial spikes with up to 3½ feet with five open.

and I'm sure he would give you the article if you contact him.

With best wishes,
PAUL E. HOPPE

Editors Note — We are asking Mr. Flad for an article on his method for the next issue.

REPORT ON VARIOUS TREATMENTS FOR BACTERIAL SCAB IN GLADIOLUS BULBS

By: S. H. Edmunds, Twin Rivers Plantation, Sioux Falls, S. Dakota.

Infected bulbs of six named varieties and one lot of mixed varieties were selected and treated with eight fungicides and one lot was planted untreated as a check. The fungicides used were: New Improved Ceresan, Bichloride of Mercury, Spergon, Phygon, Fermate, Arasan, Puratized N5E, Semesan-Bel. Part of these were furnished by Prof. Dimock, who also made suggestions relative to the tests. The selected lots of bulbs were planted in ground that had not grown bulbs previously and had a pH of 6.5.

The tests indicated that some varieties are very resistant to treatment, while others are amenable, Corona and Margaret Fulton varieties appearing to be the most resistant, and Lavender Tuffles responding favorably to nearly all treatments. The bichloride of mercury treatment was apparently the most effective on all varieties, with New Improved Ceresan a close second. Good flower spikes can be obtained from even severly infected (scabby) bulbs. The use of bichloride of mercury results in delayed blooming and in less luxuriant foliage although quality of flower spikes was not affected. New Improved Ceresan was used on 180 varieties in the main planting. Of about 500,000 bulbs cleaned and inspected up to Jan. 1, less than 200 have been found to be affected with bacterial scab, and most of these were of the variety Rosa von Lima.

New Improved Ceresan was used at the rate of ½ lb. and 5 tablespoons Grasselli Sticker to 25 gal. of water for 20 minutes. Bichloride of mercury was used at the rate of 2 oz. to 15 gallons of water, for 14 hours. Bulbs from both treatments were drained and planted wet in moist soil.

SOME HIGHLIGHTS OF THE GLADIOLUS COUNCIL MEETING

At the North American Gladiolus Council meeting at Columbus January 18, the bulb auction brought in a total of about $2,000.

The 1946 bronze plaque achievement award of the N. A G. C. was presented to Dr. E. F. Palmer, Vineland Station, Canada for work in gladiolus breeding.

A. E. Kunderd, Goshen, Indiana, received the 1947 achievement award.

The 1946 meeting will be held in January at Chicago. There will be a summer meeting this year at Binghamton, New York, in connection with the international gladiolus show, scheduled for August 19 and 20 in cooperation with the Canadian Gladiolus Society.

NEW OFFICERS

New officers of the Council for 1947 are: Paul Ulman, of Indiana, president; Jay Dittman, of Michigan, vice-president; Milton Jack, British Columbia, Canada; C. C. Marshall, Ontario, Canada; Don Creager, Florida, and Ralph Pommert, Washington, regional vice-presidents; Tom Manley, West Virginia, secretary; A. Bazdorf, New Jersey, membership secretary; Ray Moss, Maryland, Editor.

NEW ENGLAND GLADIOLUS SOCIETY CHANGES SECRETARIES

The New England Gladiolus Society has announced the resignation of A. L. Parker and the appointment of Arnold N. Drake whose address will be Horticultural Hall, Boston, 15, Mass.

GLADIOLUS DISEASE CONTROL

By Dr. R. W. Ryan

The North American Gladiolus Council last year appointed a committee headed by Dr. R. W. Ryan as chairman, known as the disease and insect control committee. At the annual meeting in January Dr. Ryan reported the latest findings on control of various diseases of gladiolus. Following are some of the findings.

Fusarium Rots

Fusarium rots have caused considerable losses throughout much of the United States, except Puget Sound, but have not been important in Ontario. Careful inspection of the basal scar of the new gladiolus corm at cleaning time and discarding all doubtful corms will assist greatly in reducing this disease. Futher consideration needs to be given to the differentiation between fusarium and botrytis corm rots. It is also desirable to promptly re-

(Continued on Page 166)

What's New in Vegetable Growing

Radio Talk By Professor O. B. Combs Over Stations WHA—WLBL On January 21, 1947
Questions Were Asked By Mr. Milton Bliss, Farm Program Director

Hybrid Sweet Corn

Question: We've had hybrid field corn for some time now, and it wasn't long after the advent of hybrid field corn that hybrid sweet corns began to appear. I wonder if you'd tell us just a little about the present situation as far as hybrid sweet corn is concerned.

Answer: The first important hybrid sweet corn to appear was developed at Purdue University. This particular hybrid was released back in 1928 under the name of *"Golden Cross."* Strangely enough, after all these years, Golden Cross is still the most widely used hybrid sweet corn. Hundreds of other hybrids have been released since 1928, but none as yet have sufficient all-round merit to replace the orginal Golden Cross. In fairness to sweet corn breeders, however, we might say that a large number of excellent new hybrids have been developed in recent years. For one reason or another, however, they simply haven't been good enough under widely varying conditions to successfully dethrone the real hybrid sweet corn champ, Golden Cross.

Question: I understand that *Golden Cross* is used largely for canning and freezing. Is it of any value to home and market gardeners?

Answer: Yes it is and it's widely used by home gardeners and gardeners who sell fresh corn-on-the-cob, but it does have one rather serious drawback for this purpose—it is a little later than might be desired for home or market corn. Its quality, yielding ability, and uniformity are excellent. When the Golden Cross season does arrive, other sweet corns sell at a serious disadvantage.

Question: That question of spreading the harvest period must be the reason for mixing seeds of different hybrids. That's done, I believe, by at least a few seedmen.

Answer: That is practiced by some seedmen but I personally fail to appreciate the supposed advantage. When seeds of hybrids of different maturity dates are mixed, the gardener is forced to cover the entire planting at each harvest to make certain that all harvestable ears are located. That, it seems to me would be much more troublesome than the practice of planting the hybrids separately or planting seeds of the same hybrid at different times.

Question: You said a moment ago that Golden Cross is later than might be desired. Are there any early hybrids to be recommended in Wisconsin?

Good Early Hybrids

Answer: Yes, there are a number of good early hybrids. In fact, plant breeders have been exerting special efforts in this direction in the past few years. It takes Golden Cross about 85 to 90 days to reach the harvest stage. *Seneca Dawn* will reach the same stage in about 68 days. *Marcross* is ready in about 71 days. *Our Choice* takes about 72 days, *North Star* about 72 days, *Carmelcross* about 74 days, and *Lee* about 82 days. All of these are very good hybrid corns. They are not quite as good as Golden Cross, but they are earlier.

Question: We've been talking about hybrid sweet corn. What about the older, open pollinated varieties? Are they grown any more?

Answer: Yes, they are, but almost entirely by home and smaller market gardeners. Canners, freezers, and large market gradeners have shifted to hybrids almost exclusively. *Golden Gem, Extra Early Bantam, and Golden Sunshine* are perhaps the most widely used, open pollinated varieties here in Wisconsin.

Question: *Now, what about* some of the other vegetables? Can we get hybrids in other vegetable crops?

Hybrid Tomatoes

Answer: Yes, a limited number of other hybrids are available. Hybrid tomatoes are perhaps the most widely publicized.

Question: How about these hybrid tomatoes? Do they possess the same superior features as Golden Cross sweet corn?

Answer: In my frank opinion, no. We have grown those available in comparision with the better standard varieties and we fail to get the superior features so commonly associated with good hybrid corns. None of those tested here at Madison can be considered, thus far at least, as superior in any important respect to a good strain of Stokesdale, for example.

Question: What about some other hybrid vegetables? I believe I read recently that a hybrid eggplant is now available.

Answer: Yes, the same Company that lists three hybrid tomatoes also has a hybrid eggplant. I am unable to pass judgment on this particular hybrid, however, because we haven't had a chance to see it growing.

Hybrid Cucumbers

Question: That same Company, I believe, also has a hybrid cucumber. What do you know about that?

Answer: We have grown that cucumber and it gave an excellent account of itself. In my opinion, this hybrid cucumber represents more improvement than can be claimed for the present at least for any other hybrid vegetable except sweet corn. It does appear to have real merit and I think it's well worth trying.

Question: Do we have hybrids in any of the other vegetables?

Answer: Yes. some of our most important advancements in hybrids have been with onions. Unfortunately, none of the hybrids which

have been released are adapted to our Wisconsin growing conditions. with information and materials at hand, however, it appears likely that the onion breeders may soon have superior hybrids adapted to wide areas. The hybrid onion out look is very promising.

Question: Do you feel then that we can look forward to further, important advancements in the field of hybrid vegetables?

Answer: I certainly do. Our plant breeders are constantly making new discoveries and developing new techniques. They can be counted upon to use their skill and knowledge to further improve our vegetable varieties. The field of hybrid vegetables, it seems to me, has barely been touched.

HOW TO PRUNE YOUR APPLE TREE

(Continued From Page 152)

side of the more vigorous limbs which produce most of the cull fruit. They must be cut away before cull fruit can be eliminated from the crop. It's the main pruning job needed in trees which produce much undersized fruit. These same trees may also need some of the same type of pruning which I described in the first part of this talk. A suggestion: If you have never done cull pruning before, select an old Wealthy or Northwestern Greening tree that looks brushy. Look for the poor kind of wood on the underside of lower branches; you'll soon find it. When you have found it, go ahead with your cull pruning.

BOUQUETS FROM TWIGS

At this time of year a bouquet of twigs which have been forced is a breath of spring. The following varieties of shrubs and trees are suitable for forcing:

Pussywillow, Fragrant Honeysuckle, Flowering Quince, Thunberg Spirea, Peach, Pear, Apple, Cherry, Forsythia, Spicebush, Cornelian Cherry, Wild Plum.

THE FERTILIZER SITUATION

U. S. Department of Agriculture says:—

"Although the supply of fertilizer for American agriculture for the current fiscal year is near record levels, and is more than double the prewar consumption, the demand is considerably in excess of supply, especially with respect to nitrogenous materials.

"Nitrogen supplies are expected to be almost as large as last year 7,000,000 tons. Exports programmed for the year have been reduced to 67,000 tons of nitrogen from the 97,000 tons planned a month ago. Last year's exports were 73,000 tons."

Better order nitrogen early. Orchards should not be neglected or injured by lack of fertilizer now. Reports are orchardists are having trouble getting enough nitrogen.

HARDY ENGLISH WALNUTS DO WELL IN MONTANA

A letter from Mrs. Harold J. Hyer of Polson, Montana, (which is in the extreme northwestern part of the state,) tells of her success in growing the Crath hardy English walnuts obtained from Wisconsin Horticultural Society in 1937-1938. She says: "This year we had a wash basin full of nuts from our 22 trees. There was a late freeze in May that may have prevented a better crop, as six inches or so of tip growth was killed.

"Our neighbor Mrs. Williamson also has 22 trees about the same age. She mentioned her enjoyable visit to the Wisconsin Campus two years ago and talking over our experiment.

"The nuts vary in size, are very good, and come from the shell easily."

We were glad to hear of Mrs. Hyer's success with these walnuts. The trees have not been hardy in all parts of Wisconsin.

GLADIOLUS DISEASE

(Continued From Page 163)

move all prematurely yellow plants from the field, as one infected plant may cause the infection of others in the row and down the slope. When a given piece of ground must be used for growing gladiolus for several years, it appears that the spread of fusarium may be less if the soil contains and adequate amount of organic matter, maintained with cover crops, and similar means.

During the past year, New Improved Ceresan has apparently been the most generally used dip, and good results have been reported from widely separated parts of the United States; Puget Sound being one of the few places to report unfavorable results.

No reports of the successful control of fusarium by soil disinfectants have been noted. However, in view of the apparently favorable results with Dithane (Rohm and Hass, Philadelphia) with certain vegetable seeds, the writer made a limited trial of this material, soaking the soil with 1:200 and 1:400 dilutions after the corms were planted. The corms had prevously been dipped in New Improved Ceresan, an the ground had been used for growing gladiolus for several years. No significant difference was noted between treated and untreated lots of the varieties Sensation and Snow Princess as regards growth, percentage of scab and core rot (presumably fusarium.) Both varieties had previously shown a small percentage of fusarium rot. The tests will be repeated on undipped corms.

Botrytis

Botrytis has been reported to be a serious disease in both Canada and England, although Buckley regards it as a consequence of poor drying and storage conditions. Drayton failed to find any chemical means of combating botrytis, and advocated rapid drying. Hawker in England found that dusting the corms prior to planting with a new proprietary fungicide, Folosan (pentachloronitrobenzene) sold in England, resulted in a considerable reduction in infection. I have not located an American source of this material, but further details will be secured.

Scab

Scab has apparently been most successfully controlled by the use of mercuric chloride and New Improved Ceresan dips, the latter causing less injury. While mercury compouds are undoubtedly the most effective, other compounds such as Lysol have been reported to be effective under certain conditions and not in others. We need to know much more about scab under different soil conditions and with different fertilizer practices. Possibly, the current practice of placing part of the fertilizer in the planting trench may tend to cause scab under certain coditions. Scab is also apt to appear in wet or partly shaded soil.

GLADIOLUS GROWING ON INCREASE IN SOUTH

THE FLORISTS' REVIEW published an article entitled "Heavy Gladiolus Shipping at Foley, Alabama, Rates Special Train." It says a special express train called "Gladiolus Special" leaves Foley with a cargo entirely of gladiolus each evening at 8:00 during the shipping season, May and June. At one time Foley had a clear-cut spring shipping season practically its own. But now northern Florida glads come in at the same time and plantings in other gulf states have increased.

The shipment is described as follows: "Each day about ten iced cars are standing on a special siding available for loading the day's cut as soon as the hampers are ready. As the truck-loads of flowers roll in from the packing sheds the hampers are distributed among specified cars.

Cars are iced by the shippers; car temperatures are down when flowers are brought in. Shipments go to the middle west and east, Chicago getting its share.

Soils around Foley are light and sandy and have more body than Florida fields. Rotation of glads with other crops is practiced.

Ceresan dip treatment is used for disease control and airplane dusting with DDT is used for controling thrips. Fields are dusted before daybreak, before air currents are moving and while there is still dew. Picardy is the leading variety composing 75% of the crop.

STRAWBERRY VARIETIES GOOD IN ONE STATE MAY NOT DO WELL IN ANOTHER

Report in Illinois Horticulture, published by the Illinois Horticultural Society gives the percentage of strawberry *varieties* grown by leading growers in that state. These are the varieties: Blakemore 97%; Belmar, 1.4%; Dunlap, 0.56%; Big Joe, 0.4%; Premier 0.10%.

The report shows that Blakemore is by far the leading variety in the section from which the growers reported, southern Illinois counties.

In northern counties it was found Premier led with 72% favoring it. Blakemore dropped to 11 %.

Here in Wisconsin we have tested Blakemore but growers have not found it desirable and very few are being grown now. Premier, on the other hand, is preferred by most growers.

Still further south varieties are preferred not even listed here such as Aroma.

In testing new varieties it is well to try those that have succeeded in states having the same climatic conditions as Wisconsin.

"Jimmie," said the teacher, "what is your greatest ambition?"
Jimmie considered thoughtfully.
"I think," he said, "it is to wash my mother's face."

NEW PELLETT CLOVER LOOKS PROMISING FOR BEEKEEPERS

Conrad Kruse, Loganville,

Planning To Grow Large Acreage For Seed

A new clover, Trifolium ambiguum, which comes from the Caucasus in eastern Europe, looks promising as a legume crop to check erosion and also as a honey producing plant. Beekeepers have suggested that it be named "Pellett Clover" in honor of Frank Pellett of Atlantic, Iowa, who is testing it.

The new clover is a deep rooted perennial and has a very extensive root system Mr. Pellett, writing in the November, 1946 issue of The American Bee Journal states:

"A plant dug up at the time of the honey plant conference in 1945 had a mass of roots sufficient to nearly fill a bushel basket although a large portion of the extensive spread was left in the ground when cut off at three feet below the surface. Indications were that the roots must penetrate to ten feet or more in depth to judge from the size at the point where they were cut.

"The surpirising thing about the plant is the way in which it branches and rebranches, constantly sending new leaves to the surface. If any branch is cut off and reset it grows vigorously and the new plant spreads in similar manner. It does exceedingly well on rich black soil of Pellett Gardens. A few reports have been received which indicate that it does poorly on sandy soils. Whether this may be true of all light soils remains to be determined.

Seed Not Available Now

"No seed is available as all seed has been sent to the various experiment stations which have shown an interest. Others who wish to try the plant must be content with root divisions until such time as more seed is harvested.

"The flowering time is the entire month of June and the first half of July and there is every indication of a good yield of nectar for the bees. Instead of a deep corolla such as the red clover this one is very shallow so that all nectar can readily be secured by the bees. The flower is similar to alsike in color and appearance although slightly larger with the head more elongated.

"The habit of growth is such that one would expect the plant to remain indefinitely when once established. It is of special promise for waterways in erosion control, for roadsides and other places where a soil binding planting is essential.

"It appears to be entirely winter hardy and not subject to injury from heaving which proves disastrous to the clovers in common use. The leaves are similar in appearance to red clover although some are very much larger."

Conrad Kruse Planting Large Acreage

Visiting the home and apiary of Conrad Kruse at Malabar, Florida the first week in January, we found he had set out a field of 25 thousand roots with this new clover. He expects the plants to make a good growth by spring when he will dig up the entire patch, bring roots back to Wisconsin, and set out a large acreage for seed. We wish Mr. Kruse success in his venture and hope this new clover will be of great value to beekeepers.

"Look here, waiter! This is supposed to be oyster stew, and I have not found a single oyster yet!"

"Sir, if you had Irish stew, would you expect to find an Irishman in it?"

WHAT IS A NARCISSUS, DAFFODIL AND JONQUIL

According to modern usage the terms Daffodil is properly used only for the Trumpet Narcissus—those having a trumpet as long or longer than the perianth segments.

The Narcissus with the short trumpets are called Narcissus while the Jonquils have foliage which is grasslike or rounding leaves.

The Jonquils are a separate species. Since Jonquils are not commonly grown, daffodiis are often called Jonquils in error. From the Michigan Gardener, Sept.-Oct., 19-

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Sue was congratulating Mary on her driving ability: "Why, you're handling a car like a veteran."

"How do you know." countered Mary. "You've never seen me handle a veteran."

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

PRESIDENT'S MESSAGE

DEAR MEMBERS:—

A very interesting letter from a Garden Club Member arrived this morning and because one of her questions carries a challenge, I want to share my reply with you.

"Do you not think" she asked, "'that leaders are born and not made?" Since I so firmly believe we can accomplish anything in this life we want enough to do; my answer is "Leadership can be acquired." It is true that some variance in our respective personalities and background may make it an easier task for some than for others but it is not beyond the realm of possibility for anyone to become a fine leader.

Initiative, imagination, tact, courage and self-confidence are the prerequisites. Most mature people have developed these qualities in some measure and are constantly dependent on them for their peace of mind and well being. The one characteristic most univerally dormant in members of our generation is self-confidece. Fear of making mistakes, becoming conspiciuous, being misunderstood and losing face with our fellow men are inhibitions that undermine the judgment and the strength of purpose of many capable people. These are barriers to leaership but integrity and a will to do things can surmount them. Poise is attainable only through experience.

BIRCHES

Tapering fingers, white,
Reaching upward from a dusky palm,
The source of their silver-traced Perfection.

—BY EFFIE ANNE ORTH
Madison, Wis.

Perhaps we should analyze the attributes of leadership in a practical way. Initiative is the process of accepting an idea or a problem and working out a solution. For example: A group of friends may decide a Garden Club would bring much pleasure to themselves and the community, but not until some one of the group has the initiative to accept the problem of organization does a Garden Club result.

The vital force behind initiative is imagination. The light in the mind of those who are able to translate an idea into a plan. It enables them to work around the lack of funds, shortages, loss of time, inconvenience, human frailty and disappointments with resourcefulness and zest.

Tact is another important factor. It is the tactful leaders who have the happy, capable followings. They respect the talents, hobbies, interests and vanities of their helpers and places them in position of doing what they like best to do. This same deference is shown in their respect for the tastes and customs of the group and community.

Courage is an ever present need, as decisions must be made in all human relationships, plans have to be made, respected, methods assured. Foresight and an alert watchfulness will save much wear and tear on a leader's courage.

Self-confidence is the leader's faith in himself and his powers. It does not imply conceit nor does it preclude suggestions and the support of others. A leader should always count on the backing of his following as a part of his collateral when assuming responsibility.

In closing, I charge you one and all to rigidly respect the self-confidence of your leaders, as it is the motivating force on which they and the group are completely dependent.

Very sincerely and cordially,
RUTH WEST

JUNIOR GARDEN CLUB FOR WISCONSIN

It is a challenge to Garden Clubs to see that the children of their communities have the opportunity to develop into healthy, happy citizens with an appreciation of the beauty which surrounds them. Surely, at least one of your members can be found who will assist with the organization in your city. She will never regret the effort. A child of Nature, a true gardener, will have little time or inclination to be "delinquent". Regardless what or how we develop nature work among our youth, it means spiritual, mental and physical growth of the children and the parents as well. We must give our coming generation a desire to protect the natural wealth of the world and to respect the Creator of all this beauty.

Junior Gardeners are coming to the front. It would take pages to tell all the fine reports on Junior Garden Club work coming from all parts of the United States. The children love the clubs and lessons on nature study and if only a few carry on this work through life, it will perpetuate the work we have started.

We lack leaders for this work but if people only knew what reward would be theirs in teaching children the love of gardening, I know and feel many would put forth the extra effort and organize a Junior Garden Club. We have had splendid cooperation in this grand State of ours, but still would like to have just a little more so we too can say Wisconsin has a 100% Junior Garden Interest.

Last year the foundation was laid for Junior work in some of our Districts and they are planning again to continue and feel they can do better this year. If you could see the ray of sunshine on the faces of these little tots when they receive an award for their efforts, it makes one feel, well, have we put forth the same effort. It does mean some supervision by the parents and leaders but that is the only way interest can be instilled in our young people. We have worked with Girl Scouts, Boy Scouts and Little Brownies and it has been most gratifying to us as well as their leaders. Girl Scouts are most interested in this work and they are so anxious to work for their Nature Badge which is an outlet for this worthwhile project. And as the Scout leaders lack the knowledge of gardening it is up to us as gardeners to offer our services. Boy Scouts too are anxious to enter this field and from the experience I had with them last year, can truthfully say, it was a credit to the scout organization. Leaders in these organizations are so anxious to have someone from Garden Clubs help them to get started that I feel certain we can oblige them by having a Garden Club member assist them.

This year with the help of our District Junior Garden Chairman, we are going to map out a program that will apply to children of Brownie age through teen ages. It will not be a concrete program but flexible so it will fit in with the material you have to work with. If there are any suggestions to offer along these lines, please feel free in doing so.

To you Junior Garden Club Chairman, I am happy to work with you and will endeavor to supply you with material which might be of some help. Do not hesitate writing me any time for suggestions, material etc.

So, Senior Garden Club members, won't you help us? Perhaps you would be willing to help us acquire prizes for this project as you can feel sure we will be happy to accept donations.

MRS. FRANK DUNN, ROUTE 3, MADISON

State Junior Garden Club Chairman.

GARDEN CLUB PILGRIMAGE TO MEXICO CITY

May 7, 1947

Following the Tulsa convention of the National Council of State Garden Clubs, there will be a pilgrimage to Mexico City. Anyone interested may write Mrs. Ben G. Oneal, 2201 Miramar Street, Wichita Falls, Texas.

A CONSERVATION PROGRAM FOR GARDEN CLUBS BOILED DOWN, AMOUNTS TO THIS

National Council Chairman, Mrs. Daniel Heffner recommends *Garden Club participation in the following*:

Projects offered by the State Conservation Department, such as tree plantings, windbreaks, roadside beautification and plantings, camps and tours.

Membership in local conservation organizations, such as county conservation alliances, state conservation leagues, etc. Garden Club Conservation Chairmen should act as delegates in such organizations.

Cooperation with other organizations, as in the Izaak Walton League's crusade against water pollution, and in school and youth organizations' conservation programs.

Study Programs to obtain a good, fudamental knowledge of right resource use, studies to include soil, forests, trees, wildlife, birds, wildflowers, watersheds, and the interrelationship of forest, soil and water. Each club might devote at least ten minutes of each program to conservation. Book reviews, taking one chapter a month, might be a good idea. Recommended for review this month is Bernard DeVoto's article "The West Against Itself" in Harper's for January.

Legislation—Quoting Mrs. Heffner: "I recommend a thorough study of forestry problems and projects, especially keeping in mind the protection of the public right to hold forestry lands, both timber and grazing. To protest the withdrawal of these lands for private use." Discussing current state and federal bills:

In Wisconsin — Study and support conservation bills introduced by the Conservation Department. A great deal of study and thought has been given each bill proposed by the Department, and clubs will not go wrong in supporting these. However, action should not be taken unless bills have the support of the Department. When you are in doubt, I will be glad to give you the information.

Bill No. 88-S, relating to regulating the cutting of forest products on public and private lands should be supported by all clubs. Letters to your legislators will be a great help. Such letters should be mailed at once.

Bill No. 71-S, to increase license fees for net and set hook fishing in outlying waters and to provide for registering of boats used in commercial fishing, also deserves support.

Garden Clubs may well support increased salaries for state department heads. Our men are badly underpaid. Poor salaries may result in inferior men at the heads of these departments. Our Conservation Department Director's salary is involved.

Federal Legislation —S-33, Senator McCarran's grazing bill would change grazing privileges on national forest grazing land to substantially permanent rights. It would tie the hands of the Secretary of Agriculture in administering these lands for the benefit of the American people, to whom they belong, by making him accountable to committees of stockmen for every step taken to protect these lands.

S-34 would make it possible for stockmen, by a 60 percent vote of permittees using public grazing districts under the Department of Interior, to dissolve these districts. They would then revert to the status of unreserved public lands and become available for leasing. That would mean virtually unregulated grazing.

Passage of either S-34 will be the first step in destroying the two great public conservation achievements of the twentieth century-our national forests and our grazing districts. Garden Clubs are urged to write their senators and congressmen at once protesting these bills. Follow-up letters should be sent at the time of Committee hearings.

NOT LEAST BUT LAST

Two 3-day Conservation Leadership Camps will be sponsored by the Milwaukee County Conservation Alliance at the Trees for Tomorrow Camp at Eagle River August 17-20 and August 20-23. Garden Club members are urged to attend. The cost is $5 a day or $15 in all. Reservations must be sent to me by March 31 with a deposit of half the fee — $7.50

By: Mrs. Max J. Schmitt, 1912 N. 84th St., Wauwatosa, Wisconsin.

FILM ON BIRDS AVAILABLE

Through the courtesy of the Chamber of Commerce of St. Petersburg, Florida, National Headquarters is able to book a film featuring bird life and the banding of birds in St. Petersburg, called "Wings over Florida." This is a 16 mm. kodachrome silent film requiring a kodaslide projector. There is an accompanying narrative; the program takes fifteen minutes.

—From National Council Bulletin, Write National Council of State Garden Clubs, 500-5th Ave., New York.

THE CHICAGO FLOWER SHOW

FASHIONS IN FLOWERS is the title of this year's flower show by the Garden Club of Illinois. It will be held March 24th to April 5th on the ninth floor of Marshall Field and Company, Chicago. There will be a special exhibit, "Living Memorials" inspired by Fletcher Steele's article in the 1946 April-May Bulletin of the National Council of State Garden Clubs.

From a Gardener's Notebook

By Genevieve Dakin, Madison

The Annual Meeting of the National Council of State Garden Clubs will be held in Tulsa, Oklahoma May 5, 6 and 7. This is election year for National Council. Some of the Southern states propose to charter Pullmans for their delegations as they did for the New Orleans convention. This is one way to meet the hotel situation.

The National Bulletin is now one dollar a year instead of fifty cents. Is your club getting the most out of the copies which it receives?

A new National Award of $25. 00 — the Helen Hussey Champlin prize — goes to the club doing the most outstanding work in promoting gardening and nature study among youth.

Do you agree with the columnist who says that garden clubs do more for the country physically, morally, and spiritually than any other organization? That is something to live up to.

One garden club combined a Hobby Show with its Flower Show. Another club presented markers for identification of 58 species of trees in a city park.

Many spring-flowering shrubs can be forced into bloom. Good subjects include spireas, pussy-willows, forsythias, deutzias, prunus, cydonias, cornelian cherry, and shad-bush.

"For the optimum growth of most plants the soil should be slightly acid in reaction." Virginia Polytechnic Institute tell us the pH range should be six to seven. Test your soil or have it examined.

Blustery March brings plenty of work for the gardener. It is time to complete the dormant spraying before buds begin to swell. Summer—blooming shrubs and grapes should be pruned. Late in the month it may be possible to do shrub transplanting and dig fertilizer into the shrub border. The lawn may be made ready for spring with roller, top dressing and fertilizer. Get everything done that you can this month. April brings garden clean-up with perennials to divide, new plants to place. Uncover roses gradually, prune them, cutting back to about eight inches of the ground. Sometimes it is possible to remove the very top of winter cover by the end of March. It can usually be loosened enough to permit plants to dry gradually and harden up if weather permits. The alpine garden should be uncovered very gradually. Avoid windy days. Spring winds play havoc with moist tender plants.

We are told we may cover rhubarb clump with a deep frame or inverted barrel to force ahead of season. Bank with manure or soil.

If you have not yet gathered up and burned all the old leaf stems and refuse from last year's garden, do so the first chance you get. Rusts, fungi and bacteria may be the result of poor clean-up habits. Decomposng debris provides an ideal breeding place for these destructive organisms.

Miss Biddle reports that the South is "mighty garden club minded". Georgia is having at least six Judging Schools in early 1947. Mississippi plans eight.

A pamphlet "Simple and Practical Instructions for Staging Amateur Flower Shows" is published by the Horticultural Society of Davidson County, Tennessee. Copies may be secured from Mrs. E. A. Bergstrom, Battery Lane, Route 5, Nashville, Tenn. for 25 cents. Miss Biddle recommends it.

We are hoping that the 18th Century Garden Symposium held in Williamsburg, Virginia this winter may be the first of an annual series of such events. It is probable that Wisconsin winter vacationists may be able to participate in such a program next year.

An interesting program study is Plants of The Bible. MacMillan Co. published Eleanor A King's book Bible Plants for American Gardens. It is a story of Bible plants based on careful research. It sells for $2.00

"Do not despise the sparrow too much. He ate his weight in crabgrass seed last fall and works for you all summer when many birds have flown north."

A clever Child's Party Table illustrated in the North Carolina Gardener features a Merry-Go-Round as a center piece with horses and all the gay trimmings. A dish of ice-cream (cotton) with animal crackers is at each place. Bright red scotch tape runs from the center decoration separating the eight places and marking the margin of the round cloth which is finished with a broad scalloped valance.

Speaking of desirable shrubs Victor Ries believes that too much attention is paid to effect during growing season in proportion to the effects in "off" seasons, for after all shrubs are out of leaf as long as, and usually longer than, they are in leaf. Twig effects are permanent not only throughout the dormant season but also as the framework for the foliage, throughout the growing season.

If you build a new cement pool this spring be sure to flush it out thoroughly to rid the water of any

caustic impurities leached out of the cement before finally filling the pool. Remember the water-lilies need plenty of sunshine. If the water turns green from the growth of algae and doesn't clear up of itself permanganate of potash may be used at the rate of two teaspoons of saturated solution per thirteen cubic feet of water. Running water and water-lilies do not get along well nor do lilies like a continuouos spray on their leaves.

One of the most interesting chapters in Cynthia Westcott's Gardener's Bug Book deals with Host Plants and Their Pests. In another chapter the author gives a plant Doctor's Calendar which may well be followed by any gardener.

In The Plant Doctor she assures us that one hour a week from March to November is ample time to keep the average suburban garden healthy. She does not approve one's spending time on unimportant pests.

Are you starting a primrose path this spring? Plant primroses under deciduous shade in fresh loamy garden soil where they receive frequent watering. Well-rotted cow-manure will pay dividends if incorporated into the soil.

TO KEEP FLOWERS LONGER

It seems that almost every day I hear of more marvels of modern science. Now, I find that the experiment stations in both Ohio and Michigan are working on the packaging of flowers. So far, results have shown that roses hardened up by standing in water a few hours and then sealed in air-tight containers not only keep longer but better than those stored in the refrigerator in the usual way.

Improvements in transportation of flowers are bound to have a tremendous effect as more and more Pacific Coast material comes onto the eastern market. —*By The Roving Gardener in Horticulture.*

CALL FOR 1947 YEAR BOOKS

By this time many year books have been completed and should be on their way to the Awards Chairman. If not, please make it a point to get yours in this month. Be sure to send wrapped between cardboards so as to insure safe arrival, and include your return address.

Refer to the new scoring schedule printed in the February issue of Wisconsin Horticulture and note any changes made from last year.

Clubs should keep one of their year books in reserve for entry in the National Contest to be held later in the year.

Send year books to:

MRS. V. J. SUTTINGER,
PROGRAM AWARDS CHM.
Route 2, Eagle, Wis.

—*By Mrs. V. J. Suttinger, Route 2, Eagle, Wis.*

TEST YOUR HORT SENSE

By Dr. L. C. Grove, Iowa State College

1. Is the new variety of lettuce called SLOBOLT a heading type or loose leaf type?
2. By what unusual method was the new Tetra Snapdragon developed?
3. What can be used instead of naphthalene flakes to destroy thrips on gladiolus corms in storage?
4. Some gardeners complain that their bittersweet vines blossom, but do not bear fruit. Can you explain the reason for the lack of fruit?
5. What would likely happen if some ice cold water dropped on the leaves of your African Violet?
6. Is there any method to prevent potatoes, carrots and other root vegetables from sprouting in storage?

(Answers on page 175)

—*From Iowa Gardens, January,* 1947.

BOOKS FOR YOUR HORTICULTURAL LIBRARY

In the December, 1946 Bulletin Of Information by the Morton Arboretum, Lisle, Illinois, we find a complete list of recommended books on horticultural subjects. The following are of special interest on plant lore and gardening.

Plant Lore

Bible Plants for American Gardens—King, E. A., "Macmillan—New York, 1941 Leaves, Their Place in Life and Legend—Quinn, Vernon, Frederick A. Stokes Co.—New York, 1937

Myths and Legends of Flowers, Trees, Fruits and Plants — Skinner C. M., J. B. Lippincott Co. Philadelphia, 1941.

Roots, Their Place in Life and Legend — Quinn, Vernon, Frederick A. Stokes Co. — New York, 1938

Seed, Their place in Life and Legend—Quinn, Vernon, Frederick A. Stokes Co. — New York, 1936

Stories and Legends of Garden Flowers — Quinn, Vernon, Frederick . Stokes Co. — New York, 1939

Gardening

GENERAL

Adventures in a Suburban Garden —Wilder, L. B. Macmillan — New York, 1931

America's Garden Book — Bush-Brown, Louise and James—Charles Scribner's Sons — New York, 1939

Color and Succession of Bloom in the Flower Border—Ortloff, H. S. and Raymore, H. B.

Doubleday, Doran and Company New York, 1939

Grounds for Living—Ingham, V. W. and Farnham, R. B. Rutgers University Press—New Brunswick, New Jersey, 1946

If I Were to Make a Garden — Wilson, E. H. The Stratford Compay—Boston, 1931

Old Time Gardens — Earle, A. M. — Macmillan — New York, 1901

The Complete Book of Garden

Magic — Biles, R. E. — J. G. Ferguson, Publisher — Chicago, 1946
The Gardeer's Omnibus — Farrigton, E. I. Dale, Cushman and Flint Boston, 1938
The Story of Gardening—Wright, R. — Garden City Publishing Co., Inc. — Garden City, New York, 1938
Your City Garden—McKenny, M. and Seymour, E. L. D. D. Appleton—Century Company — New York, 1937
Your Garden in the City — Natalie Gomez—Oxford University Press New York, 1941

VERMICULITE GOOD FOR STARTING PLANTS

I have been reading a great deal, recently, about vermiculite, exploded "mica," and its many advantages over other materials for starting seeds, rooting cuttings and various other uses. From my own experience, I am inclined to agree with most of the claims. It does not need to be watered often, is sterile and the seeds certainly do sprout in it. A caution I might add, however, is that the seedlings should not be left too long in this material, unless fed a liquid fertilizer, since vermiculite does not contain any plant foods.

A friend of mine, who is a geologist, tells me that it is a hydrated magnesium-aluminum-silicate and that much of it comes from Montana. The ore is said to contain about one million thin plates or scales per inch and when the mineral is heated to about 2000 degrees the water held within turns to steam and literally explodes the material apart. This produces a light fluffy substance we know.

—By The Roving Gardener in Horticulture, Illustrated, Jan. 15, 1947.

"You sho look worried."

"Boy I'se booked up solid on worrying. I'se got so many worries on mah mind that if sumpin happens to me today, Ah won't get time to worry about it foh two weeks."

ROADSIDE DEVELOPMENT PLANS FOR 1947

We are continuing with waysides, the Highway engineer working on many approved projects.

Now our *Big News;* we have our plans all worked out to get *comprehensive zoning* for the entire state.

The following counties have accomplished this in part: Milwaukee, Waukesha, Walworth, Jefferson, Dane, Sauk, Winnebago, Marathon and Marinette. The town of Mequon has an ordinance of its own.

There are 36 counties which have zoning, there is a type of zoning to encourage reforestation and recreation, and discourage the use of sub-marginal lands for agricultural purposes.

We advocate an ordinance having a section to set up *setback lines.*

The Wisconsin State Planning Board, director of area zoning outlined a practical method of procedure.

Practical zoning has to do with use of the land. Practical zoning gives consideration to existing uses of the land. Industry, large business, small business, heavy industry. 750 feet from highway land use can be regulated. Business can be grouped together.

We can set up destructive classes of uses, can set up residential, agricultural, industrial areas, and we can have definite boundaries. Within these boundaries we can regulate by law and by statute. Non-conforming use can be restricted!

County Zoning

The county can set up zoning ordinances—then the Town Boards approve. To get this in motion where it has not yet begun, please write for specific directions. Space will not permit me to give more general information but we all want *Beauty and Order.*

We can do much if we earnestly start it. Comprehensive zoning is our goal, please support it. Every garden club member please ask about it. I will gladly send all necessary information and the Planning Board services are free of charge.

Mrs. Gilbert E. Snell, 414 Erie Ave., Sheboygan, Wis., Roadside Development Chairman.

THE CHRISTMAS APPLE

So tired! So weary of the scented rose
And languid moons that fill the jasmine night,
So discontent with this unending pose
Of heavy summer days and suns too bright.
I am the son of brawling winter's clime
Whose heart reflects this year-long summertime.

I hunger for the drifting flakes of snow,
The sounds of plows along the winter road
And champing feet and laughs from bobsled row
And groans of branches 'neath their icy load.
I am Wisconsin's son, whose taste and time
Adore the splendid, silent Wintertime.

Turn down the lights! Let shadow bring me dreams
Of snowdrifts, wind-sounds, vioces far away.
I sit in silence where the fire gleams
And munch an apple which arrived today,
Still wet with my Wisconsin frost and snow,
A Christmas bond with lands where love-dreams go.

Edwin Dockery
4186 *Norfolk Terrace*
San Deigo 4, *Cal.*

(Note; The above poem was received by Mrs. E. W. Classon of Kewaunee from Mr. Dockery in appreciation for a box of fine Wisconsin apples sent him as a present.)

IS PURPLE LOOSESTRIFE A WEED

In our October issue, Mr. E. L. White of Fort Atkinson, Burr Oak Flower Gardens, called attention to purple loosestrife which grows wild along edges of marshes and streams in parts of Wisconsin, and may be a good nectar bearing plant for bees.

Thereupon, Mrs. Hollis Webster, a director of the New England Wild Flower Preservation Society writes from Boston: "Here loosestrife is taking complete possession of our marshes, farmlands and meadows and its march is one of complete extermination of our weaker native plants. They break at the stream's bank, float for miles down river until caught by mud-banks, or when they take root and soon dispossses all but their kind. The seed is plentiful and viable."

Mrs. Webster adds, "In the lifetime of most of us we have seen the golden hawkweed spread from an admired garden treasure to become the pest of grazing fields and the curse of the farmers. Perhaps in Wisconsin you may have had the wisdom and foresight to check its ruthless spread."

In answer Mr. White writes, "I know loosestrife is quite a seeder and spreads in the garden; but so far I have had no more trouble in controlling it than controlling other weeds.

"There are many places in Wisconsin, principally pastures, that verge on marsh land. In these pastures and sub-marginal land there is not much of value that does grow, except maybe golden rod. Other wild flowers have been destroyed by cattle. It seems to me that in these places purple loosestrife may be of value to beekeepers, especially in dry years like 1946, when there was a small honey flow.

"Mrs. Webster is very emphatic in her comments and there is probably much truth in what she says, but to state that loosestrife completely exterminates our weaker native plants is putting it rather strong. Probably the best course will be to recommend its planting only in sub-marginal land."

That purple loosestrife is a pest in the New England states has been called to our attention by other writers and Mrs. Webster's warning should be heeded in sections where purple loosestrife finds conditions to its liking. We doubt that these conditions prevail in many parts of Wisconsin or the plant would have become more of a pest by this time. Take the case of the golden hawkweed. It is, indeed, a pest in certain northern counties. We knew it well in Price County around Phillips and Fifield. It is a rare plant, indeed, in southern Wisconsin. The same applies to the little perennial buttercup which almost takes possession of permanent pastures in certain northern counties. We doubt if many farmers in southern Wisconsin have ever seen the plant.

Perhaps one answer to be found is in the amount of lime in the soil. The pests mentioned thrive on acid soils of certain types and do not like heavy high limed soils.

BEST MARIGOLDS

I have not as yet changed my opinion that Flash is the most satisfactory garden marigold which has yet been produced, but I am willing to admit that the new Naughty Marietta, which received an honorable mention in the current All-Americas, is a close runner up. I was privileged to grow Naughty Marietta last summer and I used it in many spots about the garden, always with success. It is bound to become widely popular.

—By The Roving Gardener in Horticulture Illustrated, January 1. 1947.

A minister congratulated a lady on her silver wedding anniversary for living twenty-five years with the same man.

"But he is not the same man he was when I first got hold of him," she replied.

THE STATE GARDEN AND FLOWER SHOW WAUWATOSA, MAY 23-25

Show Promises Many New Features

Our Flower Show chairman, Mrs. Chester Thomas of Milwaukee says the 1947 spring Flower Show at Wauwatosa May 23-25 will be more beautiful that ever with many new features in the schedule of classes. Here are some of the features: A memorial altar which will be the attraction on the second floor.

Dinner table featuring these Classes: Brunch; breakfast in the kitchen; Mother is the maid; spring luncheon, deriving color from spring flowers.

Garden classes. Church yard memorial. Retreat and parsonage garden. Patio garden. Doorway garden and entrances. Flower and vegetable gardens.

To feature flower arrangements there will be sireens and unusual backgrounds. This year the hobby section will be repeated with hobbies relating to home and garden.

Mrs. Thomas appeals to all Garden Clubs for help in making the show successful. The Wisconsin Garden and Flower Show has acquired an enviable reputation and is attracting more and more visitors. It is one of the functions by which the Federation can hope to obtain an income to help in its program of work.

Let's give Mrs. Thomas our support.

War Contractor — "Did you shine my shoes last night? One is brown and one is black."

Train Porter—"What a coincidence!"

Contractor — "What do you mean — a coincidence?"

Porter — "A man who got off at Buffalo complained about the same thing."

Teacher: "Charles, why are you late this morning?"

Charles: "Dunno but I guess I overwashed."

COMMENTS ON HOUSE PLANTS

Miss Rena Bauer of Colby, Wisconsin, sends the following comments on growing house plants which will be helpful.

"It is always hard to keep house plants at their best in winter and many wonder why?

The best looking plants I've seen in winter are in homes where the old cookstove and wood range are still used. Plenty of humidity furnished by teakettles, wash-boiler, and cooking kettles. Temperatures never too high here which most plants prefer. The poinsettia is an exception and cannot stand much of a letdown in temperature. Plants in windows on very cold nights can be protected with papers or cardboard,or taken out entirely.

"I have quite a number of begonias and geraniums; some kalanchoes, aloes, sanseverias, sedums, African violet; and some seedling plants of hybrid amaryllis, gloxinia and lobelia."

NEW TYPE OF SWEET PEA PRODUCES FLOWER WITH LONG STEMS

Sweet peas, which formerly were among the most popular of garden flowers, seem likely to regain much of their old-time favor with the coming of the so-called Cuthbertson sweet peas developed at Salinas, Calif. Fred G. Cuthbertson, director of seed breeding for the Ferry-Morse Seed Company, has been largely responsible for the perfection of the new type, which fact accounts for the name given it. These new Cuthbertson sweet peas are unusual because of the very strong growth made by the vines, the long stems of the flowers and the remarkable vitality possessed by the plants. Seeds should be sown as soon as the soil can be worked in the colder parts of the country, and in the Fall in the warmer sections. The best location is a spot where the sweet peas will get the morning sun and none in the afternoon. Rich loamy soil is desirable. The seeds should be sown one inch apart and from one inch to one and one-half inches deep.

—*From Horticulture Illustrated, January* 1, 1947.

Answer To "Test Your Hort Sense" on Page 172

1. Slobolt is a leaf lettuce. It sends up a flower stalk weeks later than standard varieties.
2. The new Tetra Snap was not developed by the natural means of crossing two parents. A drug named colchcine was used to induce a change in the hereditary material of the plant, resulting in double the amount of hereditary material. Along with the doubling goes size and vigor.
3. Gladiolus corms can be dusted with a 10% DDT dust to control thrips during storage. It is not necessary to make the corms air-tight, as it is when napthalene is used.
4. A bittersweet vine having male blossoms is necessary to provide pollen for crossing, fertilization and set of fruit. Female blossoms fall off when there is no pollen.
5. Ice water dropped on leaves of African Violets causes white or cream colored spots to develop. Water does not hurt the leaves if it is about room temperature and the plants are not subject to hot sun.
6. Yes. Recent investigations have shown that the methyl ester of alpha naphthalene acetic acid prevents sprouting of potatoes and root vegetables in storage. Cornell University is ready to recommend its use by home gardeners. The chemical can be applied mixed with confetti paper, dust, wax or as a liquid spray. As time goes on the new sprout inhibitor material should be readily obtainable by gardeners.

Wisconsin Horticulture

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FRUIT GROWING NEWS

Fruit tree numbers decrease in Illinois is the heading of an article by Prof. R. McMunn, University of Illinios, Department of Horticulture. The state of Illinois as a whole, most of the counties excepting in southern sections show a decrease in number of apple trees. For the state as a whole there was also a decrease in number of trees and peaches and pears.

THE MELROSE APPLE, has recently been introduced by the Ohio Experiment Station. It is a cross of Jonathan and Delicious. It is a late harvesting and late keeping variety with high dessert qualities. It is said to supplement Stayman, Winesap and Rome Beauty in the late apple group.

We would hesitate to recommend this variety in Wisconsin because of its late season. Both Jonathan and Delicious are not too good in many parts of Wisconsin because of our shorter season.

WISCONSIN HORTICULTURE

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DDT For Oyster Shell Scale Control

E. J. O'Neal and C. L. Fluke

During the past few years Oyster Shell Scale has been building up in many Wisconsin orchards. This build-up had reached damaging proportions in many orchards by 1946, and in northeastern Wisconsin large sections of some orchards were dying from scale injury. The following observations and experiments should therefore be of interest to Wisconsin apple growers.

Specimen twigs infested with scales containing overwintering eggs were gathered from orchards that had received a 4% dormant oil spray treatment, and also from orchards that had not received a dormant treatment. Examination showed that the scales from three orchards that had received a dormant oil application had more live and viable eggs beneath them than those from two orchards that had received no treatment. This is no doubt due to the effect of oil upon the parasite of the scale. Since these dormant treatments had not given satisfactory results the situation was becoming alarming in certain sections; therefore tests were made to find an effective after-blossom spray to control this pest after the eggs had hatched.

Effective In "Crawler" Stage

Experiments were carried out to test the effectiveness of various insecticidal treatments against the Oyster Shell Scale after the eggs had hatched and the young were in the "crawler" stage. When the eggs hatch and the young scales begin to crawl they are unprotected by their characteristic heavy armour-like covering and are susceptible to contact action of some insecticides. At this stage of their life cycle they are very small and are hard to observe unless one is familiar with them.

This series of insecticides was applied on June 14 or 15 and only

one application of each material was made. All applications were made from the ground with the operator on foot and care was taken to cover the trees thoroughly from the ground up. Each tree was sprayed from both sides. Complete coverage is necessary for effective control. Once the newly hatched insect selects a place to settle down and inserts its beak into the tissue of the apple twig it is there to stay. Good coverage is necessary to compensate for the short distance traveled by the young scales.

Results from the above applications were compiled from data gathered from July 28 to August 13. The counts were made by selecting twigs from various positions on the trees and from many different trees receiving the same treatment. Each twig was cut at the base of its junction with the older wood and only 1946 growth was selected for examination. Counts were made by recording all the scales on the first six inches of new growth, beginning at the base of the twig. The majority of the scales were found on the first few inches and very few were found more than six inches from the older wood.

Excellent results were obtained from the application of 2 pounds of 50% DDT wettable powder in 100 gallons of water used in combination with a mild sulfur fungicide. The number of scales found on 40 six-inch twigs receiving the DDT treatment was 7 as compared with from 1,416 to 2,341 on the same number of twigs taken from plots getting the standard lead arsenate and lime sulfur spray. Most of the other insecticides tested did not approach the effectiveness of DDT.

When To Spray

The indications from this one experiment are that a single application of 50% DDT applied as the first or 10-day cover spray may be used for Oyster Shell Scale control. However, since it is difficult for the orchardist to determine the hatching date of this pest and correctly apply a very thorough single spray for its control, it seems advisable to use DDT in the calyx spray (if plum curculio is not a problem) and repeat it in the first and second cover sprays if the orchard is severely infested. This program also gives good control of first brood codling moth.

Future tests are necessary to determine the optimum number of sprays and time of application for most efficient scale control, but the above program should "hold the line" until a better one can be perfected.

CLEAN SPRAYERS THOROUGHLY WHEN USING NEW MATERIALS

Now that the use of 2,4-D has become widespread, it is necessary to use great precaution in cleaning sprayers before spraying susceptible plants. The 2,4-D soaks into wood tanks and it is almost impossible to remove it. In fact 2, 4-D should not be used in wood tanks that are later to be used for spraying fruit trees. It can be removed from metal tanks by rinsing with an alkaline wash, followed by more rinsing with plenty of water.

WISCONSIN APPLE INSTITUTE NOTES

The Board of Directors of the Wisconsin Apple Institute met in Fond du Lac on March 20 and elected the following officers: — President, C. J. Telfer, Green Bay; Vice-president, Arthur Bassett, Jr., Baraboo; Recording Secretary-Treasurer, Arnold Nieman, Cedarburg; Correspoding Secretary, H. J. Rahmlow, Madison.

Memberships for 1947 are coming in rapidly was the report of Aarnold Nieman, Route 2, Cedarburg, Recording Secretary-Treasurer. All apple growers in Wisconsin are invited to join and contribute their share to promote apples to consumers. Dues for 1947, payable now are $5.00 membership plus 50cents per acre of bearing orchard.

Will Study Legislation To Collect Money From All Apple Growers

Would you favor legislation to require every apple grower who has more than 200 bushels pay 1 cent per bushel to create a fund to promote Wisconsin apples? The Board of Directors voted that a study of the advisibility of introducing a bill to this effect be made during the coming 2 years, and that growers be invited to send comments to Institute directors.

BETTER APPLE GRADING IS NEEDED said the Board, and they voted to request the Wisconsin Department of Agriculture to hold hearings to improve regulations for grading apples and that this be done so any changes be effective for the 1947 crop. Also that grading regulations *be more strictly enforced during the coming year.*

Institute plans to publish more of the recipe boolet, "36 Ways To Use Wisconsin Apples." They will be sold at cost to those who wish to distribute them among consumers.

Plans are shaping up to promote apples next fall in case we have a bumper crop. The Institute plans to

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Wisconsin Orchard Spray Chart

SPRAYS	TIME OF APPLICATION AND MIXTURE TO USE
GREEN TIP	Apply as soon as buds of early varieties show ¼ to ½ inch of green tips. Use 2 gallons liquid lime sulphur, 2 lbs. lead arsenate, 100 gallons water. If aphids (plant lice) are numerous, add 1 pt. 40% nicotine sulphate to each 100 gallons spray.
CLOSED CLUSTER OR PREPINK	Apply as soon as buds of late varieties show ½ inch of green tips. Use 2 gallons liquid lime sulphur, 2 lbs. lead arsenate, 100 gallons water.
OPEN CLUSTER OR PINK	Apply as soon as early blooming varieties show pink. Use 2 gallons liquid lime sulphur, 2 lbs. lead arsenate, 100 gallons water. (If the blooming period is exceptionally long, it may be advisable to apply another spray, in bloom, about 10 days after the pink spray, to control scab. Use either lime sulphur 7 qts. in 100 gallons water, or use a good micronized wettable sulphur, such as "Corona Micronized", "Mike Sulphur", "Sulforon X", etc. at 5 lbs. per 100 gallons spray with 3 lbs. hydrated lime per 100 gallons. Use no insecticide in this application).
CALYX	Apply as soon as late blooming varieties have dropped most of their petals. Use 7 qts. liquid lime sulphur (or a micronized wettable sulphur 5 lbs. and hydrated lime 3 lbs.) and lead arsenate 3 lbs. to make 100 gallons of spray.
FIRST COVER SPRAY	Apply about 10 days after the calyx spray. Use same material as for the calyx spray.
SECOND COVER SPRAY	Apply about 10 days after the first cover spray. Use same material as for the calyx spray.
THIRD COVER SPRAY	Apply about 10 days after the second cover spray. This spray may be earlier or later than 30 days after calyx. Use codling moth bait traps as a guide. Use same materials as for the calyx spray.
APPLE MAGGOT SPRAYS	Apply two sprays 10 to 12 days apart. Use apple maggot bait traps to determine first spraying date. (See Circular 157.) Use 3 lbs. lead arsenate to 100 gallons spray. For the fungicide in these sprays use liquid lime sulphur 7 qts. to 100 gallons spray, or a micronized wettable sulphur, 5 lbs., and hydrated lime, 3 lbs., to make 100 gallons spray.
SECOND BROOD CODLING MOTH SPRAY	Apply about Aug. 10 to 15. Use ordinary moth bait traps to determine proper date for this spray. Use 7 qts. of liquid lime sulphur, 3 lbs. of lead arsenate to 100 gallons of water.

Substituting DDT for arsenate of lead: DDT may be used as a substitute for lead arsenate in the first, second and third cover sprays and in the second brood codling moth spray. Use 2 lbs. of 50% DDT wettable powder to 100 gallons of spray and use one of the wettable sulfurs as the fungicide. (Do not use liquid lime sulfur with DDT).

Spraying Cherries — Apply the calyx, fiirst and second cover sprays when spraying the apples and make and additional spray as soon as the cherries are harvested. Use the same materials as recommended for the apples.

Spraying Plums — Start spraying as soon as petals have fallen using the same spray mixture as for apples. If liquid lime sulfur is used, apply at the calyx, first and third cover sprays for apples and make another application about two weeks before the plums are harvested. If the wettable sulfur sprays are used, start as soon as the petals have fallen and make an application at each spraying of the apples until two weks before the plums are to be harvested.

—From Wisconsin Circular 157, "Spraying The Farm Orchard"

Learn To Know Your Apple Trees

(Discussion By Dr. R. H. Roberts, Madison on Minnesota Orchard Tour, August, 1946)

QUESTION: What percent of set does it require to produce a full crop of apples?

ANSWER: A full crop is possible when 20 to 25 percent of the spurs bear fruit. The heavier the blossoming, the smaller is the percent of fruit set. We prefer medium, not heavy, blossoming. An important factor in fruit set is the openness of the top, not properly pruned, tends to reduce the set of fruit.

QUESTION: At what time during the growing season is fruit bud formation determined for blossoms the following spring?

ANSWER: About four weeks after blossoming but this can not be determined under the miscrope for another four weeks. Fruit bud formation is determined largely by the size of the last two leaves formed on the fruit spur. We need large leaves on the fruit spurs to get blossom bud formation.

QUESTION: Does heavy blossoming result in small leaves on the fruit spurs?

ANSWER: Yes. This is one of the principal reasons why Wealthy is biennial. The use of nitrogen early in the spring increases the set of fruit to where the foliage is reduced and there are too few leaves to finish the fruit. Use little nitrogen in the blossoming year.

QUESTION: Is a complete fertilizer desirable for apple trees?

ANSWER: In general, a nitrogen fertilizer only is recommended. However, every grower should make an application of a complete fertilizer on a small area every few years to determine whether it is needed in his particular orchard.

QUESTION: Is farm manure desirable for orchards?

ANSWER: No. Manure is likely to make the available nitrogen high at harvest time, resulting in poorly colored apples.

QUESTION: Do you recommend the application of fertilzer in the fall?

ANSWER: To get the best use of fertilizer, the amount of blossoming next spring should be considered. This can be sized up fairly easily with some varieties in the fall. With a variety like Jonathan, the blossom buds should be swelling in the spring before fertilizer is applied. Whether the fertilizer is applied in the fall or spring, vary the application according to the amount of blossom. Use relatively little before much blossom and much when there s to be little blossom.

QUESTION: Should a variety like Wealthy be given fertilizer in the spring of the "off" year and pruned in the spring of the "on" year?

ANSWER: This is the correct treatment for a variety that tends to bear biennially. Heavy pruning of poor wood making little growth will remove most of the small apples in the "on" year. The quality of the remaining fruit will be improved. Fertilizer applied prior to heavy blossoming tends to increase the initial set of fruit. This will so greatly reduce the development of foliage that the tree does not mature and finish the crop satisfactorily.

QUESTION: When pruning a young tree, should the leader be left longer than the side branches?

ANSWER: Yes, this is most important. With a tree which has few branches, the leader need not be much longer than the side branches. When the young tree has several side branches the leader should be left as much as a foot or more longer. If the main branches are kept well balanced in relation to the leader during the first two or three years, the tree will maintain that balance through its life and have a maximum of fruiting surface. Cut side branches back to the length of the shortest one you wish to save.

QUESTION: Do you recommend any particular system of pruning?

ANSWER: I do not think it is possible to follow any so-called system of pruning. It is necessary to change the practice with the change of fruiting from year to year and as the accumulation of poor wood increases as the tree grows older. The way to handle an older tree is to prune out the branches which have quit growing on the ends.

QUESTION: Then most trees have different kinds of wood in them, some good, some poor?

ANSWER: That is true, except that some trees have very little but poor wood in them.

QUESTION: How many main scaffold branches do you prefer to develop when shaping up a young apple tree?

ANSWER: About 7 to 9. If I am going to top work, I prefer to wait until the scaffold branches ar properly balanced before starting to graft, because the tree will remain in better balance during its orchard life.

QUESTION: Do you prefer a root-grafted or a budded tree for topworking?

ANSWER. I never use a tree propagated by budding as understock for topworking, because I want to avoid any possible influence of the seedling on my topworked variety. It is well known that any influence the understock may have is due to that portion above the ground and not to the root portion. The piece-root graft eliminates any seedling stem above ground. A reason often given for preferring root-grafted understocks in the possible development of cion roots, but we must remember that many varieties do not develop cion roots even when the graft is planted deep.

QUESTION: How can apple trees be kept in good productive condition?

ANSWER: Handle the trees so that they grow enough not to have little apples. Young trees do not bear little apples. The problem is to keep the trees young. The trees themselves tell you what to do, if you will study their growth in relation to production. Varieties require different treatment.

QUESTION: What about the McIntosh?

ANSWER: If the annual growth is very short the tree will tend to be biennial. If the end growth is 4 to 10 inches a year the tree will be in good fruiting condition. Prune out wood that is growing less than 4 inches a year. A McIntosh branch that is growing 18 inches or more a year will develop few fruit buds. You will note that this variety usually does not fruit well when growing on very rich soil. Never cut back the ends of branches of bearing McIntosh trees.

QUESTION: Should the Delicious be handled in a similar manner?

ANSWER: No, the Delicious needs more annual growth for best fruit production, about 12 to 15 inches. Prune out wood that is growing less than 5 to 6 inches a year. This variety will not blossom well when the end growth is more than 20 inches. Jonathan has much the same relation of growth to fruiting as Delicious. It sets better because it pollinates more readily.

QUESTION: Does this apply also to Golden Delicious?

ANSWER: For good bearing the

branches should be making 10 to 12 inches of growth. Also, with Golden Delicious, we have the happy circumstance that branches growing at that rate will produce laterals which have terminal blossom buds, thus promoting regular bearing.

QUESTION: How much annual growth is desirable on Wealthy?

ANSWER: Wealthy should have 15 inches or more growth. Blossom bud formation will not be reduced until growth exceeds 30 inches. A 24 inch growth is very satisfactory for Wealthy. This variety can be cut back a lot. The common poor performance of Wealthy is because it can not be forced to grow enough. As the tree grows older branches with weak growth of 6 inches or less should be removed. Often, good new wood may be developed from water sprouts. A Wealthy tree is as old as its fruiting wood.

QUESTION: Should Haralson be handled like Wealthy?

ANSWER: Probably, although we have made no actual studies of the Haralson in this respect. Both varieties have similar biennial bearing habits.

QUESTON: How do you treat a tree to get a good wide spread of branches?

ANSWER: The factor which spreads the branches of a tree is light. The way to produce a spreading tree is to have a leader which is taller than the side branches. The result is that the latter grow toward the light in a more horizontal position.

QUESTION: How can we lower the head of trees that are too tall?

ANSWER: A tree seldom does what we think it ought to. Tipping branches back causes slender growth and results in a lack of blossom buds. Trees like Wealthy often spread under a load of fruit. The growth of new wood tends to hold the branches in that position. When necessary to cut branches back heavily, cut them clear off. Do not tip them back.

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Apple Institute Notes

(Discussion By Dr. R. H. Roberts, Madison, on Minnesota Orchard Tour, August, 1946.)

employ a person experienced in publicity work during the months of August, September and October to write news items and send out publicity material about apples. We are studying the possibility of a radio campaign advertising Wisconsin apples during the harvest season.

FERTILIZERS FOR APPLE TREES

Nitrogen Still Leads

Nitrogen is still the chief and most necessary fertilizer for apple trees in Missouri and elsewhere. Practically all orchard soils run short of nitrogen in the spring and early summer—the time when it is most needed by fruit trees. The quantity stored in the tree itself, as a reserve from the previous season, usually is not sufficient for normal growth and fruit production. Lacking the necessary supply of nitrogen, fruit set will be reduced, twig growth will be shorter and there will be a poor development of foliage. Late fall and early spring are the logical and best time to apply nitrogenous fertilizers in the orchard.

Too much nitrogen sometimes may be harmful in apple growing. When vigorous trees are supplied heavily with nitrogenous fertilizers, vegetative growth may be excessive and leaves unusually large and dark green. This will result in considerable shading of the fruit, causing a reduction in development of color on apples. There will be also a delay in maturing of the crop. Such trees, if not fall fertilized, should receive only a moderate amount of nitrogen this spring.

In the few instances where the orchard is on light and gravelly soil and there in an indication of lack of other soil nutrients than nitrogen, this may be tested out in a limited way on a few trees. The best procedure for supplying phosphorus, potash and some of the minor elements is through straw mulch. As a result of mulching, the soil under a tree is made more porous. This will permit such fertilizers to reach the feeding roots of the tree. If applied directly to soil or sod, fertilizers, other than nitrogen, are absorbed or held in the top few inches of soil surface without much benefit to the trees.

Foliage symptons, often used in determining possible soil deficiencies, are not always reliable guides. Injuries to leaves due to weather, sprays, insects and diseases may give the same or similar appearance to leaves as a shortage of a particular soil nutrient. The only way of determining a possible shortage in soil, that may be remedied by a specific fertilizer, is testing it out through application in a manner the tree can get hold of it. Soil analysis does not tell how much of the various soil ingredients a tree will take up. As stated before, only rarely apple trees in Missouri orchards require other than nitrogenous fertilizers.

—*A. E. Murneek in Research number of Missouri Horticultural News, February,* 1947.

Fermate to Control Raspberry Anthracnose

Missouri Experiment Station Reports By H. G. Swartwout

Three year's results indicate that Fermate is an effective and safe fungicide for the control of raspberry anthracnose. In 1944 a delayed dormant (just as the green leaves begin showing) application of 2 lbs. of Fermate plus 2 qts. of Dendrol (dormant miscible oil) to 100 gallons, followed by one summer spray of Fermate at 1½ lbs. when the new shoots were mostly 6 to 8 inches high gave 92 percent control of anthracnose based on average number of lesions per cane. The next best control was obtained with a delayed dormant spray of linme sulfur, 5-100 followed by Fermate at 1½ lbs. to 100 gallons. It gave 71 percent control. Where one summer application of lime sulfur at 2½-100 followed a delayed dormant spray of lime sulfur, control was a little less, 66 percent.

	Ave. No. of Lesions per Affected Canes
Lime sulfur 12 ½-100, delayed dormant Fermate 1½ lbs.—100 gallons, two cover sprays	4.0
Lime sulfur, 12½—100, delayed dormant Lime sulfur, 2—100, two cover sprays	4.4
Lime sulfur, 12½—100, delayed dormant Fermate ¾ lb., Omilite 1¼ qts.—100 gallons, two cover sprays	2.5
Lime sulfur, 12½—100, delayed dormant but no other sprays	74.7
Unsprayed Checks	77.8

Conclusions

It appears from the test that:—

1. A delayed dormant application of lime sulfur without any later sprays is inadequate many, if not most of the years, for the control of anthracnose on black raspberries.
2. Lime sulfur at 1 to 7 is more dependable as a delayed dormant spray than is 2 pounds of Fermate with a dormant oil.
3. Fermate at 1½ lbs.—100 gallons is as effective if not more effective as a summer spray than is lime sulfur at 2—100.
4. Fermate can be used under a rather wide range of environmental and plant growth conditions without the risk of foliage injury that liquid lime sulfur so frequently causes.
5. To insure a high degree of control, two or more sprays, depending upon the season, should be apulied at 10 to 14 day intervals from the time of the delayed dormant spray until blooming begins.
6. For best disease control the under and upper sides of the leaves as well as the stems should be sprayed until dripping occurs. Much of the material may run off of the stems but with the leaves covered the fungicide will be splashed about by the rains. This type of spraying has been safe with Fermate but is hazardous with lime sulfur.

—Condensed from Research number of Missouri Horticultural News, February, 1947.

For color in the garden use red for vitality, lavendar for delicacy, gray for softness, black brown, or dark purple for depth and shadow. Green is a foil and indicates health in the plants.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS ASSOCIATION

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WHAT TO DO WITH THOSE PACKAGE BEES

Beekeepers who have drawn combs, who have some pollen available, or feed soybean flour, will have installed their package bees by April 15. Beginners who introduce packages onto foundation may have to wait until dandelion bloom and feed continously with sugar syrup to get best results. Then, however, they must be content with a smaller crop the first year.

We know a package cannot reach full strength by the time white clover blooms unless installed the first half of April, and we cannot get a maximum crop unless they are ready for that late clover flow.

After package bees are installed they should not be put on starvation rations, but must be fed liberally. Beekeepers who feed one pint Mason jars full of sugar syrup are headed for trouble—it just isn't enough. Give them combs of honey at least 25 lbs. of it, or else feed sugar syrup two parts sugar to one of water, in 10 lb. pails and never let them run low on feed.

If there is rainy, cold weather durduring April, they just won't do well unless they have plenty of pollen; so if we run short of pollen we must feed soybean flour as a supplement.

Mix the flour in sugar syrup, two parts sugar to one of water, stirring it into a batter, not too thick. Place a cupful on glazed or waxed paper, pat into a cake, and then in the yard place a cake on top of the frames right above the cluster of bees. Put the inner ccver nn upside down to make room for the cake. The presence of the soybean flour mixed with sugar syrup excites the bees. t stimulates themI, thereby increasing activity and broodrearing. Keep this up all during April and May whenever there is a shortage of pollen

Never let the bees run short of food any more than you would let a cow that is giving lots of milk go hungry for a few days and expect her to produce as much as before..

When To Add Supers

Just as soon as the brood chamber is full of bees, brood and food, so when the cover is opened the bees come out between every frame in the hive, a second hive body should be added, preferably with dark comb. Bees will then expand upward, queen start to lay in the new hive body, and in a couple of weeks it will also be full of bees and brood. Then it is time to add a third brood chamber.

When the upper one is again filled it is time to reverse—just exchange the top one with the bottom one — around the middle. Then when the honey flow starts, more supers must be added on top for the honey.

As a rule, we have not found package bees make any preparation for swarming if this simple operation is carried on.

Queen Supersedure

Package bees should be inspected at least once each week to see how the queen is getting along. We make it a practice to have several young queens in nuclei in each yard. If we find a colony that has lost its queen, or if there are supersedure cells in colonies that should not be ready to swarm, we kill the failing queen, destroy cells, and add a nucleus with a queen. This is done by spraying both the old colony and the nucleus, queen and all, with a sugar syrup made of one part of sugar and one of water, and then just uniting the two. When so sprayed with sugar syrup, all the bees smell alike and they seem to get along fine.

It will pay to have extra queens on hand in nuclei, because should a queen fail in any package colony, it will so set the colony back; there will not be much surplus honey produced that year. At the present price of honey this may be quite a loss.

We like to make nuclei by obtaining queens from Southern breeders the last of March or the first part of April. We make a nucleus of one frame of hatching brood onto which we shake bees from four or five frames from the brood nest of a strong colony, being careful of course, to know where the old queen is. This is placed on top of the colony with the inner cover closed and an auger hole entrance facing the rear. Old bees fly back home; young bees remain. The queen is introduced to these young bees in the cage. One must be careful to shake enough frames so there will be plenty of young bees to cover the frame of brood and start the nucleus.

The Davidiana or Dove tree gets his name from the similarity of it's flowers to the wings of fluttering doves. It was discovered by Father David a missionary to Chinia in 1862. Ernest Wilson many years later was sent out to China to find the tree and bring back seeds.

MUST WE FEED POLLEN SUBSTITUTES DURING APRIL AND MAY?

The late Dr. Alexander, popular lecturer on veterinary science at the University of Wisconsin for many years, had a favorite saying, "The eye of the master fattens his cattle." This came from Scotland, he would tell his class, and how true it is.

How true it is with bees and how important that beekeepers take more stock of this fact. The optimistic reports of officers of county and district associations as listed in this issue indicate there is considerable improvement in the care of over-wintering colonies. Otherwise there would be more winter loss.

Food May Be Short In May

Far too many beekeepers think that when warm weather comes and the bees can fly there is sure to be plenty of pollen. This *may or may not* be true, just as our cattle may or may not have enough green grass for pasture once the growing season is here. We have observed many times that due to weather conditions colonies run short of pollen even in May and in June, until white clover blooms. This is very vital because we can get a maximum crop only from a colony of maximum size.

Watch the weather and watch your colonies. If they are short of pollen, feed soybean flour as a substitute whether it is April, May, or June. The wise farmer today feeds his dairy cows a grain ration or supplement to pasture when grasses run short.

Beekeepers too must feed a supplement of pollen when pollen is short, and sugar syrup when stores runs low. Don't feed syrup in pint jars. "Hand to mouth" feeding will not produce strong colonies. Give them a 10 lb. pail of syrup at a time, and have it of 2 parts of sugar and one part of water. Bees can get their water out doors. Don't make them do a lot of extra work on thin syrup.

BEEKEEPERS MEETING

SOUTHWESTERN WISCONSIN BEEKEEPERS MEETING
MAUSTON — COURT HOUSE
TUESDAY, MAY 6

NORTHWESTERN WISCONSIN BEEKEEPERS MEETING
CHIPPEWA FALLS — MOOSE HALL, 421 BRIDGE STREET
WEDNESDAY, MAY 7

All beekeepers invited to attend these meetings.

PROGRAM

10:00 a. m. Mauston — Meeting called to order by Oscar Ritland, Elroy, County President. Chippewa Falls by Robert Knutson, Ladysmith.
Remarks by the chairman on beekeeping in their section.
The Disease Control Program for Wisconsin. News on Sulfa Drug Treatment for A. F. B. by John Long, Deputy Inspector, Madison.
11:15. — What Happened at the Florida meeting of the Apiary Inspectors of America. James Gwin, Division of Bees and Honey, Madison.
Question and Answer Period.
12:00 M. — Luncheon. Note: During luncheon Mr. John Long will examine bees brought in for identification of Nosema. Bring either dead bees or spots from around the entrance.
1:30 p. m. — Question and answer hour. Any kind of question welcome. Send questions on postcards in advance to Wisconsin Horticultural Society.
2:00 p. m. — How to produce strong colonies. Discussion of spring management and swarm control by H. J. Rahmlow, Madison.
3:15 p. m. The Honey Bee. Colored movie which won second prize in a National Cinema contest in 1945 made by W. W. Vincent, Jr., Kenosha.
3:45 p. m. — Observations on Ladino clover by County Agent Manly Sharp at Mauston; By H. G. Horne, County Agent at Chippewa Falls.

NORTHERN WISCONSIN BEEKEEPERS MEETING
THURSDAY, MAY 8
SUPERIOR — VOCATIONAL SCHOOL — 1:30 P. M. (Room 306)
POPLAR HIGH SCHOOL, 8 P. M.

PROGRAM

1:30 p. m. — Call to order by Mr. Robert Knutson, Ladysmith.
Reports of beekeeping in northern Wisconsin.
2:00 p. m. — Report on the National meeting at Florida by James Gwin, Madison.
2:45 p. m. — The clover situation in northern Wisconsin by Mr. E. Anderson, County Agent.
3:00 p. m. — Spring management and swarm control. H. J. Rahmlow, Madison.
4:00 p. m. — Questions and answers conducted by Mr. Rahmlow.

EVENING MEETING
POPLAR HIGH SCHOOL, 8 P. M.

Our program for bee disease inspection for 1947. Discussion of Various bee diseases. Mr. John Long, Madison.
8:45 p. m. — Pollenization of Legumes illustrated with magic. Mr. Claude Ebling.
9:15 p. m. — The Honey Bee, movie by Mr. W. W. Vincent, Kenosha.

THE HONEY MARKET MARCH 15 REPORT

The market for honey was unsettled. Old crop supplies in producers' hands were practically exhausted and no new crop supplies from southern states were yet available. Imported honey offerings were increasing but the trade was showing interest only for best quality light colored offerings. The few domestic f. o. b. sales of honey reported were at slightly lower prices, ranging from 22-29 cents per lb. for Light Amber colored honey and 25-30 cents per lb. for White honey. Bottlers f. o. b. sales of 1-lb. jars to wholesalers were reported at mostly around 40 cents per jar. Imported honey was being offered bottlers and other users at prices ranging from 21-28 cents per lb., duty paid, according to quality. —From U. S. Semi-Monthly Honey Report, March 17, 1947.

How Bees Wintered

Reports from all sections of Wisconsin indicate small winter losses if winter stores were ample. Reports from officers of various county and district beekeepers associations indicated light winter losses for the past season and very little dysentery or Nosema, excepting in a few localities.

At Madison the editor had no losses and only two colonies showing slight dysentery.

From Newton Boggs, Viroqua. Bees wintered very good. Very little Nosema. Outdoor wintered colonies strong, but have consumed a large amount of stores. Prospects for clover not too good. Not enough clover.

By **E. A. Collins, Bloomer.** Lost one colony out of 40 through starvation wintered outdoors. Very few showed spotting. It's the finest wintering I have ever seen, and have lost only two colonies out of 124.

From Arnold Deuel, Chippewa Falls. No colonies lost by early March. About 4% showed some spotting at entrance. However, frames are clean. I believe bees will winter well outdoors, here if hives are provided with enough food. Clover may suffer unless we get moisture.

From Frank Greeler, Neilsville. Have not lost any colonies at this time (early March). There is very little spotting around the entrances.

Have some colonies packed outdoors, and the rest in the cellar.

From Ralph Irwin, Lancaster. Lost 3 out of 21 due to shortage of honey. There is very little dysentery this year.

From Fred W. Mack, Reedsville. I have not lost a single colony. All my neighbor beekeepers say they have wintered fine. There is no spotting around the entrances yet. Our honey crop last summer was a complete failure. We had to feed a lot.

From George Martin, Mauston. Put 27 colonies in the cellar last fall and they are all alive so far. There is no spotting. We will have to feed as soon as we put them outside.

From A. H. Olson, Elroy. I put 49 colonies in a place well sheltered from north and west winds and wrapped them in paper. All have wintered over. Have not heard of any losses around here. Notice some spotting around the entrances, but not bad.

By M. L. Osborn, Beloit. We have had 4% winter loss so far, mostly from starvation. Only one colony showed signs of dysentery.

We do not pack our bees but have good windbreak, and this year have the one-inch auger hole entances. All colonies appear in excellent condition, but will have to feed some of them. Now can you guarantee us a good honey flow this year?

By Ernest L. Schroeder, Marshfield. To date have lost no colonies. Reason given around here for losses is lack of stores. There is little spotting around the entrances, but not more than last year. However, some complained of severe spotting a month or two ago. We had very little snow in central Wisconsin. Will need more moisture.

By Leo W. Timm, Ripon. Have 87 colonies winter packed outdoors; 33 in tar paper covering, and 54 in wood packing cases. Of these I expect 12% loss mostly due to short stores. Last year they came through the winter 100%. Have had several days of good cleansing flights. About one-half the colonies showed spotting around the entrance, and I surmise they may be weak. I plan to mail Mr. John Long, Madison, samples from each yard and some dead bees to determine if I have Nosema. Will start feeding soon.

From Ivan Whiting. Rockford. In 170 colonies I found one with considerable dysentery. Only enough bees left to cover two frames. No signs of dysentery in other hives. Found no dead colonies, and all were wintering well at my other yard 10 days ago. Bees appear in excellent condition. I left 60 to 80 lbs. of stores last fall.

From E. M. Braman, Superior. Combined figures from five beekeepers representing 59 colonies, show three colonies dead, one from lack of food, one because food became out-of-reach through a long cold spell, and one dysentery. Six colonies badly spotted.

From Emerson Grebel, Beaver Dam. Have lost 15 colonies out of 115. Some were small. Some had much brood in January and used honey within reach and died while covering the brood. About five of these were fed January 29th.

In one yard of 14 colonies, package bees of last spring, there was no brood early in March, and no pollen. In other yards there is less brood in the hives now than there was on January 29. Some colonies are restless while others are quiet. About 20% seem to have dysentery.

By Rev. Louis A. Moser, Lowell. To date, no winter losses. Only three colonies show heavy spotting around entrances. (15 colonies) Plan to increase to 25 colonies.

From Reuben Neises, Marshfield. Bees in our yards are wintering well now. Out of eight test colonies win- No losses in our packed hives up to tered without packing, two have died. Colonies show no spotting of entrances..

From Leonard A. Otto, Forest Junction. Have lost no colonies to date. Found one colony in each bee cellar with spotting around entrance. Checked with a flashlight and fined the bees are clustered and unusually quiet for this time of year.

From Nathan Paddock, Bruce. Wintered outside this year with no packing. Have found three dead colonies. Find no spotting or signs of dysentery. About 80 colonies in the cellar seem o. k. to date. Have 110 colonies packed outside; no flight from early November until February 13. Winter stores is of fall honey. Did not feed sugar syrup. Almost no snow so far this winter here and cold most of the time. Had 40 below in January. Thirty below in February.

By Art F. Schultz, Woodland. Looked at bees on February 14, and found all o. k. Some had spotting at entrance. About same as usual. Bees look good and have honey for about two months. Will need feeding in April or sooner.

By Louis Wojtkiewicz of Thorpe, Wisconsin. Have lost 5 colonies. I think many bees died from Nosema leaving too small a cluster to survive cold spells. About 6% have spotted entrances. The neighbors are having about the same trouble. Did not have much snow this winter though the clover seems to be alive where there is stubble standing.

COUNTY APPROPRATIONS FOR BEE DISEASE CONTROL 1947

Name of County	Amount Appropriated
Barron	$ 100.00
Brown	200.00
Buffalo	100.00
Calumet	200.00
Chippewa	200.00
Clark	200.00
Columbia	200.00
Crawford	200.00
Dane	300.00
Dodge	200.00
Door	200.00
Dunn	50.00
Eau Claire	200.00
Fond du Lac	200.00
Grant	200.00
Green	100.00
Green Lake	200.00
Jackson	200.00
Jefferson	200.00
Kenosha	150.00
LaCrosse	150.00
Lincoln	60.00
Manitowoc	200.00
Milwaukee	400.00
Monroe	150.00
Oconto	100.00
Outagamie	200.00
Ozaukee	100.00
Pepin	50.00
Pierce	150.00
Polk	100.00
Racine	250.00
Rock	300.00
Rusk	200.00
St. Croix	100.00
Sheboygan	150.00
Shawano	150.00
Taylor	100.00
Trempealeau	200.00
Vernon	100.00
Walworth	250.00
Washington	100.00
Waupaca	150.00
Waushara	100.00
Wood	250.00
Total	$ 7,660.00

ANISE-HYSSOP SEED

Wisconsin grown Anise-Hyssop seed. The wonder honey plant. 20 cents per packet; ½ oz. $2.00, 6 packets for $1.00.
S. W. Strothman, 4800 Midland Drive, Milwaukee 14, Wisconsin.

Sweet alyssum is a native of the Mediterraean countries which has become indispensible as a border plant.

MORE ABOUT SULFA AND A. F. B. CONTROL

Mr. Elvin M. Braman, president of the Douglas County Beekeepers Association, in commenting on the program to be presented in Superior on May 8 (see program in this issue) remarked that the beekeepers up there are tired of articles and talks about the use of sulfa and A. F. B. control.

We are inclined to think he is right. Time should now be given for the U. S. Bee Laboratory to carefully work out the true merits of the system. Will it be what we have been looking for, or another flash in the pan, of which we have had many in the past. Only time can give the answer.

And now comes another suggestion, this time by Allen Latham of Connecticut, well known to readers of national bee journals, who says in the March issue of American Bee Journal, that he added a tablet of sulfathiazole to a half pint of pure alcohol. He then sprayed this onto the brood of two badly diseased colonies. The result was amazing, according to Mr. Latham. Inside of one week more progress was shown than two months of syrup feeding would show. Later, since pure alcohol was expensive, he used some he had for his blow torch, dissolving the drug in it. He sprayed 10 or a dozen colonies with disease and got miraculous results. Within a week most of the combs were clean and there was a lot of healthy brood. In 10 days the cure was so complete that one could not find a single cell of disease.

Editorials

DON'T BUY POOR NURSERY STOCK

Advertisements in Newspapers Promoting Cheap Stock Increasing.

A year ago we succeeded in having advertisements for gladiolus *bulblets* cancelled by some Wisconsin newspapers. Such ads stated one might have a beautiful gladiolus garden by planting 100 bulblets which would hardly fill a tablespoon and could only decrease interest in flower growing. However, such ads are still appearing.

Recently there was one in a Milwaukee newspaper advertising three peach trees for 98 cents. The trees were only 18 inches high and of varieties grown in the deep South. Peaches are not hardy in Wisconsin and such ads in Wisconsin papers can only result in a waste of money and disappointment.

We can only caution our members, "Buy from reliable nurseries, and save money."

AWARD TO GENEVA STATION

The Wilder silver medal for distinguished service to American Horticulture through the origination and introduction of improved varieties of fruit has been awarded to the New York Agricultural experiment station at Geneva. The award was made at a recent meeting of the American Pomological Society at St. Louis and was accepted by A. J. Heinicke, director of the Geneva station.

In making the award to the experiment station it was pointed out that the station has been active in fruit breeding for over fifty years and has introduced such significant varieties as the Catskill strawberry; the Portland, Ontario, Fredonia, Sheridan and Golden Muscat

grapes; the Gorham pear; the Stanley plum, and the Early McIntosh, Milton, Cortland and Macoun apples.

—*From March 15 American Nurseryman.*

FROST PROTECTION FOR ORCHARDS AND GARDENS

Wisconsin horticulturists will watch with interest new developments of the infra-red heat ray machine to protcet orchards and gardens as developed by Michigan State College.

We had the opportunity of discussing the research with Prof. V. R. Gardner, Director of the Experiment Station at Michigan State College late in February. He was enthusiastic about the possibilities of the machine. As soon as news of the experiments were released he said there were calls from all over the United States and a number of foreign countries about it. Not only does it have possibilities for protecting vegetables, small fruit and tree crops but carpenters working on construction during the cold months.

A picture of the machine developed last year was shown in our December - January issue.

The principal is that of the infra-red lamp as sold by many electric shops. There must be a powerful source of heat, such as an oil burner in the center of the machine. The infra-red rays are deflected downward and outward by the reflectors. They do not warm the air but hit the ground and plants and warm them. One machine can extend its rays over an entire acre of ground. Larger machines can be developed to cover even large acreage.

Experiments on the machine are being continued vigorously at Michigan State and when all the details have been perfected, the machine will no doubt be in commercial production and available to growers.

FRIENDS OF THE LAND MEETING IN MILWAUKEE

The Friends of the Land will present a very fine program on Sunday afternoon, April 20th at 2:30 in the Shorewood Auditorium, Milwaukee, corner Capital Drive and Oakland Avenue.

On the program will be Louis Bromfield, famous author; Chester C. Davis, National president of Friends of the Land; Dr. Hugh Bennett, Chief, U. S. Soil Conservation Service; Dr. Jonathan Forman; Ollie E. Fink, and E. J. Condon, National Vice-president.

Admission will be free.

STATE IRIS SHOW MILWAUKEE, JUNE 1

The Wisconsin Iris Society will hold its Annual State Iris Show in the Knickerbocker Hotel in Milwaukee on Sunday, June 1, 1947. The show will open at 1:00 p. m. and close at 9:00 p. M. Admission is 25 cents.

All Garden Club members and members of the Wisconsin Horticultural Society are especially invited to attend.

—Mrs. Alfred W. Dess, *President.*

COMMENTS ON STRAWBERRY AND RASPBERRY VARIETIES

Mr. Stanley Hall of the Hall Nurseries, Elmwood, Wisconsin, writes that he has a few Madawaska, Rideau and Ottawa raspberry plants for sale for anyone who might wish to test these Canadian varieties.

Madawaska, he says, looks especially promising. Anyone wishing some may write Mr. Stanley Hall. Price for 12 plants, $2.60.

Mr. Hall makes these comments on varieties: "We have a few Duluth everbearing strawberries which look as promising as some of the other varieties.

The Brunes Marvel seems to be at their best in the two-year old beds. Minn. 1166 is a very poor berry, no quality. With us it is a heavy producer of very large berries. The Gem, Wayzata and Gemzata seem to still be best for us. Plants are well covered with straw and we hope there will be no winter injury. The ground was very wet when it froze up and that is usually a great help in preventing winter injury."

EXCELLENT BULLETIN ON VEGETABLE GARDENING

"The Vegetable Garden" is the title of an excellent circular No. 372, written by Prof. O. B. Combs, vegetable specialist at the University of Wisconsin. The bulletin is very practical and should be in every gardener's library. It discusses such topics as Plans for the Small Garden; Vegetable Varieties; Seeds and Plants; The Large Home Garden; Garden Soils; Tools and Equipment; Planting the Garden; and Insect Pests.

—Address Bulletin Mailing Room, College of Agriculture, Madison, for a copy.

"When the top soil goes Man soon follows."

TO SEPARATE NURSERY FROM HOLTON & HUNKEL CO.

The wholesale flower business and nurseries, which have been operated together in the one large corporation of Holton & Hunkel Co., Milwaukee Wis., together with Rosedale Farms, gradually are to be separate into two distinct firms. The wholesale flower business will continue as Holton & Hunkel Co., but the nurseries, located at Brown Deer, Wis., will become the Brown Deer Nurseries, according to E. C. Hunkel.

J. P. Foster, manager of the nursery will head the new nursery organization.

Miss Ellen Wilmott was a famous English gardener. She wrote the Genus Rosa.

"The greatest chemist we know is mother Nature."

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

HOW TO GROW GOOD BULBS FROM BULBLETS

By John Flad, Madison

Gladiolus Chapter

Growing bulblets into bulbs is a most important phase of gladiolus culture. All growers agree that strong, healthy new bulbs are the only ones to use to produce good spikes and to increase stock. Beginners seem to find it rather difficult to grow new bulbs from bulblets, and I was no exception.

This little insignificient bulblet does not impress a beginner of its importance and therefore it is usually planted in a rather careless and thoughtless manner. I found my harvest rather meager and the majority of the new bulbs very small, with an occasional number one bulb. I soon discovered that these new #1's produced my best spikes the following year. This observation caused me to investigate further and I found the larger ones seemed to be planted a bit deeper and somewhat isolated from the smaller ones which were crowded together.

I then began experiments several years ago to grow larger bulbs. By repeated trial and error method I was able to produce a large percentage of #1 and 2 bulbs as well as good increase in bulblets.

How To Prepare Soil

The rows are laid out in the fall 26 inches to 28 inches apart. Between the rows trenches are dug about 12 inches deep. In the bottom of these trenches I place some chicken manure, about one bushel to 30 feet. These trenches are covered and the trenches for bulblets are dug to about the same depth and left open during the winter until planting time in the spring. As soon as frost is out and the ground becomes mellow enough to work, a light sprinkling of balanced commercial fertilizer is placed at the bottom of the trench. This is followed by carefully tilling the bottom of trench, building it up with soil from the sides until the finished seed bed trench is about 8 inches wide and 5 inches deep. On this loose soil one inch of sand is placed after seed bed is disinfected with a solution of formaldehyde (one tablespoonful to five gallons of water). The bulblets are then placed in cloth bags and soaked in clear water for a period of three of four days before they are given the usual No. 1 Ceresan treatment. While still wet bulblets are planted in the prepared trenches, in a bed about 6 inches wide, bulbets are scattered in place with care to avoid crowding, usually allowing each bulblet at least 1 inch clearance on all sides. Sand is used to cover the bulblets to a depth of 2 inches, then covered with 2 inches of wet peat moss and over this a light covering of soil raked in.

This method may seem a bit laborious but it has its compensations. Since adopting it I found germination is at least 90% and the new bulbs grow to be No. 1, 2, and 3 size bulbs. Furthermore, in a smaller plot I can grow many more larger size bulbs and eliminate planting a planting stock plot for small sized bulbs.

Bulblets Need Fertility

Most growers are of the opinion glads do not need a great deal of fertilization. I agree that this is true for full-size bulbs. However, in growing bulblets into larger bulbs fertilization is very essential. Unless bulblets are grown on a well prepared seed bed they cannot develop a good healthy root system which is most important. By planting deep this root system can be established before the plant comes through the soil. A heavy soil will not permit deep planting hence the reason for covering with sand or other light soil. The peat is used to retain moisture during the entire growing season. During a dry spell a thorough soaking once a week is required. After each sprinkling and as soon as the ground permits a thorough cultivation between all rows is necessary.

Firm planting is good planting..

"China is, indeed, the Mother of Gardens, for of the countries to which our gardens are most deeply indebted she holds foremost place. From the bursting into bloom of the forsythia and Yulan magnolias in early spring to peonies and roses in the summer and chrysanthemums in the autumn, China's contribution to the floral wealth of gardens is in evidence."

—E. H. Wilson.

GLADIOLUS SOCIETY HAS GOOD MEETING AND AUCTION

More than 100 members of the Wisconsin Gladiolus Society attendid the spring meeting at the Retlaw Hotel, Fond du Lac, March 23rd. The Board of Directors held a business session at 11 a. m. at which plans were discussed for coming events such as the State Gladiolus Show and the National convention in February 21-22, 1948 when we are hosts to the N. E. G. S. meeting.

President Archie Spatz appointed the following committee for the National meeting: Program Committee — H. J. Rahmlow, chairman; James Odell, Wellesley Hills, Mass.; and Prof. Paul Krone, East Lansing.

Committee on Arrangements: Dave Puerner, Milwaukee; Harold James, Whitewater; Walter Kruegger, Oconomowoc; Frank Bayer, Milwaukee.

The Board of Directors will hold another meeting in June to make further plans.

Reports of program at national meeting were given by Frank Bayer, delegate to the N. A. G. C. meeting, and by Archie Spatz, Paul Ravet and H. J. Rahmlow on the N. E. G. S. meeting at East Lansing.

TWIN CITY GLADIOLUS SOCIETY FORGES AHEAD

A meeting of the Twin Cities Gladiolus Society was held March 5th, at which the following officers were elected for 1947: President, Paul Ravet, Menominee, Michigan; Vice-president, Hugo Krubsack, Peshtigo, Wis.; Secretary, Mrs Edwin Hansen, Marinette, Wis.; Treasurer, Arnold Sartorius, Porterfield, Wis.

The Society membership increased from 18 to 67 members in the past year, which should help us greatly in putting on the State show at Marinette in August. Plans are coming along nicely.

At two bulb auctions held to raise funds for the Show, nearly $500.00 was taken in. We are very grateful to our many friends from coast to coast who donated bulbs.

—By Arnold Sartorius, Porterfield, Wisconsin.

Highlights Of The N. E. G. S. Meeting In East Lansing, Michigan

The program of the New England Gladiolus Society cooperating with the Michigan Gladiolus Society at East Lansing on February 21-22 included some very interesting talks by leading national authorities on Gladiolus culture.

2, 4-D To Control Weeds in Gladiolus

Dr. Charles Hamner, Horticulture Department, Michigan State College said 2, 4-D has been successfully used to control weeds in the Gladiolus fields. The material was applied to the soil at the rate of 5 lbs. per acre before planting and gave 95% control of weeds.

He suggested that the soil may also be treated in the fall when it is still warm. It can be applied at the rate of 5 lbs. of the 2,4-D in a quantity of water, from 20 to 100 gallons, and then sprayed over an acre of soil. This kills the weed seeds and greatly reduces the number of weeds next year. It was found, however, that if the 2,4-D was applied to the soil when the Gladiolus were growing, the stems curled. He recommended planting 3 *weeks after treatment.*

The treatment was not recommended for commercial use because the experiment had been conducted for only one year and it was not known what effect the 2,4-D might have upon bulbs for the next year's crop. This will be reported at the end of this coming year.

A Serious New Leaf Spot On Gladiolus Reported

Dr. Ray Nelson, Department of Botany, Michigan State College reported on a new disease called STEMPHYLIUM leaf spot. The disease is well known in California and this year is of serious concern in Florida. It defoliates the plants and ruins the flowers. It is an entirely new disease and requires new treatment. The disease seems to spread only when there is heavy dew. It develops only under conditions when the leaves are covered with fine particles of moisture for some length of time. Then it spreads very rapidly.

Experiments on the control indicated that two materials give excellent results; Puratized and Spergon. Puratized is used at the rate of 1 pt. per 100 gallons of water and Spergon 2 lbs. per 100 gallons of water or as a dust. The materials are used as a preventative and so should be applied at the beginning of a period of damp weather. He stated the new Michigan Gladiolus Bulletin will contain a description of the disease.

Frost Prevention

There is much enthusiasm in Michigan over the possibilities of infra-red radiation for frost prevention. Prof. A. W. Farrall of the Engineering Department, Michigan State College started mild excitement among our northern Wis-

consin delegates about the method to protect their Gladiolus fields against early frost. Everyone has seen the *infra-red* lamp sold at electrical appliance stores. Imagine then the huge lamp with five reflectors which throw the infra-red rays down onto the ground and plants, thereby warming them, preventing frost. The machine is designed to cover an acre of ground and will cost about $100 to build. Michigan State College engineers are working this year to improve it. When it gets into mass production it may be still cheaper. There was a picture of it on page 83 of our Dec. January issue.

There is much enthusiasm about this machine from all over the world according to Michigan College officials. Delegates from foreign countries have come to study it. When prefected it will no doubt be available commercially, and the least expensive method yet devised for frost prevention.

Packages For Gladiolus

Prof. Paul Krone of the Department of Horticulture, Michigan State College told us cellophane packages will open a new field in merchandising Gladiolus. He passed around Gladiolus wrapped in cellophane which had kept very well for about one week. The Du Pont cellophane 300 MSAT-87 or

(To Be Continued In May)

APPRECIATE COOPERATION OF THE GROWERS WHO DONATED BULBS

Mrs. Eleanora Piepkorn of Plymouth manager of the bulb auction at the meeting of the Gladiolus Society wishes to extend thanks and appreciation on behalf of her committee and herself for the generous donations of bulbs by members of the Wisconsin Gladiolus Society for the auction.

She has also sent a personal note of thanks to out-of-state donators.. We hope to publish a list of Wisconsin donators in our next issue.

What Vegetable Varieties Do You Prefer?

Professor O. B. Combs Lists Those He Plants In His Own Garden

Both from experience and observation, Prof. O. B. Combs, Vegetable Specialist at the University of Wisconsin, should be in an excellent position to advise us on the best vegetable varieties to plant. We thereupon asked him this question: "What varieties will you plant in your own garden this year?" Here is the list he gave us:

Asparagus: Mary Washington.
Beans, bush green: Tendergreen, Logan.
Beans, bush wax: Pencil Pod Black Wax
Beans, pole green: Kentucky Wonder.
Beans, pole wax: Golden Cluster.
Beans, bush lima: Fordhook 242 (78).
Beans, pole lima: Ideal.
Beans, dry shell: Michelite.
Beets: Early Wonder, Perfected Detroit.
Broccoli: Green Sprouting.
Brussels Sprouts: Catskill.
Cabbage, early: Jersey Queen, Resistant Detroit.
Cabbage, second early: Marion Market
Cabbage, late: Wisconsin All Seasons.
Carrots: Nantes
Cauliflower: Early Snowball
Chard: Fordhook
Celery, self blanching: Golden Plume.
Celery, green: Summer Pascal.
Chinese Cabbage: Chihili
Cucumbers, pickling: National Pickling.
Cucumbers, slicing: Straight Eight.
Eggplant: Badger State.
Endive: Deep Heart.
Kale: Dwarf Green Curled.
Kohlrabi: Purple Vienna.
Leek: American Flag.
Lettuce, butter head: Crisp as Ice, White Boston.
Lettuce, crisp head: Great Lakes.
Lettuce, cos.: Trianon.
Lettuce, leaf: Oakleaf.
Muskmelon: Delicious.
Mustard: Giant Curled.
New Zealand "Spinach": New Zealand.
Okra: Clemson Spineless.
Onion plants: Prizetaker.
Onion seeds: Early Yellow Globe.
Onion sets: Yellow.
Parsley, leaf: Moss curled.
Parsley, root: Hamburg.
Parsnip: Hollow Crown.
Peas, dwarf: Greater Progress, Little Marvel.
Peas, pole: Alderman
Peppers, sweet: Early California Wonder. Early Pimento.
Peppers, hot: Hungarian Wax.
Popcorn: Minhybrid 250.
Potatoes, early: Red Warba.
Potatoes, late: Russet Rural.
Pumpkin summer "squash": Prolific Straightneck.
Pumpkin, fall "squash": Green Table Queen.
Pumpkin, pie: Winter Luxury.
Radish, summer: Cavalier, White Icicle..
Radish, winter: Chinese Rose.
Rhubarb: McDonald. Canada Red.
Rutabaga: Laurentain.
Salsify: Sandwich Island.
Soybeans, vegetable: Mendota.
Spinach: Long Standing Bloomsdale, King of Denmark.
Squash: Buttercup.
Sweet Corn, hybrid: Our Choice, Carmelcross, Golden Cross Bantam.
Sweet Potato plants: Yellow Jersey.
Tomatoes: Stokesdale.
Turnip: Purple Top White Globe.
Turnip Greens: Shogoin.
Watermelon: Klondike.

SOME COMMENTS ON THE PROPER WAY TO PLANT BULBS

Planting bulbs such as tulips, daffodils and gladiolus may be an art or again it may be just a lot of hard work with speed and low cost as an important factor.

At the National Gladiolus Meeting held at Michigan State College late in February, moving pictures were shown of Michigan growers planting and harvesting their bulbs. They used planting machines similar to potato planters. Large acreages of tulips, daffodils and gladiolus were planted with these planters.

Now one would immediately ask, "Does it make any difference if these bulbs are planted upside down?" The answer is, "No!" We asked one large grower if he had ever noticed any difference between the flowers produced by bulbs planted upside down and those right side up. His answer was no, there is no difference!

Growing Everbearing Strawberries

(Discussion by Carl A. Zeck at Minnesota Horticulture Short Course.)

QUESTION: What varieties of everbearing strawberries have you grown.

ANSWER: I have tried out 8 to 10 varieties, but have reduced the list to three. These are Evermore, 20th Century, and Wayzata. Varieties I have discarded include Brunes Marvel, Gem, and Gemzata. I specialize in Wayzata. I grow only a few Evermore.

QUESTION: How long have you had the 20th Century?

ANSWER: Three years. It seemed to need some time to become acclimated. I get just as heavy a crop from this variety in the spring as I do in the fall. The rows are set 30 inches apart. It gives me a better spring crop than the Wayzata.

QUESTION: Do you get enough runner plants from your Wayzata?

ANSWER: Yes I do. I dug 300,000 plants from 2-3/4 acres of Wayzata in 1939. I set my plants 18 inches apart in the row, with rows 30 inches apart for fruit production or 36 inches apart when grown for plants.

QUESTION: Do rows spaced 3o inches apart give you enough room?

Answer: Yes. I get just as many berries from fruiting rows kept 15 to 18 inches wide than from wider rows and the berries are of better quality.

QUESTION: How do you maintain your soil?

ANSWER: I am located near Bloomington where the soil is light. I use about 50 tons of manure every year on 3 acres. I am a strong believer in plenty of manure. I started about 12 years ago on land so poor that I was told it would not even raise quack grass. I do no plowing. I disk in the manure because this leaves it nearer the surface where the feeding roots of the plants can reach it.

QUESTION: How long do you keep a planting?

ANSWER: I pick a crop the first fall, then a crop the next spring and perhaps another fall crop if the plants look good. I never keep a planting longer than the 2nd fall. All the old plants are burned to destroy insects, etc.

QUESTION: Do you pick off the first blossoms after setting your plants?

ANSWER: Yes. I pick all blossoms until about July 4. I set some of the first runner plants by hand to give them a quick start.

QUESTION: Do you make any attempt to select superior "strains" of plants for your own planting?

ANSWER: At first I marked plants that were outstanding for fruit and runner production and set runner plants from them. I found this *did not do any more good* than selecting good strong plants without marking, so I gave up the idea.

QUESTION: Have you noticed any damage from the cold water when you irrigate during the picking season?

ANSWER: No. I water every other day, when needed, and start right after picking. The water is cold, about 42 degrees, but it warms up to about 65 degrees before it hits the berries. I have never seen any injury from the water.

—From The Minnesota Fruit Grower, March, 1947

Prof. J. G. Zinn's name is given to the annual which he discovered in Mexico and South America — the zinnia.

Many plants may thrive in a window garden terrarnium which would otherwise prove difficult if not impossible to grow.

Garden Gleanings

We hear that the *racket of selling Gladiolus bulblets* and very small tulip and daffodil bulbs by advertising over radios and newspapers has been suppressed by Michigan authorities. In that state a so-called Bulb Company, offered 100 bulblets at about $1.49. It is reported that 1½ million dollars were taken in last year. This does show the tremendous interest of our people in flowers and flower garden and we compliment Michigan authorities on suppressing the racket and protecting the future of gardening. We suggest that in the future, newspapers and radio stations investigate the desirability of such advertisements.

What is the best way to fertilize a fruit tree? All the evidence points to the fact that quickly available nitrogen such as ammonium sufate will give good results and all orchardists in the middle west are using it. The amount to use depends upon the growth of the tree and the soil condition. Given a tree that has not made much growth on a relatively poor soil, an old rule is to apply 1 lb. of ammonium sulfate for every four years of age of the tree, spading it well around the root area, or in an orchard broadcasting it completely over the entire orchard floor but not closer than three feet from the trunk of the tree.

Occasionally we see articles the latest in the February issue of an authoritative garden magazine, to punch holes with a crowbar 15 to 18 inches apart and 15 inches deep and then adding a complete fertilizer as 5-10-5 in each hole. That certainly would be a lot of work. No doubt it would give results but there is no proof that it would give better results than ammonium sulfate alone broadcast early in the spring.

FAVORITE ROSES. We would like to ask our Rose fans to send in their choice of the best 5 roses they grew. If a number of our members send in their choice, it would make an interesting article. So please drop us a card and add a few words as to why you like them.

I might start by giving my own choice just to arouse comment. I think the best Hybrid rugosa is Amelia Gravereau because of its beautiful flowers. It is as hardy as any.

The best Climber is Paul's Scarlet. In the Hybrid Teas, we would plant Crimson Glory, Pink Princess and Anne Vanderbilt. Yes there are lots of other good Hybrid Teas but if we could have only three, these would be our choice.

In the Floribunda's we still like World's Fair and Pinocchio although we would have to include a few more such as Donald Prior and Permanent Wave in our list..

ROLLING THE LAWN when the ground is wet may do more harm than good writes Prof. Victor H. Ries of Ohio University. He says it's an old fashioned idea like planting by the signs of the moon and so some people will no doubt continue it. A better way, he says, is to fill in the low spots with a good top soil, about half an inch at a time, so grass can grow up through it.

Sounds like a very sensible idea. We have not been able to do much good in smoothing our lawn and getting it level by rolling in the spring but have succeeded by taking a little soil from the flower borer and filling in depressions. I expect we will be doing more of it.

H. J. R.

SOME GREAT TREES
Let Us Plant Trees For The Future
By R. G. Dawson, Franksville

It will soon be tree planting time so let us plant varieties that are ornamental and will live to become great trees.

I remember a giant Burr Oak 11 feet in diameter. When the farm was leased, a clause in it stated, the tree was not to be cut. We have Burr Oak trees on the farm with a limb spread of 80 feet. There are very few small oaks now and some day they will be rare. There is a great yellow Oak at Nye Mills, Md. with a spread of 165 feet, height 95 ft. The Hooker Oak, Chico, Calif., can shade 7,000 people. It is 100 ft. high and bears a ton of acorns each year. There is a live oak, height 178 ft., with a spread of 168 ft. at Hahnville, La.

We have planted and tried many varieties of evergreen trees at Oaklynn and find the cedar and pondorosa pine the most hardy and long lived. The White, Norway and Austrian pine, the firs, Douglas and Silver do not do so well in southern Wisconsin. What may be a tree of promise is a nut tree, a cross of the heart-nut. We have trees three years old that have produced nuts.

Two fine trees are Ginkgo or Maidenhair tree and Kentucky Coffee tree, specimen trees here are 40 ft. high.

When we compare the old fashioned lilac with the improved varieties, what a contrast. The older

lilacs with florets of only ¼ inch, compared to varieties Massena and Lanners with florets one inch. We have tried a number of hybrid lilacs, but with no great success.

FERMATE FOR THE CONTROL OF BLACK ROT OF GRAPES

Thorough spraying with Fermate at 1½lbs. to 100 gallons has given over a period of three years excellent control of black rot of grapes. It has for all practical purposes been as effective as 5-7-100 and 6-8-100 Bordeaux. It has effectively controlled both fruit rot and shoot lesions which serve as a winter "carry-over" of the disease. Fermate gave 97 percent of 99 percent control of fruit rot in the heavy black rot year of 1945. In 1944 and 1946 it gave better than 99 percent control. These results were obtained in vineyards where the loss of fruit from black rot had been heavy in preceding years.

Fermate Compared With Bordeaux

There has been nothing in our results to indicate that Fermate is any more effective than 5-7-100 or 6-8-100 Bordeaux. In fact there is some indication that it may not provide quite the margin of protection as Bordeaux. Coverage must be thorough and in rainy weather favorable for black rot infection, the interval between sprays should not be more than about 10 days. In a 5-day spray eradication or "carry-over" control program the amount of spray per acre in the experimental and demonstrational vineyards has been about 125 gallons. When the shoots were ½ to 1 inch long, increasing to 200 gallons just before bloom and to 250 gallons in the after bloom sprays. This gallonage well directed and forced into the vines with 300 to 350 lbs pressure will insure good protection against black rot.

The advantage of Fermate over Bordeaux is the safety with which it can be used to spray heavily under a wide range of environmental conditions.

Heavy spraying is necessary to insure protection against black rot there has been a build up of the disease in the vineyard and heavy spraying with Bordeaux is likely to cause more or less injury especially in rainy weather favorable for black rot development and when protection against it is most needed. There was light injury from a 5-spray program of 6-8-100 Bordeaux in our experimental plats in 1944 and moderate to severe injury from 5-7-100 Bordeaux in 1945 and 1946. In 1945 and 1946 it reduced the size of the berries and there is some indication that heavy spraying with Bordeaux in a 5-spray program may under certain circumstances reduce the crop the following year.—

—By H. G. Swartwout in Research number of Missouri Horticultural News, February, 1947.

MANY NEW INSECTICIDES BEING DEVELOPED

Insects beware! Scientists are progressing rapidly in the direction of control of injurious insect pests. Some of the new names which we will see in literature soon are these: Bladen, Azobenzene, Flavan, Gammexane, Methoxy-DDT, Rhotane, Ryanex, Sabadilla, Xanthone, P. C. H., Velsicol.

Some of the materials are selective—killing some insects but not others. For the amateur the best of them will be available under trade names. Some are not yet available commercially. We're not going to recommend any of them at this time. In a few years those that are best for insect pests will become known but in the meantime the large list is quite confusing. In some cases, the cost is high but if the material is valuable quantity production will lower the price.

BEST POTATO VARIETIES FOR THE SMALL GARDEN

"What varieties of early and late potatoes do you plant in your garden?" we asked Professor G. H. Rieman of the Wisconsin College of Agriculture who works with potato varieties.

He answered promptly, "Red Warba and Sebago."

"Well now tell us why you like the Red Warba best?", was our next question.

"It's our best first real early potato. It is well adapted to Wisconsin and has good cooking quality. Most gardeners plant a small percentage of Red Warba to get early potatoes and then a larger patch of Sebago for their winter supply."

"And why do you like Sebagos?" we asked.

"I think it's the best late potato for this part of the state. It is a good producer, has good cooking qualities and is somewhat resistant to late blight. Therefore, folks who can't spray as often as they must to control late blight on some varieties, would get along pretty well with Sebago."

Sounds like good advice to gardeners.

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

PRESIDENT'S MESSAGE

April 1, 1947

DEAR MEMBERS—

On behalf of our Federation I wish to thank everyone who participated in our successful regional meetings. For all the unselfish effort on the part of our general chairman, officers, state and district chairmen, district presidents and hostess clubs we are exceedingly indebted. The meetings were uniquely interesting and inspirational, well attended and sincere. There is every indication that our Federation is in a position to take its responsible place in the minds of our Garden Club people and in our beautiful State.

By the time this little greeting reaches you, the gay, flying winds and returning sun will have awakened our gardens. Each of us, exhilarated by the pageant of rejuvenation will be eagerly watching every tender shoot, every bursting bud. For many, this stimulation and interest will increase with every passing day but for some unfortunately, a good spring cleaning of the garden and an occasional weeding and spraying will suffice. As our experience widens, however, it soon becomes obvious that the most vital necessity, for creating and maintaining a beautiful, satisfactory garden, is daily care and watchfulness.

Proper timing is the most important approach to success in our

work with growing plants. Next year's garden should be planned progressively as this year's garden unfolds. We so often place too much trust in our poor memories and in our hopes of righting everything in autumn. A great asset to every gardener is a hard-covered, ten-cent note book with a pencil attached. If kept in the tool box where it is available for daily notations it will serve as an invaluable guide for constructive changes to be made, and an interesting record of good and bad practices.

The only time to plan changes in our borders is when they are in bloom. It is the best time to study the catalogs for new varieties and replacements. It is then we should visit our parks, the gardens of our neighbors and friends. So few of us can measure distance out of doors, in our mind's eye. It is hard for us to visualize the space plants occupy when they have reached maximum development. Too few of us can understand the importance of form or the play of textures acquired by plants until we have seen them. No descriptions however adequate can train our minds as realistically as can our eyes.

By the time the blooming period of every plant we grow has passed, our plan for its destiny in our garden should be a matter of record. If we anticipate the purchase of more specimens or accompanying plants, our orders for this material should be determined simultaneously with the blooming period of that already in the garden. This method will thwart the all too prevalent habit of over-ordering which is a wasteful practice and destructive to any sense of order in our border. Stuffing destroys design and delays the development of delightful effects we all try so hard to achieve.

Do get the note book habit. Crude drawings — hasty notes — pleasant and sorry observations made on mud blotched pages will become more valid to us than the most poignantly described nursery pamphlet or gardener's guide. This is one way to create a charming, delightful garden without professional help.

Very cordially and sincerely,

RUTH WEST

NOTES ON THE REGIONAL MEETINGS

A week of exceptionally fine weather, for February aided the success of the 1947 five Regional meetings. There were 404 registrations. All but two of the State Chairmen presented a definite program for the coming year's work. Four State officers were present at all meetings and at one meeting there were five officers.

Mrs. Clarence Schultz, General Chairman, presided in her gracious and efficient manner.

Mrs. A. Koehler, Bird Chairman, stressed education of our young peopl in ornithology. The use of good books and field trips are ways to create interest.

Mrs. Max Schmitt, Conservation Chairman, presented the State Scholarship Plan by which a senior student at the University of Wisconsin will receive a $100 scholarship for research work in horticulture and conservation. This was approved by the district.

Flower Show Chairman, Mrs. Chester Thomas announced the dates of the State Flower Show as May 23-24-25 to be held in Wauwatosa. Some of the schedules were presented and very favorably received.

Miss Olive Longland presented a program of suggested horticultural topics that clubs could study at their meetings.

Mrs. Frank P. Dunn suggested that Junior Garden Club work be carried on in conjunction with other youth organizations in the community, supplying nature study and its practices. She announced that the National President, Mrs. William H Champlin is offering $25.00 to the club doing the most outstanding junior work.

Mrs. Gilbert Snell spoke of proposed plans for county zoning to do away with objectionable practices.

Mrs. Sam Salan, Program Chairman, discussed the basic aims of a well balanced program. The names and fees of speakers available in the district was requested, also a circulating library of colored slides that have been taken in the members garden was advocated.

Mrs. William H. Liebe presented Garden Center work through the use o fthe radio. A library of recordings on timely, seasonable subjects was suggested.

Mrs. Norma Robinson suggested that Living Memorials be planned around the great outdoors, something that young people will like.

Mrs. H. W. Schaefer, Membership Chairman, urged we help organize new clubs and strive for an increase in club membership so the Federation may report by May a membership of 3,000. This can be done by our own salesmanship and by good club programs.

Findings of the legislative Committee will be revealed later this year.

Splendid entertainment was presented in each district — varied, educational and edifying. The results from the Regional meetings will be noted and felt through the entire year.

—Mrs. William Curtiss, Plymouth, Publicity Chairman.

GARDEN TOUR IN OCONOMOWOC

The La Belle Garden Club will be hosts to a garden club luncheon and garden tour on Friday, June 6th. The luncheon will be served from noon until 1:30 p. m. at the Community House in Oconomowoc, Wis. Fee of $1 will include luncheon and tour. Send advance reservations to Mrs. Myron S. Reid, 143 E. Pine Street, Oconomowoc, Wisconsin.

A LETTER TO ALL GARDEN CLUB MEMBERS

Garden and Flower show time is not many days away. The dates are May 23-24-25. The place, Recreation Bldg., Wauwatosa.

Many of you have by this time decided to exhibit at this year's show.

Your entries in one or more classes have been sent to our Entry Chairman, Mrs. Carl Hofstetter, 136 N. 88th St., Wauwatosa 13, Wis.

To those members not having sent in reservations, please do so at once.

Study the show schedule carefully. It offers so many lovely things for you to do. Select exhibits from several classes and mail in your entries.

The joy of planning and creating is yours. To take active part in our 1947 Flower and Garden Show is a thrill to anticipate.

Encourage your club members to take interest and to exhibit.

Has your club given thought to the Garden section? There are several openings in this class. To build and exhibit a Garden does mean a great deal to our show, as well as prestige and publicity for your club. Our show this year must be better and more lovely in every way and to be a part of it as an exhibitor should be the ambition of every Garden Club member.

Please send in your entries now.

—Mrs. Chester Thomas,
State Garden and Flower Show Chairman.

To get your garden on paper before you try to put it on the ground is good advice.

RADIO GARDEN CENTER, 1947.

The Garden Center Committee of the National Council of Garden Clubs defines garden centers as: a place where those who need help in their garden work may find information, inspiration and pleasure, by means of carefully planned programs. These programs are by speakers, demonstrations, exhibits, photographs, movies and slides, books, catalogs, scrapbooks or any other media; the location decided by local conditions and possibilities.

There is practically no limit to the possibilities in community service.

If the garden center is set up and maintained in the public library, the sponsoring group no doubt will keep in mind the current shortage of help; and be careful not to cause work that library staff might resent.

The office of the county agent should not be overlooked in the absence of the garden club-sponsored centers. County agents are glad to co-operate, giving talks and illustrated lectures, answering phone calls, testing soils, obtaining bulletins, and directing soil conservation work.

By national direction the subject for emphasis in raio programs is conservation, both as it relates to soil prouctivity and the conservation of products of the soil. Canning of food, the treatment of tree diseases, wild flower preserves, better seeds and varieties, are related topics.

There are two sets of recordings available useful for radio programs. From AMERICAN NATURE ASSOCIATION, 1214 16th St. N. W. Washington 6 D. C. may be obtained: MUSIC IN NATURE four 12-inch phonograph records: over 50 bird songs and animal sounds. Price, $5.00

72 AMERICAN BIRD SONGS ALBUM, 6 doublefaced records: very good over the radio. Price, $6.00 postpaid. Send remittance with order.

To those who read this, I wish to say: —never hesitate to write me if you think there is anything I can do. A self-addressed envelop would be appreciated.

—*Mrs. William H. Liebe,* R. 5, *Wisconsin Rapids.*

CHAIRMAN RADIO GARDEN CENTERS

MORE GARDEN CLUBS JOIN WISCONSIN GARDEN CLUB FEDERATION AND HORTICULTURAL SOCIETY

In sending in names of officers and new garden clubs which have just joined, Mrs. Mary Martin, our Recording Secretary-Treasurer, remarked:

"I feel much satisfaction every time a new club comes in. I think 'Blue Bird' and 'Nature's Paint Brush' are two of the prettiest names."

We wish to welcome the following clubs to membership:

FOX RIVER VALLEY

Grow-Em and Show-Em, Berlin

Pres: Mrs. James Brewer, R. 2
Vice-Pres.: Miss Leola Evans
Secy-Treas.: Miss Audrey Tauer

Marion Garden Club

Pres.: Mrs. Art Henschel
Vice-Pres: Mrs. Ren. Parks
Secy.-Treas.: Mrs. Frank Bowers

MADISON DISTRICT

Sunnyside Community Garden Club

Pres.: Mrs. Ava Davies, 1320 MacArthur Road, Madison
Secy.-Treas.: Mrs. Coyt Farwell 1329 Mac Arthur Rd., Madison

MILWAUKEE DISTRICT

Brookfield Garden Club

Pres.: Mrs. Elva L. Lewis, 1000 A. S. lth St., Milwaukee 4
Vice-Pres.: Mrs. Roger Strachota, Waukesha
Rec. Secy.: Mrs Ben Patterson

NATURE'S PAINT BRUSH

Pres.: Mrs. Marion Veck, 5860 N. Bay Ridge Ave., Whitefish Bay

NOT IN DISTRICT

Blue Bird Garden Club, Menomonie

Pres.: Mrs. J. D. Millar, R. 2, Menomonie
Secy.-Treas.: Mrs. Chris Nelson, R. 5, Menomonie

CORRECTION

Sheboygan District OFFICERS

Pres.: Mrs. Fred Wilkerson, 724 National Ave., Sheboygan
Vice-Pres.: Miss Eleanor Gielow, 913 S. 13th St., Manitowoc
Secy.-Treas.: Mrs. Kurt Schneider, Route 1, Port Washington

NATIONAL COUNCIL MEETING IN TULSA, OKLAHOMA MAY 5-7

National Council of State Garden Clubs will met in Tulsa, Oklahoma on May 5 to 7. An excellent program has been arranged including sight-seeing trips and social functions.

The meeting will be followed by a Garden Club pilgrimage to Mexico City from May 7 to 18. Special thru pullmans may be boarded on the conclusion of the convention for Mexico City where the members may spend some interesting days of sight seeing.

BUBBLE BOWL FORMS INTERESTING TABLE DECORATION AT MADISON DISTRICT MEETING

owls of water containing white coral and little white balls which kept rising and falling formed the table decoration at the Madison District meeting of the Wisconsin Garden Club Federation.

Mrs. Charles Dean of Madison described how the bowls were prepared. They were filled with water, baking soda added at the rate of 1 tablespoon per quart. To this was added citric acid—1 tablespoon per quart. Moth balls were put in around whic bubbles formed. When the balls were covered with bubbles they rose to the surface. The bubbles disappeared and the balls submerged again.

Mrs. Dean said an interesting arrangement could be made of evergreen branches in a bowl of water. Bubbles would completely cover the needles and create an interesting winter arrangement.

The so-called African and French Marigolds are natives of Mexico and South America.

Tea plants are grown in conservatories but a plant grown in a garden in Huntington, L. I. bloomed. It is semi-evergreen.

From a Gardener's Notebook

By Genevieve Dakin, Madison

Prior to the war the West Side Garden Club of Madison held its Annual Flower Show at the home of one of its members. Manifest interest in seeing bulbs, perennials, shrubs and trees growing in home grounds led to this plan of opening a garden to the public each year under the club's sponsorship. This season sees the practice resumed. Artistic flower arrangements and educational exhibits will be featured and a Spring Market promises to be an added attraction. Proceeds will be used to promote the club's civic projects, one of which is Crab Drive in the University Arboretum. The date is Saturday afternoon, May 17th. As hostess I am happy to join with the club in cordially inviting Federation members and their friends to come to our garden at 4110 Mandan Crescent, (Nakoma) Madison, that afternoon. In case of rain the Show will be held Sunday May 18th.

April will see many daffodils in bloom. Some one asks, "What is the difference between a daffodil and a narcissus?" The answer is: Daffodil is the common name, narcissus is the scientific name, therefore they are the same. Jonquil is only one kind of daffodil."

Should all the dead grass be raked out of the lawn in the spring? Victor Ries replies that we waste money by raking out all dead grass and then buying peat moss or other mulch to return the humus to the lawn.

Asked if the lawn should be reseeded every spring Mr. Ries says, "Unless there are bare spots the size of your head, don't waste money on reseeding, then only reseed the bare spots. Better apply fertilizer and humus, they will give bigger returns for money spent."

Another question: "Should the mulch be removed from your flower bed before or after the plants start to send up new growth?" If the mulch is removed before growth starts it seems easier to avoid damaging the plants. I will confess the bulbs often get a head start before I know it.

We came across the following suggestions for "Possible Exhibits for Spring Meetings" —

1. Collection of tulip varieties, all labeled.
2. Collection of daffodil varieties, all labeled.
3. Collection of Spring flowers, properly named.
4. Collection of wild flowers, all named.
5. Collection of rock plants, properly labeled.
6. Cut branches of shrubs in bloom, labeled.
7. Artistic arrangements appropriate to the season.
8. Any unusual flower or plant from member's gardens or any one else's gardens.

Richardson Wright tells us that descendents of Huegonots made remarkable gardens on their places in and around Charleston, South Carolina. The South Carolina Gazette of January 4, 1734 — more than 200 years ago — carried the advertisement "Mr. Peter Chappereau newly come from London, surveys lands, makes neat maps thereof, views or prospects of gentlemen's houses and plantations. Sets out grounds for gardens or parks in a grand or rural manner." He may have been a son or grandson of one of those Huegonot weavers who raised pigeons and flowers on their housetops in Spitalfields and planted truck gardens in Chelsea.

—*Winter Diversions of the Gardener.*

Mr. Wright also gives us the pretty legend about the French botanist who nursed a little Cedar of Lebanon on a long and stormy voyage by planting it in his hat. Water ran short and this devoted lover of plants shared with his seedling his scant allowance of only a half pint a day. This Cedar still survives in Paris, so says the legend.

Speaking of light under trees, Fletcher Steele believes that light is more cheerful under deciduous than evergreen trees probably because it is more diffused and also for the reason that deciduous leaves are translucent while evergreen needles do not let ordinary light through them. "Leaves act like window shades through which sunshine comes tempered, pale or more or less green. It is largely for this reason that deciduous trees have more value around a house and over places where people sit."

Erythroniums in little colonies among ferns are delightful. Plant in early fall.

Columbines are useful to give color in shady places. So are tuberous begonias. According to authorities the latter should not be set out until late May or early June. Provide light shade for them. One writer suggests "cheerful shade" of high-branching deciduous trees. Good drainage is absolutely necessary. A raised bed of four inches of cinders placed six inches beneath the surface of the soil is another idea. The soil mixture should be one part loam, one part coarse leaf mold and one part of sand. Gentle overhead watering will serve until the plants mature but remember they need plenty of moisture on both foliage and roots. Water in the evening and twice a day when the days are hot and dry. Another

point to remember we are told, is not to cultivate around the plants.

A booklet on Button Gardens may be purchased from Mrs. Florence Casebolt, 764 Contra Costa Ave., Berkeley, California.

The Horticultural Chairman of the Garden Club of America gets out a Horticultural Letter. In a recent one she tells us that Floralife really makes flowers last longer. Anything with a woody stem responds to it. Flowers with soft, juicy stems are not helped as much. Pansies, petunias and carnations are exceptions. They as well as the large flowering cematis and roses are vastly helped. Delphinium will last for many days without falling if Floralife is used.

A formula suggested for g l a d corms against thrips comes from Texas. Mix 4 teaspoons of lysol in a gallon of water and soak the corms in it for six hours.

If your geranium leaves turn brown around the edge it probably shows a lack of potash. Wood-ash from your fireplace may be a remedy.

The Men's Garden Club movement seems to be gaining momentum. Its annual convention is to be held in Portland, Oregon in May. The program is so full that Men's Garden Club of Lancaster, Pennsylvania has 400 members, reports ive-wire meetings and many interesting projects. We sometimes wonder why the men gardeners in Wisconsin do not organize. Illinois groups are active. There are, we are told, at least two Men's Garden Clubs in Wisconsin.

"Life's sweetest joys are hidden
In insubstantial things,
An April rain, a fragrance,
A vision of blue wings."

—Edith S. Chaddock in The Garden Club of Alabama's Hortensia.

WISCONSIN GARDEN CLUB FEDERATION OFFERS SCHOLARSHIP

Robert M. Hutchins says that the exhaustion of the soil has been one of the fundamental causes of war. That war creates an excessive demand for forest products, which hastens the destruction of insufficient forest resources throughout the world. It increases demands for agricultural production regardless of the ability of the soil to meet these requirements, thereby increasing the possibilities of more wars.

The blame for this must rest squarely u p o n the shoulders of mankind. And only man can avert disaster. Educational efforts must bring these facts home to t h e people.

It is gratifying to the Wisconsin Garden Club Federation to know that their plans for a scholarship at the niversity of Wisconsin shuld be in the very field of education proposed by Mr. Hutchins.

The Wisconsin Garden Club Federation proposes to set up a scholarship of $100 as a beginning. This scholarship is to be awarded the student best qualified in the eyes of the University School committee in the field of horticulture, conservation, or plant research. This scholarship is to be awarded for the senior year.

The senior year was chosen with the thought in mind that the student would by that time have chosen the field of work in which he was most interested and the one which he intended to follow after graduation. We believe that an educated man or woman going out into the world will in turn spread the benefits of his education among the people he or she contacts in the years to come. We know that in giving our help to this student we are in turn helping countless others. It is with this in mind that we offer this scholarship.

Mrs. Max Schmitt, 1912-84th St. Wauwatosa, Wis., State Conservation Chairman.

THE SHEBOYGAN DISTRICT REGIONAL MEETING

Mrs. J. Ubbink president of the Port Washington Garden Club reports that 58 members attended the Regional meeting in Port Washington on February 28. Eighteen state officers and committee chairmen were present and their reports presented a very clear picture of their plans and hopes for accomplishments during the coming year.

The luncheon tables were beautifully decorated and the effect was a gay assurance that spring must surely be just around the corner. The table committee was, Mrs. George Gilson, chairman, Mrs. Marshall Moeser and Miss Viola Ubbink.

The Girl Scouts made small paper sprinkling cans which were used as identification tags.

The Rev. Carlus Basinger, Pastor of the Congregational Church was the principal speaker and said, "Man is the only creature who organizes to fight against his kind." He urged we use the tremendous forces of power that science is discovering, to live in harmony and peace as Nature intended.

WHEN WRITING ARTICLES FOR PUBLICATION

Please observe the following rules when writing articles for publication in newspapers or magazines:

1. Start at least 2 inches from top of paper.
2. Leave at least 1 to 2 inch margin on both sides of sheet. sheet.
3. Leave a space of at least 1 inch at bottom of page.
4. All articles should be double spaced.
5. Indent about 5 spaces for each paragraph.

Portulaca is a Chilean p l a n t introduced in 1827. Both the single and double forms have a w i d e color range. The doubles resemble polyantha roses.

BETWEEN CLUBS

The Horicon Garden Club has completed a Blue Bird Trail to Le Roy. This will be extended in spring to Oakfield where the trail will join the Oakfield trail to Fond du Lac, Highway 41 and through to Green Bay.

At the annual banquet of the Sheboygan Garden Club, Professor E. A. Clemens, Oshkosh, a geologist and former teacher at Oshkosh State Teachers College was guest speaker. He spoke on "Glaciation of Wisconsin."

The motif on the cover of the yearbook of the West Side Garden Club of Madison cleverly features the highlight event of the club year—a Spring Market, Flower Show, or Fair to be held in the garden of Mrs. Walter Dakin, 4110 Mandan Crescent, Nakoma, Saturday, May 17 at 2:00 p. m.

Committees are exceedingly busy making plans and preparations for this much looked for event. Quoting from the yearbook,

"Come to the Fair, Come to the Fair

Bring your best friends and neighbors therr."

See the tables of garden aprons, kneeling pads, potted plants and slips, seeds and herbs for sale.

Beaitiful flowers and arrangements.

See Madison's loveliest Spring Garden."

From the Lake Como Beach Garden Club comes this interesting bit of news of their efforts to joy to all those who live and those who pass through their comunity at the Christmas Season.

For the first time in the history of Lake Coimo Beach and Geneva Township they had their own lighted Christmas Tree made possible by the Garden Club and the untiring efforts of its president, Mrs. Clara Hussey.

Their 1946 project was landscaping of a triangle of land opposite the town hall and church at the intersection of the road to Como Beach and Delavan. It was on this triangle that they erected their Christmas Tree.

On February 14th they sponsored a Hard Times Dance and on April 23rd will sponsor a Gay 90's Revue. With the proceeds they hope to be able to purchase a permanent tree for the triangle and to start beautifying the other entrace to Como Beach subdivision.

At their December meeting the Lake Como Beach Garden Club had a gift exchange and enjoyed the description of Christmas customs and experiences of various members while they were living in foreign lands.

At a later date the club sponsored a Christmas party for the children of members and neighbors. A program and Santa, with gifts for all the children, was enjoyed.

The Horicon Garden Club reports that rare birds have been seen on the Horicon Marsh in the past few years. American Egrets have nested on the marsh since 1943. These are the only known recent Egret nesting records for Wisconsin. A large group visited the marsh in late summer. On September 10, 145 Egrets were counted as they left their roost, just before dawn.

A purple Gallinule, a glossy Ibis and an American Hawk Owl have also been seen on the marsh.

—By Elizabeth Curtiss, Plymouth, Publicity Chairman.

EDITOR'S NOTE

To Garden Club Secretaries or Publicity Chairmen. —

Please send Mrs. Wm. Curtiss, R. 1, Plymouth, news items about outstanding activities of your club which will help other clubs in formulating an interesting program of work.

MADISON GARDEN CLUB SPONSORS COLOR LECTURE MAY 13

The Madison Garden Club is sponsoring a lecture "Color Harmony in Everyday Life" by Mr. John McCallough of the University of Wisconsin staff at **2 p. m., Tuesday, May 13,** at the Bethel Lutheran Church (Wisconsin Avenue and Gorham.)

Since Mr. McCallaough is sponsored by a garden club, we expect that he will devote part of his talk to the use of flowers in the home, but his many degrees from various universities including Columbia where he studied ceramics under Prof. C. B. Upjohn, and drawing and art training under Miss Ruffini, give more than a hint that properties other than flowers will be utilized to achieve that complete harmony we strive for in our homes. Some arrangements will be shown to illustrate his points.

Not only is Mr. McCallough well stocked with ideas and well grounded in principles, he has had experience in imparting his ideas for he served on the staffs of various teachers colleges before taking his present position as instructor of drawing and descriptive geometry in the Department of Engineering of our University.

The lecture is given as a benefit for the Madison Garden Club and members of the garden clubs. The public is invited to attend. Tickets at 60 cents including tax, may be secured from Mrs. George Harbort, 3102 E. Washington Ave., Madison 4.

Remember the date and make room for it on your calendar.

Bertrand Farr was a merchant dealing in musical instruments. His love of flowers led him to hybridize iris and establish his well-known Pennsylvania nursery.

How to Grow Ismenes for Bloom

By Victoria G. Kartack, Baraboo

Isemenes are summer-blooming bulbs of great beauty and fragrance. They ase easily grown and cared for and by using the following method, blooms are assured.

They should not be grown in rich soil for they are natives of the mountain slopes of Peru where they grow to perfection in the loose lava soil. If you have a spot in your garden where an ash pile has been in years past, you have an ideal place to grow Ismenes. If not, make your soil loose and porous by spading in some old weathered hard-coal ashes. There must be good drainage and sunshine most of the day. Do not add fertilizer to the soil if it is good garden loam for in rich soil the bulbs tend to make masses of foliage at the expense of bloom-buds within the bulbs and the following year there will be no flowers. Ismenes can be grown in beds, in rows or in groups of 3-5 bulbs. Growing them in groups, they make a splendid display in the flower border in early June and after blooming, the strap-like leaves give a luxurious touch the rest of the summer as they stay fresh and the ground well. If grown in beds green until frost cuts them down.

Before planting the bulbs spade or rows, dig trenches 10 inches deep working up the bottom so that it is flat and about 8 inches deep. Set the bulbs 10 inches apart spreading the roots out well. Fill with soil almost to the top of the trench and pour in enough water to soak the soil well. When water has drained away fill trench with soil but do not tamp it down. When grown in groups dig a hole about 18 inches in diameter for 3 large bulbs and set bulbs in a triangle 8-10 inches apart.

It is amazing how fast Ismenes grow. They will bloom in from 2-4 weeks from planting time and require no further care except to keep weeds down and water only during very dry summers. Cut flowers off as soon as they fade to prevent seeds from forming but do not cut off flower stalks until they turn yellow.

After frost has cut down the foliage the bulbs must be dug at once and stored, for they are hardy only in climates that are frost-proof. Cut the tops to within 4 inches of the soil, dig the bulbs carefully, disturbing the roots and soil around them as little as possible. Use both hands and place each bulb into boxes having a layer of soil on the bottom. Work the soil well around the bulbs so that there are no air in a dark dry place where the temspaces between and store the boxes perature does not go below 50°. A high shelf in a dark basement room is fine as the air is usually warmer than at floor level. There must be darkness or the bulbs will start into growth early and will be hard to handle at planting time. Most growers sell the bulbs without roots and advise drying them off before storing but I believe from observation over many years that the roots help the bulbs to mature properly, our season of growth in the north being so much shorter.

About May 20th or when all danger of frost is past, bring the boxes to the garden and dump them carefully. The soil will be bone-dry but the roots should be plump and fresh. Remove the old soil carefully, take off all offsets and plant the bulbs again. The offsets should not be planted deep, 2-3 inches below the soil surface is enough. Once established, this is an easy method to follow and has been very successful for me. It may take several years of using this method to bring back bulbs that have not flowered for a number of years.

Ismene calathina or Peruvian Daffodil is the native variety and is listed in many bulb and seed catalogs but there are other varieties or rather Hybrids as well. Cecil Houdyshel, La Verne, California lists 6 named varieties besides calathina. They are all either white or yellow. This grower sends out a very interesting bulb catalog which is worth sending for.

I will be glad to answer any questions if stamped addressed envelope is enclosed with inquiry.

—From Mrs. R. E. Kartack, 115-10th St. Baraboo, Wisconsin.

KEEPING ROSES HEALTHY

Blackspot was severe in many areas the past season. In northeastern United States August was cold and wet, and wet weather favors blackspot. As late as August 10 it looked as if there would be so little of the disease in our experimental spray plants at Ithaca that the results would be of no value. Then the rains came, and by September 1 the check plats were completely defoliated.

The blackspot fungus goes through the winter in two ways. It may live over in the old leaves on the ground, or in the South in leaves attached to the plant; and it may live over in lesions (spots) on the stems—largely on the terminal portions where the growth was soft and succulent late in the season. Fortunately, most of these stem lesions will be removed with the average pruning, and it is well to gather these prunings carefully and burn them. It also helps to remove and destroy as many of the old leaves in the autumn as feasible.

Dormant sprays for blackspot are of questionable value, and there are no reliable experimental data to support the practice of ground spraying.

"No nation in history has ever had so destructive a record with regards to its natural wealth as our own." —*Louis Bromfield.*

WILL COMMERCIAL FERTILIZER KILL EARTH WORMS?

One of our members says he has heard that the acid contained in commercial fertilizers will kill earth worms. He feels that earth worms are so valuable he does not wish to kill them.

There is no evidence that commercial fertilizers applied in the usual amounts will injure earth worms. In the average home garden a great deal of commercial fertilizer is used and they also contain large numbers of earth worms.

Worms are found plentifully in soils containing large amounts of organic matter and which are kept well supplied with moisture. In other words, worms need organic matter and water. They feed upon the organic matter, making it available as plant food. Of course bacteria will also decompose organic matter.

WISCONSIN RANKS HIGH IN PRODUCTION OF VEGETABLES FOR CANNING

In 1945, according to the Crop Reporting Service of the Wisconsin Department of Agriculture, Wisconsin ranked first in the production of sweet corn for processing, with 218,500 tons; first in production of beets for canning, with 61,600 tons; first in green peas for processing, with 168,210 tons; second in cabbage for kraut, with 46,200 tons; second in cucumbers for pickling, with 1,136,000 bushels; second in production of cranberries, with 81,000 barrels; third in production of cabbage with 177,100 tons.

We were seventh in the production of cherries, with 6,000 tons, and 17th in strawberries with almost 3 million quarts.

"Here's a dry-cleaning concern that will store your suit for the summer for $1.50."

"Not interested, my boy. I sunburn very easily."

PLANTS FAVORED FOR DRY SITUATIONS

A new bulletin has been issued by the Canadian Department of Agriculture entitled Herbaceous Perennials for Canadian Gardens.

It lists the following varieties of plants for dry situations: Achillea ptarmica, Alyssum saxatile, Anthemis tinctoria, Arabis, Aschepias tuberosa, Campanula carpatica, Cerastium tomentosum, Chrysanthemum coccineum, Dianthus caesius, Dideltoides, D. plumarius, Echinops ritro, Gaillardia aristata, Geum triflorum, Gypsophila paniculata, Helianthus, Iris-Tall Bearded, Linum perenne, Llchnis chalcedonica, Malvastrum coccinium, Monarda, Oenothera caespitosa, O. missouriensis, Opuntia polycantha, Papaver, Pentstemon grandiflorus, Phlox subulata, Sedum in variety, Sempervivum in variety, and Thymus in variety.

—List from the Morden Experiment Station Weekly News Letter.

THE AFRICAN VIOLET

African violets are not difficult to grow. For best results a temperature of 70 to 72 degrees is desirable. Less than 60 degrees checks both growth and flowering while over 75 may be detrimental. In a dry room pans of water on the radiators and pebble-filled saucers with a constant supply of water beneath the plants help a geat deal.

Light is necessary for healthy growth and blooms but it should not be too strong. The leaves often develop a yellowish color in too much light. Watering should be done carefully and no water should be allowed to touch the leaves. A small amount applied daily to the saucer beneath is best.

Plants which have stopped blooming soon after being brought into the house are often benefited by shifting to a slightly larger pot. Unlike many plants, African violets do not bloom better when potbound.

—From Horticulture Illustrated, March 1, 1947.

TO GROW PETUNIAS FROM SEED

The greatest difficulty gardeners have in growing petunias is sowing the seeds properly. This is most often due to the fact that they sow seeds too deeply in the flat. If you have ever had this trouble, perhaps will be of help to you:

(1) Mix equal parts of a garden loam soil, peat moss and sand, and screen through a 1/4 inch mesh screen.

(2) Cover drainage holes in the flat with moss and follow with an inch of flaky leafmold or moss. Fill in with the screened soil, press down level and sift a layer of fine soil over the surface.

(3) Sow seeds in rows that are marked off 2 to 3 inches apart. Press the seeds firmly into the soil with a tamper or cover with a dusting of fine soil or sand.

(4) Press surface down level and water by placing the flat in a tray or sink until moisture shows on the surface. Do not submerge; about 1 inch of water will suffice.

Petunias may be planted outdoors when the danger of freezing is over. Their diversity of habit, color and form makes them among the most popular of the annuals. Dwarf Petunias can be combined to good advantage with some of the taller varieties when you make your annual bed. A mixture of ruffled giants, and single and double giants, bordered with the spreading, free-flowering dwarfs will give you a bed of breathtaking beauty.

It is also possible to combine Petunias and other annuals for lovely arrangements. Suppose you want a pink and blue color scheme. You can plant Improved Rosy Morn Petunias and border them with blue Ageratum. For a striking pink and white color combination, border either of this year's All-American selections with white sweet Alyssum. And these are but two of the many beautiful arrangements that can be worked out.

—By The Master Gardener.

Wisconsin Horticulture

May 1947

DDT CONTROLS SPITTLE BUG ON STRAWBERRIES

Spittle bug reduced the yield of strawberries in Michigan by 20% or more last year according to reports by Michigan State College workers. Prof. W. F. Pickett, Chief Department of Horticulture at Kansas made a survey of spray results in 1946 and quotes the work in Michigan as follows:

"A fair check on strawberry yields indicated spittle bug reduced the yield in the area by 20% or more this year. This was the first year this pest ever reached economic importance here. A hurry-up application of DDT just after the first blossoms opened (and were frozen) resulted in much better foliage and higher yield than on unsprayed plantings, although the kill was far from 100%. I think an earlier application would be better however. One and one-half pounds of 50% DDT per 100 gal. gave the best increase (25%) in yield. Rotenone was of little or no value on spittle bugs."

WISCONSIN HORTICULTURE

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News For Fruit Growers

SHALL WE BUILD MORE APPLE PROCESSING PLANTS

By Karl S. Reynolds, Sturgeon Bay, Wisconsin

Establishing an apple processing plant requires considerable thought and caution. The supply of apples in Wisconsin is not large, except on the occasional bumper crop years. Last year happened to be a peculiar combination of a big crop and lack of market, and also an excessive amount of small, undersize apples.

Normally, I don't believe there are enough apples available in Wisconsin to warrant establishing any additional plants. You may recall that they attempted to operate a cider pressing plant at Gays Mills, and it was abandoned because of lack of a reliable volume of apples from year to year.

We find here that in order to keep up a reasonable volume of apples for juice purposes, that some years we have to bring apples in at considerable expense from as far as Gays Mils, Kenosha and Bayfield. In 1945 some apples were received by rail from California.

Varieties Of Apples

A further disadvantage in Wisconsin for commercial operations of either a juice plant, freezing plant or canning plant is the lack of suitable processing varieties. The popular standby varieties of other states are almost entirely lacking in Wisconsin. We have practically no appreciable quantity of Northern Spy Ben Davis, Winesap, Rhode Island Greening, etc. Most of our apples are of the semi-soft fall varieties, and not of the hard, winter type. This lack of winter type volume shortens the processing season drastically, and prevents extended operations into the early winter months, such as is possible in Michigan and New York.

Canning

We have not packed frozen, sliced apples ourselves, but understand that the supply of suitable apples for that purpose is very limited in this area. We do know that an effort made to can apples by the hot pack process was quite unsatisfactory, in that the Wisconsin apples did not lend themselves to the solid dry pack that is desired by the commercial pie baking trade.

With the exception of the recent war years, apple processing has been notoriously unprofitable, because there is so much competition from other areas that have advantages not found in Wisconsin. In the Pacific Northwest, for instance, there is a fresh fruit market only for the very best grade, which leaves a great volume of near perfect apples available for the processors. In that area, too, they have the benefit of tremendous volume, and of varieties adaptable to both freezing and canning. Similarly, in Virginia, New York and Michigan, processors have the advantage of ample supply and selection of varieties.

Of course, during the war years, with prices high and demand intense, it was possible to merchandise almost any type of apple or other fruit product.

Our suggestion to anyone contemplating going into the processing of apples or apple by-products is to proceed very cautiously, and on a small scale, if they are going to depend on Wisconsin apples as a source of supply.

JUNE DROP MAY BE INDUCED BY OVER FERTILIZING McINTOSH

In the proceedings of the American Society for Horticultural Science, Dr. R. H. Roberts, University of Wisconsin, reports observations of a heavy June drop in 1945, as follows:

"It was quite apparent that a heavy June drop of McIntosh, which is unusual for this variety, was induced in a number of orchards by the use of too much ammonium nitrate. Trees with "blue-green" foliage had a light drop. The following figures were secured in the University orchard where dense trees (unpruned or lightly pruned) with cultivation had a too green color in comparison to light green trees under sod culture and with open pruning. The data are numbers of drop apples on the ground for each 100 on the tree above the area counted; yellow-green, 13.0; green, 32.5; blue-green, 116.1 The tree populations were secured by counting the number seen through a hollow 6-inch square held at arm's length."

If growers note a heavy June drop in McIntosh, it might be well to observe the color of the leaves and, if in doubt as to whether it is caused by over fertilizing, study the leaf color in cooperation with Dr. Roberts.

Summary Of Experiments On Fruit Set

At the close of this article entitled, "Notes on Apple Set and Growth, 1945", Dr. Roberts summarizes results as follows:

"Golden Delicious set with pollen of Cortland, Jonathan, McIntosh, Northwestern Greening, Starking and Wealthy.

"Delicious blossoms have a structure permitting honeybees to extract nectar without pollinating the blossoms in a large percentage of visits,

"Varieties vary greatly in the initial setting of blossoms.

"The numbers of developing ovules in "drop" fruits and mature seeds for each fruit at harvest time were very low in some orchards in 1945. "Seedless" fruits were very common.

"Too much ammonium nitrate induced a June-drop of McIntosh. This drop was correlated with a too green color of the foliage.

"Fruit shape was related to number of seeds in each fruit. Apples with few seeds were flatter.

"Individual fruits continue to enlarge until the time they dropped or were harvested."

WARNING ON USE OF HEXAETHYL TETRAPHOSPHATE

There is much interest in the use of Hexaethyl Tetraphosphate (Bladan). It is being highly advertised by chemical companies for control of red mite and has given excellent control of vegetable insects.

The Department of Economic Entomology, University of Wisconsin, does not yet recommend this material for use in Wisconsin orchards because it has not been tested. However, it will no doubt be used by some growers experimentally.

Dr. C. L. Fluke sends up a copy of a warning from the U. S. Dept. of Agriculture, Bureau of Entomology stating it must be used with great caution. It says "preliminary findings demand that human beings not be exposed to hexaethyl tetraphosphate either by ingestion, skin contact or inhalation. Glove carefully with soap and water impervious to it should be worn and if skin is contaminated, wash mediately. Avoid inhaling it. Anyone developing symptoms of headache or tightness of the chest when using it should be removed from exposure."

AN EARLIER HIGH QUALITY APPLE WANTED IN CANADA

There are no Canadian apples of high quality available in July and early August. Fruit breeders are crossing Crimson Beauty and Melba to isolate in a select seedling a combination of the earliness of the former and the high quality of the latter. Already two selections of promise are under extended retest.

Extensive tree building trials reveal that of 60 varieties being evaluated as hardy stem builders, four are outstanding. These are Hibernal, Virginia crab, Antonovka and Robusta No. 5. Columbia and Bedford are more adapted to local climates for the prairie plantation.

BLOSSOM THINNING

After three years spraying of blossoms with the chemical Elgetol at Ottawa to effect thinning of blossoms, results have been too inconsistent and hazardous to merit commercial use. Other chemicals have been tried but blossom thinning with chemicals is still very much in the experimental phase, and until a great deal more information is available no recommendations can be made.

—From Weekly Notes, Dominion Experimental Station, Morden, Manitoba.

HIBERNAL A GOOD UNDERSTOCK FOR TOP WORKING

Prof. J. D. Winter, Minnesota Horticulture Department, says: "There is much evidence that Hibernal makes the best and most dependable understock in this region for topworking. It appears to be compatible with practically all varieties in Minnesota for which top working is desirable, and the trunk is very resistant to injury from sunscald."

Prof. Winter quotes the late Dr. T. J. Maney of the Iowa Horticulture Department as saying: "I have never felt that Virginia Crab was good stock for Golden Delicious."

THE TREND IN APPLE TREE POPULATIONS

Tree Population Going Down

Does 201 million, 151 million, 115 million, 103 million, 89 million, 82 million, and 58 million mean anything to apple growers? Growers of apples, handlers of the fruit and the consuming public should all be interested in the above figures because they are the approximate numbers of bearing apple trees in the nation in 1900, 1910, 1920, 1925, 1930, 1935 and 1940. Few can appreciate a bearing tree population of 201,791,847, the population in 1900. If these trees had been equally distributed over the land area of the United States there would have been a tree for each 9.46 acres and for each person in the country there would have been 2.66 trees.

Comparable data for other census years are: 1910, 12.62 acres, 1.64 trees; 1920, 16.56 acres, 1.09 trees; 1930, 21.50 acres, 0.72 trees and 1940, 32.85 acres, 0.44 trees. The trees, however, were not equally distributed, some states had far greater numbers than others, and certain counties in most states had far greater numbers than other counties. This situation exists today and it may become even more pronounced as the industry becomes more commercialized than it is at present.

—By R. L. McMunn, University of Illinois in Horticultural News, Missouri Horticultural Society, March, 1947.

* *All data on tree numbers are from the Census Reports of the United States Department of Commerce.*

ORCHARD FOR SALE

In the Orchard

APPLE AND PEAR COSTS IN MICHIGAN

By K. T. Wright and Walter Toenjes, 1946 Review of Mich. Agr. Exp. Sta. Circ. Bul. 202.

The cost figures reported in this bulletin were secured in a survey conducted in 1943 in southern Michigan.

APPLE

Records were secured on 61 orchards with an average of 31 acres of bearing trees per farm with a range of from 2 to 225 acres. Interesting figures are presented on various items of cost.

In summarizing the observations the authors conclude that apple producers who expect to meet competition and still make money must: (1) locate orchards on sites with good air and water drainage, (2) select productive soil and maintain fertility, (3) plant productive varieties which sell well, (4) follow best management practices to secure yields of at least 200 bushels per acre, (5) give special attention to high quality, (6) follow good harvesting, handling and marketing methods, and (7) operate at as low cost per acre as can be done without lowering the yield or quality of apples.

Pear

This portion of the bulletin reports a survey of 45 pear orchards ranging from 1 to 50 acres and having an average of 15 acres. The costs per bushel were unusually high because the average yield was only 45 bushels per acre. It is evident that pear growers must do everything they can to increase their average yields and to lower costs of production if they are to stay in business. W. P. Judkins.

—From Fruit Varieties, The American Pomological Society.

NEW BULLETIN ON YOUNG FARM ORCHARDS IN WISCONSIN AVAILABLE

A new stencil circular No. 242 entitled "Young Farm Orchards in Wisconsin," written by Conrad L. Kuehner has just been released and may be obtained by writing the mailing room, Wisconsin College of Agriculture, Madison, Wisconsin.

It is a bulletin which every amateur fruit grower will wish to read. It discusses planting plans, a variety list, planting the orchard, handling trees, how to prune young trees, fertilizers etc.

BARTLETT PEAR PRUNING

W. A. Luce has explained in **Better Fruit** that Bartlett pears are produced on one-year spurs or shoots varying from a fraction of an inch long to well over a foot in length. Fruits produced on the very long shoots are rarely of good quality and can be eliminated in the pruning by tipping these long one-year shoots.

A bearing Bartlett should be so pruned as to keep a proper balance between fruit and new wood production. Heavy pruning produces an excess of vegetative growth, large fruit and moderate production. A very light thinning out type of pruning produces a maximum of fruit generally of medium to small size, with the possible chance of encouraging off-year bearing.

If an abundance of heavy sucker growth must be removed from the upper branches of a Barlett tree each pruning season, one of two things must be wrong. The trees may be too close, thus forcing the twig growth into the upper part of the tree, or, the trees have been cut back too severely without a proper thinning out of small or large wood.

A compromise between an extreme heading back system that stimulates heavy vegetative growth and an extreme long system which in turn encourages over-production of small fruits is desirable. Pruning in the Bartlett or any other fruit tree should not be a substitute for fertilizer or other soil management practice to produce tree vigor.

—From Horticulture Illustrated, February 15, 1947

DO NOT USE 2,4-D IN THE ORCHARD OR PLANT SPRAYER

The New Jersery Horticultural Society News states a single application of 2,4-D spray, used to kill poison ivy under apple trees, resulted in injury to apple trees.

While the sprayer was thoroughly washed with water after the 2,-4-D had been used, the conclusion was the chemical cannot be removed from sprayers by washing with water. Spraying was done in 1945, but injury was not severe until 1946, when many of the fruits were small, leaves on fruiting spurs dwarfed and deformed.

Great caution should also be used not to allow the wind drift from a weed killer spray to reach valuable trees or plants.

EFFECTS OF AIRPLANE DUSTING MAY NOT ALWAYS BE GOOD

Last year in New Jersey peach growers began to complain that a new blight had hit their orchard. Extension service orchardists investigated and found airplane dusting of nearby tomato and other fields was the cause.

Damage was due to calcium arsenate and copper dust that had drifted into the orchards, both being harmful to peaches.

Then peach growers started airplane dusting with sulphur to control brown rot. Some of the sulphur drifted into apple orchards. The trees were sprayed with summer oil to control red mite and the sulphur oil combination burned the leaves and fruit.

Livestock poisoning has been reported when arsenic dust settled in pastures. Fish were killed in streams from airplane dusting with DDT and rotenone.

Housewives have complained when furniture and dishes were coated with insecticides from airplane dusting.

Some folks are beginning to wonder who will pay the damages — the pilot or the farmer who hired him, and already law suits are being started.

HONEYBEES HELP CRANBERRY GROWERS

Wisconsin Experiments Indicate Greatly Increased Yield of Cranberries From Pollination By Large Numbers of Bees

Cranberry yields may be substantially limited by lack of insects to effect pollination and exclusion of insect visitors will reduce yields almost to the vanishing point. Honeybees will work the blossoms in a manner which will effect pollination and yields may be increased substantially if adequate numbers of bees are provided and they work the blossoms.

These are conclusions reached by Dr. C. L. Farrar of the Central States Bee Laboratory and Henry Bain of the Badger Cranberry Company in tests conducted on cranberry marshes in 1945. The work was reported in the December, 1946 issue of The American Bee Journal.

Yields Increased

Where an area of cranberries was covered with a cage and bees placed within the cage, the plot yielded at 171 barrels per acre. In a similar area not caged, but open to wild bees as well as honeybees, the yield was 124 barrels per acre. The average for the entire 2½ acre section of this marsh was 90 barrels per acre.

In an area which was caged to exclude all insects, the yield was only 10 barrels per acre.

The following are some of the statements made by Dr. Farrar and Mr. Bain in their article:

Normal Yield

"The normal yield for Wisconsin marshes is 40 to 45 barrels per acre. The fact that yields between 100 and 150 barrels have been obtained and that much larger yields are theoretically possible provide the stimulus for investigating factors effecting cranberry pollination.

"'The bees worked the blossoms principally for nectar, since the cranberry blossom produces comparatively little pollen. No bees were seen carrying loads of pollen into the hives. They usually alighted on the sexual column of the flower (the pistil surrounded by the cluster of anther tubes) and crawled over it in a manner that allowed the branched hairs on their bodies to pick up pollen grains from the open ends of the anther tubes and brush pollen onto the adjacent stigma. The bees soon probed between the anther tubes and the pistil to reach nectar at the base of the flower. Had they alighted on the petals and probed for nectar from that position, direct pollination could not have been accomplished.

Large Numbers Required

"There is reason to believe that in some seasons or localities other plants which secrete nectar more abundantly, especially the clovers and basswood, may compete for the work of honeybees, thus drawing them away from the cranberry marshes. This may necessitate saturating the areas with honeybees by providing more colonies so that sufficient numbers of bees can be forced to visit the cranberry blossoms.

"Certain other assumptions are worthy of consideration. Under good cranberry culture there may be from 13 to 40 million blossoms per acre. A full-strength colony of 50,000 bees could provide under favorable weather conditions, 500 million bee visits to flowers during a three week blossoming period. Under favorable conditions one strong colony would seem to suffice for 1 to 2 acres; under unfavorable conditions five to ten such colonies per acre might be needed. However, many so-called colonies of bees are capable of providing not more than one-sixth the number of field bees available from a full-strength colony.

"Until many questions pertaining to cranberry pollination can be answered, the grower should use as many colonies of bees as possible to provide for pollination under the most unfavorable conditions. The colonies should be built up to maximum strength before blossoming time. This requires productive queens, abundant stores of honey and pollen, and hive space properly organized for rapid colony development and swarm prevention. USDA Circular 702, 'Productive Management of Honeybee Colonies in the Northern States,' will prove helpful in the management of strong colonies."

BEES AND THE SPRAY PROGRAM

THE PROBLEM OF BEES in the spray program was the subject of a conference held in Ithaca, New York by fruit growers, beekeepers, and College and Experiment Station specialists.

Both fruit growers and beekeepers want a spray program that will not harm bees to any practical extent. Both specialists and bee-men pointed out the serious loss of bees that occurs when lead arsenate is used before bloom. The lead arsenate gets on dandelions and other flowers, and is carried into the hives by bees, causing the death of the bees in the colony.

Ray Gutekunst of Pavilion reports placing his bees in an orchard where the grower had used lead arsenate in the pink spray. When the trees were in full bloom, Ray checked his hives, and found his bees had been poisoned by the lead arsenate. The grower had paid for the bees, but his spray had killed them before they had a chance to do their work.

—From The American Fruit Grower, Feb. 1947.

What a world- Everybody asks how you are feeling and then acts bored when you begin to tell.

"By Jove," said a stranger at a dance, "what a long and lanky girl that is over there!"

"Hush!" his host whispered. "She used to be long and lanky—but nowadays she's tall and stately. She's just inherited $100,000."

RED MITE SHOWING UP IN WISCONSIN AGAIN

In a report on April 22, Mr. Arno Meyer, Waldo, fruit grower, writes, "Red mite is showing up in large numbers in our orchard. We are getting lined up for a dormant spray."

As reported previously red mite was quite serious in some orchards especially along the shore of Lake Michigan in 1946. At some of the county fruit growers meetings in March, growers brought in pieces of bark from apple trees nearly covered with tiny red eggs. A dormant spray of 3 gal. of oil per 100 gal. of water has been recommended by our Department of Economic Entomology.

In this connection it is interesting to read a report by Prof. T. C. Stebbins, District Horticultural Agent of Michigan State College as reported in a survey conducted by the Kansas Department of Horticulture.

"Red mites were the worst I ever saw in apple orchards that did not receive a dormant oil spray. Some of this was expected because of a high egg deposit a year ago. Then the season was hot and dry, very favorable for them. DDT was of no value against them. In fact, as was expected by experts, it seemed to favor them by destroying some of their parasites. DN111 (1¼# per 100 gal.) gave satisfactory control of the mites but had to *be applied three or four times instead of the usual two.* Flavan (Du Pont's blend with DDT) was applied along side of DN111 and DDT in a Delicious block where red mites were heavy. The results on red mite were as good or better than with DN111. The absence of codling moth by that time (July 19-30) in that orchard prevented any comparisons between the DDT in the Flavan and that used with DN111.

"DN111 (1¼# per gal.) used here for the first time on pear psylla gave better results than summer oil (3 qts.) and nicotine sulphate (¾ pt. per 100 gal.)."

"All very interesting," said Miss Gregory to the motor car salesman, "and now show me the depreciation, will you. I hear it is heavy on these cars."

"To tell the truth, lady," replied the super salesman, "we found it a constant source of worry and had it removed altogether."

The prospect for the used car was cautious. "Say," he exclaimed during the process of a demonstration, "what makes the car jerk so when you put it in gear?"

The ambitious salesman had his answer ready. Said he, "Ah, that proves it's a real car. It's anxious to start!"

The reason a dog has so many friends is that he wags his tail instead of his tongue.

RASPBERRIES COME THROUGH WINTER WITHOUT MUCH INJURY

Reports from raspberry growers in various parts of Wisconsin indicate canes came through the winter exceptionally well this year. There are interesting theories as to why raspberries winter kill some years and not in others. Some growers were worried that the warm spell in late January followed by cold in early February might injure the canes.

Temperature records, as given by U. S. Weather Bureau show there was an extensive period of thawing the last week in January, followed by zero weather immediately afterwards.

Here are some maximum and minimum temperature records: Madison, January 24, 55°F.; January 23 to 27 ranged from 44 to 46°F; February 2, -7°F. Ashland, January 19, 48°F.; February 14, -13°F. Milwaukee, January 24, 49° F.; February 4, -8°F. Eau Claire, January 19, 50°F.; February 5, -9°F. Oshkosh, January 24, 48°F.; February 4, -11°F.

In their reports some growers commented that due to draught last summer, canes did not grow too well.

Effect Of Early Fall Freezing

Discussing the matter with Prof. J. G. Moore, he was of the opinion that some years injury may result from early periods of unusual cold taking place before the plants are fully dormant. This would be somewhat similar to the case of strawberries. We now know if strawberries are not covered *before the first cold snap,* during which temperatures may drop to 15°F. or 20°F. and freezing the ground, roots and crowns are likely to be injured. If raspberries continue to grow late in the fall and such a cold snap takes place it is entirely possible injury may result. Late fall injury may be more apt to occur on vigorously growing canes, those on heavy fertile soil where there is a tendency to grow late in the season. Many growers have observed raspberries do not winter kill as badly on sandy soils as on very fertile heavy soils.

WINTER INJURY TO STRAWBERRIES

Benefits from winter mulching strawberries are often overlooked as it is only rarely that the plants are completely killed. However, there may be partial injury practically every winter, either to the crown or roots, when mulch is not applied. This partial injury means a decrease in production and plant growth.

In Horticultural News, New Jersey Horticultural Society, January, 1947.

According to latest information, everything in the post-war house will be controlled by switches—except the children.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS ASSOCIATION

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Walter Diehnelt, Menomonee Falls, President
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THE QUESTION BOX

The questions listed below were asked by beekeepers at various district and county meetings this year.

We asked Dr. C. L. Farrar of the Central States Bee Laboratory, Madison, to give his answer to the questions.

QUESTION: Will cotton seed meal or wheat shorts stimulate brood rearing if fed in the spring?

ANSWER: No. Experimental tests show them to be of no value. Bees will collect them, but are unable to use them for brood rearing. This is probably true of all ground feeds. The expeller process soybean flour has proved to be the most satisfactory and the best to feed.

QUESTION: I fed some colonies dry sugar on the bottom boards but they still died of starvation. Why?

ANSWER: Colonies were probably weak and temperatures too low to liquefy the sugar and move it into the brood nest.

QUESTION: Will the feeding of sulfa stimulate queens to lay more eggs?

ANSWER: Probably not. No one has made any brood measurements on colonies fed with sulfa.

QUESTION: Is it better to feed soybean flour in cakes on top of the brood nest than as dry flour out in the open? Why?

ANSWER: In early spring it must be fed in cake form if it is to be available for brood rearing under all weather conditions. The evidence is not very conclusive as to whether there is much benefit when soybean flour is fed dry. When the weather is suitable for bees to gather the dry flour, they are usually able to obtain pollen.

QUESTION: Why is it that sometimes a colony which is strong early, as in April does not produce as much honey as one not quite so strong?

ANSWER: Either because of swarm preparations, or because the queen wears out. Where good queens are maintained, these crops if manipulated to prevent strong colonies will yield the largest swarming. If the honey flow develops late, it is good practice to divide such colonies in May and reunite them at the beginning of the honey flow.

QUESTION: If colonies are allowed to requeen from cells built for swarming, will we develop a strain of swarming bees?

ANSWER: Bees differ in their tendency to swarm, but most swarming results from failure to provide ample room for upward expansion of the brood nest and honey storage. Queens reared in colonies which swarm from improper management will not necessarily perpetuate the swarming tendency.

Properly managed colonies which swarm should not be allowed to requeen themselves as it is likely to increase the swarming tendency.

"You look all in today, Bill. Are you ill?"

"No, replied Bill, "I didn't get home until dawn this morning and just as I was undressing, my wife woke up and said, 'Aren't you getting up pretty early, Bill?' So in order to avoid an argument, I put on my clothes and came to work."

APIARY WORK IN MAY AND JUNE

Dr. C. L. Farrar remarked recently that in two years out of five, they found it necessary to feed a pollen substitute during May and June to package bees.

Many of us have had the notion that just because the bees can fly and there are flowers, enough pollen can be secured to support maximum brood rearing. We are so dependent upon the weather that to get the best results, we must watch our colonies carefully. When they need food it must be given.

Since we do not know what the weather is going to be, we must be prepared. Colonies may even run short of honey before the clover flow comes. Many beekeepers found it necessary to feed as late as early June during the past two years.

Feed Dry Sugar

Dr. Farrar suggests that for late May and June feeding we may pour dry sugar on the bottom board. In this case, however, the bottom board must be completely closed or the bees may carry the sugar out. Have an auger hole entrance in each brood chamber; close the bottom board, pour dry sugar into it, and we have a quick way of feeding.

Granulated Honey In Combs

Granulated honey will be liquefied and used by the bees if placed below the brood. Place such combs in a brood chamber on the bottom board. It works in much the same way as feeding dry sugar on the bottom board. As one beekeeper remarked, "Bees sometimes do queer things."

WISCONSIN LEADS AGAIN LAW TO PAY $3.00 INDEMNITY FOR COLONIES DESTROYED BY INSPECTORS PASSES UNANIMOUSLY

Wisconsin leads again by passing a law to pay indemnity of $3.00 for each colony destroyed by inspectors due to disease. It passed both houses of the legislature unanimously, was signed by the Governor early in April.

The reason it passed so easily was because beekeepers themselves are providing the money through the tax of 10 cents per colony. Indemnity payments can be taken only from this fund. It is now up to all of us to see that our taxes are paid and that they reach the State Treasurer. Fifty percent of the tax money taken in remains in local treasury, only half going to the State Treasury.

NO TAXES, NO PAYMENTS

The law further provides if a beekeeper has not paid his taxes, he cannot receive the payments.

This law will not only compensate beekeepers for a part of their loss but will help inspectors more easily find bees in a locality. Many small beekeepers do not tell inspectors where their bees are, because they are afraid of losing them. Now that they are to be paid at least something for their loss, they will be more willing to cooperate.

So Wisconsin scores again. The ball was first set rolling by Mr. Charles Roy of Sparta who agitated the question, "why can't we receive indemnity?"

The plan of paying indemnity out of the tax receipts, making it virtually an insurance plan, was then proposed by Mr. H. J. Rahmlow. The idea caught on. The ball was carried by Mr. John Long our deputy inspector, who had the law written up largely in its present form. Favorable action at all committee hearings was obtained with the able assistance of Mr. Walter Diehnelt, our State President, and Mr. Robt. Knutson, District President, being backed by Senator O. Rice of Delavan, Chairman of the Legislature is Agricultural Committee and Senator Chester Dempsey of Waukesha.

NOSEMA WAS SERIOUS PROBLEM THIS SPRING

Nosema has caused serious losses this spring. We have seen package bees in which supersedure was 100%. Examination of the bees showed they were heavily infected with Nosema spores and about 80 % of the queens infected. A few queens were not infected. Why they died, we still do not know. Queens died during 2 or 3 weeks after installation.

During the cold weather of late March and April, colonies appearing good previously began to lose bees and dwindle—no doubt due to Nosema. When the bees are confined by cold rainy weather, Nosema seems to spread rapidly.

The Central States Bee Laboratory at Madison is working intently on this problem. If you wish some of your bees or queens examined send samples to either John Long, State Capitol, Madison or Central States Bee Laboratory, University of Wisconsin, Madison.

So far the only way to overcome Nosema is to build strong colonies for fall, and so they will have pollen for winter brood rearing. If they come out in spring with large populations of young bees, have opportunity for winter flight and can lose infected bees, they will come through unless too heavily infected.

HONEY BEES AND SPRAY POISONING

Honey bees may be killed by two sprays in the orchard. First, if arsenate of lead is used in the pink spray, and some trees are in blossom, or some blossoms are open on a number of trees.

Second, when arsenate of lead is used in the calyx spray, which is the important codling moth spray, there may be poisoning in an orchard with dandelions in bloom at that time.

It will probably be less expensive to move bees away from the orchard than to mow the dandelions.

MUCH QUEEN SUPERSEDURE IN PACKAGE BEES

The cold, rainy weather in southern states where package bees are produced is reflected in queen supersedure. Early in April we had reports from beekeepers that more than 10% of their queens were superseded within a week after introduction. They laid some eggs, then died and queen cells were produced.

On examining many of these queens Nosema spores in large numbers were found by Dr. C. L. Farrar, Central States Bee Laboratory, Madison.

It is well to have a supply of surplus queens on hand, especially in nuclei so that when a package is superseded, a new queen can immediately be given, preferably one which has become established and is laying in a nucleus. While this entails some labor and expense, it may pay big dividends if we have a good honey flow this summer.

PRESERVATIVE FOR BEE HIVES AND BOTTOM BOARDS

A former Wisconsin beekeeper, Mr. Ralph A. Raschic, of 2612 No. 37th Street, Milwaukee 10, is now working for the Dri-Seal Products Company of Milwaukee. They manufacture several types of wood preservatives. These penetrate the wood and protect them from rot and leave no odor. There is good evidence that the product may be very valuable for protecting bottom boards and other parts of bee equipment which is exposed to the weather.

THE SWARMING SEASON IS HERE

We Need A Swarm Control Method That Saves Labor and Builds A Strong Colony For The Honey Flow.

A swarm in May may be worth a load of hay, but a colony that has not lost a swarm may be worth two loads of hay.

If a colony swarms in May is it an indication of a very strong colony? Not entirely so. It may simply mean a crowded brood nest and swarming could have been eliminated by adding more brood chambers and reversing them in the right way and at the right time.

Up until now we have been reversing brood chambers so as to give the queen room to expand in an upward direction. When the top brood chamber was filled with young brood, larva and eggs, pollen and honey, it was placed on the bottom board. By early May there should be at least two brood chambers full of brood so a third, empty or partially so, is on top. The queen can then move upward which she will readily do if the combs are attractive to her; that is, dark brood combs.

When the top brood chamber is again filled, it is reversed with the bottom one, around the middle. The principle is simple. The most crowded brood chamber, the one containing the youngest brood, is placed below and the one with the most room is placed on top. If the colony is as large as it should be it will take three standard brood chambers to take care of them.

When honey begins to come in from any source, whether dandelions, fruit bloom or clover, additional supers must be put above so brood chambers will never become crowded.

There May Still Be Swarming

But in spite of reversing brood chambers some colonies may still build queen cells. There are several ways of meeting this situation, but we think that Dr. C. L. Farrar has given the best method in his bulletin No. 702. He recommends dividing the colony.

Colonies May Be Divided

"The brood chamber, containing most of the young brood and the queen, should be set on the bottom board and a set of empty combs added directly above. The inner cover, with the escape hole screened, is placed over these, and the chamber containing sealed and emerging brood with adhering bees is set on top. The top chamber must be provided with an entrance and both units supplied with honey. The queenless unit may be allowed to raise a queen if mature queen cells are available (supersedure or swarm cells or those obtained by grafting), or, better, a laying queen can be introduced immediately. The old queen will not restrict her egg production as under the Demaree plan, because she will have the support of more bees, and the introduction of a young queen to the top unit will greatly increase the brood production. The top colony may even require comb space for expansion.

"At the beginning of the honey flow the brood nests of the double colony can be united back to the normal colony arrangement, when the young queen in the upper chamber will usually replace the old queen. This type of division, accompanied by requeening, not only prevents swarming but also increases the population for the honey flow. In localities providing a long flow the divided colonies may be operated under the two-queen system of management instead of being united at the beginning of the flow. The two-queen colonies maintain larger populations and therefore yield larger honey crops."

COMMENT ON BEEKEEPING EXPERIENCES THIS SPRING

By G. M. Ranum, Mount Horeb

Spring weather conditions have been very unfavorable for bee work. We were able to do some feeding early wherever needed. However, it is quite evident that sugar alone will not induce much brood rearing when pollen is lacking. Some colonies which were fed sugar syrup have less brood now (April 12) than they had a month ago. Even colonies where there was plenty of honey and pollen have less brood than when first examined, the latter part of February.

There was heavy brood rearing early in the winter, then a let-up for a while, and the bees clustered on the middle combs, remaining there even after warm weather came instead of spreading out to the sides where there were full combs of both honey and pollen.

It is interesting to note that our best producing colonies with a little surplus last season, had their brood bodies well filled for winter, and are now not in need of feed, but with another year like last year, where will we get any honey for market?

WISCONSIN RANKS FOURTH IN HONEY PRODUCTION IN 1945

According to a statement prepared by the Wisconsin Crop Reporting Service of our State Department of Agriculture, Wisconsin ranked fourth among States in honey production in 1945 with a total production of 14,140,000 lbs.

Production among the states varies from year to year due to weather conditions, which effects the nectar flow.

WINDBREAK FOR BEE YARDS

A request came in March from R. H. Beardsley of Baraboo for information on planting a natural windbreak on the north and west sides of his apiary. The soil is of fairly heavy type.

We referred the request to the Forestry Department of the College of Agriculture and this letter was sent to Mr. Beardsley by Richard W. Abbott, Ass't Extension Forester.

"For the type of soil which you describe, a rather heavy, well drained one, I would suggest you plant Norway spruce. This should give you a rather dense and fairly quick growing tree which should soon protect the yard of bees. A word of caution, however, is in order inasmuch as there will be a tendency for snow to pile up on the leeward side of the windbreak."

To Get Sugar Quickly

Mr. James Gwin, Chief Division of Bees and Honey, State Capitol, Madison, informs us that his department has agreed to help beekeepers get sugar quickly by checking and approving their applications to the Sugar Ration Board.

Application blanks may be obtained from the Sugar Ration Division or directly from Mr. Gwin's office. Fill out a blank and send it to him. He will check the number of colonies, which the Ration Board has asked them to do, and if found to be correct, will approve the request, send it to the Ration Board, and you will get your stamps much more quickly than otherwise.

Sometimes weather conditions prevent bees from getting honey in late May and early June, and feeding sugar may save colonies.

GLEANINGS ABOUT BEEKEEPING

Two beekeepers were talking in January as beekeepers will about the problems of the industry. Said one, "Seems to me beekeeping is not progressing as fast in better methods as other lines of farming. Look at the labor saving machinery on the market to help the dairymen, the poultrymen and the grain grower." The other man agreed. In fact he added this opinion, "I think the farm magazines are ahead of beekeeping magazines in that they publish more information to help farmers become modern and up-to-date. "Where," said he, "could you find an article in a farm paper written by a farmer that is behind times telling how he still feeds dairy cows with corn stover and winters them just on hay?"

Do you think the Bee Journals do that?" Asked the other beekeeper.

"Yes, think they do," was the reply. "Pick up a Bee Journal and you may find an article on, the 8-frame hive is the best. Or describing a complicated, laborious method of swarm control or a plan of arranging colonies in a yard which takes no account of saving labor by being able to drive a trailer or truck behind each colony. Or methods of packing for winter in not too cold climates that are both expensive in labor and material. "And that isn't the worst of it," he mused, somewhat sadly we thought, "we have experiment stations and bee culture laboratories that have discovered some valuble facts, but not nearly enough beekeepers pay attention to them. Perhaps one reason is Bee Journals publish articles from beekeepers who are not up-to-date just because they are interesting and consequently the better methods are overlooked."

At this point we walked silently away. We have had thoughts along the same line, and wondered what could be done about it.

Editorials

MINNESOTA FRUIT GROWERS ADOPT NEW PLAN OF FRUIT EXHIBIT AT STATE FAIR

The Board of Directors of the Minnesota Fruit Growers Association at a meeting held in connection with the annual Horticultural Short Course at University Farm, St. Paul, voted unanimously to recommend to State Fair authorities a new plan for exhibiting fruits be adopted.

H. J. Rahmlow, Secretary of the Wisconsin Horticultural Society in his talk to fruit growers outlined the type of exhibit adopted at the Wisconsin State Fair for 1946. Thereupon, Minnesota growers went into special session. After discussing the plans thoroughly with Mr. Rahmlow they decided to adopt a similar plan. A floor plan of the Wisconsin exhibit of last year was given to Mr. Hunt, Secretary of the Minnesota Horticultural Society who is superintendent of horticultural exhibits at the Minnesota fair.

Minnesota fruit growers were interested in finding a new plan which would more clearly show the people of the state the extent of their industry. Something new, they said, was necessary to keep abreast of the times.

LET'S REWARD OUR SPEAKERS

Heard at a recent meeting; "About all the compensation a speaker gets for the efforts of preparing a talk and giving it is a little appreciation and applause."

Then why be niggardly with our applause. Let's reward our speakers with this much at least. At a recent large meeting of women not a single speaker was applauded. Later one of the ladies said she wished

someone would have led the applause because she knew everyone felt like applauding but no one started it. The result was a rather depressing atmosphere.

In this case, the presiding officer should take the lead. How easy to say, "Thank you, Mr. Speaker for a nice talk. Now let's all give him a good hand." That breaks the ice and everyone is happy.

APPLE PIE CONTINUES POPULAR

"If you were given the choice of the following four pies, which would you prefer—blueberry, apple, apricot or peach?"

This question was asked in the city of New York of a large number of passengers in subways, street cars and elevated lines, as well as of pedestrians.

It was found that 40% of the men, and 50% of the women preferred apple pie. Second choice was blueberry, third, peach pie.

A famous restraurant owner has stated that restraurants can make money by cutting their ham slices thinner, but should never attempt to do so by cutting apple pie into small pieces. His opinion was that a favorable impression of the restaurants is always left in the mind of the patron if at the end of a meal he gets a nice large piece of apple pie.

That's good advice, but it isn't always being observed right now. We have seen some mighty sad looking apple pie in restaurants, and didn't carry away a very pleasant feeling towards the place after paying 15 cents for what we considered a half piece.

PEONY SOCIETY TO MEET

The American Peony Society has announced it will hold its annual meeting and peony exhibit at Horticultural Hall, Boston, Mass., June 17 and 18. The exhibit will be held in conjunction with the Massachusetts Horticultural Society's annual show.

STRAWBERRIES IN THE ARCTIC

Garden strawberries can successfully withstand the winters of Siberia and the Far North according to experiments of Russian scientists north of the Arctic Circle. The berries survive when covered by straw and a snow blanket.

Experiments have also been made with creeping varieties of apples, pears, and plums which hug the ground and can be covered with straw and fir branches.

—From American Fruit Grower, Feb., 1947.

Two naughty little boys were kept after school and ordered to write their names 500 times.

"Tain't fair," one of them protested, "his name is Lee and mine's Schnickelfritzer."

Sign in Santa Monica store: "Old furniture we buy—Antiques we sell."

Garden Gleanings

Use the water obtained from defrosting your refrigerator for plants or automobile battery. This suggestion was heard at the Minnesota Horticultural Short Course.

Also heard there is evidence of injury to house plants from using water which has been softened. In such cases the refrigerator water would be excellent as it is really distilled water.

Then too, for adding water to batteries we find some Filling Stations are using ordinary city water which may be detrimental.

It's surprising the ingenuity of some people in planning a project to make money. The earthworm egg selling business is one and we understand some engaged in it have made a great deal of money.

Blueberries Not Hardy. Also heard at Minnesota Horticultural Short Course, by Dr. Brierly: In laboratory tests, it was found that low bush blueberries killed at a temperature of -12°F and highbush blueberries killed at a temperature of 3°F.

While outdoor conditions would be somewhat different as there is considerable protection from the soil, and from covering, it nevertheless indicates blueberries are not hardy in Wisconsin unless protected.

RABBITS

How can we keep rabbits out of our garden?

Answer: This is a perennial question. One garden authority, discussing rabbit repellents in a garden magazine told his experience with tobacco dust which would keep the rabbits away until it rained in the evening. By morning the crops were again eaten so he came to the conclusion not to plant the kind of vegetables rabbits will eat.

At least that gives information about the success of repellents and it brings back our recommendation that the only real protection for our gardens and trees is to eliminate rabbits.

The other protection, of course, is an animal proof fence.

QUESTION: Will bulbs grow if planted upside down?

ANSWER: It's always a source of amusement at meetings when the speaker tells about a gardener who was very careful in planting tulips but they failed to come up and on digging up the bulbs found they were planted upside down.

In our last issue we told about commercial tulip planting methods in Michigan. The bulbs are planted with a redesigned potato planter and they are rolled into a furrow upside down or any other way. Growers say they can tell no difference in growth. Perhaps you'd like to experiment this spring and plant some gladiolus bulbs upside down. It may work better with small bulbs than with large ones.

Some Tips For The Lawn

Don't mow lawn grass too short, and *keep it well watered.* If we leave a two-inch growth of grass and do not let it get too tall, then we need not remove the lawn clippings. Most lawns are rather low in organic matter; clippings will form a mulch and be beneficial. Precaution: if the grass gets too long and there are frequent rains, we may have to remove the clippings to avoid injury.

A Garden Hose Reel

For many years we have had a portable garden hose reel. It has two wheels, a frame to hold the reel and a crank. When through with the hose we just wind it up on the reel. On the market now is a wall type reel. It is fastened to a convenient wall with screws, and should appeal to gardeners.

AWNING PRESERVATIVE

Awnings do not last too long, and are high in price. We are now told of a preservative which will penetrate the fibers and double the life of an awning and other materials. It is also made for preserving wood, such as posts, for greenhouse flats and cold frames. It is made by Dri-seal Products Co., Milwaukee, Wisconsin.

EXPERIMENTS. It is popular to carry on "experiments" nowadays. The only trouble with the average producer or grower carrying on experiments is far too often the experiments prove what they have set out to prove, and frequently there are no "checks." That certainly was the case with the "earthworm experiment" in which great increases in plant growth were reported when earthworms were added, to the soil often at high prices. We were therefore glad to note a national garden magazine which in the past had been given to report spectacular "experiments" by those interested in proving their own wishes, now has an article stating in regard to earthworms that U. S. D. A. scientists report, "It's a fact that many large areas of high-yielding crop lands of the world never have any earthworms in them. They only live in soil already rich in humus. Earthworm activities seem to make the soil more porous and better for plant growth, but so far scientists have not been able to get measurable differences in crop yields."

Iris borer may be controlled with DDT, according to latest reports. The DDT may be purchased with sulphur dust, and dusted on the plants between the time the eggs hatch and the borer larvae eat their way into the iris leaf. This would mean a regular dusting schedule for a month or more after the iris begin to grow, dusting about once each week.

The DDT may also be mixed with Fermate, but not with lime or

(Continued on Page 231)

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

MOTTLED GLADIOLUS MOSAIC FROM BEANS

By Paul E. Hoppe, Madison

SCIENCE for February, 1947, contains an article which concerns glads by F. P. McWhorter, Lytton Boyle, and B. F. Dana entitled "Production of Yellow Bean Mosaic in Beans by Virus from Mottled Gladiolus" of interest. A brief summary with a few comments follows.

A farmer near Corvallis, Oregon, with a field of snap beans adjacent to a 5-acre field of glads observed that the Yellows disease in his beans occurred where the fields met and then diminished in severity as the distance between the glads and the beans increased. He asked pathologists at the Oregon Station to verify his belief that the disease in his beans somehow was associated with the glads.

An investigation of the problem by McWhorter et al. revealed the farmer's opinion to have been correct. They found several other instances where the disease appeared to develop along the line of juncture of contiguous fields of the two crops. They later proved the relationship by artificial inoculations of healthy bean plants with juice extracted from the leaves of the glads. The beans developed the typical Yellows disease. Reciprocal cross-inoculations, from beans to glads, were not attempted because *no glads could be found in the entire area that were free of the mottled mosaic disease.* This is the thing that interests me most.

If the western stocks are infected universally we should long since have introduced the disease into Wisconsin, on a large scale, because most of us have, at one time or another, purchased quantities of bulbs from the Pacific Northwest. I think I am familiar with two other virus diseases which occur occasionally in my glads, but I have never noted any great incidence of the mottled mosaic type. It is quite possible that the expression of the mottled type requires environmental conditions different from what we have in Wisconsin. The disease might be present in our stocks, but is masked. This is not unusual in virus diseases.

I am much pleased to report that a study of the bean-gladiolus virus problem, as it affects Wisconsin, is being initiated in our plant pathology department.

TWIN CITY CHAPTER GROWING

The Twin City Gladiolus Society held a lively meeting March 5 in Marinette. Detailed report of the N. E. G. S. conference at East Lansign was given by Paul Ravet. Officers elected for the coming year were: President, Paul Ravet, Menominee, Mich.; Vice-President, Hugo Krubsack, Peshtigo, Wis.; Secretary, Mrs. Edwin Hansen, Marinette; Treasurer, Arnold Sartorius, Porterfield, Wis.

President Paul Ravet writes, "Our local membership numbers 70 and is still growing. Fifty are from Wisconsin, 5 from Michigan, 20 from N. E. G. S. We started out two years ago with 9. Last year 18. Expect to reach the 100 mark by mid-summer."

DONORS TO BULB AUCTION WISCONSIN GLADIOLUS SOCIETY MEMBERS

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Champlain View Gardens, (Elmer Gove), Burlington, Vt.
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Vennards Nursery, Sioux City, Iowa
Ted Woods, Madison, Wis.
G. W. Wilson, Lisbon, Ohio

Highlights of National Meeting

Continued From April

DDT Recommended For Thrips Control

Dr. W. D. McKellan of U. S. Bureau of Plant Industry reported on preliminary experiments with DDT against Gladiolus thrips. Results were as good as with tartar emetic. A report of the experiment and the recommendations for use of the DDT will be published in the new Michigan bulletin, Controlling Gladiolus Insects and Diseases, and we will have directions in later issues.

Bulb Racket Suppressed

We are pleased to hear at the meeting that bulblet racket which has been going on for more than a year by a so-called Bulb Co., operating out of Detroit has been stopped. This company advertised over many radio stations and in newspapers something like this:— "A beautiful Gladiolus garden. One hundred Gladiolus bulblets for $1.49." It is reported that the company took in more than a million dollars last year.

Fertilizer For Glaliolus

Important fundamental facts about fertilizers for gladiolus have been discovered in recent years through experiments, but much remains to be learned about the practical application of these facts. This is the impression left with us after listening to the discussion of experiments on fertilizers at the N. E. G. S. meeting in Michigan.

Dr. W. D. McClellan of the U. S. Bureau of Plant Industry gave a talk outlining the experiments conducted at Beltsville, Md. on fertilizers. These highlights remained with us:

High nitrogen applications gave the longest *flower heads* and most buds, but increased danger of disease. This was especially true if organic fertilizers were applied. Sheep manure, blood tankage, barnyard manure and high nitrogen fertilizers all increased the amount of Fusarium corm rot. High nitrogen applications also retarded flowering. However, when large amounts of phosphorus were used it tended to overcome the ill effects of nitrogen.

Use Complete Fertilizer

Our impression is that for best results complete fertilizers should be used to produce the best flowers. Nitrogen is necessary for good size, long flower heads and a large number of buds. Phosphorus is necessary for disease resistance and potash seems to have a good effect. A fertilizer with all three elements gave the best results.

However, good flowers were produced without any fertilizer on relatively poor soil. In fact, jumbo size bulbs were planted in quartz sand and produced flowers, and as stated on page 16 of the Gladiolus Magazine, for February, 1947, "The plants did not exhibit any nutrient-deficiency symptoms during the growing period. It was concluded the corms had contained enough mineral nutrients for normal growth when planted, or that essential elements had been obtained from clay pots."

Mr. Paul Hoppe said last year, he thought he could grow good flowers in almost any soil without fertilizer if he had good large, vigorous bulbs, and plenty of water.

Must Produce Good Bulbs

That does not mean, however, we can produce the best quality blooms with long flower heads without fertilizer, or that we can grow good bulbs to produce good flowers in a poor soil. Since the *bulb must store the mineral nutrients to give us good results,* then as stated on page 81 of THE GLADIOLUS for '47 by the N.E.G.S., "Our information suggests that fertilizer practices used for corm production from cormels should not be the same as those used in forcing or flowering larger corms. Forcing size corms need very little, if any, additional nutrients for flower production. With cormels, on the other hand, a deficiency of any of the major elements, seriously limits the size of corms, as well as the size and number of new cormels that are produced."

The article suggests that any soil of reasonable fertility can be used to produce flowers from forcing size corms and that gladiolus plants are more often over-fertilized than under-fertilized. It was found that the larger the corm, the less response to fertilization.

Conclusion

It will pay the gladiolus grower to determine the best treatment for his particular soil if he wishes to produce the best quality bulbs. We

(Continued on Page 229)

What's New in Vegetable Growing

KILL WEEDS WITH 2,4-D

A new stencil bulletin entitled "Kill Weeds with 2,4-D," has just been issued by the Extension Service, Wisconsin College of Agriculture, Madison. It is an indispensible bulletin for all interested in controlling weeds with this chemical.

2,4-D is not as useful for horticultural plants as to grains and grasses. Recent reports state that even if applied to the soil before bulbs are planted, detrimental effects may be apparent in growth from the new bulbs the following year.

WEED SPRAYS FOR VEGETABLE CROPS

A stencil bulletin has just been issued by the Wisconsin Experiment Station, University of Wisconsin, Madison, entitled "Weed Sprays For Vegetable Crops." It is written by G. F. Warren and K. P. Buchholtz. It may be obtained free on request and will be of interest to large growers of vegetables.

FOR CARROTS the bulletin says: Stoddard solvent has proven highly successful as a selective spray for carrots. This is a dry cleaner and available at bulk oil plants, and will kill annual weeds excepting ragweed. Grass, thistles, etc. are severely burned, but the roots not killed. The solvent has also been used on parsnips, parsley, caraway and dill, but most other vegetables are severely injured or killed by this spray. It is used undiluted at about 100 gallons per acre.

FOR ONIONS. No selective spray is fully satisfactory. Dilute sulfuric acid shows promise. Read the bulletin for instructions.

RED BEETS. It has been found a concentrated salt solution containing a wetting agent will kill several weeds, including smart weed, pig weed and rag weed, but cause no injury to red beets. It is prepared by dissolving 200 lbs. of common salt, fine grade, in 100 gallons of water. A good agitator is required. The beets should have at least two true leaves that are two or three inches high before being sprayed, and do not spray just before a rain.

QUESTIONS ABOUT VEGETABLE GROWING FROM RADIO TALK, W.H.A. BY PROF. O. B. COMBS

A Garden Near Trees

QUESTION: What happens when our vegetable garden is near trees?

ANSWER: Generally speaking, vegetables are unable to compete successfully with trees for water and plant foods. Shade, of course, may also be detrimental to garden crops, but the damage from shade is seldom as important as that resulting from lack of moisture and plant foods as far as tree competition is concerned.

QUESTION: Does the kind of tree make much difference? Is it just as difficult to grow good vegetables near an apple tree, for example, as it is near an elm?

ANSWER: The kind of tree does make a real difference. Good vegetables may be produced considerably closer to an apple tree than an elm. The reason, apparently, has to do with the relative rate of growth of the two kinds of trees. We know that an elm grows faster than most apple trees, and it would seem logical to suspect that the faster growing tree would need the most water and plant food. We don't mean to imply that it's good practice to grow vegetables close to apple trees.

Asparagus

QUESTION: What is the best way to transplant arparagus? Can that crop be handled just like rhubarb?

ANSWER: It can but I wouldn't recommend it. Much better results will be obtained if new plantings of asparagus are started from vigorous, one-year-old plants. If an old asparagus bed is full of quack grass and not productive, suggest it be left as is except for a little fertilizer, and new plants be grown or purchased for a new bed. And here, too, let's be careful to locate the new bed properly and plant only in weed-free, especially quack-grass-free, soil. Let's remember that these perennial crops like asparagus and rhubarb produce to best advantage only when located on good soil, kept free of weeds and properly fertilized.

HET WORKS QUICKLY ON CABBAGE INSECTS

Cabbage aphids were quickly affected by HET. They began falling from treated plants 15 minutes after application of the insecticide. Large numbers of dead insects were found on the lower leaves and on the soil beneath the plants within an hour after treatment.

The imported cabbageworm and cabbage looper were only slightly affected by HET. Immature worms became greatly agitated and many fell from the plants following treatment. However, some insects recovery probably occurred as many of these insects remained on the HET treated plots.

HET—DDT Gave Excellent Results

The above trials revealed that while HET controlled aphids, it would not control other injurious insects infesting cabbage. Consequently an HET-DDT spray combination was tested for compatability and insect toxicity against aphids and worms. Neither material appeared to affect the insecticidal value of the other and the combination gave excellent control of both aphids and worms.

Results With Potato Insects

Potato aphids were more effectively controlled by HET than by various other insecticides tested in four different field trials. HET was employed in concentrations as used against cabbage aphids. For control of the potato aphid was also obtained with DDT and nicotine. The potato flea beetle was less effectively controlled by HET (56 % reduction) than by DDT (85% reduction).

Because experimental date represents only one season's trials, it is sug-

gested that Het be used only on an experimental basis.

Although HET showed no toxicity to any of the crops mentioned, it has been shown to injure tomatoes and certain other plants. Therefore, care must be exercised in its use on foliage.

Information to date indicates that HET is poisonous and proper precautions should be taken to **avoid its contact with the skin.**

—Condensed from Stencil Bulletin, Wisconsin Experiment Station, Department of Economic Entomology.

Young woman (holding out her hand): "Will you, please, tell me how to pronounce the name of the stone in this ring? Is it turquoise or turkwoise?"

Jewler (after inspecting it): "The correct pronounciation is 'glass'."

GLADIOLUS HIGHLIGHTS

(Continued From Page 227)

need to learn fundamental principles, and since we have a wide variation in our Wisconsin soils, there will be a variation in their treatment. It would be desirable to have experiments conducted under our field conditions to determine best methods.

Gladiolus Disease Our Biggest Problem

One gathers from the discussion of scientists and large gladiolus growers alike that the biggest problem confronting the industry is that of disease. We will probably control insects with some of the new materials being introduced. But new diseases are coming. Note the number of diseases listed. Fusarium Yellows and Rot, Botrytis blight and rot, dry rot, hard rot, penicillium rot, scab, bacterial blight. The more glads we grow, the more severe and serious will diseases become. All growers must study them and learn their control if they are to succeed.

At a muddy crossroad corner: "Choose your rut carefully—you'll be in it for 20 miles."

Outstanding Irises of 1946

Great Lakes, a light blue bearded iris, again emerged as the country-wide winner in the judges' symposium conducted by the American Iris Society. In his report in the bulletin of the American Iris Society, Kenneth D. Smith stated, however, that this outstanding Canadian introduction had a great deal of competition and the variety Elmohr barely missed first position.

The first 10 varieties in the order of popularity are: Great Lakes, Ola Kala, Elmohr, Chivalry, Prairie Sunset, Blue Shimmer, Tobacco Road, Master Charles, Sable, Bruce Canyon. Bryce Canyon and Master Charles are newcomers among the elite in irises. Daybreak which took 13th position is said to have been the iris of the year in misbehavior. Yet, judges persisted in voting for it.

The voting for the Dykes Medal this year resulted in a tie with 23 voted each for Daybreak and Ola Kala with no authority from the English Iris Society to award more than one Dykes Medal in any one year, the decision for no 1946 award was agreed upon.

As has been customary in the past, Mr. Smith has arranged the 100 symposium iris according to color and listed them in order of their popularity as follows:

WHITE: Snow Flurry, Katherine Fay, White Wedgewood, Snow Carnival, Caroline Burr, Sharkskin, And Thou, Snow Velvet, Mount Hermon, Alba Superba, Priscilla, Matterhorn.

WHITE WITH YELLOW MARKINGS: Moonlight Madonna, Golden Fleece, Fair Elaine, Golden Treasure, Misty Gold, Elsa Sass, Arctic.

BRIGHT YELLOW: Ola Kala, Berkley Gold, Spun Gold, Francelia, Jasmine, Goldbeater, Golden Majesty, Ming Yellow, Treasure Island.

ORANGE, TAN AND BROWN EFFECT: Tobacco Road, Rocket, Chamois, Brown Thrasher.

RED AND RED EFFECT: Ranger, Solid Mahogany, Red Valor, The Red Douglas, Redwyne, Garden Glory, Christabel, Display, Garden Flame, Red Gleam, Redward.

PINK AND PINK EFFECT: Mulberry Rose, Pink Reflection, Remembrance, Chantilly, Dream, Castle, China Maid, Spendrift, Angelus, Harriet Thoreau, Pink Ruffles.

LIGHT BLUE AND LAVENDER: Great Lakes, Chivalry, Azure Skies, Lake George, Lake Breeze, Blue Rhythm, Cloud Castle, Gloriole, Shining Waters.

MEDIUM BLUE, LIGHT VIOLET OR MAUVE: Violet Symphony, The Admiral, Bandmaster, Missouri.

PURPLE: Master Charles, Sable, Deep Velvet, Lord Dongan, Captain Wells, Indiana Night, Nightfall, Anne Newhard.

BLUE PLICATA: Blue Shimmer, Los Angeles, Minnie Colquitt.

YELLOW PLICATA, WITH RED, ROSE OR BROWN MARKINGS: Tiffanja, Firecracker, Suzette.

AMOENA AND NEGLECTA: Wabash, Amigo, Extravaganza, Louise Blake.

VARIEGATA: City of Lincoln, Mary Vernon.

BLENDS: Prairie Sunset, Bryce Canyon, Daybreak, Casa Morena, Grand Canyon, Sunset Serenade, Cascade Splendor, Old Parchment, Stardom, Mellowglow, California Peach.

HYBRIDS: Elmohr, Lady Mohr, Ormohr.

HOW TO CONTROL THE STARLINGS

After three years of tests by the Laboratory of Ornithology at the Cornell University Agricultural Experiment Station a way to control the starlings which sometimes cause severe damage to cherries and sweet corn was reported. This method involves placing nesting boxes in the most desirable locations, which proved to be roadside telegraph poles, about 10 feet from the ground. Once the birds accept these convenient nesting places, both the eggs and the birds can be disposed of in a humane manner.

During the experiment practically the entire starling population in the two-mile square test area accepted the boxes for nesting, according to Dr. A. A. Allen, head of the Ornithology Laboratory. The boxes were of durable construction. They were made of half-inch cypress, seven by seven by 16 inches, with a sloping top and each had a two-inch opening for entrance near the top on the front side. The cost and time involved were all out of proportion to the starling removed, said Dr. Allen, but set up on a country-wide basis, with thousands of boxes made on a production line basis the cost of making these controlled nesting places would be nominal.

Originally, the scientists sought a spray that would make the cherries unpalatable to starlings but would not injure the fruit for human use but the quest was unsuccessful. Then, they hit upon the idea of controlling local populations through nesting. Starlings never build open nests in bushes or trees but always place them in crannies, about buildings or in holes in trees and away from such enemies as squirrels and rats. Telegraph poles were found the most desirable locations.

—*From Horticulture Illustrated January* 1, 1947.

THAT EARTHWORM PROBLEM

We were asked to find out if experiments in California proved earthworms were of benefit when added to the soil, and thereupon wrote Dr. H. D. Chapman of the Division of Soils and Plant Nutrition of the University of California. Here is his reply in part:

"Replying to your letter, I am interested to hear that the earthworm scourge has reached Wisconsin.

"There are a number of enthusiasts out here but so far as I know there is no good experimental evidence one way or another regarding any benefits to the soil by adding earthworms. It is the consensus of opinion among soils men here that if a soil contains sufficient organic matter and moisture conditions are satisfactory a good earthworm population will develop or be found and under these circumstances it is foolish to spend money for special earthworm varieties. On the other hand, under soil conditions which are unfavorable for earthworms, it is a waste of money to try to inoculate the soil with them.

"To my knowledge no one in the scientific group out here has been sufficiently impressed with the importance of the problem to initiate experimental work. At least I do not know of any research under way at the present time."

THE AMERICAN LILY YEARBOOK

The American Horticultural Society, 821 Washington Loan & Trust Building, Washington 4, D. C. has just published a fine book, THE AMERICAN LILY YEARBOOK FOR 1946. Dr. George Slate of Geneva, New York, is the editor.

The book is well illustrated and one every lily grower will enjoy reading. It contains articles for both the advanced grower and the amatuer. Miss I. Preston, well known to all lily fans has an article, "Some Ottawa Lilies." Other chapters are, "Lilies in Minnesota," "Culture in the new Lily Garden," "The Madonna Lily in its Native Habitat," "Better Lilies For The Amateur," "A New Race of Hardy Lilies," "New Lilies for Manitoba," and many others.

The book may be obtained by writing the American Horticultural Society. Price is $1.10 postpaid.

DDT MAY CONTROL YELLOWS IN CHINA ASTERS

Yellows of China asters is the same as appears on carrots. In this issue is an article reporting the Wisconsin Experiment Station found DDT will control the yellows disease on carrots because it kills the 6-spotted leafhopper which spreads the yellow virus.

Many of our older horticulturists can remember when China asters were easily grown and how yellows gradually appeared making commercial culture of asters almost impossible. Since then commercial growers have grown these beautiful flowers under a cloth covering which kept the leafhopper out and prevented spread of the disease. Now by spraying early with DDT they may accomplish the same results.

Dr. T. C. Allen states the period of incubation for aster yellows is 20 days. The insect, therefore, causing the trouble may have been dead for almost 20 days before the effect is seen. Constant spraying or dusting is necessary for best results. For detailed information, read the article, "DDT BRINGS ABOUT HIGHER YIELDS OF CARROTS."

Officer: "What's the idea? Why are you men climbing trees and crawling through the bushes?"

Private: "Well, sir, we camouflaged the gun a while ago, and now we can't find it."

DDT Brings About Higher Yields of Carrots

The Wisconsin Experiment Station now is able to recommend that growing carrots be sprayed or dusted with DDT, on the basis of its finding that the better treatments have increased yields by about 50% for two years in succession.

Indirectly, DDT controls "yellows" disease on carrots, in spite of the fact that it is an insecticide and not a fungicide. This it does by killing the six-spotted leafhopper, which spreads aster yellows virus.

Carrot yellows has been a very serious problem in southeastern Wisconsin, some commercial fields showing more than 75% infection. In the Racine-Kenosha area in 1946, most fields revealed from 15 to 60% infection, the average probably falling around 35%.

The disease tends to stunt carrots, reducing yields and injuring quality. It may also increase costs by making hand-digging essential if all the crop is to be salvaged; mechanical harvesters miss many of the affected plants because their tops are short and bunchy instead of normally tall.

Experiments were conducted on three farms in the Kenosha area in 1946 by R. K. Chapman, Glenn Pound and T. C. Allen.

When To Spray

In the principal spraying experiment, results were best where carrots were treated early in the season, beginning on June 24 when the plants were 4 to 6 inches high. Three June and July sprays reduced the per cent of yellows-infected plants by 32% and increased yields by 50.5%, or from 11.1 tons to the acre to 16.7.

Although early treatments are most important the Wisconsin Station for the time being recommends that they be continued through August. Late sprays where not needed in 1946, when the leafhopper population fell off sharply in August, but a full-season program was best in 1945.

Amount Of Spray To Use

Highly successful sprays were made up with 2 pounds DDT (4 pounds 50% wettable powder) in 100 gallons water, using 100 gallons to the acre. Trials on another farm suggested it may be possible to get by with 1 pound DDT in 100 gallons, but this has not been conclusively demonstrated. There was little difference between suspensions and emulsions of DDT.

Dusting trials were conducted on a third farm, showing fairly good results with both 3% and 5% dusts. Control of yellows was not as effective as in the spraying experiments, but this probably was partly caused by the late start in dusting which began on July 5 when 5% of the plants already were infected.

An additional experiment by Chapman and Allen failed to reveal any other insecticide as effective as DDT for the six-spotted leafhopper. Among the materials which proved inferior were sabadilla, "HET" or hexaethyl tetraphosphate, "666" or benzene hexachloride, and a new preparation known as "1068."

There is no doubt that treating carrots with DDT is a paying proposition where yellows disease is a problem. The cost of the insecticide for three applications in 1946 was $6 an acre, and the profit — conservatively assuming a 40% yield increase instead of the 50% maximum — proved to be $85 an acre. If roots under 1½ inches in diameter were discarded, as in cannery grading, the 1946 profit from spraying was $95 an acre.

In another phase of this investigation, Pound recorded the percentage of yellows-infected plants among 14 carrot varieties exposed to natural infection. Most of the differences were insignificant, but Morse's Bunching and Canners' Red Core showed considerably less yellows then Danvers Half Long and Tendersweet. Red Cored Chantenay and Imperator were intermediate. The variety showing least infection of all was Mastadon, which is a stock carrot and not considered suitable for canning or market.

Hubby: "Darling, what's wrong? Why the bandage on your eye?"

Wifey: "Don't be funny. This is my new hat."

GARDEN GLEANINGS

(Continued From Page 225)

any fungicide containing lime. Sulphur or Fermate are used to control leaf spot.

CRAB GRASS in a lawn was sharply reduced by applying 2,4-D in tests carried on at Cornell University, Ithaca, New York. In a report by Prof. A. Pridham, he states: "Crab grass populations were reduced sharply by concentrations of 3,000 ppm applied at ½ gallon rate or lower concentrations at a larger volume. Clover was seriously injured in all but the lowest concentrations; since it was present in abundance its removal opened up large areas of bare soil. Dandelion and plantain were also present prior to spraying. Fertilizer was applied to stimulate the growth of the Kentucky blue grass which remained apparently uninjured as did small colonies of bent grass and red fescue."

—*H. J. R.*

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

PRESIDENT'S MESSAGE

May 1,1947

DEAR MEMBERS:

Possibly our lovely, 1947 Garden and Flower Show will be in progress when you receive this greeting. I have just read the inspiring schedule which appears to have struck an unusually masterful chord of originality and imagination this year, assuring every exhibitor an unlimited scope for creative work. Since our visitors and exhibitors alike find greater stimulation and satisfaction in a fresh approach to our art, it seems vital to me we never lose sight of the importance of constant work toward independent thought, new trends and style in our individual work, and original, untyped themes for both our local and state shows.

I know we are unanimously agreed in our pride and appreciation of Mrs. Thomas whose vision, devotion of purpose, tact and diligence have guided our Wisconsin Federation Flower Show into the field of outstanding exhibitions of its kind.

"May Madness" is a common term in the vernacular of a Wisconsin gardener — But, aren't we fortunate to experience this exacting pageant of security and promise with the return of spring? In view of all the complexities and uncertainties in our world today, man's absolute confidence in the power of

the earth and the sun to provide for every eventuality is the most reassuring, truthful thing we know. Those of us who work with the earth in an intimate way can best appreciate this comfort.

The overwhelming, quiet power, the steadyfast simplicity of nature and its loyalty to pattern are attributes worthy of our awe and humility. Surely, there is no more valid place for spiritual fortification than in our gardens. Do let us cherish this awareness beyond the mere acceptance of it in an all-forgranted way and do let us ever keep the garden gate ajar for those less fortunate than ourselves.

Very cordially and sincerely,

RUTH WEST

P. S. Do not forget that the first week in June is "Wear A Garden Flower Week."

COMMITTEE WORK

It is difficult to realize the importance of committee work unless we analyze the meaning and import of the word first. The definition of committee, as given in the dictionary is—"a person or persons to whom a trust is committed." This surely signifies importance, and regardless of what the committee work is, it should be cherished and carried out to the best of one's ability.

The State President selects the State Chairmen for their ability in a specific field. She has learned of them no doubt through their district because they have taken their work seriously, and have executed it in an efficient manner.

Each State Chairman's committee consists of the corresponding chairmen in the districts, and in turn the district chairmen's committees are made up of the corresponding chairmen in the individual clubs. This is an efficiency measure whereby the plans and aims of the State, as well at the National Federation, (their chairmen and committees are selected by the same procedure) can be passed down through the proper channels, to the individual members, in the most feasible way. Each chairmanship is important only as it dispenses information and assistance.

Committee work reaches its highest peak of efficiency when the committee members remain within the scope of their specific office,

and do not reach out into another's sphere. Just as individual Garden Club members receive the maximum amount of benefit by contacting their club chairmen, rather than going over her head to a chairman higher up.

If these systems and principles are closely adhered to our organization will not only function smoothly but will flourish.

—Laura G. Schultz, 2nd Vice-President, Wis. Garden Club Federation, General Committee Chm.

GARDEN CLUB PROGRAMS

Help Clubs Prepare Programs By Sending Your Most Successful Experiences.

We would like to ask garden club officers to send to Mrs. Wm. Curtiss, Route 1, Plymouth, State Publicity Chairman, items about successful programs or entertainment which have been especially appreciated by members. Such suggestions will be published in Wisconsin Horticulture and should greatly help program committees in planning their work for the coming year.

The following program aims for garden clubs were presented at the Regional meetings this spring:

HORTICULTURE — Provide horticultural knowledge. (Bulletin Mailing Office, College of Agriculture, Madison, 6, Wis.) State Horticultural Society, Madison 6, Wis.

CONSERVATION — Further the interest in our land, forests, birds and all wild life. Teach all phases of conservation necessary to keep these vital parts of our universe intact.

ART — Provide artistic guidance and information in the growing and use of plant material.

CIVIC — Provide avenues for responsibilities that will give the garden club prestige in its community.

FEDERATION — Develop as many phases of the State Federation work as possible and at all times support state projects such as State Flower Shows and Judging Schools.

FINANCE — Provide interesting and educational projects to which the public may be invited and a charge made.

ENTERTAINMENT — Create interest and provide enough good entertainment to encourage attendance and attract new members.

SUMMARY — A garden club program should have balance, stability, imagination and sufficient information in its field to play a commanding part in the mind of every member.

USE YOUR FEDERATION AND STATE HORTICULTURAL SOCIETY.

—Mrs. Sam Salan (Program Chairman), Waupaca, Wisconsin.

WANTED — SUGGESTIONS TO CREATE INTEREST AT GARDEN CLUB MEETINGS

Mrs. Sam Salan of Waupaca Program Chairman of the State Federation, sends a request received from northern Wisconsin garden club asking for suggestions to create interest at meetings, such as games, programs and other features.

We would like to ask garden club secretaries, or program chairmen to write to Mrs. Wm. Curtiss, Plymouth, Publicity Chairman and tell her of successful experiences and features which might be of help to other clubs. Mrs. Curtiss will include such items in her page on "Between Clubs."

VISIT THESE FLOWER SHOWS

STATE FLOWER SHOW RECREATION BLDG., WAUWATOSA, WIS. MAY 23-24-25

June 9-10. Madison Garden Club Flower Show at Manchesters. June 9: 12:00 M to 9:00 p. m.; June 10, 9:30 a. m. to 5 p. m.

June 17-18. Ripon Garden Club 3rd Annual Flower Show. At Congregational Church Parlors. June 17 from 2 p. m. to 9 p. m. June 18 from 9 a. m. to 6 p. m.

June 17-18. Annual meeting and show of the American Peony Society, Horticultural Hall, Boston, Mass.

June 20-21. Flower Show in Hamilton Community Building, Fond du Lac. Sponsored by Fond du Lac Community Garden Club and Fond du Lac Ledgeview Garden Club.

June 27-28. Delavan City Garden Club Flower Show. Congregational Church, Delavan.

July 24-25. Society of American Florists annual convention, Shoreham Hotel, Washington, D. C.

July 28-29. Annual summer convention of Wisconsin-Upper Michigan Florists' Association, Merrill, Wis.

FLOWER SHOW AT DELAVAN

Mrs. Rudolph F. Lange

The Delavan City Garden Club will hold its Flower Show on June 27 and 28 at Cochrane Hall in the Congregational Church, Delavan.

Mrs. Harry A. Turner, Chairman, has as her committee Mrs. Richard Beswick, Mrs. Floyd Hurdis, Mrs. Geneva Llewellyn and Mrs. Rudolph Lange.

RADIO GARDEN TALK SERIES STATION WFHR

Wisconsin Rapids, Wisconsin
Every Saturday, 1:15 P. M., beginning March 22, 1947

March 22 Organization and program of Garden Clubs by Mrs. S. G. Corey, President, Fox River Valley District, of the Wisconsin Garden Club Federation.

March 29 Fruits and Small Fruits for Wood County Gardens by Donald Rowe, Wood County Agricultural Agent.

April 5 My Home Ground Improvement Program for 1947-1948. By Mrs. R. A. Mullenix, President Two Mile Garden Club.

April 12 Album of 72 American Bird Songs: — Recordings. Courtesy Mrs. John D. West, President Wisconsin Garden Clubs.

April 19 Building Up The Home Garden: Nature and Use of Compost by Mrs. Frank Krumrei, past president Two Mile Garden Club.

April 26 My Methods With the African Violet by Mrs. John F. Miller, President, Horticulture Club

May 3 **Thirty-Five Years in My** Garden by Mrs. C. M. Reene, Sr., past president, Two Mile Garden Club

May 10 Best vegetable Varieties for freezing. Speaker unknown.

May 17 My Favorite Perennials. Mrs. Raymonth Knuth, member Horticulture Club

May 24 The Girl Scouts and Their Nature Badge: — Wild Flowers by Mrs. Wilbert Miller, member Lake Wazeecha Garden Club

May 31 Weed, Disease and Pest Control in the Home Garden. Speaker unknown.

THE SMALLEST ROSE IN THE WORLD

The smallest known rose in the world, shown at the London National Rose Society show this past season, measured less than three-quarters of an inch. It was a deep yellow with a delicate perfume and has been given the name of the breeder's daughter, Josephine Wheatcroft. It was shown by Mr. H. Wheatcroft of Nottingham.

Has anyone grown a smaller rose? Let us hear about it if you have.

—From American Rose Magazine, Sept.Oct., 1946

SHEBOYGAN AND LODI GARDEN CLUBS RECEIVE AWARDS FROM NATIONAL COUNCIL

The Sheboygan Garden Club has been awarded the white ribbon for Projects of Special Merit for its Wayside Project and the Lodi Garden Club has received a white ribbon for its Beautification Project. This information was sent to our State President, Mrs. John D. West of Manitowoc by Mrs. J. S. Leach, Mass., National Chairman of Committee on Awards.

The awards will be presented at the National Council meeting in Tulsa, Oklahoma.

ADDITIONAL CHAIRMEN FOR FOX RIVER VALLEY

Junior Garden Clubs: Mrs. Fred Schlueter, Box 32, Ripon.

Judging School: Mrs. Chas. Braman, Box 147, Waupaca.

MILWAUKEE DISTRICT CHAIRMEN

BIRD: Mrs. George Betts, 2713 North Main St., Racine, Wis.

CONSERVATION: Mrs. Russell D. Myers, 2177 S. 86th St., West Allis 14.

JUNIOR GARDENS: Mrs. J. W. Dooley, 7724 West Roger St., West Allis

JUDGING SCHOOL: Mrs. Stephen Cushman, 3003 Northwestern Ave., Racine

Please watch for announcements from your different District Chairmen.

—Mrs. Wm. J. Armitage, Milwaukee District President.

SOUTH CENTRAL DISTRICT COMMITTEE CHAIRMEN

BIRDS: Mrs. A. K. Spooner, 707 Walworth, Delavan

CONSERVATION: Mrs. Thomas Bigger, Route 4, Edgerton

FLOWER SHOWS: Miss Edith Kohlsaat, Fontana

JUNIOR GARDEN CLUBS: Miss Hilda Robers, Lake Geneva

LIVING MEMORIALS: Mrs. Oliver Moum, 201 S. 2nd St., Delavan

NOMINATING: Mrs. Alice Parker Route 2, Fort Atkinson

PUBLICITY: Miss Avis Cleland, 111 S. Prairie, Whitewater.

ROADSIDE DEVELOPMENT: Mrs. Norma Robinson, Lake Shore Drive, Lake Geneva.

THE GARDEN FORUM

Statements About Gardening Often Heard. — Do The Answers Agree With Your Opinion.

Statement: If we leave a heavy mulch of marsh hay or straw on our strawberry plants, we can delay blossoming and thereby avoid early frost.

Answer: That is wrong. It has been common practice for generations to leave mulch on as long as possible in order to keep the plants back to avoid freezing of the early blossoms. Observations have shown that blossoming can be delayed only a day or two.

The soil warms up from below and growth starts under the mulch. When this happens the plants are set back and there is much evidence to prove they do not fruit as well as if uncovered early. Commercial growers have observed that if they uncover plants for digging, just as soon as frost is out of the ground plants which remained undug and uncovered had better fruit than those covered until late in the season.

Statement: Manure is the best fertilizer for the lawn and if we put it on now it would be better than any other kind of fertilizer.

Answer: That, I think, is wrong. We get nitrogen from the liquid manure which leaches out and it of course is excellent for growth of grass. However, it would not be any better than nitrogen obtained from commercial fertilizer and how much labor and nuisance it saves to put on an application of high nitrogen fertilizer compared to putting on manure which must be raked off later.

If you grow clematis in the sun, protect the lower stems and roots with a ground cover or low-growing plants, or mulch with peatmoss. Clematis likes a cool root-run in well-drained soil.

From a Gardener's Notebook

By Genevieve Dakin, Madison

"It is gratifying to know that an increasing number of men and women do care enough for gardens and gardening to take all the trouble they demand. To them we owe the accumulative beauty of our communities."

—RICHARDSON WRIGHT

May is the month to prune forsythias, deutzias, spireas, and lilacs immediately after they have completed blooming. Some of the oldest canes may well be cut to the ground.

Keep newly transplanted evergreens and deciduous material well watered. Apply a mulch of peat or rotted leaves.

May is the month to set dahlias. Be sure to put in place strong stakes to support the plants.

Such bulbs as tigridias, montbretias may be set out. The rule is four inches deep. Glads, too, may be set out at a four inch depth. Successive plantings may follow every two weeks well into June.

When your new mums arrive stand the plants up without unwrapping. Harden them by keeping them in the garage or some place not exposed to sun and wind for a day. If the balls are dry, water them. Set out plants in a sunny location where there is good drainage. The addition of barnyard manure or shredded manure dug in deeply with a handful of bonemeal or 20% superphosphate per plant is suggested by a mum expert. During the summer keep the soil between plants loose and free to a depth of one to two inches. Avoid sprinkling the foliage. Let water run slowly around plants until it penetrates well below the root system. Cultivate soil next day. To keep growth compact pinch off about two inches from tips of shoots, first when plants are 6-8 inches high and again when a foot high. In mid-July you may pinch off longer shoots to form a well-rounded plant.

No May flowering shrub attracts more attention than the lilac. Certain nurseries specialize in lilacs. Besides visiting our well-known Wisconsin nurseries you may wish to send for catalogs from: Brand Peony Farms, Faribault, Minn., Farr Nursery Company, Weiser Park, Pa.; Cedar Hill Nursery, Glen Head, Long Island; Rockmont Nursery, Boulder, Colorado. These firms feature fine lilacs.

May and June see the Asiatic primroses or bog primula in bloom. Along stream banks and in moist depressions where a good circulation of water is assured they do well. North of tree groupings or woody sections or the north side of a house where it is comparatively cool and shaded are also good locations provided there is abundant irrigation. Some of the easier primroses in the Asiatic group are Japonica, Beesiana, Bulleyana, Pulverulenta, Cockburniana and Florindae.

To secure the best perennial seed go to specialists and pay the price. A great deal of junk is advertised and sold. Pounds of delphinium seed are harvested from acres of scrub delphiniums and dumped on the market only to perpetuate a race of inferior plants. If you want to raise primroses, buy hand-pollinated seed from specialists.

We are told to stake peonies before buds weigh stalks down — a wire support encircling plant is satisfactory. After the buds have formed give a light feeding and plenty of water.

Ants are not injurious to peonies except as they may carry disease spores.

A collar made of stiff paper put around cabbage seedlings will discourage cut worms. One may buy protectors made of tar paper, too. Ground oyster shell or coal ashes put close around plants discourage cut worms.

Utilize your old garden hose by plugging one end and punching holes about six inches apart. It will serve to soak a hedge or border. Let the water trickle very slowly.

"If you want to grow mignonette observe two essentials. Have lime in the soil and after sowing bang the soil hard with the back of a spade."

"When pruning roses go lightly on both the red and pink Radiance. Do not prune Dr. Van Fleet."

In his interesting brochure, "Iris as we Bloomed Them and as we Liked Them," Robert Schreiner of St. Paul, Minnesota, gives a running commentary on the different iris that are appearing. He visited many famous iris gardens last year and his account of his impressions as he studied the plants in various parts of the country is of more than passing interest to the iris enthusiast. According to Mr. Schreiner there is a tremendous interest in developing new pink iris. A few years ago the influx of yellow iris was overwhelming. Mr. Schreiner's 1947 catalog may be on your desk by now.

Mrs. Charles Colesworthy Pinckney in 1745 introduced the cultivation of the indigo plant into South Carolina. It brought an honorable occupation and prosperity to her state.

HOW TO MAKE A COMPOST HEAP OR PIT

Pit 2-3 ft. deep.

Heap 8 in. 1 ft. deep. Build high as desired 3x6 ft., larger as desired and space permits.

Bottom layer, generous strawy, coarse material, or grass turfing sod.

4 in. layer, alternating green material as grass cuttings, garbage etc., with dry material as stalks, weeds, veg., vines, etc.

1 *foot* — for each foot, apply a *scattering* of soil or animal manure instead of soil, also wood ashes if available.

4 *in.—soil* — last layer-applied when whole mass is firm and settled. Top must be level. Cover with sacks to keep dry as possible.

The following is quite new and I suggest a trial of it.

Herbal Activator. Apply to completed pit or heap after 3 days, settling by making holes *almost to bottom* ½ ft. apart. Pour into each hole 3 ozs. of liquid then pack them with soil. Cover with sacks. Leave 1-2 months when it should be ready to move into the garden.

Without Activator. Contents should be forked over once or twice each 3 months and will take 12-18 months to decompose. Either method will make rich, dark crumbly soil.

Another perhaps easier, The Manure Tub

Tub, barrel or box — sink into ground, lacking 6 inches of rim.

Cow dung — fill container to earth level and add *Activator* 3 oz. partly diluted. Cover with lid to keep rain out.

Use after 3 weeks.

1 *trowel* to gal. pail water makes a good strength liquid manure to apply around the plants. Be sure to moisten the soil before applying, also after. A barrelful will last for years and will lose it rank smell. This is where the following Quick Compost may be had—Herbal Activator; The Great Valley Mills, Paoli, Pa. ($1.00 enough for 4 heaps.)

—By Mrs. J. L. Larson, Route 3, Iola, Wisconsin, Horticulture Chairman, Fox River Valley District.

FLOWER ARRANGING FOR THE AMERICAN HOME

Another book has just been written on flower arrangement and the title is, "Flower Arranging for the American Home," by Gladys Taber and Rpth Kistner. Miss Taber is a writer for the LADIES HOME JOURNAL and Miss Kistner is one of America's authorities on flower arrangement.

Chapters discussed include, DESIGN, FLOWER FORM, COLOR, TEXTURE, CONTAINERS, TABLE-SETTING, DECORATIONS FOR SPECIAL OCCASIONS, DRIED ARRANGEMENTS, FRUITS AND VEGETABLES, MINIATURES, HOW TO KEEP FLOWERS LONGER, DECORATING THE CHURCH and THE HOME WEDDING.

It is well illustrated. Published by Macrae-Smith Co., 225 So. 15th St., Philadelphia 2, Pa. Price, $2.75.

THE STRAWBERRY BARREL

Question: I would like to have a strawberry barrel in my back yard. I have heard that one can grow strawberries by having a barrel with holes on the sides in which strawberry plants are set. Is this a practical idea and how can it be done?

Answer: The strawberry barrel idea is a relatively old one, but as a practical method of growing strawberries, it is of little value as it is exceedingly difficult to grow plants by this method. The chief difficulty comes in efficient watering of the plants.

Even in a small back yard, it is my belief that one could do a better and easier job of growing strawberries in the ground than over the sides of a barrel.

—By James G. Moore, Chairman Department of Horticulture, University of Wisconsin.

OUR WILD FLOWER PROTECTION LAW

The following wild flowers are protected by law in Wisconsin.

Chapter 343.442 states that the following shall not be rooted up, destroyed, removed or carried away without written permission of the owner or person entitled to possession:

"American Lotus, Trailing Arbutus, (Epigaea repens) or any species of lady's-slipper (Cypripedium), or any members of the orchid family (Orchidaceae) trillium (Liliaceae) or any species, or any American bittersweet, or any pitcher-plants (Turk's caps) or any wood lilies."

The term "or any pitcher plants (Turk's caps) or any wood lilies," is not clear. In court such terms might be seriously questioned. A change in the law to make it more clear seems necessary.

The law also says the provision of this subsection "shall not prevent licensed nurserymen from selling, shipping or otherwise disposing of any of said plants when such plants have been officially inspected and certified."

A copy of a nursery certificate shall be attached to the plants.

To really protect our wild flowers, areas in which they are growing should be set aside as wild flower preserves and maintained by either city, state or county. Education is our best protection against destruction of natural beauty.

"To China we are indebted for rice, soy-bean, lespedeza, sugar-cane, disease resistant pears and chestnuts, citrus fruits, jujube, persimmon, tung-oil tree, lychee, lungan, and bamboo."

For roses careful planting is the best insurance.

LILY CULTURE UNDER COLD WEATHER CONDITIONS

By L. E. Longley, Minnesota

Under the cold weather conditions encountered in Minnesota it is especially necessary to be sure other cultural conditions are as near ideal as possible. Most important of these is the matter of drainage. Soil should be particularly well drained. For that reason sandy soil or heavier soil with a gravelly subsoil give better wintering conditions for lilies in Minnesota. If the soil is not well drained dig it up to a depth of say two feet and put some gravel in the bottom. Planting the bulb in a handful of sand tends to prevent rotting of the bulb before roots have formed. Most lilies should be planted rather deeply, at least 6 to 8 inches. The deeper they are the less likely they are to have the soil around them to drop to a lethal temperature. Exceptions are the coral lily group which should be planted only three or four inches deep and the Madonna and Nankeen lily which should be planted with not more than three inches of soil over the bulb.

A six inch mulch of marsh hay or straw is the best protection against our cold winter weather to prevent the soil temperatures from dropping too low. Leaves may be used if well mixed with branches of shrubs or evergreen boughs or even tomato vines.

Some of the lilies require special treatment; a number of them may be grown by digging them in the fall and carrying them over in a cool cellar, packed in some material to prevent moisture loss, replanting them in the spring. The Regal lily may be grown by this method as well as the Gold banded lily and the speciosum types. The Regal lily responds particularly well to this treatment. At the Minnesota Experiment Station there has never been loss of Regal lilies from winter cold but some gardeners report winter losses of Regal lily bulbs and also injury from cold in spring after growth has started.

A number of the lilies mentioned do better if grown in partial shade under our conditions. Although our winters are cold we have hot summers, often with much sunshine. This causes bleaching of the colors of many lilies particularly in those of yellow colors such as L. henryi and L. hansoni; this applies to such lilies as L. speciosum, L.Martagon, L. willmottiae and L. maximowiczii. It is also true that our native lilies do better if grown in partial shade as L. canadense, L. superbum and L. philadelphicum.

Many other types of lilies could be grown in Minnesota, but due to the war further testing was discontinued so the newer types have not been fully tried. When these have been tested it will be found that the lily is really a rather important flower for Minnesota gardens.

—From The 1946 American Lily Year Book by The American Horticultural Society.

ROVING WITH ROSES

Richard S. Wilcox, Chairman Test Garden Committee, Minnesota Rose Society (Condensed)

Possibly the new rose which has attracted the most attention is Peace, the 1946 All-America winner. This variety seems to be doing well all over the country. It has beautiful deep green, large glossy foliage which makes the plant attractive even when it isn't in flower. It blackspots some but this can be controlled easily by dusting with Fermate and sulphur. The blossom is not the typical hybrid tea type, it seems to have taken on more of the characteristics of the hybrid perpetual, which indicates that Peace has more of the perpetual or old fashioned rose blood in it than most of the modern hybrid teas. This should make it a more permanent rose.

The other All-America winner which has proved itself to be equally worthy of the grand award is Charlotte Armstrong, 1943 winner.

Mirandy, the 1944 All-America winner, started out with tremendous possibilities. It is so good that it is a pity it isn't better. At its best it is a rose without an equal in color, form and fragrance, but it is not reliable. It is particular about weather conditions, lacking the toughness of either of its parents, Charlotte Armstrong and sister Therese.

The Brownell Roses

The Brownell sub-zero teas are still proving their special value for our climate with Nearly Wild and Pink Princess the toughest and hardiest. Three new ones for this year which promise much are Red Duchess, Velveteer and Curley's Pink. The first one is likely to be Brownell's best red, a large, double fragrant, rich deep red blossom. Velveteer is of the color suggested by the name and is semi-double. Curley's Pink is a new type which I think has a big future. The blossom is not big; it would be placed about medium, about the size of the floribundas but of the perfect recurved high-centered hybrid tea form; something which has been achieved I think for the first time. There are a couple of Australian hybrid teas much like it in size and form which are proving popular but are not hardy enough for us here.

—From The Minnesota Horticulturist, April, 1947.

"A garden is preeminently a place to indulge individual taste. So regardless of doctors, let me say that the best general rule for garden making is: put all the beauty and delightsomeness you can into your garden, get all the beauty and delight you can out of your garden never minding a little mad want of balance, and think of the proprieties afterward."

—John Sedding.

To China we owe the parents of the modern rose be it hybrid tea, rambler or floribunda.

What Can We Expect from Some of Our New Insecticides

E. L. Chambers, State Entomologist

If one were to believe all that he reads and did very much reading lately, he might get the impression that the battle against insect pests had been won by the newer insecticides now available. One thing that you must keep in mind in applying a spray and that is that it is not necessarily dead insects that reflect the efficiency of the spray material but healthy plants. Popular articles in garden magazines too often written by folks who want to make pest control almost a pleasant past-time ignore the scientific facts and thus, invite disaster and disappointment. They would have you believe that a simple combination of all the sprays needed to cope with the hosts of pests to be dealt with could just as well be applied in one operation. They do not know that many combinations are impossible without serious reactions.

The average home owner recognizes the value of sulphur for the preservation of raw apples, saltpeter for meat preservation, and charcoal as a deodorizing agent in the ice box, and knowing that the combination of these in certain proportions would produce gun powder would hesitate to make such a combination. Then again, insecticides which are poisonous to man should not be present on crops that are to be eaten. String beans, cabbage, and spinach are cases in point. A rotenone containing insecticide whereas effective in controlling most of the pests of the plant deteriorates after a few days exposure necessitating more frequent applications.

A Selenium compound applied to the soil from which it is taken up by the plant has successfully controlled Red Spider Mites and certain sucking insects on the plant. Applied to the soil never again to be used for food production this might be very useful but because it is absorbed by edible plants, and is extremely toxic to man and other animals, it cannot be generally recommended.

Wire Worms And Grubs

Subterranean insects such as wire worms and white grubs may be controlled on barren soil by such fumigants as carbon disulfide emulsion and ethylene dichloride emulsion, but when growing plants are involved, it is difficult to use such materials without risk of serious injury to the plants. Dichloroethyl ether emulsion has been used successfully at the rate of 2 tablespoonfuls per gallon of water in destroying grubs and wireworms in the soil about the root of plants. Cryolite (sodium fluoaluminate) both in the natural and synthetic form during the arsenic shortage proved to be a very good substitute. It is comparatively non-injurious to plant foliage and has proven particularly effective for controlling foliage feeding insects. Cryolite may act as a stomach or contact poison or repellent and thereby may serve as a partial substitute for pyrethrum and rotenone on certain crops. It also has the advantage of being used as a spray or dust.

Among the synthetic organic compounds, we have the products sold under the trade name of Loro and Lethane, two very promising liquid contact insecticides now available on the market. They are used chiefly against the small sucking insects such as aphids, scale insects, and white flies ordinarily controlled by Nicotine Sulphate. The supply of black Leaf 40 (Nicotine Sulphate) is very limited and it may be necessary to employ these new substitutes next season.

Value Of DDT

DDT (Dichloro-diphenyl-trichloroethane), is probably the best known of these new synthetic insecticides and without a doubt one of the most useful. It is not a miracle insecticide but just another good one that is very effective against many pests, but like other insecticides has its limitation. The dusts and wettable powders are the safest forms to use in the home garden. Agricultural dusts containing 3 to 5% DDT and 1 to 2 pounds of 50% DDT wettable powder in 100 gallons of water has shown no harmful effects on most vegetable and ornamental crops. The outstanding exception seems to be the possible injury to cucurbits. Reports indicate that certain varieties of young squash, especially the acorn variety, pumpkins, cantaloups, and cucumber plants are sometimes severely stunted, and heavy applications applied at frequent intervals are known to have killed certain varieties of squash. There is likewise some evidence of injury to the very young tomato plants.

Use Of Oils

Oil solutions and higher concentrations of oil emulsions should not be used on plants since they then are very apt to burn the foliage of many plants due to the toxic effect of the oil and solvent. Likewise, there is little danger involved in handling the DDT except the forms having an oil base and other types of solvent which may penetrate the skin. DDT has been found ineffective against certain species of plant lice, scale insects, white flies, red spider mites, cyclamen mites, plum curculio, and apple maggots. In some cases certain of the above pests may actually be encouraged to increase their ravages due to the elimination of their natural enemies which normally hold them in check. Ladybird beetles, syrphid flies and certain other predacious and parasitic insects so useful toward this end may be so reduced in number as to be of little assistance toward their control.

DDT For Thrips

Among the most useful contributions this new substance has made to the flower grower is its assistance in the control of the Gladiolus Thrips on the corms in storage. One ounce of a 3% DDT dust applied thoroughly over 40 pounds, or approximately a bushel of corms, is pleasant to handle, safe and effective. It can be left on the corms after treatment until planting time.

Another common pest, that of Aster Yellows, spread by the Aster leafhopper can now be eliminated by regular dustings from time to time with a 5% DDT dust from the time the plants are a few inches high. One pound 50% wettable powder to 100 gallons of water is very effective against most foliage feeders on shade trees and shrubs. A 0.1% DDT oil emulsion has given better results against the canker worms, sawfly larvae, tent caterpillar, fall webworm, and similar pests. Such dilute emulsions do not harm the foliage but stronger concentrations may. Applied in early July on elms these sprays have been found effective against the European Elm Scale. For shade tree pests a 3% DDT dust is recommended where a dust is preferred to applying a spray. Where DDT is used on an evergreen tree against its foliage pests, there is quite likely to be experienced considerable injury from red spider mites which increase in number when their natural enemies are destroyed by the spray. The best control of red spider and spruce mites seems to be Dow Spray, a commercial insecticide used at the rate of 3/4 pound per 100 gallons of water. They can, of course, be effectively controlled with superfine dusting sulphur or a bone glue spray.

Sabadilla

Sabadilla, an old insecticidal material revived largely by the result of Dr. T. C. Allen's research work here at the University of Wisconsin, shows promise against many crop pests particularly toxic to hemipterous insects such as squash bugs, chinch bugs and Lygus bugs. The irritating effect of this product both as dust and sprays on the sprayer are limitations to its use. The manufacturers claim that it does not affect pollinating and other beneficial forms of insects and does not leave any poisonous residue. It seems likely that its use will be increased although it is doubtful whether it will take the place of other great quantities of other insecticides because of the reasons mentioned.

MORE 1947 YEAR BOOKS WANTED!

Many interesting and attractive Year Books have been sent in for judging. However, we have not as yet received copies from all clubs. Do be sure to mail a copy of your year book before the deadline of the State contest July 31st.

Year books will be judged according to the merit system. Numerical values will not be given, but only ratings of excellent, very good, and good. Those receiving first and second ratings will be arranged for exhibition at the convention in the fall. The new merit cards stating judges findings, ratings, and criticisms will be used. These cards will be given to clubs on request.

—Mrs. Val. J. Suttinger, Program Awards Chairman, Route 2, Eagle, Wis.

VERSATILE

A man visiting in Maine went to a local barber shop for a shave. The barber made several slips with his razor, and each time he would paste a small piece of paper over the cut to stop the bleeding. When the operation was over the victim handed the man a dollar.

"Keep the change, barber," he said. "It is worth a dollar to be shaved by so versatile an artist. Why, man, you're a barber, butcher, and paper hanger, all in one."

Wisconsin Horticulture

June 1947

INSECTICIDES FOR THE GARDEN

Bean Insects

The potato leafhopper is one of the major insect pests of string and lima beans in Wisconsin. Applications of DDT and sabadilla have considerably reduced this insect, which has resulted in increased yields of earlier, better quality beans.

In one year's tests the following **dusts** gave satisfactory insect control and increase in yield: 3-5% DDT, 10% sabadilla, and 3% DDT Plus 10% sabadilla.

If a DDT residue problem is anticipated on string beans or if lima bean vines are to be fed to livestock, the sabadilla dust should be used.

Cucurbit Insects

The striped and spotted cucumber beetles, the squash bug, and the squash borer cause considerable damage to squash and related crops. These crops are particularly susceptible to DDT and consequently excessive deposits on plants should be avoided.

A dust containing a mixture of 1 to 2% DDT and 10% sabadilla has given satisfactory control of the above insects without injury to the plants except when they are small. Three or four applications at about 15 lbs. per acre should be applied. Where the squash borer is troublesome, it is advisable to insure thorough coverage about the crown of the plants. If squash bugs are the only insects present, 10% sabadilla is recommended.

Cucumber beetles on small plants may be controlled by a 0.75% rotenone dust.

Onion Insects

The onion thrips often seriously damage the onion crop in Wisconsin. Three to five per cent DDT dusts and 1 lb. DDT per 100 gallons as a spray have efficiently reduced the thrips population and increased the onion yield.

From Special Circular, SOME INSECTICIDES IN WISCONSIN RECOMMENDATIONS FOR 1947, Wisconsin College of Agriculture.

A salesman taking his bride south on their honeymoon visited a hotel where they boasted of their fine honey.

"Sambo." he asked the colored waiter, "where's my honey?"

"Ah don' know, boss," replied Sambo, eyeing the lady cautiously, "she don' work here no mo.' "

WISCONSIN HORTICULTURE

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Has DDT a Place in Apple Maggot Control

R. W. Dean, Geneva, New York Experiment Station

Soon after the discovery of DDT's insecticidal properties, it proved to be the most effective spray material yet found for controlling our leading fruit pests, the codling moth. Its effectiveness against another important insect enemy of the fruit grower, the apple maggot, has remained in doubt, however, until recently because of conflicting results reported by different investigators. For the past three years, investigations of DDT have been conducted and the results show that the material is exceptionally effective for apple maggot control in some respects but has definite limitations in others.

Speed Of Killing Studied

Laboratory tests proved that DDT is indeed lethal to apple maggot flies and that it kills them much faster than the usual lead arsenate sprays.

Tests of DDT sprays under orchard conditions have now been conducted for three seasons. Standard spraying equipment was used and all spraying was done from the ground with a single-nozzle gun, the trees being covered both inside and out. In 1944 and 1945, an experimental 50 per cent DDT spray powder was used, while the 1946 tests were made with two well-known commercial wettable spray powders containing 50 per cent DDT. In all tests, it was used at the rate of 2 pounds to 100 gallons of water, or 1 pound of actual DDT. This amount has been selected as suitable for controlling codling moth and, until a different dosage is recommended for that purpose, it is inadvisable to consider lesser amounts in spraying for apple maggit.

DDT Not Long Lasting In The Orchard

Attempts to exploit the supposedly long-lasting effects of DDT soon showed that, under orchard conditions, the effectiveness of the material not only did not persist as long as indoors, but that it actually lasted for a **shorter time than that of lead arsenate.** Thus, a single application of DDT in the **second cover spray** resulted in an increase in maggot injury, while two applications (second and fourth cover sprays) gave only fair control. However, applications of DDT in the second, third, and fourth cover sprays controlled the maggot satisfactorily.

These tests demonstrated that the quality of persistence which DDT exhibits as an interior spray did not **exist under orchard conditions.** Present indications are that the period of protection afforded by a DDT spray application is about 10 to 14 days long. When DDT is applied at such intervals during the period of fly emergence, as it is in the codling moth control program, good control of apple maggot will result in most orchards.

Flies Migrate From Adjoining Woods

Many orchards in which apple maggot control presents a problem which the lead arsenate schedule has not been successful in overcoming owe this condition to their surroundings. They adjoin or are close to unsprayed apple trees, shade trees, woodlots, or brush-grown fence rows. Such conditions favor migration of apple maggot flies into the orchard. Under these conditions, DDT's property of killing rapidly is especially important since the problem is to control sexually mature flies which are ready to start laying eggs as soon as they arrive instead of newly emerged individuals which must spend 7 to 10 days in a pre-oviposition period before they are capable of pucturing apples. At the same time, the short period of protection give by DDT makes one or more late applications necessary since protection is needed not only during the period of fly emergence but as long as there is movement of flies into the orchard. This is particularly true if the orchard contains late-ripening varieties.

Effective For Migrating Flies

The effects of fly migration were shown in test blocks which were more or less completely surrounded by unsprayed woods. Three applications of DDT gave control over part of the season but became ineffective before the flies stopped moving into the trees, with the result that 36 per cent of the fruit was infested before harvest. Where four sprays were used, the period of protection was extended somewhat so that fruit infestation was limited to 13 per cent. The previous year, when lead arsenate sprays were used, the fruit was almost 100 per cent infested. In both instances, control could have been greatly improved by spraying the adjoining margins of the woods.

Kills Quickly

When using DDT sprays for apple maggot control under practical orchard conditions, it should be borne in mind that while DDT is toxic to the flies, its toxicity does not persist for months on an apple tree as it does on the walls of a house or barn. It is less persistent than lead arsenate but kills more quickly. It should be used at the rate of 2 pounds of the 50 per cent wettable spray powders in 100 gallons of water — that is, 1 pound of actual DDT to 100 gallons — or as a 5 per cent dust. Spray thoroughly, covering all trees in the orchard, whether bearing or not. Spray woods and hedgerows on the margins of the orchard just as has been recommended when lead arsenate is used.

—From Farm Research, Geneva New York, April 1, 1947.

WISCONSIN APPLE INSTITUTE NOTES

Membership dues in the Wisconsin Apple Institute are coming in exceptionally well, reports Mr. Arnold Nieman, Cedarburg, Treasurer. All Wisconsin apple growers are invited to join and participate in the Institute's program of promoting Wisconsin apples to Wisconsin consumers. If you are interested, write Mr. Nieman for application blank.

Under consideration now is a program of advertising Wisconsin apples over five leading Wisconsin radio station — five times per week for from five to six weeks during September and early October. Second, the Institute plans to employ a full-time publicity worker for about two months to send out news items and carry on other publicity work during the harvest season.

36 Ways To Use Wisconsin Apples

The Institute's Bulletin, 36 Ways to Use Wisconsin Apples is still very popular, and a reprint of 20,000 copies is being planned. That will make a total of **70,000 copies** of this recipe booklet to the credit of the Institute. The booklets are available to members at cost for advertising their own apples.

APPLE CROP LOOKS GOOD

The Wisconsin apple crop continues to look promising. There has been frost damage in the East — Appalachian area. There will be more bananas this fall; they compete with apples. The supply of bananas may be limited, however.

This may be the year when an effective promotional campaign will do the apple industry a lot of good.

It will pay to produce good quality fruit this year. The wet, cool spring weather has been favorable for scab. Every effort must be made to control scab, codling moth and apple maggot. It will pay.

LADINO CLOVER IN THE ORCHARD

Ladino clover has been recommended in the orchard by some writers. They say that on poor soil it adds nitrogen and does not compete for water during summer with trees. It is a low growing plant and does not require much hoeing.

We can see some advantages in using Ladino but there is a serious problem to be considered by all fruit growers that is the danger of killing off pollinating insects by the use of a long blooming plant such as Ladino. Poisonous spray materials including those containing arsenate of lead, or even DDT, will drip on the blossoms after every spraying. Insects will gather nectar and pollen from the blosoms and may be killed. Honey bees, of course, can be moved away from the orchard but wild bees are equally valuable, especially where honey bees are scarce. Observation should be made of this danger before further recommendations are made to plant Ladino.

Orcharding Questions

Answered by Prof. R. H. Roberts

QUESTION: Harvest Sprays. If we use the "harvest spray" chemical to prevent early dropping of apples, is there any danger that stimulating stem and leaf will retard the ripening or coloring of the fruit?

ANSWER: We have heard no reports of the commonly used harvest spray retarding the ripening or coloring of apples. In fact, this is one of the serious troubles with harvest sprays. Apples continue to ripen after being held on the trees in those cases where the spray is effective, and sometimes the fruit is over mature before being picked.

QUESTION: FERTILIZERS FOR THE ORCHARD. Is there any time when it would be advisable to use a complete fertilizer in the apple orchard?

ANSWER: It is always advisable to use complete fertilizer in the apple orchard, i. e. **a small area** should be covered every few seasons to make sure that this should or should not be applied to the whole orchard.

QUESTION: I have heard that there have been experiments in which an air drill was used to drill holes under apple trees and then complete commercial fertilizer poured into the holes. Did this give any benefits over broadcasting nitrogen as we have been doing.

ANSWER: My own experience with applying potash and phosphate fertilizers in a solution through a nozzle forced several inches into the ground did not give any improvement over surface applications of dry fertilizers as neither showed beneficial affects under the conditions where we were making the tests.

QUESTION: Can tall trees be successfully cut back or lowered?

ANSWER: The success with which tall trees can be cut back or lowered varies with variety or tree condition. Sometimes the operation is quite successful. Cuts should be large to really effect a lowering of the tree. Heavy branches should be cut in order to avoid suckering and the production of thick, dense, new growth which results if heavy cuts are made close to small branches.

QUESTION: At what time or age should filler apple trees be removed?

ANSWER: Filler trees should be fanned so as to keep them three or four feet away from the permanent trees. Removal is done when the filler becomes too small to make it worthwhile to be kept in the orchard.

QUESTION: Are wood shavings or sawdust a satisfactory mulching material?

ANSWER: Shavings or sawdust should be used only where the grower is certain that long continued permanent mulching is desirable, i. e., on areas where drought conditions are common.

QUESTION: Can pruning brush be chopped up and left in the orchard?

ANSWER: I have seen machines to chop up brush and leave the trash right in the orchard. This practice has not been taken up by orchardists in general, so I presume it is not considered practicable.

SUGGESTIONS FOR 1947

MOVE MORE OF YOUR APPLES IN THE FALL. When prices are high, the chance of loss from holding are greater than the chance of gain. Sell as much as possible at or before harvest.

SET FRUIT TREES ONLY ON SOIL THAT IS EXCEPTIONALLY WELL DRAINED. With high prices for labor and nursery stock, it costs over $500 an acre to grow an apple orchard to eight years of age. Only well drained soil will give yields that will pay for these high initial costs, and for the high operating costs.

SUPPORT YOUR ORGANIZATIONS. In this day and age we need strong, aggressive organizations to look after our interests.

IF YOU ARE OVER 60 AND CARRYING THE FULL MANAGEMENT LOAD, DO ONE OF TWO THINGS:

A. Develop partnership arrangement with son or other young man, who will take part of the management responsibility. In this way, you can ease up and still see the farm going at full speed.

B. Sell the farm and buy a small place. This is a favorable time to sell.

—From New York State Horticultural Society news letter, January, 1947.

NEW YORK STATE HAS LAW PROHIBITING SPRAYING TREES IN BLOOM WITH POISON

The State of New York has amended its spraying law to provide for spraying trees in blossom to permit blossom thinning.

An old law provided a penalty for **spraying fruit trees in bloom with any poison.** It was pointed out that Elgetol is labeled a poison on the can, and so is illegal to use or recommend for blossom thinning.

The new law provides that the Commissioner of Agriculture may permit the use of specific materials for fruit blossom thinning sprays after consultation with representatives of the Empire State Honey Producers Association, the New York Horticultural Society, and the research staff of the College of Agriculture.

The bill still provides a fine for anyone who sprays with a poison fruit trees, alfalfa or clover while in blossom.

The bill was reported in the New York State Horticultural Society News Letter for March.

It may be pointed out this law makes it impossible to use arsenate of lead in the "pink spray" at least by large orchardists unable to complete this spray in less than a day or two. Practically before the job could be finished or the tops of many trees would be in bloom if the weather was warm.

HOW TO INCREASE SPRAYING EFFICIENCY

Growers Who Sprayed Most Rapidly Had Best Control.

The labor required to grow a bushel of apples has either remained relatively constant or has shown an upward trend, according to the New York Experiment Station, reported in their quarterly, "Farm Research." Studies were made of short cuts in spraying to increase efficiency. Here are some of the recommendations made:

"Growers who sprayed the fastest normally required no more than about 5 minutes for filling, another 5 minutes for traveling, and approximately 2o minutes for spraying out the material.

"Overhead water tanks with large diameter outlets, platforms to make the work easier, and barrels or screens for adding materials facilitated both filling and mixing. The use of traveling filler trucks, conveniently placed filling stations, or fast tractors and improved roads made possible the eliminationof much of the time ordinarily wasted in traveling back and forth to refill. Application rates were increased when equipment was used to full capacity. Many growers, although operating a 35-gallon-a-minute pump were spraying at the rate of only 17 gallons per minute, or at about 50 percent of capacity. The use of large discs in spray guns and semi-fixed pivot mounts enabled operators to use the pump more nearly to capacity and at the same time made the task easier.

"In general, the growers who sprayed more rapidly also had better control of insects and diseases. Prior planning for the convenient arrangement of materials, the use of equipment to full capacity, and good organization all contributed to fast and efficient spraying."

SPRAYER FOR SALE

For Sale: Model FX Friend Power Sprayer mounted on rubber. Good working condition. Reasonable if taken at once. — Write John Doser, Box 135, Potosi, Wisconsin

IN THE BERRY PATCH

RENEWING THE OLD STRAWBERRY BED

A well cared for strawberry bed may bear as many berries the second year as the first—not true, however, of a poorly cared for bed.

The time to renew the old bed is immediately after harvest. We must bear in mind that the **later** runner plants set roots, the lower the yield the next year.

As soon after harvest as possible, remove the mulch or burn it. Then mow the leaves of the old bed with the mower carried high. Be careful about injuring crowns. If the bed did not make a good stand last year, that is, if rows are narrow and the plants far apart, mowing is not advised. In that case simply hoe out weeds as thoroughly as possible.

Mowing is good for a crowded bed. This is followed by narrowing the rows with a plow or harrow.

EXTRACTS OF ONION MAKE 2,4-D MORE EFFECTIVE

Few new applications of scientific discoveries to agricultural problems have been more spectacular or have had more prompt and widespread adoption than has the use of 2,4-D (dichlorophenoxy-acetic acid) as an herbicide. Results of recent experiments at the Michigan Agricultural Experiment Station indicate that through the use of certain comparatively inexpensive plant extracts (extracts of onion have been found particularly potent) the effectiveness of this chemical as a weedicide can be stepped up ten or twenty fold. Some idea of the inportance of this discovery is realized when it is stated it is estimated 15,000,000 pounds ($45,000,000.00 worth at retail prices) were manufactured in 1946, though 5 or 6 years earlier the entire amount was probably less than one tenth of one percent of that quantity. Though the studies made are only preliminary, there is reason to beieve the cost of materias for 2,4-D application to a given area for weed control for many crops and in many areas is now within reach where heretofore it has not been practicable.

—By V. R. Gardner, Director Experiment Station, Michigan State College.

REMOVE BLOSSOMS FROM EVERBEARING STRAWBERRIES PLANTED THIS SPRING

Blossoms forming on newly planted everbearing strawberries should be removed for about two or three months after planting, or until about August 1st. After that they may be allowed to remain and develop fruit. It takes about a month from blossoming to ripe fruit.

During the dry, hot period of midsummer, everbearing strawberries should be well mulched and watered frequently so that plants may develop a thrifty root system and set fruit well.

VEGETABLE GARDEN QUESTIONS

Answered by Prof. O. B. Combs, Dept. of Horticulture

QUESTION: How can we control blossom-end or dry rot on tomatoes?

ANSWER: It's caused by lack of sufficient water in uniform amounts and so I like to mulch the tomato plants soon after setting them in the garden.

QUESTION: What would you use for mulch?

ANSWER: A number of materials may be used. Lawn clippings, pea vines, or straw or hay which has no weed seeds are perhaps the most common.

QUESTION: What about walnut wilt of tomatoes we were asked about in a letter from a gardener.

ANSWER: Walnut wilt is caused by a chemical given off by the roots of black walnut trees. The only practical thing to do is to plant tomato plants at least 40 or 50 feet away from black walnut trees.

QUESTION: How would you spray or dust to control diseases in the home garden?

ANSWER: Generally speaking, the use of fungicides, either as sprays or dusts, is not too practical in the home vegetable garden. When used at all, the so-called insoluble copper compounds are usually recommended. Sulphur is also sometimes used, especially in combination with such insecticides as rotenone and DDT.

QUESTION: What should the average gardener do to control insects? What about cabbage worms, for example?

ANSWER: A good rotenone or pyrethrum dust is perhaps the safest material to use on cabbage. Our entomologists tell us that DDT will do a better job and may be used quite safely before the plants start to head, but after heading starts, one of the non-poisonous materials like rotenone and pyrethrum should be used. The same materials will also control cucumber beetles, flea beetles, potato beetles, certain aphids and squash vine borers. DDT, of course, is especially good against leaf hoppers on potatoes.

QUESTION: Then you'd say that the gardener should have a few pounds of good rotenone or pyrethrum on hand and may also have some DDT dust especially for potatoes. What about squash bugs?

ANSWER: Sabadilla is recommended especially for squash bugs.

QUESTION: And what about cut worms? Slugs aren't insects, but what would you suggest for them?

ANSWER: Poison baits are recommended for both cut worms and slugs. Directions for mixing a good poison bait may be found in our circular, "Insect and Disease Control."

Condensed from talk over State Radio Station WHA and WLBL.

KEEP STRAWBERRY BED WELL CULTIVATED THIS SUMMER

Both the newly planted strawberry bed as well as the renovated old bed should be kept cultivated throughout the summer to conserve moisture and control weeds. Strawberry plants cannot compete successfully with weeds because of their low habit of growth.

Cultivation should be shallow and not too close to the plants to avoid injuring the shallow root system. A mellow soil encourages rooting of runners. Many strawberry growers throw loose soil over the runners to help anchor them. Weeds should be kept out by hand hoeing. Plants should not be permitted to set too close together—not closer than five or six inches.

Pencil markings are considered better than ink for celluloid labels. Celluloid labels finished with a mat surface are conceded to be more permanent than wood labels.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS ASSOCIATION

OFFICERS

Walter Diehnelt, Menomonee Falls, President
Robt. Knutson, Ladysmith Vice-President
H. J. Rahmlow, Madison, Cor. Secy.
Mrs. Louise Brueggeman, Box 60, Menomonee Falls, Recording Secretary-Treasurer

DISTRICT CHAIRMEN
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Robt. Knutson, Ladysmith
Newton Bogga, Viroqua
C. C. Meyer, Appleton
E. Schroeder, Marshfield
Ivan Whiting, Rockford

How To Raise Queens

The following method for raising queens is used by Prof. Wm. C. Roberts, Central States Bee Laboratory, Madison, and was described in more detail in Wisconsin Horticulture, issue of June, 1946.

THE SWARM BOX. Steps in preparing swarm box. It consists of a nucleus box holding four standard frames.

(1) Find the queen of a strong colony and set her aside.

(2) Place two frames containing unsealed honey and pollen in the swarm box.

(3) Shake bees from about six frames into the swarm box.

(4) Place the swarm box in a shady place, or inside of a building if it is cool.

GRAFTING. Grafting should be started as soon as the swarm box is ready. Use 24 to 48 hour larvae **from any colony,** and graft up to 60 to 75 cells. These are placed on four cell bars in two frames. The two frames are placed between the combs of honey and pollen in the swarm box and left there for 24 hours. The upper third of the cell bar frame should be drawn comb to give bees better cluster support near the queen cell.

The swarm box now has about 4 lbs. of bees, 2 combs of honey and pollen, and 2 frames with grafted cells.

REGRAFTING. After 24 hours take cell bars out of the swarm box and return the bees to original colony. Remove all larvae in the cells and destroy them. (Do not remove any Royal Jelly). Now regraft, using young 12-24 hour larvae from your selected breeder queen.

In each queen cell, being now provided with Royal Jelly, young larvae are placed on this jelly. This gives them an excellent start.

THE FINISHED COLONY. Four finishing colonies are selected (one for each cell bar of 15 to 20 cells) and must be populous with brood in 8-10 frames. Confine the queen to the lower brood chamber with a queen excluder. Place a frame containing a bar of queen cells in the **middle of the second hive body in which four frames of young brood,** (mostly unsealed) have been placed—two will be on each side of the bar of queen cells. The rest of the combs should contain some honey and pollen. This permits the queen cells to be finished in the middle of the brood nest. In fact, between frames of young developing worker larvae.

The queen cells are placed in the finished colony as soon as regrafting is completed. The queens are actually produced entirely in a queen-right colony. An additional bar of queen cells may be given to the finisher colony on the 5th or 6th day. In this case, two frames of young brood, from below the excluder should be raised to the upper hive body in exchange for two frames of the oldest seal brood which were used at the beginning.

Queen cells finished in this way are ready to go to the mating nuclei on the 10th or morning of the 11th day after the regrafting.

QUEEN COULDN'T LAY— HOLES NOT DEEP ENOUGH

Mr. G. M. Ranum, beekeeper of Mount Horeb writes this incident which happened in his school district. A two-story observation hive had been set up in the school house. Children were asked to watch and make daily reports on the work of bees and queen. Joan, a second grader, had been asked to bring home daily progress reports. One evening she announced the queen had been seen in the upper brood comb walking to and fro.

"Was she laying eggs?" Grandpa asked.

"No, I don't think so," said Joan. "Seemed to be waiting for the bees to dig the holes deeper."

NOTES ABOUT BEEKEEPING

Loss of package bees from Nosema this spring was terrific. Samples of bees from packages examined showed 100% infection of Nosema and as high as 90% lost their queens within three weeks after introduction. Southern breeders must solve this problem if they are going to continue in business. We in the North can't afford to buy such packages.

Feeding pollen supplement certainly paid this past spring. A long, cold, wet period in late March and April Prevented bees frim getting pollen Brood rearing slowed down unless supplement was fed, resulting in weaker colonies and, of course, loss of honey later because of small population.

Remember, nurse bees must eat both honey and pollen if they are to produce the royal jelly necessary to feed larvae. They cannot produce it on honey alone any more than a cow can produce much milk if fed only on carbohydrate feed.

Agronomists at the Wisconsin College of Agriculture with whom we have discussed the subject of Pellett clover were not very enthusiastic. They say it was tried here, didn't do too well when tested a number of years ago. Another test is being made, we hope with better results. We will be glad to get further reports from anyone else trying it.

For winter packing, why isn't it just as good to place inside of each brood chamber in which bees are wintering, six combs filled with honey and pollen, 3 on each side? This would be packing on the inside of the hive. Would it not be as good as packing on the outside?

From all over the northern states we get such reports as: "In some apiaries the loss was only five to ten percent, in others as high as 50%. Why the difference? Losses occurred whether bees were packed or not. Better methods of beekeeping alone will solve the problem.

VENTILATION FOR HIVES DURING HOT WEATHER

Staggering Supers May Not Be Desirable During Poor Honey Flow

At the meeting of the Fox River Valley District Beekeepers Association at Chilton in early April, the question of whether or not to stagger honey supers on the hives or give increased ventilation in other ways was desirable. Several growers pointed out that during a time when there was a poor honey flow, robbing was a serious menace when extra openings were made.

Some beekeepers also said they had noticed that during a poor honey flow the bees attempted to seal up unused openings even though the weather was very warm.

It may be a good rule, therefore, to give added ventilation only when there is a honey flow. Good air circulation is necessary in order that bees may evaporate moisture from the nectar. When the honey flow is over, or when it does not materialize, only the regular hive entrances, should be given. The auger hole entrance in brood chambers is becoming more and more popular with beekeepers. Bees seem to like them and use them in preference to the entrance on the bottom board.

BEES CANNOT LEGALLY BE TAXED OR A LICENSE FEE CHARGED BY A TOWNSHIP

At a recent beekeepers meeting we learned that voters in a township, at the annual town meeting this spring, voted to place a license fee or tax, of $1.00 per colony upon all colonies of bees brought into the township from outside.

We wondered about the legality of such an act. After discussing it with attorneys, it was their opinion that any type of tax, if not uniform **on all colonies of bees** would be discriminatory and therefore unconstitutional. In other words, a village or city might place a tax on all the bees in the area, but could not put the tax on those brought in but exclude those belonging to the residents.

It was also the opinion of counsel that a township which does not have in it a village or city, cannot levy a license fee or tax of its own. Such townships are not given such powers under the law.

The girl who thinks no man is good enough for her may be right, but she is more often left.

WISCONSIN BEEKEEPERS ASSOCIATION NOW HAS 680 MEMBERS

The Wisconsin Beekeepers Association now has a membership of 680. Membership dues are $1.00 per year for individual members; 75c per year for memberships through an affiliated county or district association.

The State Beekeepers Association is affiliated with the Wisconsin Horticultural Society, all members being members of the Society and receiving Wisconsin Horticulture.

We believe that this membership is one of the largest in the United States, especially if we consider the amount of the dues and the fact that we do not put on membership drives. Our members join because they want to, and they continue to belong year after year.

VALUE OF BEES IN AGRICULTURE BEING STUDIED ON NATIONAL SCALE

The gradual decline in the per-acre production of various legume seeds has become so serious that last year the Congress appropriated funds to the Department of Agriculture for the specific purpose of investigating the various problems involved in the production of legume seed.

Two centers of research are being established: (1) Logan, Utah, in cooperation with the Utah Agricultural Experiment Station and (2) Columbus, Ohio, in cooperation with the Ohio State University and the Ohio Agricultural Experiment Station.

For the time being the Logan laboratory will give particular attention to seed production in alfalfa, while the group in Ohio will concentrate on red clover seed production. Both stations, however, will give consideration to other legumes.

This new work marks the first time in the history of the Division of Bee Culture that authorization has been given to work on bees other than honeybees and to conduct investigations that are not concerned directly with the production of honey and beeswax. The move is probably a very significant one in that it constitutes specific recognition of the highly essential part that the beekeeping industry will henceforth hold in American agriculture.

—Condensed from article by Jas. I. Hambleton, Division of Bee Culture, April, 1947.

BEES WINTERED WELL AT SUPERIOR

Mr. Harry Strand, Popular, in Douglas county, enthusiastic beekeeper, had very good wintering this year in that colder section of the state. He wintered outdoors, a method he is completely sold on, using insulation in the cover and just a wrapping of paper on the outside. He said with strong colonies in the fall, lots of young bees, and plenty of stores, especially pollen for winter brood rearing, he feels sure that he can winter them successfully up there.

GOOD WINTERING DEPENDS UPON THE BEEKEEPER

Analyzing the reports from all over Wisconsin—some beekeepers reporting very good wintering, others very poor. Proof of the pudding lies in the fact that it isn't the weather, it isn't the packing but it is the system of management that accounts for good or poor wintering. Large strong colonies packed on the inside with honey and pollen are the ones that will come through unless some unforseen trouble like Nosema enters in the picture.

DOUGLAS COUNTY BEEKEEPERS ASSOCIATION STEPS AHEAD

Sponsors Poster Contest With Good Results

Mr. Elvin M. Braman, president of the Douglas County Beekeepers Association of Superior, writes in the Stock and Dairy Farmer that the County Beekeepers Association sponsored a poster contest in the County High School on uses of honey and bees. Seventy fine posters were received. Sixteen prizes were offered; $5.00 for first, $3.00 for second and $2.00 for third. Money was contributed by the Association and the 13 remaining prizes were jars of honey contributed individually by the members.

Such a poster contest is a valuable means of spreading information and creating interest in bees and honey throughout the community.

History records only one indispensable man—Adam.

SUMMER MEETINGS,, WISCONSIN BEEKEEPERS ASS'N.

Thursday, July 24, Marathon Park, Hy. 29, Wausau
Friday, July 25, Riverside Park, Janesville
THE PROGRAM FOR BOTH MEETINGS

10:30 a. m.—Informal discussion. Exhibits of honey samples showing proper method of storage and effect of light and heat upon color by Dr. V. G. Milum, Urbana, Illinois, Beekeeping Specialist, University of Illinois.

Exhibits of queen-rearing equipment and methods by Prof. W. C. Roberts, Central States Bee Laboratory, Madison.

All beekeepers are invited to bring favorite tools or equipment for exhibit and discussion.

11:15 a. m.—Meeting called to order at Wausau by President, northern district, Mr. E. L. Schroeder, Marshfield. By President, southern district, Mr. Ivan Whiting, Rockford, Ill., at Janesville.

Observations of the season and comments on honey marketing and prices by Mr. Walter Diehnelt, Menomonee Falls, president Wisconsin Beekeepers Association.

THE NOON LUNCHEON

There will be a cafeteria style luncheon at each meeting. Each person or family should bring a dish of food such as potato salad, baked beans, or other hot dish, sandwiches, cake etc. Bring enough for your family and a little more. Association will furnish free coffee and lemonade.

A committee of women will serve all food cafeteria style. Bring your own dishes—plates, cups, silverware.

A charge of 65c per person to all who do not bring food. This will be used to pay for extra food furnished by committee. Tickets will be given by committee chairmen to all who bring food.

AFTERNOON PROGRAM

1:30 p. m.—Let's Sell Honey by Miss Virginia McNaughton, American Honey Institute, Madison.

1:50 p. m.—The Care of Honey. Effect of Light and Heat Upon the Color and Flavor of Honey. Proper Methods of Extracting and Storage, by Prof. V. G. Milum, University of Illinois.

2:40 p. m.—Discussion on timely topics by representatives of beekeeping manufacturing companies and bee journals M. G. Dadant of Dadant and Sons, Hamilton, Illinois; Walter T Kelly, Paducah, Ky.; G. B. Lewis Co. Watertown.; A. I. Root Co., Medina, Ohio.

3:40 p. m.—Observations on bee disease control by Mr. James Gwin and Mr. John Long, Division of Beekeeping, Madison.

4:00 p. m.—Question and answer period. (½ hour). Conducted by H. J. Rahmlow, Madison.

SPECIAL SESSION FOR WOMAN'S AUXILIARY

There will be a special session for ladies beginning at about 2:30 p. m. for informal discussion on topics of interest to women. Miss Virginia McNaughton, American Honey Institute, will lead the discussion. Chairman of the meeting, Mrs. Henry Schaefer, Osseo, State President, Woman's Auxiliary.

NOTE: This is the only issue of Wisconsin Horticulture which will contain this program or announcement. Our July-August issue is combined and will not come out until after the meetings. Save this copy.

COMMITTEE IN CHARGE OF LUNCHEON. Wausau meeting: Mrs. E. L. Schroeder, Marshfield; Mrs. Reuben Neises, Marshfield; Mrs. Martin Mittermiller, Marshfield.

Luncheon Committee for Janesville: Mrs. Charles Aldrich, Mr. Percy Aldrich, Avalon; Miss Evelyn Likert, Mr. Theo Engen, Beloit; Mr. and Mrs. E. A. Babcock, Milton; Mr. and Mrs. O. H. McCrillis, South Beloit; Mr. and Mrs. M. L. Osborne, Beloit.

Editorials

LOOKING BACK OVER THE YEARS

75 Years Ago

From the Report of the Wisconsin Horticultural Society for 1872.

In 1872 Mr. J. S. Stickney of Wauwatosa was president of the Wisconsin Horticultural Society. Vice-president was Mr. A. G. Tuttle, Baraboo; Recordng Secretary, Mr. O. S. Willey, Madison; Corresponding Secretary, George Morrow, Madison and Treasurer, George A. Mason, Madison.

The annual meeting was held February 6-8, 1872 in the assembly Chamber, State Capitol. The annual report states, "The Chamber was well filled with members of the Legislature, ladies and gentlemen of the city and prominent horticulturists from all parts of the State.

The State Legislature in 1871 had incorporated the Society and provided for printng the annual transactions.

There were reports from local Horticultural Societies. Mr. J. H. Osborn for the Oshkosh Society. G. E. Morrow for the Madison Society. Mr. Finalyson for Mazomanie, Mr. Greenman and Mr. Plumb for the Milton Society. The annual report contains a lithograph of the residence and pleasure grounds of the Hon. Alexander Mitchell of Milwaukee. The building may still be seen on the corner of Wisconsin Ave. and 9th St. now known as the Wisconsin Club.

"What are you cutting out of the paper?"

"About a man securing a divorce because his wife went through his pockets."

"What are you going to do with it?"

"Put it my pocket."

WISCONSIN HORTICULTURE GOOD ADVERTISING MEDIUM

A letter from Mr. Bert Copeland of Copeland Nursery, Platteville says: "Wisconsin Horticulture was the best advertising medium I had. Orders are still coming in and nearly all mention Wisconsin Horticulture."

Mr. H. B. Blackman, Richland Center nurseryman and fruit grower writes: "We have had a nice business through our ad in Wisconsin Horticulture. Of the many years we have had it we think it one of the best."

WISCONSIN ORCHARD DEMONSTRATION DAY, STURGEON BAY, SEPT. 11-12, 1947

The big two-day orchard demonstration under the auspices of the Wisconsin Horticultural Society and the Wisconsin Apple Institute will be held in Sturgeon Bay in September.

Members of county fruit grower associations from all over the state have indicated interest in this meeting and we expect the largest gathering of fruit growers ever held in Wisconsin.

The meeting will last for two days. It will feature visits to apple processing plants and study of methods; demonstrations of all kinds of orchard equipment and machinery, from new types of sprayers to bulldozers for taking out trees.

Plans are now in the making in cooperation with the Door County Fruit Growers Co-op, the Reynolds Brothers Company, and the County Agricultural Agent's office.

Watch for details in our next issue.

APPLES, CHERRIES AND CABBAGE WILL BE FEATURED AT WISCONSIN STATE FAIR

West Allis, August 16-24

Apples and cherries will be featured in the fruit exhibit at the Wisconsin State Fair, August 16-24. The theme of the vegetable exhibit will be WISCONSIN A LEADER IN CABBAGE AND KRAUT.

Shown in the fruit exhibit will be a model cherry orchard, orchard equipment and machinery, cherry canning, with machinery used in pitting, a model fruit store display of fruit and fruit products, and a special display of new and old apple varieties.

Waukesha County in cooperation with the Southeastern Fruit Growers Association will again show the grading of apples.

County fruit growers asociations and county agents taking part in the exhibit will be from Door County, Sheboygan County, Washington County, Waukesha County and Ozaukee County.

The Wisconsin Canners Association has given its special fair committee $500 to help put up the exhibit of cabbage and kraut. The exhibit which will be about 70 feet long by 24 feet wide will feature the growing, harvesting and marketing of cabbage, and a special display of kraut and kraut juice.

Mr. H. J. Rahmlow, secretary of the Wisconsin Horticultural Society, will again be superintendent of the Fruits, Vegetables and Farm Crops Building, with Mr. Joe Shaughnessy, Milwaukee as assistant. The Farm Crops section will feature THE STORY OF CORN.

GOOD GLADIOLUS VARIETIES

The Men's Garden Club of Pittsburgh, Pa., has selected the following 15 varieties of gladiolus as their favorites as reported in their publication, The Stamen. Leading Lady, Red Charm, Elizabeth the Queen, Corona, Picardy, Burma , Algonquin, Black Opal, Vagabond Prince, Margaret Beaton, Myrna, Greta Garbo, King Lear, Aladdin, and Blue Beauty.

HALL WE CONTINUE TO PLANT ELMS IN WISCONSIN

erious Disease Not Yet Found Here

By E. L. Chambers, State Entomologist

QUESTION: We have heard that the Dutch Elm disease threatens to eliminate this tree which has been planted so extensively for street and lawn use. What is the situation in Wisconsin? Is the disease likely to make it necessary for us to plant other varieties of trees?

ANSWER: With serious diseases like Phloem necrosis and Dutch Elm disease threatening to eliminate the elm as our most satisfactory shade tree and no immediate hope of relief in sight, it isn't any wonder folks are becoming alarmed over the situation. Neither one of these diseases have ever been found in Wisconsin and every effort will be made to keep them out as long as possible. Spraying infested trees with DDT is reported to effectively control the bark beetles carrying the Dutch elm disease. No vector has yet been found for Phloem necrosis which is believed to be a virus trouble.

These diseases are two good reasons for purchasing Wisconsin grown elm trees to avoid the risk of bringing the disease into the state. The Chinese elm has not been popular as a landscape tree and unlike the American elm, it is just considered a temporary tree like most species of our poplars. Because no tree seems to take the place of our elm, its planting should be continued along with other desirable species of shade trees since no tree is free of pests. Hard maples, red and pin oaks, and hackberry make desirable shade trees and should also be planted. It is always dangerous to depend on a single species of tree for street planting.

MILWAUKEE ROSE SOCIETY ORGANIZED

The Milwaukee Rose Society was organized in September, 1946. Officers elected are as follows:

President: Arthur R. Boerner; Vice-President, August C. Peter; Secretary Treasurer, Mrs. E. R. Larson.

Regular meetings are held on the second Tuesday of the month in the Public Museum Conference Room. Excellent speakers have been provided. Membership at present is about 80, including some from Racine, Kenosha, Waukesha, Washington and Ozaukee counties

YIELD AND SIZE OF BEETS AFFECTED BY SALT AND RATE OF SEEDING

The use of 500 lbs. of salt per acre as a soil amendment increased the yield of red table beets, according to the report from the New York Experiment Station. While the salt stimulated the growth of the beets and increased the tonnage, only small beets were desired by canners. The problem then was to find a rate of seeding that would increase the number of plants to the point where they would be small and still have large tonnage. Canners rejected beets which were over 4 inches in diameter.

The following report is taken from FARM RESEARCH of the New York Experiment Station: (Condensed)

"For all plantings, the field was fertilized with 1,200 pounds of 5-10-10 fertilizer plus 50 pounds of borax per acre. In addition to this fertilizer, portions of each planting also received 500 pounds of salt per acre.

"Half of each planting was sown at the rate of 7 pounds of seed per acre having a germination of 76 per cent and an equal area was seeded with the same lot of seed at the rate of 13 pounds of seed per acre.

"With 500 pounds of salt per acre, the average of all three plantings from 7 pounds of seed per acre was a total yield of 12.45 tons of beets, while the 13-pound rate of seeding yielded an average of 12.50 tons. However, there was a much larger proportion of the small and medium size beets from the heavier rate of seeding. This resulted in a gross return of $182.04 from the heavier rate of seeding and $156. 92 per acre from the 7-pound rate of seeding, or an increased return of $25.12 per acre due to the heavier rate of seeding.

"Without salt the beets did not grow as rapidly, the total yields were less, and the proportion of small beets was greater, but they were tougher and more stringy and poorer quality."

"You have no complaint," a city man said to a farmer. "You have your own milk, butter, eggs, meat and vegetables. With enough to eat and a place to sleep what more do you want?"

"Well," said the farmer, "you come around a few months from now and you'll see the fattest, sleekest, nakedest farmer you ever saw."

VISIT PEONY GARDENS IN JUNE

Wisconsin has outstanding growers who invite you to see their plantings.

June is the month of peonies. The two largest growers in Wisconsin are W. A. Sisson at Rosendale and Walter Miller at Sun Prairie. Mr. Sisson has more than 1,000 varieties and Mr. Miller must be approaching that number by this time. E. L. White, Ft. Atkinson, has a fine planting of iris and peonies.

They invite you to see the peonies when in bloom. This year the blooming season will be late, but the time can easily be gauged by observing peony bloom in your own community. Drive over at any time.

The time to select varieties for fall planting, choosing your favorite color and type, and placing an order is in June.

COMING EVENTS

June 17-18—Annual meeting and Flower Show in Cargill House, La Crosse.

June 20—La Crosse Garden Club show American Peony Society, Horticultural Society, Boston, Massachusetts.

July 24—Annual summer meeting Northern District Wisconsin Beekeepers Association, Wausau.

July 25—Annual summer meeting Southern District Wisconsin Beekeepers Association at Janesville.

July 28-29—Annual summer meeting Wisconsin Upper-Michigan Florists Association, Merrill, Wisconsin.

August 16-24—Wisconsin State Fair, featuring magnificent exhibits of fruits, flowers and vegetables, State Fair Park, Milwaukee.

Aug. 23-24—Wisconsin Gladiolus Show, Armory, Marinette, Wis.

Statement: DDT will control red spider on perennial phlox and other plants.

Answer. That is wrong. DDT will not control red spider, but will kill the parasites of red spider and they may then become worse. One easy way to control red spider on perennial phlox is to play a strong stream from the garden hose over the leaves whenever the spiders can be seen.

If perennials are the backbone of the border, annuals are the spice. They fill in gaps and are invaluable for cutting.

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

SUMMARY OF FERTILIZER EXPERIMENTS ON GLADIOLUS

Dr. W. D. McClellen, U. S. Dept of Agriculture

On summarizing the nutrition and fertilizer trials with Gladiolus we have concluded that the mineral requirements of Gladiolus are relatively low and that this crop can be successfully grown in soil of average fertility with the addition of very little fertilizer other than nitrogen. Apparently large food and mineral reserves are stored in the corms. It appears to us that Gladiolus are more often over-fertilized than under-fertilized. In ordinary soils deficiency symptoms of phosphorus, potassium, calcium, magnesium, or boron would never occur except possibly in soils very deficient in any one of these elements and then only when Gladiolus had been grown continuously in such soils for a long period. Gladiolus grown continuously in muck soils known to be deficient in manganese or boron would probably show deficiencies of these elements eventually. Nitrogen deficiencies in Gladiolus grown in soil exceedingly **low in nitrogen might be evident the first year,** particularly if cormels were grown.

As has been pointed out previously, losses due to Fusarium may be greatly increased by nitrogen fertilization in **phosphorus-deficient soils.** In general in our field tests nitrogen has not increased production over the unfertilized plots, and our soil at Beltsville is a light sandy loam of low fertility.

Disease And Fertilizers

Nitrogen applied under the corms before planting delayed flowering. Blood tankage, manure, and castor pomace greatly lengthened the flowering period. Six side dressings with calcium cyanamid totalling 400 lbs. per acre caused foliage burn but no reduction in flower or corm yields. Blood tankage, manure, castor pomace, and inorganic nitrogen fertilizers applied under the corms before planting at the rate of 160 lbs. of nitrogen per acre resulted in decreased corm and flower yields. These decreases in corm yields were generally attributed to increased Fusarium rot. The losses following the applications of blood meal, manure, and high nitrogen appear to increase with a decrease in soil fertility.

The percentage of corms having bacterial scab was greatly increased in 1945 when a high-nitrogen fertilizer was applied as side-dressings but tests designed to give information on the effect of fertilization on bacterial scab yielded variable results in 1946, and, as yet, **no conclusions regarding the effect of fertilizers on scab are warranted.**

It should be emphasized that, with the exception of one test in the Rio Grand Valley of Texas, all of our field tests have been at Beltsville and that similar responses to fertilizers may not occur elsewhere. We do believe, however, that the response in most soils will be about the same as we have had at Beltsville.

WE WILL HAVE TO LIVE UP TO THIS REPUTATION

The following item appeared in the April issue of the Michigan Gladiolus Society News:

"N. E. G. S. has accepted the Wisconsin Glad. Society invitation to hold the 5th National Conference at Milwaukee. The dates are the same as this year, February 21 and 22. If you want to have fun plan to be there. Archie Spatz, Pres. of W.G.S. promises to have available plenty of the stuff that made Milwaukee famous — if you want it. The Wisconsin fellows are planning to stress what may be called the social angle of the Conference. E. A. Lins told me to inform our M.G.S. members that the Conference motto will be "Never a dull moment at the Milwaukee Conference."

CRUMBS ARE ALSO BREAD

Prof. E. F. Palmer, Vineland, Ont.

I am often asked the question as to whether it makes any difference which way a cross is made, that is, which variety is used as seed parent and which as pollen or male parent. Insofar as the characteristics of the resulting hybrid population are concerned I have never been able to see any material differences, and this I believe is in agreement with what the geneticist would expect. However, when making a cross from which I am particularly anxious to secure a substantial hybrid population, I make it both ways, i. e., reciprocally. The reason is very simple and is well illustrated by one of the crosses made this past summer, 1945. Having in mind the good results from the 40202 x Orange Gold cross, I decided to cross 40202 (Vassar x Diane) with 41053 (Greta Garbo x Elizabeth the Queen). Using 40202 as the seed parent 16 blooms were pollinated, every pod set, and over 1000 seeds resulted. The reciprocal cross with 41053 as the seed parent gave three shrunken pods only for eight blooms pollinated, and just 10 seeds. Whether or not the cross eventually proves worth while, I shall at least have a very substantial seedling population from the 40202 x 41053 cross, but 10 at the most from the reciprocal 41053 x 40202.

Further to seed production, my own experience has been that hybridizing during unusually warm spells is likely to produce little or no seed. This is particularly the case if the pollinating is done in the morning, or during the heat of the day. My best results, in terms of seed production, have been from late August pollinations, (when the days are normally cooler and the nights longer) and from evening pollinations, but using pollen freshly gathered that morning. This latter is important. Gladiolus pollen loses its viability very quickly and is of little value after 24 hours. The relatively poor set of seed from hot weather and morning pollinations is probably due to the physical condition of the plant, particularly the bloom, during the daylight hours. Actual wilting of the bloom is often evident during the heat of the day, and even when not actually obserable it may be accepted as fact that moisture supply and plant functions depending upon it are more favourable "blending" of the parent varieer and/or during the evening hours.

The seedlings from a given cross normally represent a very considerable "blending" of the parent varetties used. This blending includes bloom colour, form and style, spike habits, plant vigour and health, etc. For example, a tall, rangy spike with blooms well spaced, crossed with a short, compact spike type will likely give a seedling population of many intermediates. Not necessarily always perhaps, but sufficiently so that one may plan crosses with a fair degree of assurance. Colours similarly are blended (although the blend is not necessarily desirable,) also form, and size.

From the Canadian Gladiolus Society Annual.

"Let us so live that when we come to die even the undertaker will be sorry."—Mark Twain.

SHEBOYGAN CHAPTER SHOW

Paladium (Eagle's Hall) August 9-10

The Sheboygan Chapter Show will be a big event this year. The Junior Chamber of Commerce is sponsoring it at the Paladium, formerly Eagle's Hall, on August 9-10. A dance will be held at Municipal Building with crowning of the queen. Mr. Fred Hagedorn is show chairman with Dr. Leland Dietsch, Mr. Chester Harrison, Mr. Emil Jaschinski, Mr. Otto Kapschitzke and Mr. C. Martin on the committee.

WISCONSIN STATE GLADIOLUS SHOW

AUGUST 23-24

MARINETTE ARMORY, MARINETTE, WIS.

Exhibition Hall will be open for entries from 7:00 p. m., Friday, August 22 to 11:00 a. m. Saturday, August 23.

12:00 noon. Gladiolus luncheon for exhibitors. Blue Room, Lauerman's Store. Judging will start 11:30 a. m.

Special prizes of Fancy Vases and Pottery for grand awards in the Open, Recent Introduction and Amateur classes.

Cash prizes for various sizes of commercial displays.

Fancy vases and pottery for the arrangement section prizes.

SATURDAY, AUGUST 23—2:30 p. m.

GRAND OPENING WISCONSIN STATE GLADIOLUS SHOW

MUSIC—String orchestra and entertainment during afternoon and early evening.

6:30 p. m.—Wisconsin State Gladiolus Banquet, Hotel Marinette. Speaker, music and entertainment.

9:00 p. m.—Coronation ball of gladiolus queen, Royal Frontenac Ballroom, Menominee, Mich.

SUNDAY, AUGUST 24

Special Sunday services in various churches.

9:00 a. m.—Directors meeting, Hotel Marinette, Marinette, Wis.

12:00 noon—Gladiolus Picnic, John Henes Park, Menominee, Mich.

4:00 p. m.—Closing of the Wisconsin State Gladiolus Show, Marinette, Wis.

Our two auctions netted $540.00 which is being spent for ribbons, special prizes, cash awards, decorating the Exhibition hall and furnishing transportation free to both events which are being staged in Menominee, Mich.

We have printed 25,000 tickets for admission to be sold by the girl candidates for queen and Lions Club teams backing her. Price of tickets is 10c each and the enthusiasm already displayed by the Lions Clubs of Marinette, Peshtigo, Menominee and Stephenson, Mich., indicate they will have to print another 25,000 tickets.

The committee in charge of the show are the following: Paul Ravet, chairman; Mrs. J. A. Faller, Mr. Hugo Krubsack, Mr. Arnold Sartorious and Mr. N. S. Nelson.

Everyone wishing to make hotel reservations do so as soon as possible. Write to Mr. E. A. Sommerfeldt, Hotel Marinette, Marinette, Wis.

—By Paul Ravet.

WISCONSIN GLADIOLUS SHOW

August 18-19. Madison Gladiolus Show. First National Bank. By Madison Gladiolus Chapter.

A ship called at a cannibal isle and the captain was surprised to see the missionary come out in a canoe.

"How on earth did you ever keep them from eating you?"

"It was easy. You see, I have a cork leg. As soon as I landed, I pulled off my trousers, cut off a slice and handed it to the chief. He decided I wasn't worth cooking."

COMING GADIOLUS SHOWS

July 27. Nebraska Gladiolus Society annual show, Benson Park, Omaha, Neb.

August 16-17. Indiana Gladiolus Society show and festival, Honeywell Memorial Community Center, Wabash, Ind.

August 19-20. International Gladiolus Show, Kalurah Temple, Binghamton, N. Y.

August 25-26. Ohio State Gladiolus Society annual show, Cleveland, O.

September 7. Ohio State Gladiolus Society seedling and recent introductions show, Solon, O.

Dates courtesy Florists' Review, Chicago.

Weed Control in the Garden

Radio Talk by Prof. O. B. Combs WHA and WLBL

QUESTION: Is there any danger of causing injury to the vegetables by using 2, 4-D around the garden?

ANSWER: Yes, there is, and extreme care should be used to make certain that none gets on vegetable plants or other desirable plants.

QUESTION: And, I suppose that also raises the question of the use of 2, 4-D in garden spray equipment. I believe that you warned us some time ago of the danger to vegetable crop plants from even very small amounts of leftover 2, 4-D in the sprayer.

ANSWER: Many home gardeners, most of whom I suspect, do not use sprayers for applying materials to control insects and diseases. **Dusters are convenient,** effective if properly used, and quite inexpensive. But, where sprayers are used, I would make certain a separate one is on hand for use on vegetables, or, if only one is on hand, that it is thoroughly cleaned before shifting from 2, 4-D to insecticides and fungicides on vegetables.

QUESTION: How would you suggest 2, 4-D be removed from a sprayer?

ANSWER: A number of materials have been used. Hot, soapy water is effective. Alcohol, trisodium phosphate and ammonia have also given satisfactory results.

Chemical For Weed Control In Carrots

QUESTION: Will you tell us about the dry-cleaner type solvent which commercial carrot growers use to help with their weed control problems. Is that practical for the home gardner?

ANSWER: It's not especially practical, but he may use it if he cares to. The material is carried by some filling stations and by most bulk oil plants under the name of Stoddard Solvent or some regular trade name. Ask for Stoddard Solvent. It will cost around sixteen to twenty or more cents a gallon plus taxes depending on the amount purchased. The common recommendation of around 100 gallons an acre would mean about one gallon for 300 feet of row. Us any ordinary sprayer for applying it and spray in a band over the row about four to six inches wide.

QUESTION: How large should the carrots be when the spray is applied?

ANSWER: Best results will be secured if the carrots are not more than two or three inches tall. And, incidentally, Stoddard Solvent also may be used on parsnips, parsley, caraway and dill but not on other vegetables.

How Deep To Cultivate

QUESTION: Just when and how deep should one cultivate for best results?

ANSWER: In my own garden, the first cultivation comes when I prepare the soil for seeding for the first time. That cultivation, of course, is as deep as one plows or spades. The next cultivation comes—if everything goes well and the weatherman cooperates—just before the first crop of weeds gets up.

QUESTION: What about later cultivation?

ANSWER: Try to time each cultivation so that the weeds are very small or just germinating and not even above ground. The important thing to remember is this: If you cultivate before you can see weeds, you'll never have any. And don't ever cultivate deeper in later cultivations than you did the first time over. In other words, germinate and kill the weeds in the top two inches of soil and leave any weed seeds that are deeper than that where they are so that they won't come up. If they're pulled up near the surface, by deeper cultivation, a new crop of weeds will result.

QUESTION: That, then, means shallow-going tools for weed control.

ANSWER: That's certainly true. Shallow-going, blade type or duckfoot type tools, properly handled, not only do a good job of weed control but they're easy to use.

(Condensed).

WILL COMMERCIAL FERTILIZERS INCREASE GLADIOLUS DISEASE

We have published reports that the use of organic nitrogen fertilizer such as Blood meal increased amount of disease, especially Fusarium in Gladiolus, especially if there was a deficiency of phosphorus.

The question has been raised as to whether commercial fertilizers applied in large amounts might increase the tendency to disease. We asked Prof. R. E. Vaughan, Extension Plant Pathologist, University of Wisconsin to answer this question. Here is his answer:

"I do not know of any diseas of gladiolus that can be attributed to the use of commercial fertilizers Furthermore I cannot see how th fertilizers could cause any damag when used in any reasonable a mount. In some soils low in avai able plant food the use of com mercial fertilizers would be of de cided advantage.

"The use of humus in the so cannot give immunity or suscepti bility to disease. It does have a ten dency to equalize the water suppl and make the soil in better condi tion for root development."

AN EASILY GROWN ANNUAL

BACHELOR'S Buttons (Ce taurea cyanus), also called corn flowers, are hardy annuals of eas culture. There are both single an double varieties in white, ros pink, purple and blue, the latter b ing especially important b cause true blue is rare among flowers. As a cut flower, they a unexcelled but need plenty of wa ter to obtain long flower stems.

Seeds can be sown in ear spring, and the earlier the bette Sowing in the open ground is pr ferable to starting in the hous although seedlings should be thi ned to stand eight to 10 inches part.

It is a good plan to sow three more seeds in a spot in the bord in locations a foot apart. Thin one plant in each location. By d ing it this way, less seed is r quired and thinning is reduced a minimum. Separate colors may had if a color scheme is desir The effect is better when the see are sown for mass effect.

—*From Horticulture Illustrat February* 15, 1947.

How To Make Your Soil Acid

Victor H. Ries, Ohio

Many soils are naturally acid (sour) so no extra chemicals need be added to grow acid soil plants. Other soils are neutral or alkaline (sweet) so that they require a special treatment to grow acid soil plants satisfactorily. The only way you can tell the reaction of a soil, that is whether it is acid, neutral or alkaline is by means of a soil test. The presence of moss, the color or odor of the soil, the presence of certain weeds such as sorrel are no indication whatsoever of an acid (sour) soil. Even litmus paper test is not satisfactory.

You can purchase inexpensive soil testing kits or you can have the reaction of your soil tested by your county Agricultural Agent, or Agricultural Experiment Station. There is no need of having it tested *if you are not interested in growing acid soil plants.* Plants requiring acid soils include Rhododendron, Azalea, Mountain Laurel, Blueflowered Hydrangea, (otherwise they will be pink) Heather, Leucothoe, Andromeda, Trailing Arbutus, Partridge Berry, winter green, and some wild flowers. Those that prefer but do not absolutely require an acid soil include, Flowering Dogwood, Pin Oak, and Fringe Tree.

Soil reaction is expressed by a scales called pH. 7 is neutral with acidity increasing as numbers are lower. Acid soil plants require a soil between a pH of 4.5 and a pH of 6. Below a pH of 4 the soil will be too acid for most plants, even acid soil one, to grow satisfactorily. Above 8.5 the soil will be too alkaline for many plants. A soil test will give the so called pH reaction of the soil.

Contrary to popular belief, oakleaves, pine needles, moss, weathered sawdust, rotted apple pumice and most other plant material will not acidify the soil. Neither will Epsom salts.

The latest recommendation for acidifying soil is a mixture of equal parts of:

Powdered Sulfur — need not be as fine as dusting sulfur
Iron sulfate (copperas)
Aluminum Sulfate
Ammonium sulfate

One pound scattered over 100 square feet will lower the pH ½ point down to a pH of 6. Below this point it takes less to increase the acidity. This is scattered over the surface of the ground. You may rake it in if you prefer, but it is not necessary. It may be applied now or in the early spring, if you want to obtain full benefit. Otherwise it may be applied anytime the soil is found to be insufficiently acid.

A Few Hints On Keeping Soil Acid

Do not apply lime
Do not apply
bone meal) They will both sweet-
Do not apply) en the soil
wood ashes)

Do not apply sand unless you are sure it contains no line stone.

Do not use any water other than rain water or the lime in it will counteract the acidity of the soil.

Apply chemicals once a year. Spring is a good time, but they can be added any time.

Maintain a 2 inch to 3 inch mulch of organic material over the entire bed. This may be peat moss, fresh oak sawdust, well weathered sawdust, compost (if it has not had lime or wood ashes added to it) rotted straw, rotted manure, clover chaff, chopped corn cobs, buckwheat hulls, chopped cornfodder.

Statement: Blueberries, both high and low bush types, require a soil more acid than we normally find in southern Wisconsin gardens and therefore, cannot easily be grown here.

Answer: That is right and I hope our listeners will not purchase high-bush blueberry plants as a result of reading glowing advertisements in magazines. These ads show beautiful plants 4 and 5 feet tall full of large blueberries. These plants are no hardier than peach trees and have the furthur disadvantage of requiring a strongly acid soil for growth. Our Wisconsin soils are too high in lime, excepting is some northern sections and there the winters are too cold for the plants to survive. Now and then I find a gardener who has succeeded with them for a period of years, but not for long.

"America has great need of a new race of pioneers to preserve and restore her forests, her soil and her water supply."

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

PRESIDENT'S MESSAGE

June

DEAR MEMBERS:

I know every one of you wishes to join me in congratulating the Sheboygan and Lodi Garden Clubs upon the receipt of National Council White Ribbon Awards for the meritorious projects they have developed in their respective communities. Not only has this recognition brought honor to these Clubs and our Federation, but it reveals the significant possibilites of accomplishment through intelligent, united effort, when there is an unselfish desire to bring beauty and order to every one.

It will never be possible to record the amount of joy and inspiration that may register in the consciousness of people who pause in the Sheboygan Roadside Park or pass through the beautiful city of Lodi but we do know those who had the vision, the unselfish urge and strength of purpose to attempt and achieve these projects, have won a recompense of personal satisfaction that is its own reward.

When we reflect on the attainments of our clubs and bask with legitimate pride in the satisfaction that results from deeds well done, we often fail to realize there are but few individuals who have the vision, the courage — the spark that inflames others to set plans into concrete realities. I like to think of these people as the "Queen Bees" of our organization.

Every club has a nucleus of this imaginative, creative force embodied in but a few of its personnel — all too often we forget to respect these "Queen Bees". We, the "Workers," shirk our jobs. We promise time we never give, we accept duties we never perform, we fail to respond with enthusiasm and constructive thought. Finally, we begin to wonder why our clubs become impotent, why we can't find officers and leaders, why we aren't much interested any more. Is it not possible we have lost the interest of our "Queen Bees" because we failed them or that we are not training and encouraging others to take their places?

In safeguarding our leaders we must never lose sight of a true sense of loyalty. Anyone giving of his time gives his most precious possession. Every imaginative, resourceful person has his own peculiar methods of doing things which may conflict with our sense of order and fitness. This war of personalities, if unchecked can cause untold chaos, discord and hopeless failure in our work. The only safeguard we have is loyalty, and we must never forget that complete loyalty is not possible if we have only a superficial knowledge of the facts.

With cordial greetings and every good wish for a pleasant summer to you all.

RUTH WEST

LAST CALL FOR YEAR BOOKS

July 31st is the deadline for entries in the state year book contest. Clubs which have not as yet sent in their books should do so immediately.

Horticulture, (Mass. Hort. Society) is again offering cash prizes for year books. Entries in this National Contest must be made on or before October 1, 1947. Address: Horticulture, 300 Massachusetts Ave., Boston 15, Mass.

Mrs. V. Suttinger, Eagle, Wis., Program Awards Chm.

"Friends of the Land was founded in March 1940 when sixty men and women held a meeting and formed a non-profit, non-partisan society for the conservation of the soil, rain and Men." Since 1941 the society has published The Land and a house organ, The Land Letter.

To overcome legginess cut back michaelmas daisies and helenium in summer.

NATIONAL AWARDS TO LODI AND SHEBOYGAN GARDEN CLUBS

The Awards Committee of the National Council of State Garden Clubs, Inc., awarded the white ribbon for projects of special merit to the Lodi Garden Club for their beautification project and to the Sheboygan Garden Club for their wayside project. The awards were presented at the National Council meeting in Tulsa, May 5-6-7.

Lodi has a population of 1,100 and its garden club of 26 members has done outstanding work in beautifying its surroundings.

Half of the area of Municipal Park has been planted with flower borders of continuous bloom, cared for and donated by the garden club.

Spring Creek which passes through the center of the town has been dammed and is crossed by a bridge. The garden club has landscaped its banks and maintains flower boxes on the bridge and walls.

Memorial Park on land donated by the city has been landscaped by the club. They raised $1,200 for shrubs, trees, etc. for this project.

During the Christmas season a tree in each park is decorated by the garden club which also sponsors a civic lighting contest.

Motorists detour to pass through Lodi, the charming little city which truly expresses the unselfish spirit and amazing accomplishment of a small group of people interested in beauty for everyone.

THE SHEBOYGAN GARDEN CLUB'S WAYSIDE PROJECT was begun in 1934-1935. Money was raised to purchase land along the Sheboygan River on the newly completed highway 28 between Sheboygan and Kohler.

With the aid of the State Highway Department the plot of ground was landscaped. The club then deeded the land to Sheboygan County.

Later the Sheboygan Garden Club secured picnic units, consisting of tables and seats and placed them in this lovely little Wayside. So the public could have fires the club placed roasters for their use.

As there was no drinking water available only at some distance the club raised more money for the establishing of a well. When the well was finished a shelter house was then erected.

The Wayside project will be dedicated this summer by the Rev. Alfred H. Otto, Past State President of the Wisconsin Garden Club Federation.

By Mrs. William Curtiss, Route 1, Plymouth, State Publicity Chairman.

TWO NEW GARDEN CLUBS JOIN FEDERATION AND SOCIETY

The West Salem Garden Club of LaCrosse County and the Piney Ramblers Garden Club of Wentworth in Douglas County, near Superior, joined the Wisconsin Garden Club Federation and Horticultural Society in May.

Officers of the clubs are as follows:

PINEY RAMBLERS GARDEN CLUB
Wentworth

Pres: Mrs. C. Berg
Vice-Pres.: Mrs. L. Olson, South Range
Sec'y.: Mrs. Edw. Thompson, Box 112A
Treas.: Mrs. C. J. Tallakson, South Range.

WEST SALEM GARDEN CLUB

Pres.: Mrs. Linus Roehm
Vice-Pres.: Mrs. Oscar Storandt
Secy.-Treas.: Mrs. H. W. Dreckt-rah.

The Board of Directors of the Wisconsin Garden Club Federation welcomes these clubs to membership. There are now three clubs in the La Crosse area—the LaCrosse Garden Club, West Salem, and Sparta Clubs. ties.

The Wentworth Club will join with Superior groups in any large activities.

A MESSAGE FROM THE PUBLICITY CHAIRMAN

I wish each one of you realized the importance of publicity. No organization can long survive in this competitive era without good publicity.

I offer the following program as a personal message:

1. Your club — no matter how small — should have a publicity chairman, chosen with care. Once you have a good publicity chairman, do everything in your power to keep him. Unlike other jobs this is not one to be passed around. 2. If possible make your publicity chairman a member of the board or at least invite him to all board meetings. To handle club publicity judiciously he must know firsthand every detail of the club's activities and policies.

3. If you are an officer or chairman, work closely with the publicity chairman to keep him informed of all activities planned or scheduled. To avoid friction and endless difficulties, make it a hard and fast rule to release no information to the papers except through him. 4. See to it that your club carries through on its announced plans and projects.

5. To help your club understand the importance of publicity, plan to devote one program to this subject, preferably early in the year. Talks by newspaper or radio people, round-table discussions and amusing stories can all serve to make this program popular and timely. 6. See that your publicity chairman has help in keeping a simple, neat scrapbook of newspaper clippings of local, district, state and national news of interest to your particular club.

7. Share news of your club's outstanding activities with other clubs in the state by asking your publicity chairman to contribute regularly to the "Between Clubs" page in the Wisconsin Horticulture. 8. Remember that even the best publicity chairman cannot manufacture news. Your club must *do* things that make news if it is to merit space in the papers which are scarce of newsprint. The work which your club is doing should be emphasized in your newspapers.

—Elizabeth Curtiss, State Publicity Chairman.

BETWEEN CLUBS

The Honey Creek Civic Club will hold its annual flower show on June 11, from 2 to 9 p. m. This active club is starting the third decade of shows, the June 11th show being its 21st. Proceeds of the show are used each year for the upkeep of the Community grounds within the village. All neighboring clubs are invited.

The Iola Garden Club put on a play called "Handsome Rogues, or The Bad Perennials." This play is designed to make us think before planting shrubs or plants without knowing about their growing habits. In having plant exchanges it should make us consider whether the material is a spreader, and if it will cause trouble in eradicating it.

"Every member learn the fundamentals of flower arrangement" is the objective for the year of the Fond du Lac Community Garden Club. Each month's program includes a talk on some phase of flower arranging, besides a talk on a subject suitable for that month. In June they plan a Rose Tea and as part of the program there will be a talk on "How To Have Your Roses and Eat Them Too."

The Edgerton Garden Club has confined its year's study to "Landscaping the Home Grounds." Prof. Joseph Elfner and Mr. L. G. Holmes have been guest speakers on this subject. Members of the club also give talks on different phases of landscaping. In October they will have slides from the National Council of State Garden Clubs showing "Design of the Small Place."

The Two Mile Garden Club of Wisconsin Rapids has been offering interesting programs to their members as well as entertaining the other garden clubs in Wisconsin Rapids. Some of the programs include contests, answering of roll call in other ways than by the usual "present", exchange of May Baskets and hearing recorded bird songs and calls.

It is the custom of the Edgerton Garden Club to have a flower show every other year. The year they do not have a show they arrange to have a good speaker. On August 27 they will have Mr. A. G. Peliken, Director of Art Education in Milwaukee lecture on "The Importance of Color in Everyday Life" with special emphasis on color harmony in flower arrangements. They plan a part of every meeting to some phase of conservation as suggested by the National Council.

The corresponding secretary of the Kenosha Garden Club sends a monthly news letter to each member. These letters give the time and place of their next meeting and program. This is followed by Garden Club Notes which gives the flower of the month and short discussion of the program and business to come up.

They have two study groups that meet each month and each has its own year book.

The Kenosha County Garden Club is having a Spring Tea, June 24th at 2 o'clock at the First Methodist Church. Mrs. Irwin Burger and Mrs. Wm. Kelley of Woodstock, Illinois will present "Flower Arrangements."

The Plymouth Garden Club emphasized birds at their May meeting. Mr. Earl Wright of the Neville Public Museum, Green Bay, who thrilled those who attended the club's annual banquet, returned with an entirely different lecture and moving pictures. Mr. Wright who is also an artist displayed many of his paintings and pencil drawings of birds.

By Mrs. Wm. Curtiss, Route 1, Plymouth, State Publicity Chairman.

From a Gardener's Notebook

By Genevieve Dakin, Madison

Authorities doubt the value of peat moss as a mulch on a rose bed. Rose beds should be kept clean — dead leaves picked up and burned — a difficult matter where a mulch is used. Moreover as time goes on the peat will lighten the soil and render it unsatisfacfory for rose culture. Roses like a heavy loam preferably slightly clayey. Cow manure is the ideal fertilizer. Bonemeal is sometimes a necessary substitute. One grower tells of his thorough soil preparation adding, "then every four feet I bury a tom cat or Jack Rabbit and when the hybrid perpetuals get down to the carcasses they never stop blooming." According to a specialist — "The established rose bed, if founded on caw manure, may well go the first year without adding anything to it; but in succeeding years, a yearly mulch of manure helps to maintain humus content and an application of a chemical fertilizer in May and August gives just that little extra 'kick' that means the difference between just roses and good roses."

Massachusetts Horticulture gives some helpful hints on acidifying soil. Mix a pound of aluminum sulphate with each square yard of surface soil, with one-half pound of powdered sulphur added. Each spring scratch into the soil additional sulphur (one-half pound to each square yard of surface). A bed of peat moss and soil in equal parts so treated should make the growing of acid lovers possible provided the artificial water is not charged with lime. Perhaps the section may be cultivated, but watered little or not at all.

It is time to spread strawy mulch under strawberries to aid in ripening the berries and keeping them clean.

June is the month to set out tender water lilies — usually after the middle of the month. Select containers and use sticky clay loam with plenty of rotted cow manure or rich plant food. Cover the surface with gravel.

Cuttings of early blooming rock garden plants may be made in June. To build up strong plants for next year cut back arabis, alyssum and aubrietia before they go to seed.

Shear deciduous hedges and trim evergreen hedges this month.

"A good delphinium carries spikes of flowers, not umbrellas. Wiry wind-resisting stems, healthy vigorous growth and ability to withstand high temperatures, low moistures and diseases are the goal toward which breeders are bending their energies."
—Gardener's Chronicle.

If you can get to Fox Lake at delphinium time don't fail to see Mr. Cady's delphinium gardens — rows of gorgeous hybrids through the full color range. You will fill your car unless I miss my guess. His prices are very reasonable.

Be sure to cut daylilies in the bud for indoor use. Cut daylily stems when (with or without open bloom) they have at least one plump, color tinted, ready to open bud. This assures easier and bruiseless handling. The buds will open into spotless and full colored beauty and, with favorable conditions, will continue to open on successive days for a week. Farr Nursery Co.

"The first book especially directed to feminine gardening was William Lawson's "The Countrie Housewife's Garden" 1618. In this work he divides her garden into two sections— the Summer garden and the Herb Garden.

In the former she was to grow cowslips, daisies, gilliflowers, hyssop, lavender, lilies, peonies, pinks, rosemary, roses, sage, southernwood and thyme. In the herb Garden where "were comely borders of roses and lavender, were grown three heights of herbs."

The author suggests "withal I advise the Mistress either to be present herself or teach her maids to know herbs from weeds."
—Richardson Wright in Winter Diversions of a Gardener

How beautifully our packaged seeds come to us in attractive, easily opened envelopes! Quite a contrast to the days when a package of seed was smeared with mutton suet and placed in a box and the box filled with hot wax. Did melting the wax whet the gardener's anticipation? Along in the middle eighteenth century an English gardener had an interesting time opening a shipment of seeds. The seeds were wrapped in sheets of wax, then the wax coated with gum arabic, then the package was put in a box filled with dry sand and finally the box was encased in a dry cask. Mr. Wright adds that the seeds germinated.

Several interesting notes come from reading up on lilies. Mr. Slate believes that generally speaking, lily bulbs should be purchased from a lily specialist rather than the general nurseryman or seed house unless the latter are known to make a specialty of lilies. It is always desirable to encourage specialists.

The lilies of the world are nearly all in cultivation. Future collectors can do little more than discover minor variants of species already in cultivation. The lilies of the future will be produced by hybridization. Miss Jekyll considers that the best place to enjoy the beauty of lilies is a cool, sheltered, leafy place—some shady bay in the woodland, close to, but removed from the garden proper. In this way their beauty and dignity may be fully appreciated. Shrubs make an excellent background for liiies and also break the force of the wind.

Cutting lilies and consequent removal of most of the foliage is a severe shock to the bulb which may divide into several smaller bulbs or at best will need a year to recover before flowering again. The cutting garden is the place to grow lilies for cutting.

Our England is a Garden and such gardens are not made
By singing, "Oh, how beautiful!" and sitting in the shade,
While better men than we go out and start their working lives
At grubbing weeds from gravel paths with broken dinner knives.
There's not a pair of legs so thin, there's not a head so thick,
There's not a hand so weak and white, nor yet a heart so sick,
But it can find some needful job that's crying to be done,
For the Glory of the Garden Glorifieth every one.

—Kipling

China through her unusually rich flora, of which no less than 18,000 species have been described up to date, and through generations of selective culture has accumulated an immense wealth of cultivated plants.

BIRD LORE IN THE EARLY DAYS

Interest Shown In English Sparrow 78 Years Ago

By 1869 residents of Wisconsin had heard of the importation of the English Sparrow, and were greatly interested because it promised to take care of the insect problem, then becoming serious in orchard and garden.

At the annual convention of the Wisconsin Horticulture Society in February, 1869, the following statements were made in regard to the English Sparrow:

"Judge Knapp stated the English Sparrow had been introduced into New York city for the purpose of clearing the streets of the insects that destroy their foliage. He would like to be informed by someone if they would eat any kind of fruit, and if they could be kept in this state."

One member stated he thought the blue jay would destroy them as it does some of the other small birds.

Dr. Hobbins remembered the bird in England, that it lived about the houses and ate the grain in winter. He had known bounties offered for their destruction.

A committee consisting of Dr. Hobbins, Willey and Knapp was appointed to correspond on the subject, and if possible to procure a pair or more of sparrows. Dr. Hobbins stated he would correspond with the Royal Horticultural Society and perhaps could obtain a pair direct from England.

At the convention in 1870 Dr. Hobbins reported that he had found it quite questionable whether or not the introduction of sparrows would be beneficial. They were generally declared a nuisance in England, but however desirable they might be, they could not be procured at present in this country.

FERTILIZATION HAS NO EFFECT ON DISEASES

There are no reliable data to show that any disease of the rose caused by pathogenic organisms, such as blackspot, mildew, brown canker, rust, anthracnose, Cercospora, leaf-spot, etc., can be held in check through fertilization, organic or inorganic. The idea that diseases "flee before vigor" ("vigor" usually being used synonymously with rapid growth) is erroneous. A rose plant suffering seriously from nutritional deficiencies may finally in its disintegration be attacked by fungi and other organisms that ordinarily do not attack it; but such a "sick" plant would probably be *more resistant* to the blackspot, mildew, anthracnose, rust and other pathogenic fungi than one receiving adequate nutrients.

— By Dr. L. M. Massey in American Rose Magazine.

WHEN TO SPRAY OR DUST ROSES

Conditions that favor blackspot and other leaf spots may make it necessary to apply a spray or dust about once a week on the average. In the spring when there are frequent rains and new growth takes place rapidly, it may be necessary (and usually is) to spray or dust twice a week. Later in the season when the weather is hot and dry, an application every two weeks, or even less frequent, may be sufficient. Timing by the calendar may prove to be satisfactory in certain seasons when conditions are not especially favorable for disease. The system falls down, however, at other times, such as the season of 1946, as experienced in many sections of the country. Under such conditions the greater frequency of rains calls for more frequent applications, and we have a similar problem when the foliage is often wet by dews or fogs.

—By Dr. L. M. Massey in American Rose Magazine.

ORGANIC MATTER AND CHEMICAL FERTILIZER

At the Fifth Annual Conference on Conservation, Nutrition, and Health at Ohio University, Dr. Emil Truog, Professor of Soils at the University of Wisconsin said this about the importance of organic matter in the soil.

"Much ado is being made today about the great importance of soil organic matter in relation to soil fertility, soil conservation and crops of satisfactory nutritive value. This, in part, is as it should be, because soil organic matter is of tremendous importance. It facilitates the intake of water and thus reduces runoff and erosion. It also favors workability or ease of cultivation, aeration and drainage. Fresh organic matter contains all of the elements needed for plant growth. However, to say that a chemical fertilizer such as superphosphate and muriate of potash should not be used to make up inevitable deficiencies of nutriment elements that cannot be supplied through the use of organic matter is just pure bunkum. Absolutely no evidence exists to the effect that the judicious use of mineral fertilizers is at all injurious to soils or tends to produce crops which are unsatisfactory as feed for animals or food for man."

ROSES NO LONGER FRAGRANT

Edwin P. Sinnock states in the American Rose Magazine that he cannot remember ever handing a choice loom to a person who did not immediately poke his nose into its center. If it happened to be one of he varieties which has little or no odor and the recipient was not a rose grower, he would generally voice his astonishment. This is because scent and roses have always seemed to go together.

Most of the old-fashioned roses were abundantly provided with fragrance. Grandmother's garden was a place of many sweet smells. Several of the modern roses, however, have ittle or no fragrance. The hybridizrs in their scramble to provide a rose conscious public with new and different varieties have seemingly overlooked this important characteristic of the rose. Fragrance seems to be forgotten today. In many of our rose shows little, if any credit is given for fragrance in judging the entries. This is to be regretted and should be remedied at once.

From Horticulture Illustrated, May 15, 1947.

State Garden and Flower Show

Beautiful and Artistically Designed Show Does Credit To Wisconsin Garden Clubs

Wisconsin garden club members excel in artistic ability. We can be proud of this work. This was an easy conclusion after viewing the beautiful exhibits at the annual State Garden and Flower Show, Recreation Building, Wauwatosa on May 23-25.

To Mrs. Chester Thomas, chairman, and her committees a great deal of credit is due.

Attendance dropped this year. An analysis of the reason must be made in order to increase attendance in another year. Was it the weather, higher admission price, or a change in the attiude of the public? There will probably be a small financial loss, amply covered by the reserve fund.

TO ALL THOSE WHO HELPED MAKE THE FLOWER SHOW A SUCCESS

Sincere thanks, dear members, for having made possible our beautiful Garden and Flower show.

Show visitors proclaimed it the finest of our many shows.

To all committee workers, exhibitors and other members, whose support and patronage meant so very much, I wish to express the grateful appreciation of the Show Committee

Mrs. Chester Thomas, Chm.

SPECIAL AWARDS

Wisconsin Horticultural Society Special Ribbons.

1. Best designed Garden, Kenosha Garden Club, Mrs. Theo. Vanderheide, Chm.

2. Most educational exhibit, Garden and tool house, Milwaukee Co. Horticultural Society, Mr. Walter Knuth, Chm.

3. Best specimen bloom, St. Paulia Violet Plant, West Allis Garden Club, Miss Janet Buckeridge.

Wisconsin Garden Club Federation—Award of Merit.

1. Most Distinctive Artistic Arrangement. Flowers set to music, Jitterbug, Home Gardeners Garden Club, West Allis, Mrs. L. G. Stewart.

2. Most Distinctive Garden. Mexican Patio Garden, Spring City Garden Club, Waukesha, Mrs. Jeff Johnson, Chm.

3. Table — Most outstanding — distinctive. Travel mood, Arizona. Mrs. L. G. Stewart, Home Gardeners Club, West Allis.

4. **Special Award.** Wisconsin Garden Club Federation. Rumpus Room Cokes and eats. Whitnall Park Garden Club, Hales Corners, Mrs G. Wm. Warner, Chm.

Milwaukee Journal Trophy, Barrack type house. More than just a door-entrance planting. Blue Mound Garden Club, Wauwatosa, Mrs. J. C. Hawker, Chm.

Juniors

1. Cigar Box Garden. Mrs. John West. Junior Awards, Sandra Lacker, Girl Scouts, Troop 2, Waukesha.

2. Most Distinctive Arrangement for Table Setting, Karen Hapke, Elm Grove.

AWARDS ON GARDENS

A RETREAT, by the Madison Garden Club, Mrs. Wisniewski, Chm. Award, Very Good.

DIVIDED OR DUTCH DOOR WITH PICTURE WINDOW EFFECT ON EITHER SIDE, Sheboygan Garden Club, Mrs. Russell Jacobson, Chm. Award, Excellent.

MORE THAN JUST A DOOR—ENTRANCE PLANTING, Blue Mound Garden Club, Mrs. J. C. Hawker, Chm. "Excellent."

WILD FLOWER SANCTUARY, Wauwatosa Garden Club, Mrs. Max Schmitt, Chm. "Good."

QUONSET TYPE HOME, Home Gardeners, West Allis, Mrs. Stewart, Chm. "Good."

TOOL HOUSE AND COLD FRAME, Milwaukee County Horticultural Society, Mr. Walter Knuth, Chm. "Very Good."

ANNUAL GARDEN, Kenosha Garden Club, Mrs. Theo. Vanderhiede, Chm. "Excellent."

VEGETABLE AND FLOWER GARDEN, West Allis Garden Club, "Very Good."

REPLICA OF FORMAL GARDEN AT WYCHWOOD, Lake Geneva Town and Country Garden Club, Mrs. John Raup, Chm. "Very Good."

PATIO MEXICAN STYLE, Spring City Garden Club, Mrs. Jeff Johnson, Chm. "Excellent."

MODERN PATIO, Fox River Valley District, Mrs. C. Braman, Chm. "Good."

Special Tables

WEDDING BUFFET TABLE, Elm Grove Garden Club, Mrs. Clarence Hopke, Chm. Award, Excellent.

RUMPUS ROOM—COKES AND EATS, Whitnall Park Garden Club, Mrs. J W. Warner, Chm. "Excellent."

RUMPUS ROOM — COLLEGE WEEKEND, La Belle Garden Club, Mrs. Myron Reid, Chm. "Excellent."

RUMPUS ROOM—POKER FOR PA, Galecrest Garden Club, Mrs. R. Petersen, Chm. "Very Good."

TRAVEL MOODS—ITALIAN, Blue Mound Garden Club, Mrs. Swift Miller, Chm. "Good."

TRAVEL MOODS — PACIFIC ISLE, Art Institute Garden Club, Mrs. Stephan Cushman, Chm. "Good."

TRAVEL MOODS—ENGLISH, Ravenswood Garden Club, Mrs. Geo. Affeld, Chm. "Excellent."

TRAVEL MOODS — ARIZONA, Home Gardeners, West Allis, Mrs. L. G. Stewart, Chm. "Excellent."

TRAVEL MOODS—DUTCH TEA Table, Ravenswood Garden Club, Mrs. E. Kronsnoble, Chm. "Good".

SPRING LUNCHEON TABLE—DERIVING COLOR FROM FLOWERING SHRUBS, Waukesha Town Garden Club, Mrs. Matie Christoph, Chm. "Excellent."

LUNCHEON TABLE—DERIVING COLOR FROM TULIPS, Hawthorne Garden Club, Mrs. Eisenberg, Chm. "Excellent."

LUNCHEON TABLE—DERIVING COLOR FROM FLOWERS, Baraboo Garden Club, Mrs. O. F. Isenberg, Chm. "Excellent."

ANTIQUARIAN'S DREAM TABLE — LUNCHEON, Menasha Garden Club, Mrs. Clarence Schultz, Chm. "Excellent."

SUMMER TABLES, A. A. U. W. Garden Club, Manitowoc, Mrs. John D. West. Chm. "Very Good."

GLAMOUR TABLES — CANDLE LIGHT Mrs. M. B. Plate, Chm. "Good."

GLAMOUR TABLES — MOONLIGHT & ROSES, A.A.U.W. Garden Club, Manitowoc, Mrs. John D. West, Chm. "Very Good."

GLAMOUR TABLE—HER FIRST DATE, Elm Grove Garden Club, Mrs. Eugene Muenzberg, Chm. "Excellent."

BUFFET TABLE—GRADUATION Art Institute Garden Club, Mrs. Oscar Fleischer, Chm. "Very Good."

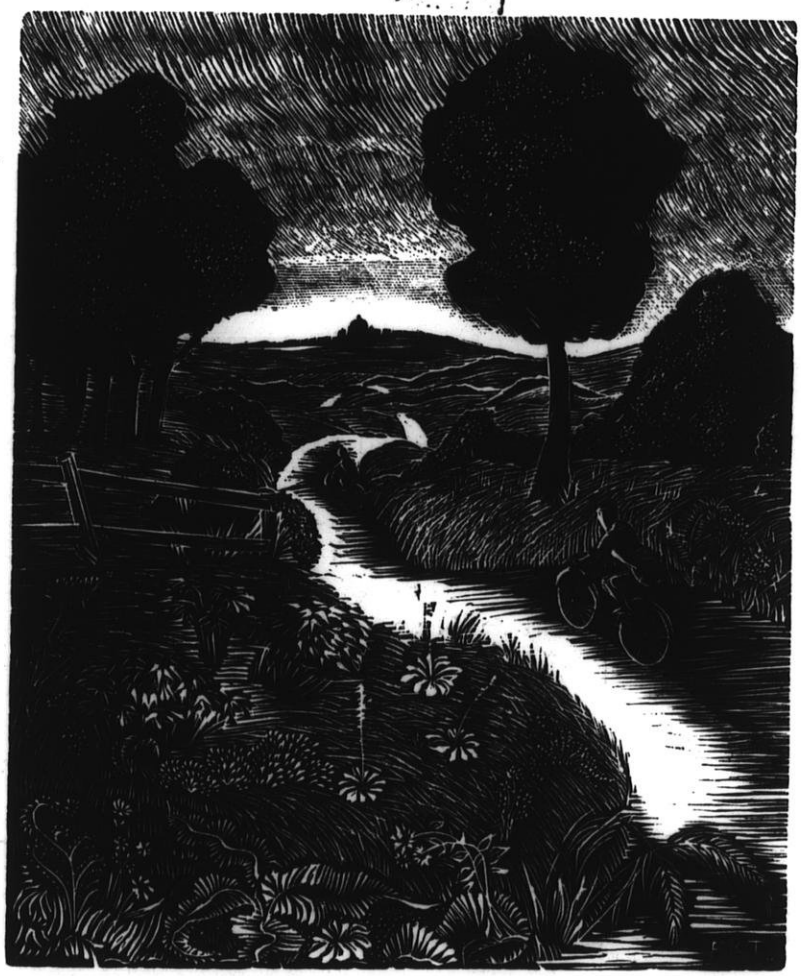
BUFFET TABLE — WEDDING, Racine Garden Club, Miss Grace Miller, Mrs. H. R. Wilson, Chm. "Good."

BUFFET TABLE — HUNT BREAKFAST, Elm Grove Garden Club, Mrs. G. Alan Kriz, Chm. "Excellent"

EVERYDAY TABLES— BREAKFAST IN THE KITCHEN, Blue Mound Garden Club, Mrs. H. Freudenberg, Chm. "Very Good."

(To be continued'

Wisconsin Horticulture



July-August, 1947

THE STORY ABOUT THE EASY WAY TO GROW PEARS

Recently a prominent farm paper wrote up a story of a Northwest pear grower who seemed to live in a fairyland of pear production. According to the story, there was no pruning to worry about and the cover crop grew with prolific abundance. But in among the facts was one that was not well brought out. That was that the orchard was irrigated so the cover crop had plenty of moisture and did not need cutting to avoid robbing the trees. Also, the pear tree doesn't need much pruning, in fact the trees grown in our section are pruned as little as possible on account of dangers of fire blight. Several growers inquired about this easy way to grow fruit.

It reminded us of the story of the colored watchman at a railroad crossing. There had been a serious accident at the crossing and the railroad company was defending a law suit. The colored watchman swore that he had waved his lantern at the approaching automobile before the crash. The company won the suit and the lawyer was complimenting the darkey for his fine testimony. The darkey replied, "Yes, suh, I waved dat lantern jist as I said, but I'se sho' glad dat nobody asked me if dat thing wuz lit."

—From April-May-June, 1947 The Maryland Fruit Grower.

NATIONAL CHERRY INSTITUTE ORGANIZED

A National Cherry Institute was organized on June 3rd by representatives of growers and packers in ten states. At the same time a program was planned to boost the nation's per capita consumption of fruit from 1½ to 3 lbs. annually.

KARL REYNOLDS TEMPORARY PRESIDENT

Mr. Karl S. Reynolds of Sturgeon Bay, member of our Board of Directors, was named temporary president of the organization. Horace Putnam of Lyons, New York, is vice-president. Other officers include: Edgerton Hart of Chicago, secretary-treasurer; A. J. Rogers and David Murray of Traverse City; Kenneth Ingison of E. Williamson, New York; W. L. Thenell of Sturgeon Bay, John Peters of Aspers, Pa., and W. W. Wilder of Clyde, Ohio, are directors.

Wisconsin members of the advisory Board are Karl Reynolds, Lougee Stedman, Wally Thenell and Reymond Lensmeyer, all of Sturgeon Bay. The national headquarters will be at Chicago and annual meetings will be held at Traverse City.

WISCONSIN HORTICULTURE

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A Visit to the World's Largest Apple Producing Region

In June we traveled to the orld's greatest apple producing ection, as Wisconsin delegate to he National Apple Institute Con- ention in Wenatchee, Washington. That valley which extends from Vernon, British Columbia, south nd a little west to Wenatchee and akima, Washington and still fur- her to Hood River, Oregon, is uly an amazing region. Shut off rom rains by the Cascade moun- ins, it produces, as one grower ut it, only sage and Jack rabbits ithout irrigation. And yet these ountains make it the important pple growing section that it is. now and rain in the hills produce ater which is caught in lakes, re- ervoires and streams to irrigate he good soils of the valleys.

Rain — Please Stay Away — Say Western Growers.

Oddly enough, fruit growers in rrigated sections don't want sum- ner rains. One grower remarked, "I wish it wouldn't rain from pring until the apples are picked." The dry atmosphere eliminates cab. Asked if he had ever had cab a grower said, "I saw a spot on leaf about 10 years ago."

The weather in summer is always lear. Long hours of intense sun- shine, without haze; cool mornings nd evenings, enable leaves to pro- luce the food for the enormous rops. While the average is from 00 to 600 boxes per acre, the bet- er growers will tell you they get rom 1,000 and up to 1,500 boxes. These factors all play a part: water hen needed; sunshine; large trees; are in pruning and fertilizing; ood pollination and proper thin- ing.

The Spray Program

Spraying practices differ greatly rom ours and differ between or- hards. Scab being unknown, no ulphur is used. Arsenate of lead as used for codling moth control o such an extent that the soil in

many orchards became poisoned. Where orchards are somewhat iso- lated and good sanitary measures used as few as four sprays are ap- plied.. No lead arsenate burn re- sults due to the dry atmosphere.

Many orchards have very large, old trees. One grower told of pick- ing 90 boxes per tree and using 70 to 80 gallons of spray per tree, each spray. Most growers prefer the 4- nozzle gun because they get better coverage. There are many station- ary spray systems.

PRUNING: Pruning is carefully done by all good growers. In fact poor growers soon lose out because profits depend upon the percentage of Extra fancy and Fancy grades produced. One is impressed with the way very large, old trees stand up even though pruned in the vase shape system popular years ago. Easterners commented that the trees would not stand up in our climate due to spliting of crotches. Propping is a common practice. Much detail pruning is done — the centers of the trees being quite open — a practice we can well afford to adopt. Large yields are obtained by having wide spreading trees — not tall. Picking is done with 12 foot, 3 legged ladders.

POLLINATION. Most West- ern growers rent bees, this year at $5.00 per colony, for pollination. At the experimental orchard near Wenatchee the superintendent said, "We don't need to rent bees be- cause we have small blocks of one variety and are close to the hills where there are many wild bees." Growers with too large blocks of Delicious find hand pollination pays, but horticulturists recom- mend grafting a branch of a good pollinating variety into the top of every other Delicious tree, and bring in bees.

DDT. In the Northwest from 50 to 75% of growers are using DDT this year. Eastern growers said the percentage is higher out there.

The Red Mite problem is on the increase everywhere. At Yakima we found many growers were us- ing Bladen (Hexaethyl tetraphos- phate) "Het" with good results. Discussing it with the manager of a large orchard he said he had walked in the fumes and that it af- fected him like asthma but soon cleared up.

THINNING. Every grower does thinning, we were told. Just couldn't get a high percentage of fancy apples without thinning. The work should be finished within 30 days after blossoming.

IN SIZE the average orchard is small — from 10 to 20 acres, al- hough there are some very large nes. Most growers deliver to Co- op packing plants, which all use Cutler graders — of enormous ength. It must indeed be a busy lace during harvest.

Talks With Apple Growers

Traveling to the convention we were in a special car with 18 dele- gates and had some very interest- ng discussion about fruit growing. Mr. James Elton of New Hamp- shire, president New York-New England Apple Institute who oper- ates a large orchard, mostly Mc- Intosh, says that he uses only mild sulphur sprays. They are preferred by eastern growers and he found hat it resulted in 20% increase in production over lime sulphur sprays. This is due to the effect of lime sulphur on leaves.

Mr. Elton also said that in New Hampshire, Massachusetts, and New York arsenate of lead is not used in the pink spray or in any

pre-bloom spray and its use in the Calyx is delayed as long as possible. This is to avoid poisoning pollinating insects.

Mr. Earl Byers of Vincennes, Indiana was another large grower delegate. Mr. Byers controls scab entirely by dusting. He gets much better results that way he claims. The dusting is done in the rain. He said, "If it doesn't rain, we don't need to dust. But if it does rain the leaves must be covered." I asked how often they dusted if rains were quite frequent in spring. He answered that they may dust as often as every three days. He also said in answer to my question that they didn't attempt to dust against the wind. The apple scab spores are blown by the wind in the same direction and the same way as the sulphur dust. Therefore, all leaves and frfuit likely to be covered with spores are likewise covered with sulphur dust.

Harvest Sprays

In discussion on harvest sprays by scientists working at the Washington Experiment Station one of them told of success using a small percentage of 2,4-D in water as a harvest spray to hold the apples on the trees. They found it to be excellent for only one variety, the Winesap. It seemed to have no effect on other varieties, another illustration of the difference between apple varieties. The regular harvest spray seems to give good results on McIntosh in some parts of the country but not in others. It may be necessary to learn how to apply it for McIntosh — the exact number of days before the apples begin to drop and the best temperatures for application.

Comments By Speakers

Mr. John Logan of National Food Chains, said, "The housewife is not so much interested in where the apples come from as in quality and what she can do with them.

"In a survey of retailers, they said competition of citrus was not felt seriously in sale of apples.

"Customers like pricing in 2 and 3 lbs. units in retail stores.

"Apple industry needs more dealer service work to help them sell apples. Radio newspaper and other promotion is a big help."

Apple Prices

Economists at Washington State College studied apple prices. From 1910 to 1940 prices followed closely prices of other farm products. Since 1940 apples have been much higher.

There is very little relation between apple prices and production in one or a group of states. The price depends upon production in the whole U. S., upon business conditions and prices of other fruits.

We will be faced with competition with all kinds of food as well as things not available during the war. Consumers will be critical of quality. We won't be able to sell poor quality fruit as we did during the war.

"What will the price of apples be this fall?" was asked of economists. This answer was of interest. "We expect a drop of about 20% in overall prices and for apples somewhat more than that."

WATCH OUT FOR APPLE MAGGOT THIS YEAR

Even though you didn't have apple maggot injury in your apples last year, you may have this year.

In 1946 the midsummer drought prevented many of the flies from emerging from the soil. With the excessive rains we have had the past few months, it is entirely possible there will be a much larger crop of flies. It is known that the larvae may live over in the soil for two years — so those that didn't come out last year may come out this year.

Beware Of Late Flies

Orchards on the edge of forests or cutover land, should be watched carefully. As stated on page 243 of our June issue, flies may migrate from unsprayed apple trees, shade trees, woodlots or brush grown fence rows. They will not stop to feed on the leaves of the sprayed tree but simply go to work laying eggs in the apples. In such cases *a spray of DDT* may be of great help — to kill the flies before they lay eggs.

ANOTHER NEW SPRAY TESTED TO PREVENT APPLES FROM FALLING PREMATURELY

A new pre-harvest spray called "Endrop", which prevents apples from dropping prematurely, has proved effective in its first commercial scale tests in Eastern orchards, by Shell Oil Company, Inc., New York. The tests were conducted on 500 acres of the 3,000-acre apple orchards owned by Senator Harry F. Byrd, in Berryville, near Winchester, Va.

The spray, in which oil serves as a carrier for alpha napthalene acetic acid, delays fruit-drop until 10 days and sometimes as much as three weeks after it would normally occur.

In the tests mentioned, "Endrop" was applied by airplane at the rate of 15 to 20 acres an hour from a height 25 to 40 feet above the trees.

Results With McIntosh

Although adapted to airplane application, it can also be applied with conventional power sprayers. In a test by the latter method, the new Shell spray was used successfully on McIntosh apples in the Indian Ladder orchards near Albany, New York. McIntosh is reported to be one of the most difficult of all varieties to treat. Sixteen days after the application, ground in the treated area was practically bare; ground under the untreated trees was blanketed with the big red apples. Only one-quarter as many apples fell from trees in the treated areas as from trees that had not been sprayed.

—Condensed from "Shell" bulletin.

Regarding sculpture in the garden: "Setting aside the unattractive frogs, gnomes and fat babies which have inhabited some gardens, there are delightfully executed figures, human and animal, to grace the far end of a length of velvety greensward, a niche in the wall, a pool. A beautiful sundial or birdbath may mark the axis in a garden."

Scabiosa or mourning bride is of European origin dating back to 1629.

REGULATIONS ON GRADING AND PACKING APPLES

By Elmer L. Peterson, Wis. Dept of Markets

Numerous questions are asked about official state apple grading, rules and regulations with reference to grading and packing and also about marking requirements on containers.

Because we are a surplus producing state it is necessary to market apples at distant points, often outside of the state, in competition with apples produced in other states. To meet this competition it is necessary not only to produce high quality apples but to prepare them and place them on the market in a well graded and attractive manner and be able to describe them to distant buyers in clearly defined terms known by the trade in general.

Federal Grades Used

To provide such terms the United States Standards for Apples are used in Wisconsin. For uniform and impartial application of these standards the Wisconsin State Department of Agriculture carries on a shipping point inspection service in cooperation with the United States Department of Agriculture. The use of these standards as well as the inspection service is voluntary. Anyone having a financial interest in a lot of apples may apply for inspection and the applicant is charged a fee. The number of trained and licensed inspectors that the department can employ naturally is limited and the amount of inspection service that is available depends entirely upon the number of available inspectors. With apple harvest coming at the time of year when many other fruits and vegetables are harvested it is very difficult to assign inspectors to apple work during this period and therefore often impossible to take care of all requests for apple inspections.

There are no regulations at the present time which require the grade of a lot of apples to be shown on the containers. If the grade is shown, however, the apples must meet the requirement of that grade or the apples will be considered misbranded.

For interstate shipments, the United States Department of Agriculture, Food and Drug Administration require the containers to be marked to show the name and place of business of the packer or distributor and an accurate statement of the quantity of the contents in terms of weight, measure or numerical count.

Retail Packages

Our Wisconsin food laws require all articles of food in package form to be marked to show the name and the address of the manufacturer, packer or dealer and the actual quantity of the contents stated in weight, measure or numerical count. This regulation applies where apples are displayed and sold to the consumer in the original package such as the bushel basket with cover.

WISCONSIN APPLE CROP MAY BE SHORT

Scab and poor set are responsible for a short apple crop in many Wisconsin orchards this season.

Members of the Wisconsin Apple Institute reported in mid-July considerable drop and the scab situation very bad. At Gays Mills the crop is greatly reduced. Bayfield will have a good crop. Crop also appears good at Green Bay, Ellison Bay, Baraboo, and Casco.

Continuous spraying with lime sulfur or mild sulfur to control scab on the fruit the balance of the season is essential. Due to moisture in the soil, beware of apple maggot.

Have you joined the Wisconsin Apple Institute?

IN THE BERRY PATCH

PRESS SOIL FIRMLY ABOUT ROOTS OF NEWLY SET PLANTS

Out West a grower stumbles on to the idea that rolling newly set strawberry plants gave good results. The grower had noticed that plants which had been trampled by workmen always grew well. Thereupon he ran the wheels of a two-ton tractor over the newly set plants and they did very well. Driving over the plants seemed to remove the air pockets, pressed the dirt firmly about the roots in contact with moisture, and there were no losses.

This is a good observation. The method used by our strawberry growers for setting out plants by pushing a spade into the ground, pulling it sideways, inserting the plant roots into the V shaped hole so formed, then pressing dirt around the roots with heavy pressure of the foot, also has given good results.

Gardeners should be careful in setting out perennials and annuals not to make the hole too big and have the soil too loose. A good way to plant ornamentals is to use the method of strawberry growers.

Sometimes we can coddle our plants too much and do our work too thoroughly.

STRAWBERRY RUNNERS SET EARLY PRODUCE BIGGEST CROP

Many experiments have proven that strawberry runners which set roots in June, July or August, are the only ones which will produce a crop next year.

June set runners will produce by far the largest number of berries per plant.

In Wisconsin the flower buds for next year's strawberries are produced in the crowns of the plants in September. Therefore all plants which are not strong and vigorous by September 1 will not produce much fruit.

Early planting, thorough early cultivation and runner setting are very important, and the plants not allowed to become too crowded, especially with late runners.

VITAMIN C CONTENT OF STRAWBERRIES

Strawberries contain as much vitamin C as do citrus fruits. The vitamin content varies according to various factors. S. A. McCrory of North Dakota Experiment Station found the content of milligrams of vitamin C per 100 grams of strawberries as follows: Berries ripening in sun 63.8; Berries ripening in shade 57.8; Berries ripening in clear weather 63.3; Berries ripening in cloudy weather 59.5; Spring crop everbearers (June 10) 61.0; Fall crop everbearers (Sept. 25) 44.6. Among varieties the vitamin C. content was: Fairfax 66.2; Mastodon 64.5; Dunlap 64.0; Premier 56.3; Gem 55.7; Aberdeen 49.1; Pathfinder 49.1. These figures show the importance of weed control and plant spacing in the strawberry plantings.

From The Maryland Fruit Grower.

THE STRAWBERRY SEASON AT ALMA CENTER

The crop this year was not up to expectations due to winter killing by ice. It was about 50% of normal.

Leading varieties are Premier, Beaver and some good yields of Catskill. Considerable blight on Beavers. The Robinson variety did not yield here according to the advertisements. It was a very poor color.

Plantings for next year are considerable heavier than this year. We have had about 35 new members in our association and have handled several thousand cases.

—By Earl Randles, Mgr., Alma Center Fruit Growers Assn.

RESULTS WITH DDT ON APPLES IN NEW YORK

From discussion at N. Y. Horticultural Society meetings.

Dr. S. W. Harmon reported that the small infestation of codling moth in 1946 was due to:

1. 85 to 90 per cent of the larvae were killed during the winter of 1945-46.
2. Small apple crop in 1945.
3. Use of DDT.

The advantages of using DDT as given by John Goodrich, Burt, after two seasons of use were:

1. The finish and color of the fruit are "tops."
2. The size of fruit is definitely improved, because the foliage is more efficient without heavy coating of residue.
3. The packing of DDT sprayed fruit is greatly simplified, because there are few stings and wormy fruit to pick out.
4. There is no arsenical injury to leaves and subsequent defoliation.
5. Is agreeable to use; spray men never complain of discomfort.
6. Appears that thorough coverage from cutside of the tree will give commercial control without walking under the trees.
7. The interval between sprays can be stretched to two weeks. This is just the break fruit growers have needed.

The disadvantages were:

1. Some pests are not controlled by DDT — notably red mite.
2. The cost of DDT is still high. This difference in cost between DDT and lead arsenate will be less in 1947 than in 1946.
3. We cannot see where we have sprayed.

Lloyd Putnam, fruit agent in Niagara County, pointed out that 80 to 90 percent of the fruit growers in his county used DDT for codling moth in 1946. They are enthusiastic about DDT, but he found wormy apples in several orchards where the coverage in the top center of the tree was poor. He emphasized three points:

1. Thorough coverage is essential.
2. The interval between sprays must not be more than two weeks.
3. DDT will have a more severe test in the next two or three years.

—From New York State Horticultural Society news letter, February 1947.

Sweet peas came from Sicily in 1700.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS ASSOCIATION

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Robt. Knutson, Ladysmith Vice-President
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Results With Sulfa For A. F. B.

Pennsylvania Experiment Station Reports On Tests. Finds Disease Reoccurs After Treatment.

Prof. E. J. Anderson of Pennsylvania Agricultural Experiment Station has written a bulletin No. 1370 on experiments on tests with sulfathiazole for A. F. B. After giving a complete account of methods used Prof. Anderson reports results as follows:

Sixteen colonies were treated in 1945. Of the 16, six quite heavily infected colonies were treated in August and early September. All six either failed to recover entirely or build up for winter and died before the last of February. Such colonies, if neglected, will be robbed and will spread AFB to many others. Two more colonies died in early spring. Six of the surviving eight colonies developed AFB at different periods in 1946, one becoming reinfected in May, one in June, and the rest later in the season. These colonies were given additional sulfa syrup and again the disease disappeared. Two of the remaining eight colonies have continued free from AFB to the present time.

Twelve packages of bees were placed on super and brood combs from AFB infected colonies in the spring of 1946, some in March and some in June. They were fed sugar syrup containing 7.5 grains of sulfathiazole per 5-pound pail, the quantity of syrup being the same as for other packages which were installed in clean hives. All 12 remained free from AFB and produced nearly normal crops of honey. The feeding of sulfa syrup was discontinued when the surplus honey flow began and supers were placed on the hives.

Five of these colonies developed AFB during September and in October, when they were again fed sulfa-treated syrup.

These results indicate that at least the first few treatments with sulfathiazole do not cure the disease permanently in most colonies. The treatment appears to check the disease effectively but allows it to reoccur when conditions are favorable.

In order to check the effect of sulfa-treated syrup on normal packages shaken on disease free combs, 14 were placed on foundation and drawn combs and fed sulfathiazole. A second group of 14 were fed syrup without sulfa. A comparison was made of the production of honey from the two groups. The quantity of sulfa fed was 7.5 grains per five pound pail of syrup. It was observed that sulfa in this quantity occasionally acted as a repellent to the bees and they took the syrup in smaller quantities than did the other colonies. The 14 given sulfa-treated syrup produced an average surplus of 29 pounds per package as compared to 45 pounds each for those not given sulfa. It was quite evident that syrup containing too strong a concentration of sulfathiazole acted as a mild repellent to some colonies and the development of these colonies was somewhat retarded. This condition was most evident when the bees were entirely dependent upon syrup as a source of food.

RUSK-SAWYER BEEKEEPERS TAKE FIRST STEP ON NOSEMA

The Rusk-Sawyer Beekeepers Association held a meeting on June 29 at Ojibwa State Park. They passed a resolution that "whereas Nosema losses in package bees have recently amounted to over 50% and that heavy queen failures and other expenses seriously threaten the industry," they therefore resolved not to patronize any shipper whose bees have not been certified to be comparatively free from Nosema at the time of shipping, and are acceptable to the Wisconsin Department of Agriculture.

The resolution is signed by W. E. Chadwick, G. Iven Wisherd, Nathan Paddock, Gerald Prilaman, and Robt. I. Knutson, Committee on Resolutions.

This is an excellent step to call the attention of the beekeeping world to the seriousness of Nosema in package bees. Only when we become concerned about such a problem will action be taken. It will lead to a lot of discussion, but out of it something good should come.

EDUCATION FOR YOUNG PEOPLE

In a survey of 30,000 pupils in the 9th to 12th grades made in New England recently, it is revealed that the average school boy out there can't read well, spell well or do simple arithmetic problems. The young people today are having a hard time getting jobs because so many employers find they aren't of much value because they have a poor attitude toward their work and are poorly prepared in basic learning such as good speech, writing, spelling and arithmetic.

Employers in the Mid-west say that this is true of children from the larger cities **not from the small rural communities.**

Can it be that the large schools that are best equipped, have the highest paid teachers, all the equipment for modern ways of education are still not doing the job as well as the country school? Perhaps we should take a lesson then from the country schools. Is it the fact that the teacher has fewer pupils and perhaps is old-fashioned enough to teach the fundamentals of education in the old-fashioned way.

We think there is another factor too. Most farm boys and girls do not have the attitude that "the world owes us a living." They have learned the value of work and to do each little job well. Some children on farms may resent having to do morning and evening chores and not have long vacations with nothing to do as have many city children. In later life, however, they may come to Dad as did a young soldier during the war, who said to his father, "Dad, I've wanted to tell you for some time, I appreciate more than I can tell you that you taught me how to work when I was young."—H. J. R.

New Discoveries About the Bee Dance

Prof. K. von Frisch, now professor of zoology at the University of Graz, Austria, has continued his work on the methods whereby bees communicate with each other, and has made some most interesting discoveries, published in experientia (Basle), October, 1946, and reviewed by Dr. Morgenthaler in the December Schw. Bztg.

It turns out that the dances which foragers perform on returning to the hive with good loads of pollen or nectar can convey much more information than was previously believed. It was thought that bees "recruited" by these dancers went out all around the hive seeking for the aroma of the plant on which the dancer had been working, with no other guide than this aroma and the scent of other bees' Nassonov glands, to lead them to it. It is now known that the dancing bee gives her sisters both the bearing of the forage and its approximate distance from the hive.

We have heard once and again that beekeepers have observed that the "pollen dance" and "nectar dance" were not always used by bees engaged in those tasks, but the matter has not been followed up. Von Frisch has shown that the old idea — due to his own work — that these different dances indicated the different occupations of the foragers is wrong. "All bees collecting food near home perform round dances, all those working far from home perform tail-wagging dances. When the feeding-place is 50-100 meters away, the round dances change over into tail-wagging." The mistake arose from the circumstance that von Frisch, in his early experiments, provided syrup for his bees near their hive and pollen further away.

Not only the distance — under or over 100 yards — is recorded by the dancing bee, but also its approximate magnitude. "It was found that, with increasing distance (over 100 metres), the rhythm of the tail-wagging dance is altered according to a law. When the source of food is 100 m. away the dance consists of rapid turns; the short wagging runs between them are repeated about ten times per quarter of a minute. The greater the distance to the feeding place, the smaller is the number per minute, of the turns in the tail-wagging dance, until at a distance of 3 km. (about 2 miles) they drop to barely more than two per quarter minute. Thus watch in hand, one can announce the distance at which the dancer has foraged to within about 100 metres."

But this is not all. It will be recollected that the tail-wagging dance has a straight line between the semi-circles described by the bee. If the dancer moves so that her straight runs on the comb are vertically upwards, then the forage lies in the direction of the sun as seen from the entrance. If they are vertically downwards, then it lies in the direction away from the sun. If the forage lies to the left of the line to the sun from the entrance, then the dancer directs her run sloping to the left, and at just that angle which the way to the forage makes with the sun's direction. And similarly, if it lies to the right, her run will slope to the right of the vertical.

We do not want to steal Prof. von Frisch's thunder, so will refrain from detailed comment, except to assure readers that his statements can be trusted. He is the world's leading bee physiologist, and this matter is one particularly his own. No doubt, during the coming summer, the Professor will be able to find out a good deal more about the mechanism of the bee's navigating instruments.

Prof. von Frisch thinks that the bees seen dancing on a clustered swarm are similarly telling their sisters of the precise location of the "desirable residence" wither they are to go. Will those who see bees dancing on a swarm, and can risk having to follow it accross country, please notice whether the dancers all run in the same direction, and also whether it is "the same" relative to the vertical (e. g., all running upwards), or relative to the sun (e. g. all running away from the sun), and send us the result of their observations?

—Editorial in The Bee World, England.

MACHINERY FOR THE BEEKEEPER

Everywhere machines are being improved and invented to do away with back-breaking labor in all forms of industry and agriculture with possible exception of beekeeping. Beekeepers still have the back-breaking job of lifting heavy honey supers off and on hives and onto the truck, then removing them from the truck and handling them by hand for extracting. True, the honey pump, the uncapping melter, the power extractor have done a great deal to reduce much hard labor.

But we do need a hive lifter. The efforts so far have been very crude. We can see little hope for the type of hive lifter that is hauled around the yard, placed over the colony and will just lift a super by effort which is almost as laborious as lifting the hive itself and slower.

Roger Babson, in an article recently, remarked that in trucking heavy shipments there will be "less of human struggle and the old heave-to. At the tail end of the truck muscle power will be replaced by mechanical lift." Therein lies hope for the beekeeper — a mechanical lift on the truck or trailer that can be used not only to lift heavy supers off and on the hive but on or off the truck itself.

Some people get credit for great good nature and fine personality when the fact is they are just proud of their teeth.

The hardest thing a kid faces nowadays is learning good manners without seeing any.

BEES MUST HAVE POLLEN

Mr. G. M. Ranum, well known beekeeper of Mount Horeb, writes: "It is evident that syrup alone will not induce brood rearing when pollen is lacking. Colonies fed with syrup alone had less brood on April 12th than they had a month before. Even colonies having honey and pollen had less brood than when first examined the latter part of February. Evidently the bees clustered on the middle combs during cool weather, remaining there instead of spreading out to the sides where there were full combs of both honey and pollen. Quite likely early feeding would have been of value.

"Last year colonies which were late in building up gathered a fair amount of honey late in the season. It is interesting to note that poor producers had their brood chambers well filled and were not in need of additional feed. With such results each year, however, where will we get our honey for the market?"

THE PRICE OF HONEY

The honey market will be profoundly affected by decontrol of sugar. The price may remain fair, but we have one note of warning. Price your honey *to sell. Don't* hold it over.

A year ago we advised asking higher prices. Wisconsin beekeepers sold their crop at fair prices — many far below what they might have received. The retail price went to more than 60 cents per pound, and still the crop moved.

Fortunately we have no holdover honey to plague us. We must have none next year. We must advertise and *sell* honey this year, and get the best price we can.

We are prompted to give this warning by what we saw and heard on a trip to the Washington and Oregon fruit section. Growers of currants had no market. Too much jelly and wine made last year. Gooseberries were bringing 3 cents per lb. hardly picking costs. A carry over at too high prices was disastrous.

WHAT WE CAN LEARN FROM THE PAST SEASON

Much more honey would have been gathered in Wisconsin this season if colonies had been at top strength at the beginning of the clover flow.

Nosema stands at the top of the list as the main cause of weak colonies. First it was found in package bees when they arrived from the South. Heavily infected packages failed to build up into normal colonies and will be a loss to the honey producer.

Nosema then effected many overwintered colonies during the wet cold weather of April and May. When the honey flow started in late June, field bees, obviously sick from Nosema died in the field while gathering honey. Within a week infected colonies lost half of their field population and failed to produce much honey.

Lack of protein feed was the third cause of weak colonies during the honey flow. There were periods during April and May and again in early June when there was a shortage of pollen in the hives. Sometimes there was a shortage of honey or syrup as well. Brood rearing slowed down. Result — a decreasing population in July during the main honey flow and a small crop.

Failing queens may be listed as the fourth cause of poor production. We have about come to the conclusion that it's both possible and practical to requeen many colonies having old queens during late March.

WANTED

A reliable man with some beekeeping experience to work with bees with modern equipment.

Beeline Honey Farm, Vernon Homer, Route 4, Menomonie, Wisconsin.

Editorials

FIRST GARDEN CLUB CONVENTION HELD AT LAKE GENEVA

Wisconsin Horticultural Society Sponsored Summer Garden Club Meeting in 1928

With the announcement that the Annual Convention of the Wisconsin Garden Club Federation is to be held in Lake Geneva in October, it is of interest to note that the first organization meeting of Garden Clubs was also held in that city.

The July, 1928 issue of Wisconsin Horticulture gives the program for this meeting. It was called, "Convention of Wisconsin Garden Clubs. Auspices State Horticultural Society and Lake Geneva Garden Clubs, July 19-20, 1928."

Speakers at this meeting included Mr. James Livingstone, Milwaukee then member of our Executive Committee; Mrs. Charles Hutchinson of Lake Geneva; Mrs. Frederick Fisher, president, Illinois Federation of Garden Clubs; Prof. R. E. Vaughan, College of Agriculture; Mrs. Edwin Frost, Williams Bay; Prof. J. G. Moore, Madison Mr. Huron Smith, Milwaukee; Mr. N. A. Rasmussen, Oshkosh; Mrs. C. E. Strong, West Allis and Mr. H. J. Rahmlow, Madison.

Mr. Rahmlow's talk, "A new Venture by the Horticultural Society" suggested the organization of the Wisconsin Garden Club Federation so that Garden Clubs might enter a larger field of work. Mrs. C. E. Strong's topic was, "In Union There is Strength." She proposed such an organization under the auspices of the Society.

The formal organization of the Wisconsin Garden Club Federation was then completed during the Annual Convention of the Society

in the Milwaukee Public Museum, December 5-6-7. First officers elected at that time were: President, Mrs. R. Malisch, Hales Corners; Vice-president, Mrs. C. W. Vaughan, Madison; Secretary-Treasurer, Mrs. Arthur Sperber, Hales Corners.

REYNOLDS ORCHARD CREW CLAIMS SPRAYING RECORD

Some years ago when the Reynolds orchards at Sturgeon Bay were only 200 acres in extent, a good crew working from dawn until dusk could spray the entire acreage in 10 days. If it was exceptionally fast, the work was done in a week.

Now with highly mechanized equipment, as well as efficient crews, things are different, according to Don W. Reynolds, president of Reynolds Bros., Inc., who claims a new spraying record for his men.

With a crew of 28, three cat tractors, two Olivers, two McCormick-Deerings and a Case, two big GMC trucks, two Chevs, a Dodge and a Plymouth pickup, two Layne deep-well pumps, two Bean sprayers, two Bean supply units and four Friend high pressure sprayers, 900 acres of fruit was just a four-day job.

Two hundred acres of apples were sprayed and 700 acres of cherries were doused for prevention of fungus diseases that are so much more feared when we have the cold, wet spring the country has just gone through.

—From Door County Advocate, Sturgeon Bay.

WANTED! MELBA OR EARLY McINOSH APPLES FOR WISCONSIN STATE FAIR

Will you have any Melba or Early McIntosh apples ready for good eating during State Fair week, August 16-24? If so, will you advise the secretary, (see address inside front cover,) at once. We wish to buy them for sale to Fair visitors. Will pay best market prices.

Our object is to interest consumers in good eating apples — get them started eating early so they will continue. We want to give them the best quality early eating apples it is possible to get in Wisconsin. They will be sold at a special stand in the Fruit, Vegetable and Farm Crops Building for eating on the grounds. We should sell only good quality apples — those that are ripe and ready to eat.

Apple juice and cherry juice will also be sold. In fact, the entire exhibit of fruits and vegetables is designed to increase the interest of the consumer in our Wisconsin product.

MRS. C. E. STRONG

Mrs. C. E. Strong, formerly of West Allis, passed away at Alhambra, California, May 19, 1947.

She had many friends among members of the Wisconsin Horticultural Society who will be saddened to hear of her passing. While in West Allis she kept up one of the loveliest gardens we have ever

seen and was an authority on both old and new varieties of ornamentals. Hundreds of garden friends visited her garden because she was a source of information and inspiration.

Mrs. Strong was a member of the first Board of Directors of the Wisconsin Garden Club Federation, a member of the Board of the Wisconsin Horticultural Society and for many years edited the page in the magazine, "About the Home and Garden." She was awarded the honorary recognition certificate of the Society in 1932.

MRS. EMILIE L. ROLOFF

Mrs. Emilie L. Roloff of Madison, life-time horticulturist, passed away at her home at Mendota Beach on June 19.

The Wisconsin Horticultural Society recognized Mrs. Roloff in 1936 for "inspiring others with an enduring love of plants and birds, and for sympathetic understanding of God's great out-of-doors."

While confined to a wheel chair for almost 20 years, Mrs. Roloff nevertheless was active in directing the care of her garden, and a source of inspiration to all who visited her. In the early days she was an active garden worker in the Madison Horticultural Society, in horticulture departments at Fairs.

APPLE GROWERS TOUR JOINT MEETING WITH MINNESOTA GROWERS SEPTEMBER 4 - 5

September 4. Assemble at Gays Mills. Opportunity to observe pruning and growth of regular growing Wealthy trees; study pollination problems; top working Delicious on both McIntosh and Virginia Crab Stock; the effectiveness of spraying; results obtained with nitrogen fertilizer.

Write Prof. C. L. Kuehner, College of Agriculture, Madison for details and program.

WISCONSIN ORCHARD MEETING STURGEON BAY SEPTEMBER 11 - 12, 1947

Auspices Wisconsin State Horticultural Society, Wisconsin Apple Institute, Door County Fruit Growers and County Agent cooperating.

Demonstration of all types of orchard machinery, inspection of fruit processing plants, visit to orchards and apple grading plants.

Thursday, September 11

10:00 a. m. to 11:30 a. m. Stop to see the following plants as you come in to Sturgeon Bay:

1. **Fruit Growers Co-op.** See brine cherry operation.
2. **Miller Food Products.** Making preserves, jellies, jams, juice concentrate. Turn left at Roxana Hotel on Main Street; two doors from Nautical Inn. Will also be open 7:30 to 9 :00 p. m. for visitors.

12:00 M. **Luncheon at Reynolds Brothers Orchards,** six miles north of Sturgeon Bay on County Highway HH. Turn off Highway 57 at the north edge of city. Luncheon about 50 cents.

1:30 p. m. to 5:00 p. m. Demonstration of Orchard machinery of all types and makes at Reynolds Brothers Orchards.

Evening open for orchard visits.

Friday, September 12

9:00 a. m. to 11:00 a. m. Visits to procesing plants as follows:

1. Miller Food Products, Sturgeon Bay.
2. Royal Products - Stein and Gordon; Highway 42 & 57, 2 miles north of Sturgeon Bay, left side of road. Preserved apples and cherries.
3. Fruit Growers Co-op. Brine cherry operation.

Orchards: — Apple grading, etc.

Sam Goldman, Sturgeon Bay	Goff's Orchards
Friedlund Orchards, Ellison Bay	Martin Orchards
Eames Orchards, Egg Harbor	Horseshoe Bay Orchards, Egg Harbor

Hotels and cabins, all at Sturgeon Bay, Wisconsin.

Hotels Roxana, Carmen, and Swoboda.

Smiths-Lodge, Bay Shore Inn, and Gilbert Lenius Cabins.

Martin Orchards, Sturgeon Bay, will make available 30 picking camp cabins in one row. Have cots and matresses only. Bring your own bedding. Price $1.00 per cabin.

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

WISCONSIN GLADIOLUS SOCIETY BOARD OF DIRECTORS HOLD MEETING

The Board of Directors of the Wisconsin Gladiolus Society held a meeting in Walter Miller's garden, Sun Prairie, on Sunday, June 22. All members of the Board were present. The subject of seedling shows was discussed at some length.

Seedling Show — August 3

The first Seedling Show will be in **Walter Miller's gardens, Sun Prairie on Sunday, August 3.** Committee in charge of the show, appointed by president Archie Spatz is: Ted Woods, Madison, chairman; Walter Miller, Sun Prairie; H. J. Rahmlow, Madison.

A motion was passed that the Wisconsin Gladiolus Society hold a State Seedling Show at each of the followings shows: Sheboygan Chapter Show on August 9-10; Marathon County Show, August 16-17; State Show at Marinette, August 23-24. Competition at each of these seedling shows **open** to any member of the national or state Gladiolus Society.

It was voted that award ribbons be given to all seedlings worthy of a rating of excellent. Also, champion ribbons on one and three spike classes. No other ribbons are to be given. All ribbons at seedling shows are to be donated by the Wisconsin Gladiolus Society.

State Show Committee Chairmen

President Archie Spatz appointed the following commitee chairmen: **Seedling Show Committee** — Theo. Woods, Madison; Leland Shaw, Milton; Miss Marie Peterson, Marathon.

State Show Manager, Paul Ravet, Menominee, Michigan.

Supervisor of Judges: Archie Spatz, Wausau. **Trophy committee:** Dave Puerner, Milwaukee, chairman; **Frank** Bayer, Milwaukee. **Assistant Show Manager,** Arnold Sartorius, Porterfield. **Premium Schedule Committee:** E. A. Lins, Spring Green; **Walter** Krueger, Oconomowoc. **Manager Artistic Arrangement Section:** Mrs. J. M. Cook, Marinette. **Finances** — supervised by Twin City Chapter.

PLANS FOR N. E. G. S. MEETING

The arrangement committee for the meeting with the New England Gladiolus Society in February reported on some details.

The convention will be held at the Schroeder Hotel, Milwaukee.

There will be a special party for all members and guests at the Pabst Brewery Club Rooms on Friday evening, February 20. Food and refreshments will be free. It is planned to give every woman who attends the convention a gladiolus corsage to wear at all functions.

Change In By-laws

All members expressed favorably on a suggestion that the by-laws be changed so members of the Board of Directors be elected for three years, the terms of four members expiring each year and a member not being permitted to succeed himself directly.

GLADIOLUS THRIPS CONTROL

Whether to use the old standard tartar emetic spray for thrips control, or to use DDT dust — that is the question. So many Wisconsin gladiolus growers are using the DDT this year, in fact it is being tested all over the country, that we should have accurate reports of results this coming fall. In the meantime, there is a division of opinion. A new Canadian bulletin claims tartar emetic gives best results but they used a 3% dust. Tests in this country with a 5% dust indicated best results with DDT.

Let's not overlook the human factor — care in application, timeliness, putting the dust or spray on often enough. Do a thorough and careful job and both will work.

It is now known that DDT is not effective as long out in the sun and air as it is indoors. Therefore, use a 5% dust and use it, in case of heavy infestation, about once each week or ten days.

The tartar emetic formula is tartar emetic, 1 oz., brown sugar, 2 ozs., water 3 gallons.

Of course we should have started dusting or spraying early in the season.

GLADIOLUS CORSAGES SUGGESTED FOR GLADIOLUS SHOWS

One of the most helpful features to the gladiolus industry was seen at the Wisconsin State Fair last year. Corsages of gladiolus florets were presented to wives of Fair officials and were sold to many women visitors at the Fair at relatively low prices. They were made by competent persons who knew how to match the color of the flowers and the ribbon with the wearer's attire, and became very popular.

We sugggest all gladiolus show managements adopt this plan. It will greatly increase interest in gladiolus, thereby increasing the use and sale of the flowers.

After all, what are we doing to make our gladiolus shows more interesting to show visitors? Of course, there are many people who come to gladiolus shows to see the beautiful varieties on display; learn about them and make their selections. But we also expect an attendance of women who do not grow gladiolus. Many shows have very little of interest for them. More attention should be given to arrangements, showing how gladiolus can be used for bouquets in the living room, arrangements for the dinner table, corsages, church decorations, for decorations in public halls; even hospitals and funerals. More attention to these features will bring larger attendance.

GLADIOLUS INSPECTION

E. L. Chambers, State Entomologist

The Wisconsin nursery inspection law does not interpret gladiolus bulbs as nursery stock. Many states and the Dominion of Canada do include these bulbs under the definition of nursery stock. To meet these requirements, we have always made a considerable number of inspections and issued the necessary requirements. The cost of such an inspection is $5.00 for the first acre or fraction thereof. No nurseryman is permitted to use his inspection tag on gladiolus bulbs unless they were inspected and included under his certificate. No inspection tag can be issued by the department unless the stock it covers has all been inspected and certified in accordance with the following regulations adopted by the Central States Plant Board at their recent meeting.

REGULATIONS GOVERNING CERTIFICATION OF GLADIOLUS CORMS

1. One or more field inspections annually, one of which must be on or near blossom time. If an early inspection is desirable to detect leaf symptoms of mosaic (White Break) it must be done early enough for rogueing to prevent insect spread of the disease.

2. One or more warehouse inspections after corms are cured and cleaned.

3. Treatment of all planting stock annually with any approved treatment. Recommended: (Any variety showing in excess of 25% Fusarium automatically eliminated.)

4. If infested with thrips, before certification for sale, all corms must be fumigated by methods recommended by entomological authorities in each state.

5. Disease percentages permitted to be shipped out.

Disease	1947
Fusarium Yellows	1%
Mosaic (White Break)	?
Sclerotinia Dry Rot	2
Scab	5
Septoria Hard Rot	2
Bacterial Blight	?
Botrytis Blight and Rot	2
Ink Spot	5
Penicillium Rot	3

A. Maximum total tolerance, all diseases, 8% (5% Scab, and 3% other collective diseases).

B. Disease tolerances to be reviewed every second year and revised upon request of a majority of participating states. New diseases may be included as the need arises.

6. Corms showing disease percentages in excess to above limits and offered for sale by dealers may be seized, ordered regraded, returned to the grower or destroyed at the discretion of an accredited inspector.

CERTIFICATION OF NURSERY STOCK GOING INTO CANADA

We have been receiving numerous requests for information pertaining to the nursery inspection requirements of Canada by nurserymen, gladiolus growers, garden club members, and others. Effective on April 19th of this year there were some drastic changes made in these regulations and for the benefit of the readers of Wisconsin Horticulture who may contemplate making shipments of plant material in to Canada, we quote herewith an extract of the Canadian Regulation No. 1 concerning the certification of nursery stock consigned to that country.

"Subsection 2 — Shipment To Be Accompanied By Certificate Of Inspection

(a) Every shipment of nursery stock originating in a country maintaining an inspection service shall have attached to each container a copy of a certificate of inspection, issued and signed by an authorized official of the country of origin, stating that the nursery stock covered by the certificate has been thoroughly examined at the time of packing by the said official or his authorized agent and has been found, or believed, to be free from any pest or disease.

(b) Each certificate and copy certificate, in addition to the statement of freedom from pest or disease referred to in paragraph (a) of this subsection, shall state the country, and the locality therein, where the nursery stock was grown, and the date of the inspection.

(c) Both the original and the copy certificate of inspection shall bear the official seal of the authorized inspection service of the country of origin. The actual signature of the said authorized official shall appear on the original certificate of inspection. On the copy certificate, the said signature may be either actual or reproduced.

(d) The original certificate of inspection shall accompany the waybill or bill of lading and must be furnished to the inspector at the port of importation by the transportation company."

MARATHON COUNTY SHOW WAUSAU, AUGUST 16-17 BENEVOLENT SOCIETY HALL

3rd Ave. and Garfield Street.

There will be a full show schedule including baskets and arrangements. Seedling section as approved by the Society and a 7:00 p. m. dinner — everything open to state members in good standing writes Archie Spatz of Wausau.

GLADIOLUS SHOW DATES

August 3, seedling show of the Wisconsin Gladiolus Society, Sun Prairie, Wis.

August 11 and 12, Minnesota Gladiolus Society, First National bank, St. Paul, Minn.

August 14 and 15, Southeastern Michigan Gladiolus Society, J. L. Hudson department store, Detroit, Mich.

August 16, regional show of the Michigan Gladiolus Society, Michigan State College, East Lansing, Mich.

August 16 and 17, Indiana Gladiolus Society, high school gymnasium, Wabash, Ind.

August 18 and 19, Madison Gladiolus Society, First National bank, Madison, Wisconsin.

August 18 to 20, Minnesota Gladiolus Society, Albert Lea, Minn.

August 21 and 22, New England Gladiolus Society in conjunction with the Massachusetts Horticultural Society, Horticultural Hall, Boston, Mass.

August 23 and 24, Michigan Gladiolus Society, University of Michigan, Intramural building, Ann Arbor, Mich.

August 23 and 24, Wisconsin Gladiolus Society and Twin Cities' Gladiolus Society, Marinette, Wisconsin.

August 25 and 26, Ohio State Gladiolus Society, Higbee auditorium, Cleveland, Ohio.

August 30 and 31, regional show of Illinois Gladiolus Society, Garfield Park conservatory, Chicago.

September 7, seedling show of the Ohio State Gladiolus Society, H. O. Evans, farm, Solon, Ohio.

July 28-29. Annual summer convention Wisconsin-Upper Michigan Florists' Association at Merrill, Wis.

Mr.: "Why does a woman say she's been shopping when she hasn't bought a thing?"

Mrs.: Why does a man say he's been fishing when he hasn't caught anything?"

In The Garden

FREEZING OF VEGETABLES AND FRUITS

By O. B. Combs, Dept. of Horticulture Over Farm Program WHA, WLBL

Question: Which vegetables would you suggest we freeze?

Answer: The list of vegetables which may be frozen successfully is quite long. The list should not include potatoes and certain of the starchy varieties of peas, for example. These, of course, may be frozen but the eating quality isn't too good.

Question: That means such vegetables as lettuce, raw tomatoes and celery don't freeze too well.

Answer: That's right. They are enjoyed largely because of their freshness, which is primarily a question of texture — that is, crispness, tenderness, and water content.

Question: Speaking of potatoes, I suppose there's not much reason to freeze a vegetable like potatoes anyway. They may be stored quite easily as fresh potatoes.

Answer: That's quite true. It's also true of certain other vegetables and some of our fruits. Beets, cabbage, carrots, pumpkins, rutabagas, squash and turnips freeze all right but they also may be kept in common storage quite well.

Question: There's some question, then, as to whether it would be economically wise to freeze those crops.

Answer: Yes, and the same could be said of apples and cranberries. It's well to remember, however, that the average housewife likes to have a fair supply of foods on hand for quick meals, and that means a few frozen beets, carrots or apples, perhaps, so that the job of preparation is largely done.

Question: We've been talking mostly about vegetables. What about fruits? Can most of our Wisconsin fruits be frozen successfully?

Answer: Yes, if properly handled all fruits commonly grown in Wisconsin may be frozen successfully. And, for that matter, a number of fruits which do not grow here are frozen very commonly. Such fruits as apricots, peaches and pineapples.

Question: That reminds me of a question about cherries. What about handling those cherries which come already frozen in large tin cans?

Answer: Simply allow them to thaw enough for easy handling, repackage them in small containers, seal, and refreeze as though they were fresh cherries.

SPRAYING FOR WEED CONTROL

Question: Can you advise me what to use as a spray to kill Creeping Charlie?

Answer: For Creeping Charlie we recommend 2,4-D which is now being sold under various trade names, including Endo-Weed as advertised in this issue.

Spray lightly, don't soak the ground but wet the leaves. In about a week the plants will begin to die and it will not hurt the lawn grass. Don't sow any seeds for about a month afterwards as the seeds probably will be killed when they germinate. Plants with grass like leaves such as June grass in the lawn will not be effected.

2,4-D will not give good results where there is continuous shade or under temperatures below 65°.

For poison ivy, especially in shady places, the weed killer "Ammate" is considered best.

"Grandpa, did you once have hair like snow?"

"Yes, my boy."

"Well, then, who shoveled it off?"

Teacher: 'What is ignorance, Tommy?"

Tommy: "Ignorance is when you don't know anything and somebody finds it out."

WEED CONTROL IN GLADIOLUS FIELD WITH 2,4-D

Prof. Paul Krone, Michigan State College writes, "As far as I can see there are no injurious carry-over effects from the use of 2,-4-D to control weeds in the gladiolus bed. The bulbs which we planted in flats came on and bloomed normally and seem to be quite satisfactory. The fall treatment which we applied last fall looks quite promising also. We got good control of everything except grass."

Relative to use of DDT for gladiolus thrips, Prof. Krone says, "We have been quite well pleased with a 5% dust of DDT applied early in the morning."

FISHIN' WORM POPULATION INCREASED BY FERTILIZER

Dr. F. E. Bear, Chairman Soils Department of the New Jersery Agricultural Experiment Station, in an address before the American Plant Food Council Convention pointed with scientific scorn to the contentions that chemical fertilizers are destroying "fishin' worms."

"On our Agricultural Experiment Station, a plot of limed land was planted to lespedeza sericea," he explained. "It received a 1,000-pound application of 0-12-12 fertilizer per acre every year for the next five years. On November 6, 1946, the number of earthworms in the top six inches of soil on that plot was 1,200,000 per acre, with an additional 90,000 in the second six inches and 30,000 more in the third six inches.

"Earthworms are no more sensitive to fertilizer than are the root hairs of plants. If temporarily disturbed by an overdose, a worm can move but a root hair can't. In general, the heavier the application of fertilizer, within limits, the greater the growth of crops and the larger the amount of crop residues that are left behind in the soil. These provide the food for earthworms."

The tramp had just finished his repast and the lady of the house remarked: "Just as a suggestion, there's a woodpile in back."

"You don't say," said the tramp. "What a splendid place for it."

WHEN YOUR LAWN GRASS STOPS GROWING IN MID-SUMMER

If your lawn looks poorly during the hot months of mid-summer, it isn't because it lacks fertilizer. It's because the temperature is too high. Roots of June grass stop growing when the temperature goes above 90°. That's why you can water the lawn during hot days and it still doesn't do well. Then suddenly we have a thunder shower and the grass starts growing beautifully. However, it's because there is usually a cool spell following the thunder shower. The lower tenperature starts the grass growing again.

WHAT'S YOUR GARDEN I. Q.

Try these on your members. Each correct answer counts ten. The answers are on the next page.

1. Are there orange Sweet Peas?
2. Is there a lavender Sweet Alyssum?
3. Is there a red annual Sunflower?
4. Is there a dwarf Morning Glory?
5. Is there an annual Chrysanthemum?
6. Can you grow Coleus from seed?
7. Is there an annual Hollyhock?
8. Is there an annual Canterbury Bell?
9. Is there a strawberry Pop Corn?
10. Is there a dwarf Dahlia?

* * * * * *

IN THE NEWS

Dr. Freeman S. Howlett has been named the Chief of the Department of Horticulture, Ohio University succeeding the late Dr. Joseph Gourley. Dr. Howlett has been with the University of Ohio and Experiment Station since 1924.

Dr. B. F. Pickett, Chief of the Department of Horticulture at Iowa State College retired as active head June 30. He was succeeded by Prof. E. F. Haber who is also with the department and experiment station staff.

Prof. Pickett has made a distinquished record as Chief of the department. He will continue as partment. He will continue as professor of Horticulture.

Michigan State College received an additional appropriation of $150,000 from the Michigan Legislature to further research work in horticulture. The bill was prepared and supported by the Florists' Association, Horticultural Society, vegetable Growers Assaociation and Nurserymen.

ANSWERS TO WHAT'S YOUR GARDEN I. Q.:—

The answers to all 10 questions are yes.

It was William Robinson, known as the grand old man of English gardening who got us away from carpet bedding and taught us the joys of the perennial border.

Garden Club News

By the
WISCONSIN GARDEN CLUB FEDERATION

PRESIDENT'S MESSAGE REPORT OF NATIONAL CONVENTION

Dear Members —

In this message, I want to give you a report of the Eighteenth Annual Meeting of the National Council of State Garden Clubs, held in Tulsa, Okla. May 5-7.

It was "Oh, What a Beautiful Morning," that greeted the State presidents and delegates from 38 states on the opening day. Every one was impressed by the shining, orderly City of Tulsa and the gracious hospitality that abounds there.

The opening Meeting was the South Central Regional. Mrs. Rufus N. Garrett presided. Mrs. Walter Ferguson, columnist for Scripps-Howard Newspapers gave an interesting talk on Oklahoma which is one of the youngest states in our union, with a fascinating history.

The Regional luncheon followed. 4000 red roses were arranged in continuous masses down the banquet tables which completely filled the Crystal Ball Room of the Mayo Hotel. Dr. R. C. Allen, Executive Secretary of the American Rose Society was the speaker. He noted the great adaptability of roses to all soil and climatic conditions making their culture possible in nearly every section of the country.

"The well meaning rose gardener is the rose's greatest enemy," said Dr. Allen. He warned against over fertilization of rose plants but urged that they be kept well watered at all times. Less drastic pruning and cutting of blossoms was urged particularly in climates where a short growing season exists.

An Executive Board Meeting followed. All states were urged to elect Federation and Club presidents for two year terms.

Each state was asked to prepare a planting chart for its various localities. Several resolutions were presented for recommendation to the Annual Meeting with special emphasis to protest the Taylor Grazing Act which would permit public forests and lands to pass into private ownership.

More Than Just A Door — Entrance Planting, by Blue Mound Garden Club, Mrs. J. C. Hawker, Chm. Received rating of "Excellent" and the Milwaukee Journal trophy at State Show.

At three P. M. Mrs. William Champlin, our charming and gracious National president, officially opened the meeting. After routine business was disposed of, Mrs. Champlin gave an account of her Stewardship for the past two years which was fraught with accomplishment and success due to the loyalty and enthusiasm with which all Federations accepted and contributed to her plans for "Horticultural Service to Home, Community and State" — A great increase in clubs and membership and a well filled treasury also gave evidence of Mrs. Champlin's able leadership during the past two years.

A formal dinner in honor of the Advisory Council, National Chairmen and State presidents was held at the Tulsa Club. Charming little black surreys with fringe on top laden with red geraniums adorned the tables. Mrs. Joseph Leach, National Awards Chairman, presented 32 awards. We are all very proud that two of these were claimed by Wisconsin.

The business session was resumed on the following day. Mrs. Vance Hood, Living Memorial Chairman, displayed the cut of a road marker suggested for use on the Blue Star Highway at the entrance and exits of each state, if ratified by state legislatures. These

markers are to be purchased by The State Federation. Although Mrs. Hood reported that Wisconsin had accepted and designated a link for the Blue Star Highway, I fear no such highway has been so designated by our State Legislature.

Mrs. Lucien Taylor, special project chairman, gave detailed instructions for starting work on the automobile guide book and urged all states to begin work on this project at once — Beautiful Wisconsin should not be omitted in this book.

Mrs. Brumby reported that but few states had as yet contributed to the National Scholarship Fund. Wisconsin has given $9.00 thus far. The fund is largely supported by revenue made on Meetings such as the convention. Mrs. Brumby urged that more use of the Scholarship be made — thus far very few applications have been received — The G. I. Bill of Rights was thought to be the reason.

The luncheons in homes of Garden Club Members of Tulsa and the subsequent garden tours were enjoyed by all — This was a most ambitious and gracious gesture. The Tulsa Rose Garden maintained by the Tulsa Garden Club was the high light of the tour. There are 8,000 plants in this garden.

Results of the elections were announced at the banquet. Mrs. Lewis M. Hull of Boonton, N. J., former director of the Central Atlantic Region and a former member of the Board of Editors of the Home Garden Magazine, is our new president. Mrs. Grannis of Kentucky first Vice-President, Mrs. Spillers of Tulsa, second Vice-President and Mrs. Mooney of Montana, third Vice-President. A wave of tense sadness pervaded the group as Mrs. Champlin handed the gavel to her successor. Mrs. Hull accepted it with great dignity and made a scholarly, inspiring address. She traced the history and development of National Council by describing the personalties and accomplishments of the leaders whose hands had held the gavel. It interested me to learn that Wisconsin was one of the original states in the council.

The last day was devoted to The President's Forum and further business followed by a coffee given by The Tulsa Garden Clubs at the Philbrook Art Center. We were then taken to The Will Rogers Memorial at Claremore. This beautiful memorial built on a hillside overlooking the boyhood and grave of the beloved son of Oklahoma is poignant with appropriate dignity and simplicity. It is an unique experience to visit a Memorial Museum of one who has lived in your time. A charming reception and tea given by The Claremore Garden Club closed our Convention.

I want you to know how great a joy it was for me to represent our Federation at this Meeting. It is too bad space does not permit a more detailed report.

Very cordially and sincerely,
RUTH WEST

FEDERATION BOARD OF DIRECTORS HOLDS SUMMER MEETING

The Board of Directors of the Wisconsin Garden Club Federation met in Milwaukee on July 1. Discussion centered on the program for the coming annual convention of the Federation which will be held in Lake Geneva on October 9-10.

Mrs. Eric Martin, Edgerton, secretary-treasurer, reported a total membership of 3,060 in 102 garden clubs.

The Board authorized Mrs. F. P. Dunn, state junior chairman, to purchase 1,000 buttons for juniors of the type approved by the National Council. She will distribute them to all organized junior clubs.

Request Advance Registration For Convention

Garden club members are requested to register for the annual convention in advance, in order that Lake Geneva committees may make arrangements for rooms and meals.

The convention program will include tours to estates and gardens at Lake Geneva each afternoon; also luncheons and a banquet. Mrs. Clarence Schultz, Neenah, 2nd vice-president, was named general chairman of the convention, by the president, Mrs. John West.

The Board was unanimous in recommending that the constitution of the Federation be changed to provide that the Board of Managers, which consists of garden club delegates, plus the Executive Board, transact all the business of the Federation during the time of the annual meeting. This would make it unnecessary to have a general business meeting which is very much in the nature of a duplication. The Board of Managers now elect the officers.

WISCONSIN GARDEN CLUB FEDERATION SCHOLARSHIP

Mrs. John West Federation president has appointed Mrs. Alfred Kieckhefer in charge of the Scholarship Fund which was so enthusiastically endorsed at the Regional Meetings last spring. This Scholarship, $100.00 as a beginning should be an incentive as well as a reward to any student sincerely interested in the field of horticulture, conservation or plant research. It is to be awarded for the senior year. That year was chosen because by that time the student will have decided the field of work he intends to follow after graduation

The University Committee will pick the student who in their opinion is best qualified. This will not be decided entirely on the marks he has received as we all realize it takes more than just book and technical knowledge to accomplish anything along these

lines. We sincerely hope that in helping some deserving student we will be helping others whom he will contact in his profession and thus pass on the benefits of his education.

Will all the clubs send in their contributions to **Mrs. Alfred Kieckhefer, 1250 West Dean Road, Milwaukee 9** promptly as the money is needed immediately.

FLOWER JUDGING SCHOOL MILWAUKEE, SEPTEMBER 9-10

Plans for the first judging school of the Wisconsin Garden Club Federation following the first course of the National Council of State Garden Clubs have been completed. It will be held at the Milwaukee Art Institute, 772 North Jefferson St., Milwaukee, September 9 and 10. The program is as follows:

Tuesday, September 9

9:45 a.m. "Flower Show Practice" Mrs. Maud Jacobs, So. Carrollton, Ky.

2:00 p. m. "Horticulture" Mrs. Maud Jacobs

7:30 p. m. "Basic Principles of Flower Arrangement" (illustrated). Mr. A. G. Pelikan, Director of Art Education, Milwaukee Public Schools.

Wednesday, September 10

9:30 a. m. "Flower Arrangement." Mrs. W. C. Hamilton, Wichita Falls, Texas.

2:00 p. m. Examinations.

Course: Members $2.50 — Non-members $3.50.

Whether you take the examinations or not is optional, but those passing examinations will be issued a certificate.

All Wisconsin flower judges are urgently requested to take this course as a means of "brushing up" and raising their status as flower show judges. This school is open to all interested in improving their gardening and adding to their flower arrangement knowledge.

We need more and competent judges. Very few possess the natural talent for judging without specialized training. Here is your opportunity! Make the most of it by sending in your name, address, club affiliation and check to Miss Emma C. Schipper, Judging School Chairman, 510 E. Homer St., Milwaukee 7, Wisconsin and your admission card with your number on same will be sent you.

—Emma C. Schipper, Judging School Chairman.

GARDEN CLUB HOLDS AUCTION TO BUILD UP GOOD WILL AND THE CLUB TREASURY

The Manitowoc Garden Club has an auction for members and their friends each year. It is held either in the fall or spring in order to diversify the material that is auctioned. It has become an annual affair for the Club and the members enjoy this meeting, and are very generous in donating surplus material for the auction.

The auction, as conducted by the Manitowoc Club has a number of advantages:

1. It provides a certain amount of revenue, as all receipts (there are no expenses) go into the Treasury.
2. Members who feel that they cannot take part in some of the activities of the club are glad to donate material to the auction, and in that way help serve the projects of the Club.
3. It provides an opportunity to bring prospective members to a meeting that is not stilted, or formal, and many prospective members by bidding at the sale, feel that they are part of the organization and are glad to join the Club.
4. Certain members are building up a reputation for their donations, and these receive spirited bidding, and the buyer also knows that the product offered has been grown in his own locality.
5. The comments of the bidders, the humor of the auctioneer, and the lack of restraint all tend to make it an unusual affair.

The material brought to the auction should be neatly wrapped and labelled, and must be in good condition. An auction of small trees, shrubs, plants, seeds, vases, bulbs, vegetables and flowers could be conducted by any Garden Club to advantage.

— H. H. Groth, Manitowoc, Wis.

Early in the 19th Century Robert Fortune shipped 20,000 tea seedlings from Shanghai to the Himalayas. They arrived safely and started the Indian tea industry of today.

BETWEEN CLUBS

From the **La Crosse Garden Club** comes interesting items showing they are very active. Soil conservation, a subject of importance to the Coulee Region, was recently presented to them by Orville Hays of the U. S. Soil Conservation Experiment Station, La Crosse.

Russell L. Williams, roadside development engineer of the State Highway Commission, gave an instructive talk on roadsides and offered help on the projects the club may take up at a later date.

At the Easter meeting Miss Jean Stewart, exchange teacher from England, described English cottage gardens and gave a delightful picture of her home at Birmingham.

In June the La Crosse Club held a very successful Flower Show and Tea at the Cargill House. A large number of specimen blooms of peonies and iris, flower arrangements, and special features attracted a great many visitors. The flower Show resulted in several new memberships.

Whitewater Garden Club has many program high lights for 1947. They have a breakfast in May, luncheon in December and a picnic supper in July.

Other meetings usually feature a tea, as in January they have a birthday tea and a book chat taking the winter armchair gardener round the seasons in verse, short stories and excerpts from essays.

In February Mrs. Carroll Flanagan, an amatuer ornithologist, gave an excellent talk to them on the nesting and mating habits of birds illustrated by records of bird calls and colored prints.

Miss Hannah Larson gave a "Potpurri for Gardeners" garnered from her scrap book clippings. The final section was on herbs, after which Miss Larson gave each member a package of herbs from her own garden.

In May they have an annual breakfast meeting and plant exchange, in June a tour of Whitewater gardens and in July will visit Whitnall Park.

In August they are expecting to hear a talk about the Dutch East Indies and the tropical flowers found there.

Your publicity chairman is very grateful to the clubs who send items. Thank you and please keep sending news of your club.

—By Mrs. Wm. Curtiss, Plymouth, R. 1, State Publicity Chairman.

From a Gardener's Notebook

By Genevieve Dakin, Madison

California gained 38 new garden clubs in two years.

Virginia has adopted the slogan "Keep Virginia Green."

Tennessee has 600 bird sanctuaries.

North Carolina stresses Junior Garden Clubs as the hope for the future.

From the Connecticut Agricultural Experiment Station we have some comments on fungicides: Fermate, the new fungicide, unfortunately is coal black in color and leaves a dark residue. While it does control black spot its use on roses raises objections. Zerlate is closely related but is white in color. It contains zinc which tends to burn fruit and flowers. A new organic sulphur compound is omilite, it possesses remarkable stickiness which causes foliage to retain it for a long time.

If you are interested in "strange flowers" send for Rex Pearce's list. Address Dept B. Moorestown, New Jersey.

A willow recommended for the softness of effect produced by its soft gray linear foliage is salix rosmarifolia. Several acquired ten years ago have proved satisfactory background subjects in our garden.

The art of grafting is now much less practiced than in former times with the exception of fruits and roses. This is largely an age of own-root plants. Rooting in water is one of the simplest methods of propagation.

—Massachusetts Horticulture.

We read that one twenty sixth of an ounce of fertile soil contains as many organisms as there are people in the entire United States.

In Notes of the Times, Kiplinger Magazine, is an interesting presentation of the thought that weeds and Communists have something in common. Weeds have a perfect right to be, grow, flourish and propagate. Weeds are vigorous, which is one reason they are regarded as weeds. Even a law prohibiting weeds doesn't kill them.

There's one point on which Communists and weeds are not alike. Weeds do not change color over night and do not jump from one side of the garden to the other. They have a good deal of honesty and integrity.

One of the best ways to fight weeds in a lawn is to get the grass so sturdy that it chokes out the weeds.

There is still no fool-proof chemical control of crabgrass. Watch for crabgrass seed-heads. Pull off or rake up and mow to prevent ripened seeds falling to the ground. Catch clippings.

— Lawn Care.

Two weeks before you sow grass seed in September you may wish to apply a Weed Control to get rid of broad-leaved weeds.

May 24th it was my privilege to attend the Annual Meeting of the American Rock Garden Society at Cronamere, the beautiful Connecticut estate of Gen'l and Mrs. C. I. De Bevoise, located on Long Island Sound. Pink and white dogwoods added an exquisite color note to the setting for the series of rock gardens in which one found both easy plants for the novice and many rare species to challenge the skill of the experienced grower. After all isn't it that challenge to grow the more difficult treasures of the plant world that makes the rock garden hobby so intriguing? Someone likens a dyed-in-the-wool rock gardener to the patient fisherman who sits on a bank and angles for what he hopes to get. Anyhow to me its real sport!

In the New York Botanical Garden the use of logs and prostrate stumps to retain terraces for bog plants was interesting. I recalled the use of huge logs, cut in clearing for her house, made by Portland's well known gardener Mrs. A. C. U. Berry. They elevated her primrose beds and formed the large "Trough Gardens" in which she grew rare alpines.

That ubiquitous sedum "acre" a weed to many, had its uses. The rustics of England called it "Welcome home - Husband - be you - ever so drunk" because growing on the roofs of the thatched cottages its bright blooms proved a guiding beacon to befuddled mates.

We experienced pleasure in having Azalea Mollis bloom for the fourth year, Florida dogwood show white though not perfect bloom, and pink Mountain Laurel bloom generously.

Order your daffodils and get them in as soon as they arrive. They should be established in the fall planted in September if possible. These bulbs do well under conditions provided by light woodlands, giving effective patches of color in early spring. Falling leaves in autumn add fertility and serve as a mulch, too. Trees and shrubs give shelter and keep soil temperature constant. The sun's rays do not burn choice varieties. Thoughtful planting stretches the blooming season to five or six weeks. Bulbs should be covered with six inches of soil. An average of four bulbs to a square foot makes an attractive planting. Give them good drainage in ordinary soil. The application of a complete fertilizer pays dividends in stout stems and bloom.

Lupines seem difficult to many gardeners. R. C. Allen tells us that they do not thrive in rich soil. They prefer a slightly acid soil as do delphiniums and other perennials. They do not take kindly to fertilization except for some phosphorus which may be used only until the plants are established. They are more or less self-sufficient as they have the ability to take nitrogen from the air and fix it within their bodies from whence it is duly liberated and used by the plant.

If difficulty in moving your lupines is experienced it is very possible the new location contains too much nitrogen. High nitrate soil content is toxic to the roots. As a result the roots do not become inoculated with nitrogen-fixing bacteria and no nodules are produced. When nitrogen is too high in the soil try mixing in chopped straw or shredded sugar-cane to reduce the nitrogen and allow the plants to become established.

August 23. Community Flower Show, Pewaukee Woman's Club supported by Pewaukee Garden Club.

Pyrethrums are free from attacks by pests. Why?

"It isn't a garden unless it's enclosed."

Periwinkle is said to be lovely sheared, growing erect.

From Massachusetts Horticultural Society, you can obtain a bulletin on Poison Ivy. Cost 25c.

Art in Flower Arrangement

Emma Schipper, Milwaukee

In this day and era of "design in flower arrangement" some very definite ideas are being expressed as to what constitutes a good design. The most popular concept or belief is that every flower arrangement must have its "focal point," and in the case of a free standing arrangement, one that can be viewed from all sides, as many as four "focal points" are allowed or suggested.

Here are a few more rules: Never use a round or dominant flower (roses, asters, carnations, zinnias, etc.) for your tallest placement. A successful arrangement combines both spear or spike forms (snapdragons, stock, gladiolus, delphinium, etc.) and round forms. A bouquet composed of only spear forms is bad and one made of all round forms is just as bad — and so the story goes.

If we would just remember to always see or visualize an arrangement in relation to its background or the space it is to occupy we would soon learn that the arrangement itself could be the "focal point," and that this "focal point" could also emphasize line, as well as color or mass, as is the case in the composite or combination type of arrangement composed of spear or spike forms and round or dominant forms. The emphasis in this type of arrangement is always at the terminal where the stems meet and the round forms are added.

The "focal point" in a table setting is always the center-piece regardless of whether the arrangement is composed of more than one variety of flower. A compact mass of just one kind of flowers in different stages of development, and varied in color, can be a lovely design and perfect for a particular space. "Space," Leonardo da Vinci called "the fifth essential of design. It is the medium in which

Roses and Beauty Bush were used in an old-fashioned china and pewter teapot for an arrangement at the Fond du Lac Flower Show in June by Mrs. E. F. McNaughtan, Ledgeview Garden Club.

form, line, color and light exist."

Many varieties of flowers look best, arranged by themselves, and many people won't arrange them any other way. I like all flowers arranged by themselves and often combine contrasting foliage, and I also like flowers in combination. I try to make an interesting composition from whatever I have to work with.

SPECIAL AWARD

The Memorial Altar at the State Flower Show in Wauwatosa, received the National Council of State Garden Clubs Special Award. The Memorial Altar was prepared for the Sheboygan District by Mrs. John West, Manitowoc, state president.

Easy shrubs to force in the house are forsythia, wild plum, fragrantissa honeysuckle, pussy willow and magnolia stellata. The approved method is to cut well-budded growth the desired length, place in container of water in a warm temperature, and cut off the bottom of the stem every few days.

CAN WE CONTROL RAGWEED

Ragweed control for the relief of hayfever suffers has been the goal of many organizations for years. The problem, however, is not an easy one. In answer to requests of several garden club officers and program chairmen we asked Mr. Henry Lunz, Supervisor of Seed and Weed Control with the Wisconsin Department of Agriculture to give his opinion on ragweed eradication. He writes: "It is said that ragweed is one of the main causes of hayfever although there are many other plants which may cause this disorder. The distance that ragweed pollen will be carried in the air depends upon temperature, humidity and air currents. In some instances, there is no doubt but what it *may travel for many miles.* However, there is considerable evidence that the destruction of ragweed in a community aids hayfever sufferers in that community although a certain amount of pollen may blow in from other areas. At the present time, it seems doubtful if it will ever be possible to completely eradicate ragweed and other plants which cause hayfever. *Ragweed grows in all grain fields usually very profusely. To destroy the ragweed in these grain fields would destroy any new clover seedlings which the farmer might have sown.*

It would appear that one of the first steps which could be taken especially by villages and cities would be the destruction of ragweed in vacant lots and along roadsides. While the ragweed which grows in grain fields produces considerable pollen, yet the plants never get very tall and the pollen produced is not as great as that produced by plants allowed to grow unmolested.

Some of the newer chemicals like 2,4-D appear to have possibilities in controlling ragweed without affecting valuable lawn grasses.

State Flower Show Awards

(Continued From Last Issue)

Flowers Set To Music

Excellent. The Rhumba. Mrs. A. R. Leidiger, Art Institute G. C.; The Jitterbug, Mrs. L. G. Stewart, Home Gardeners, West Allis; The Minuet, Mrs. Wm. J Armitage, Ravenswood G. C

Memorial Altar

Excellent. By Sheboygan District, Mrs. John West, Manitowoc.

WINDBLOWN BEAUTY

Excellent. Mrs. L. G. Stewart, Home Gardeners, West Allis; **Very Good,** Miss Olive Longland, Lake Geneva Town and County G. C.

Antique Containers

Excellent. Mrs. John Voight, Whitnall Park G. C.; Mrs. Geo. Johnson, Home Gardeners, West Allis; Mrs. Herbert Swan, Ravenswood G. C.; Mrs. R. E. Stoll, West Allis G. C.; Mrs. H. Barth, Mequon G. C.; Mrs. Fred Marquardt, Hawthorne G. C.; Miss Olive Longland, Lake Geneva Town & Country G. C.; Mrs. Ben Koehler, Blue Mound G. C.; Mrs. A. R. Leidiger, Blue Beech G. C.

Very Good. Mrs. Clarence Schultz, Menasha G. C.; Mrs. Geo. Bernhard, Mequon G. C.; Mrs. Donald Rowe, Hawthorne G. C.; Mrs. S. W. Price, Ravenswood G. C.

Good. Mrs. G. Gauckler, Mequon G. C.; Mrs. John Bailie, Home Gardeners, West Allis; Mrs. Elmer Rohan, Galecrest G. C.; Mrs. B. C. Spansy, La Belle G. C.

Composition

Excellent. Mined Metals. Mrs. Fred Marquardt, Whitnall Park G. C.; Mrs A. K. Spooner, Delavan City G. C.

Good. Mined Metals.Mrs. Ned Dumdey, Ravenswood G. C.; Miss Celia Dix, Art Institute G. C.

Excellent. Jewels. Mrs. Carl Hofstetter, Ravenswood G. C.

Very Good. Crystal. Mrs. A. K. Beechler, Ravenswood G. C.

Fans Glorified

Excellent. Mrs. James Livingstone and Mrs. Frank Courtney, Blue Beach G. C.; Mrs. Walter Diehnelt, Menomonee Falls G. C.; Mrs. Ethel MacKinnon, Menasha G. C.

Very Good. Mrs. Roy Sewell, Blue Mound G. C.; Mrs. Fred Marquardt Whitnall Park G. C.

Good. Mrs. Clarence Hapke, Elm Grove G. C.; Mrs. H. F. Dennett, Blue Mound G. C.; Mrs. Wm. Holz, Hawthorne G. C.

Oriental Line Arrangement

Excellent. Miss Olive Longland, Lake Geneva Town & Country G. C.; Mrs. E. A. St. Clair, Blue Mound G. C.; Mrs. George Harbort, Madison G. C.; Mrs. J. T. Wisniewski, Sunset G. C.

Very Good; Mrs. Wm. Holz, Hawthorne G. C.; Mrs. Conrad Biebler, Art Institute G. C.; Miss Catherine Danehy, Manitowoc G. C.; Mrs. Ray Brendel, Ravenswood G. C.; Mrs. G. L. Lincoln, Madison G. C.

Good. Mrs. A. R. Leidiger, Art Institute G. C.; Mrs. Forest Middleton, Madison G. C.; Miss Celia Dix, Art Institute G. C.; Mrs. Jeff Johnson, Spring City G. C.

Still Life Themes

Excellent. La Belle G. C.; Mrs. John D. West, Manitowoc G. C.; Mrs R. P. Brophy, Ravenswood G. C.; **Very Good.** Mrs. Robert Rumpel, Galecrest G. C.; **Good.** Waukesha Town G. C.

Artistic Arrangement Spring Flowers

Excellent. Mrs. L. G. Stewart, Home Gardeners; Mrs. Jeff Johnson, Spring City G. C.; Mrs. E. A. St. Clair, Blue Mound G. C.; Mrs. R. Klaus, La Belle G. C.; Mrs. A. B. Hicken, Waukesha Town G. C.

Very Good. Mrs. B. C. Spransy, La Belle G. C.; Mrs. Victor H. Schmitt, West Allis G. C.; Mrs. T. R. Uthus, Waukesha Town G. C.; Mrs. C. Ede, Waukesha Town G. C.; Mrs. B. C. Spransy, La Belle G. C.

Good. Mrs. A. Zenker, Mequon G. C.; Mrs. A. B. Hicken, Waukesha G. C.; Mrs. H. B. Nixon, Sum-Mer-Del G. C.

Foliage Arrangements

Excellent. Mrs. Walter Diehnelt, Menomonee Falls G. C.; Mrs. A. R. Leidiger, Blue Beech G. C.; Miss Emma Schipper, Art Institute G. C.; Mrs. L. G. Stewart, Home Gardeners, West Allis.

Arrangement Of Tulips

Excellent. Mrs. R. Klaus, La Belle G. C.; Mrs. L. G. Stewart, Home Gardeners, West Allis; Mrs. W. Bruhn, Hillcrest G. C.; Miss Emma Schipper, Art Institute G. C.; Mrs. Olive Zietlow, Spring City G. C.; Mrs. E. Rohan, Blue Mound G. C.

Very Good. Mrs. E. A. St. Clair, Blue Mound G. C.; Mrs. Robert Harris Waukesha Town G. C. **Good.** Mrs. L. H. Van Alstine, Waukesha Town G. C.

Arrangement Shrubs And Flowers

Excellent. Mrs. L. G. Stewart, Home Gardeners; Mrs. A. L Noerenberg, Art Institute G. C.; Mrs. R. D. Erickson, Sum-Mer-Del G. C.; Miss Celia Dix, Art Institute G. C.; Mrs. E. A. Sieber, Galecrest G. C.; Mrs. V. J. Suttinger, Home Gardeners, West Allis.

Very Good. Mrs. Jeff Johnson, Spring City G. C.; Miss Janet Buckeridge, West Allis G. C.; Mrs. Clarence Hapke, Elm Grove G. C.

Excellent. Tall arrangement Shrubs and Flowers, Mrs. James C. Coe, Sum-Mer-Del G. C.

Novice Artistic Arrangements

Arrangement Spring Flowers

Excellent. Mrs. G. Miller, La Belle G. C.; Mrs. A. J. Akceret, Ravenswood G. C.; Mrs. E. J. Brown, Home Gardeners; Mrs. B. O. Heinrichs, Blue Mound G. C.; Mrs. Lloyd Cadieu, Home Gardeners; Mrs. E. Peterson, Galecrest G. C.; Mrs. James C. Coe, Sum-Mer-Del G. C.; Mrs. W. E. Fitting, Ravenswood G. C.

Very Good. Mrs. R. Petersen, Galecrest G. C.

Green And White Arrangement

Excellent. Mrs. Chas Rode, Waukesha Town G. C.; Mrs. John Bailie, Home Gardeners; Mrs. G. L. Lincoln, Madison G. C.; Mrs. E. J. Brown, Home Gardeners; **Good.** Mrs. G. Wm. Warner, Jr. Whitnall Park G. C.; Mrs. Lloyd Cadieu, Home Gardeners.

Arrangement Pansies

Excellent. Mrs. H. Koch, Whitnall Park G. C.; Waukesha Town G. C.; Mrs. Chas. Rode, Waukesha Town G. C. **Very Good.** Mrs. Helen Taylor, La Belle G. C.

FLOWERS IN THE KITCHEN

Very Good. Mrs. F. C. Marquardt, Whitnall Park G. C.

Novelties

Excellent. Carved fruit to represent flowers, Mrs. O. Fleischer, Art Institute G. C.; Caricaure made of vegetables, Mrs. O. Fleischer, Art Institute Place Cards, Mrs. J. N. Dooley, Home Gardeners; Mrs. Clarence Hapke, Elm Grove G. C.; Figures Using Flowers, Mrs. O. Fleischer, Art Institute G. C.; two awards.

Junior Exhibits

Excellent. Cigar Box Gardens. Darlene Day, West Allis; Mary Zietlow, Waukesha; Sandra Lochen, Waukesha. **Very Good.** Judy Muenzberg, Elm Grove. **Good.** Valerie Meyer, Milwaukee; Mary Gene Muenzberg, Elm Grove; Carol Howard, Waukesha.

Table Arrangement

Excellent. Karen Hapke, Elm Grove; Nancy Peterman, Wauwatosa. **Very Good.** Mary Gene Muenzberg, Elm Grove. **Good.** Shirley Nebel, West Allis; Carol Burback, West Allis; Carol Kriz, Elm Grove.

Artistic Arrangement Of Flowers

Good. Valerie Meyer, Milwaukee. Miniatures. **Good.** Troop 181, West Allis, Mrs. Shrank, Leader.