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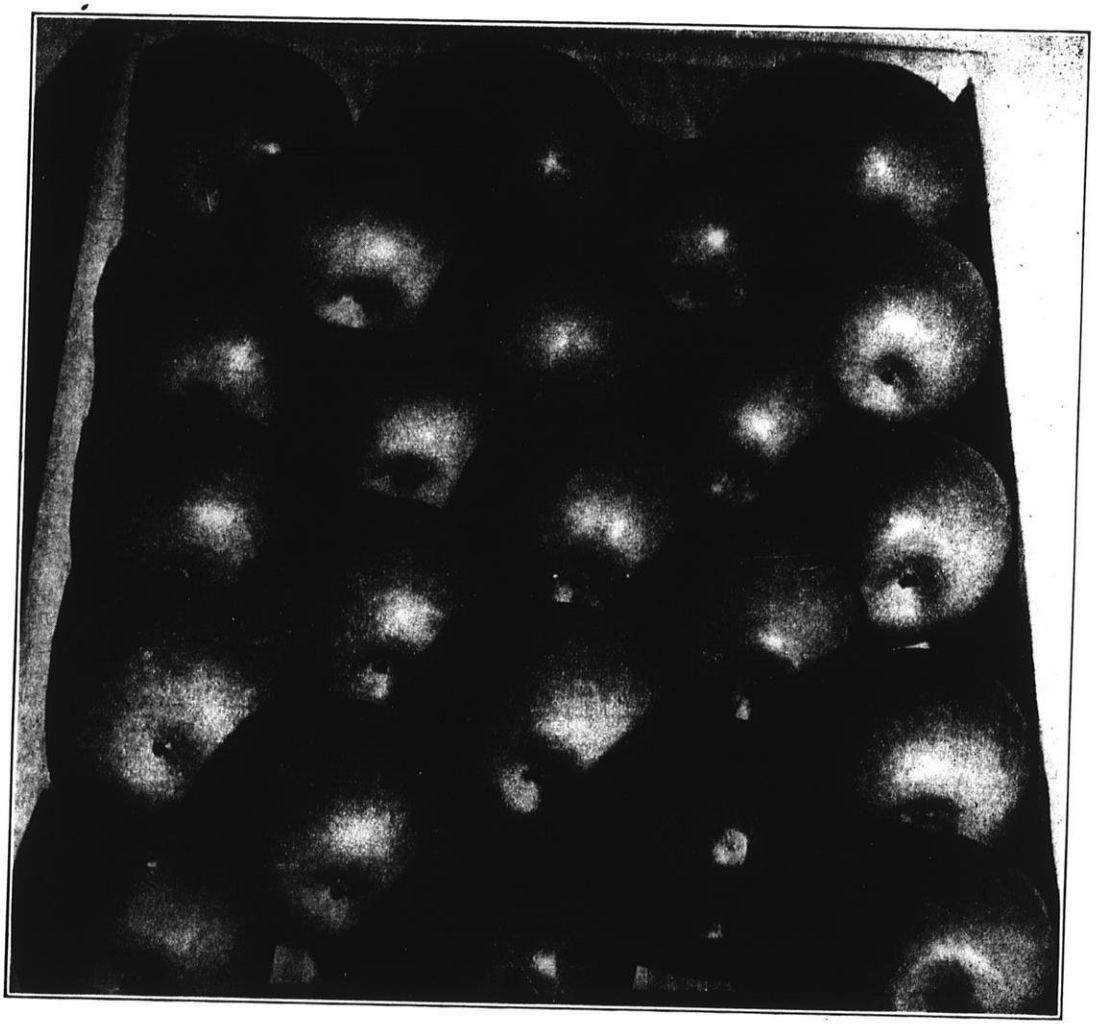

SEPTEMBER, 1937

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Dust Materials
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2201 University Avenue
Madison, Wisconsin

APPLE RELISH

3 pounds apples
3 pounds sugar
1 pound raisins
½ pound pecans
2 oranges

Dice the apples without paring them. Remove the peeling from the oranges and grind it in the meat grinder; cut the orange into small pieces. Cook the mixture, except the nut meats, for one hour. Add the nuts five minutes before taking the mixture from the stove.

Fig. 1 Fig. 2 Fig. 3

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Cumberland Fruit Package Company

Dept. D, Cumberland, Wis.

Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

Established 1910

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

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
1532 University Ave.
Madison, Wisconsin

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

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

Volume XXVIII. SEPTEMBER, 1937 No. 1

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PLEASE DO NOT SEND STAMPS

Wisconsin Horticulture

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

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

Codling Moth In Door County

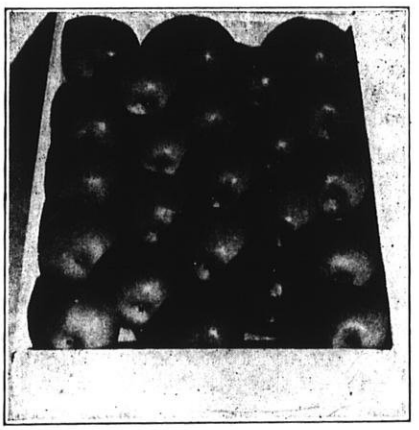
John H. Lilly

THE codling moth is causing more damage in Door County this season than it has for several years. As usual there is a considerable variation from orchard to orchard. Some show almost 100% clean fruit, others have a high percentage of stings, and still others are badly infested with side worms.

Injury, where present, is probably due in most cases to one or more of the following factors: (1) Failure to clean up infested fruit in fall of 1936, thus permitting many worms to overwinter. (2) Inadequate spray coverage during June and July. (3) Improper timing of spray application during this period.

The Second Brood

Second brood moths started to emerge about August 10 and they are now (August 17) quite numerous in orchards where side worm injury is common. This might not be serious if low evening and night temperatures prevailed. However, the past few nights have been unseasonably hot for Door County and if this continues a large hatching of eggs is expected in about ten days. This situation is being watched closely in several representative orchards so that special measures may be recommended if practical.



Early Sprays Important

As indicated above, inadequate or poorly timed spray applications during June and July are responsible for most of the present difficulties. The writer is of the opinion that most of this is the direct result of growers delaying or entirely omitting important codling moth sprays, in many cases because of fear of burning if a sulphur fungicide was used during hot weather. This was a very natural reaction to the burning during the heat wave of 1936.

It should be remembered that during prolonged heat waves arsenate of lead plus a sticking agent may be used for worm control instead of the usual lead arsenate-lime sulphur combination.

Destroy Wormy Apples

There is one precaution that should be taken during harvest in all orchards where any side worm is present. This is to promptly dispose of all injured apples by feeding to hogs or by some other means. We have in mind one orchard especially where the spraying has been both thorough and timely, but worm damage is common due to the fact that infested fruit is simply piled up in the orchard and left there. It is also a wise procedure to keep packing sheds tightly screened during the summer in order to prevent release of the moths emerging from worms brought in with the previous year's harvest.

ORIGIN OF CHERRIES

ABOUT a generation before the Christian era a Roman general conquered the last province of Asia Minor, which had held Rome at bay and had encroached on her principalities in Greece. To commemorate this victory, cherry trees—indigenous to the region—were taken to Rome. From them developed the domestic cherry of Europe and America.—M. H. Sherwood in "From Forest to Furniture."

Fertilizers For the Orchard

IN THIS issue are several articles giving results at different Experiment Stations in fruit growing sections of the country, all pointing to the value of humus or organic matter in the soil for fruit growing. As one travels up and down Wisconsin, visiting orchards, one is impressed with one big mistake which has been made—that is in the application of fertilizers in the orchards. Evidently for years ammonium sulphate or nitrate of soda was spread in a narrow circle under the "drip of the branches." The result is a heavy growth of grass directly under the tree with all the other soil in very poor condition. We have seen orchards in which quack grass grew only a foot high in the middle of the rows, and these soils were very dry and exposed to the heat of the sun and wind. The roots of larger apple trees are long enough so that they meet in the center of the rows, and that's where much of the food and moisture is obtained. Really, therefore, where we need the growth of grass and humus the most, is not under the trees where there is natural shade, but between the trees where it is the dryest and where the small feeding roots are.

Fertilizer Application

Enough experiments have been carried on in the United States to prove that fall applications of nitrogen fertilizers in the orchard are as good as spring applications, and perhaps better. There is some indication that nitrogen is stored by the tree and its resistance to winter injury is increased thereby.

This is a year of heavy crop production. We know that winter injury following heavy crops is usually more severe than following a light crop. Therefore it may be well to apply our nitrogen fertilizers this fall.

Either Cyanamid or ammonium sulphate may be applied as soon as the apples have been picked. Go up and down the middle of the rows and spread it uniformly, not closer than about three feet to the trunk of the tree. The amount to apply varies a great deal with the condition of the soil. If grass is growing well between the rows, not so much is needed. But in many orchards where the grass does not grow well, a larger amount will help. The usual recommendation is one pound of nitroen fertilizer per four years of the age of the tree, up to about five pounds per tree. On some of the poorer sandy soils we have seen, from three to four hundred pounds per acre would not be any too much to start with. On more fertile soils, two hundred pounds may be sufficient. Watch the growth of the trees.

If trees with medium crops of fruit have made from 12 to 16 inches of new growth then not so much fertilizer should be used.

STRAW MULCH DOUBLES APPLE YIELD

A seven-year experiment by the U. S. Department of Agriculture in western Maryland on shallow soils with poor water holding capacity, shows that apple trees heavily mulched with straw produced almost twice as many apples as trees without mulch. Trees were of the same variety and in the same orchard.

In one plot a heavy straw mulch to keep down the weeds and conserve moisture averaged 10.4 bushels of apples per tree, while another plot with spring cultivation and no mulch averaged only 7 bushels per tree.

THE APPLE PICKING RECORD

THE National picking record, according to the American Fruit Grower, is held by Roger Carl Moore. The record was made in western Maryland. He picked 276 bushels of apples in a single day. The following are some of Mr. Moore's suggestions for picking apples, and his account of how he won the championship.

"I made my debut as a picker at the age of 12 in one of the largest apple orchards in the East. Ten years later I had worked out a method that enabled me to set a record of the largest number of bushels ever picked in one day on the steep mountainsides of western Maryland.

"The trees in this orchard were about 20 years old when I did my best picking. We picked by the box, each man carrying numbered tickets, one of which he placed in each box, the final tally later appearing at the packing shed. Apples that fell to the ground were placed in separate boxes.

"I set my record one October day when picking Baldwins. The night before we heard that the picking would be good the next day, although there was some danger of going ahead so fast that we would outdistance the teamsters hauling empty boxes. That evening I went over my picking sack carefully. It was the type that hooks up at either side, with no canvas support extending across the top to slacken picking speed.

"My formula was simple. Never make a false motion, never hurry; overcome the handicap of short stature and small hands by scientific effort. I used a 22-foot ladder with a prong at the end."

The height of hard luck is to have seasickness and lockjaw at the same time.

Organic Matter Improves Soil Texture

Monroe McCown, Purdue

ACCORDING to H. J. Page, "long," unrotted manures are applied in the fall to heavy soils and "short," well rotted manures are applied to sandy soils in the spring. The humus colloid serves as a binding agent, binding smaller soil particles into larger aggregates, producing a crumb-like structure to a clay soil or cohesiveness and "body" to a sandy soil the organic material promotes conditions which are conducive to adequate drainage and aeration in the clay soils and in sandy soils, evaporation and leaching are reduced.

Acid clays, if lacking in organic matter content, are highly dispersed or divided into extremely fine particles which pack closely, interfering with free movement of water and air. The addition of a small amount of humus to such a soil may serve only to aggravate this condition. Large additions of humus tend to flocculate dispersed soils forming the crumb-like structure.

The addition of lime to a dispersed soil improves texture also by flocculation. Best tilth is obtained through the judicious use of both organic matter and lime. However, lime should be added to soils upon which horticultural crops are to be grown, only after a test has given some information concerning the amount to be added. Most horticultural crops grow best on a slightly acid soil.

Green Manure Crops

The beneficial effect of green manure crops is due in part to the effect of the root system upon the soil structure. There is no known practical method by which organic matter can be as well distributed in the soil as through the growth of roots. The roots ramify the soil and as they decay, the colloidal products of decomposition tend to cement the finer soil particles into aggregates or crumbs. The efficiency of blue grass as an orchard cover is considered to be due in part to the modification of the soil structure by the root system and the consequent effect upon the movement of soil water and air and the release of mineral elements. The gradual decomposition of a mulch of straw or a similar organic material and the mixing of the products of its decay with the soil results in improved tilth.

Cultivation Destroys Humus

The clean cultivation system of orchard soil management which was so widely practiced a few years ago resulted in rapid depletion of the organic matter in the soil. With the depletion of the organic matter, desirable soil structure was broken down. The same condition results from continuous growth of crops which are removed from the soil.

The general adoption of the short sod rotation and wider use of mulch in orchards; the plowing down of green manure crops in the preparation of the soil for berries and vegetables, and the judicious use of lime will result in a gradual improvement in soil tilth of horticultural farms.

Mr. McCown is in the Agricultural Extension Division of Purdue University, Indiana. This article apepared in "Hoosier Horticulture."

INTERNAL BROWNING OF APPLES MAY BE DUE TO LACK OF BORON

APPLE trees growing on shallow, gravelly soil may be found to be subject to an internal browning of the fruits during periods of drought, writes W. O. Gloyer of the New York Experiment Station, in Farm Research.

It has been found, however, that the method of injecting Boron into the tree is not safe and where this is done there was serious injury to the tree. The best method is to apply boric acid to the soil.

This drought spot, or internal browning, must not be confused with bitterpit for which there is no known method of treatment. Growers finding internal browning should send apples to the Pathology Dept. of the Experiment Station for identification.

Mats for the above design are available to growers for use in advertising, in two sizes, one column and two column widths, free of charge. Write Wisconsin Horticultural Society, 1532 University Ave., Madison, Wisconsin.

In the Orchard

POISON OATS BAIT AVAILABLE FOR CONTROL OF MICE IN THE ORCHARD

THE Wisconsin State Horticultural Society will again handle the poison oats bait prepared by the U. S. Bureau of Biological Survey in their Idaho Mixing Plant, for Wisconsin orchardists.

The best way to get rid of mice in the orchard and prevent tree injury this winter, is to kill the mice this fall. Just as soon as the grass turns dry, the mice are looking for something appetizing. That is the time to put out the poison oats bait.

A good bait station consists of rolling a piece of roofing paper into a tube large enough for the mice to run through. A teaspoonful of poison oats bait is placed in the middle of each station. It may be well to put one station under each tree for good results.

The price of the oats bait is as follows:

25 lb. bag ------ $2.50
10 lb. bag. ------ 1.20

The oats bait will be sent by express collect. Address: Wisconsin State Horticultural Society, 1532 University Avenue, Madison, Wisconsin.

RULES FOR APPLE PICKERS

THE following Rules of Pickers have been collected by American Fruit Grower.

Begin with lower branches and work upward to reduce dropping hazards.

Place ladder in such position so that if dislodged it will fall against the center of the tree, thus preventing serious accidents.

Stems should not be twisted or torn out.

Carry picking bag on side, not in front.

Spurs should not be damaged, for on them depends next year's crop.

Extra care should be used in handling tender varieties such as Winter Banana, Grimes Golden, Delicious, Stayman, Winesap, etc.

Pickers should be relieved of fruit near trees in order that they may resume picking immediately.

When emptying bag see that opening is close to bottom of crate.

Picked fruit should be placed in the shade on the north side of tree.

Trucks for hauling fruit to the packing shed should be low to prevent excessive lifting and should have good springs and tires to protect the fruit.

From September American Fruit Grower.

COMMENTS ON APPLE PACKING

H. W. Miller, Sturgeon Bay

WE believe that the Trescott grader has many advantages over any other grader in the market and we have tried them all.

We believe that it is necessary to grade three sizes in any variety of apples and that in some varieties, it is necessary to grade four sizes.

We use three different forms of packers: first, **The Finger Form** (or the Perfection Pack). This is a simple method but it is difficult to get a right face, and is a trifle slow in packing.

Second, **The Open Liner,** where just the face plate is used. This has the advantage of making easy facing and the liner being an Open Liner, it immediately forms to fit the basket so that the apples settle quickly into place when the basket is turned.

Third, **The Easy Pack Basket.** This without question is one of the best baskets, but it is considerably slower in packing, and a trifle more expensive.

We do not like the Hyatt packer or liner.

STERILIZATION OF APPLE JUICE BY FLASH PASTEURIZATION

THE August Quarterly Bulletin of the Michigan Experiment Station, East Lansing, Michigan, describes a successful method of sterilization of apple juice by pasteurization. The work was done by Roy E. Marshall and J. C. Kremer of the Horticulture Department.

"Apple juice clarified with Pectinol, filtered, heated to 190° F. in a flattened tube pasteurizer for 7 to 10 seconds, bottled and immediately sealed, and stored at approximately 70° F. remained free of sedimentation, retained color, clarity and flavor, remained sterile, and had only a trace of an objectionable tendency toward a cooked or pasteurized taste.

"A description of the flash pasteurizer used in the experiments is presented and directions are provided for the construction of boiled, flattened-tube pasteurizers of various capacities."

RASPBERRY PLANTS FOR SALE

Newburgh raspberry plants. Large, thrifty plants. $1.75 per 100. Order now for October delivery. Not prepaid. Hall Nursery, Elmwood, Wisconsin.

Relation Of Washing To Bruising And Keeping Quality Of Apples

THE following are some of the conclusions reached by Roy E. Marshall of the Horticultural Department, Michigan State College, East Lansing, Michigan, published in the August Quarterly Bulletin of the Station, on experiments to determine the relation of washing operations to bruising and keeping qualities of McIntosh and Northern Spy apples.

This study was based on 24 bushels of McIntosh grown in seven orchards and handled through four packing houses and on 22 bushels of Northern Spy grown in five orchards and handled through five packing houses. Except for one duplicate set of Northern Spy bushels, one-third of the bushels were not washed, one-third were washed, and another third were washed, graded, mechanically sized and packed.

Handling Means Bruises

Any handling practice adds to the final number of bruises on tender varieties of aplpes. Therefore, washed apples are bound to show more bruises than unwashed apples.

Washing operations accounted for an average of 25 to 30 per cent of the final bruises found on commercially packed McIntosh apples and an average of 10 to 12 per cent of the bruises found on commercially packed Northern Spy.

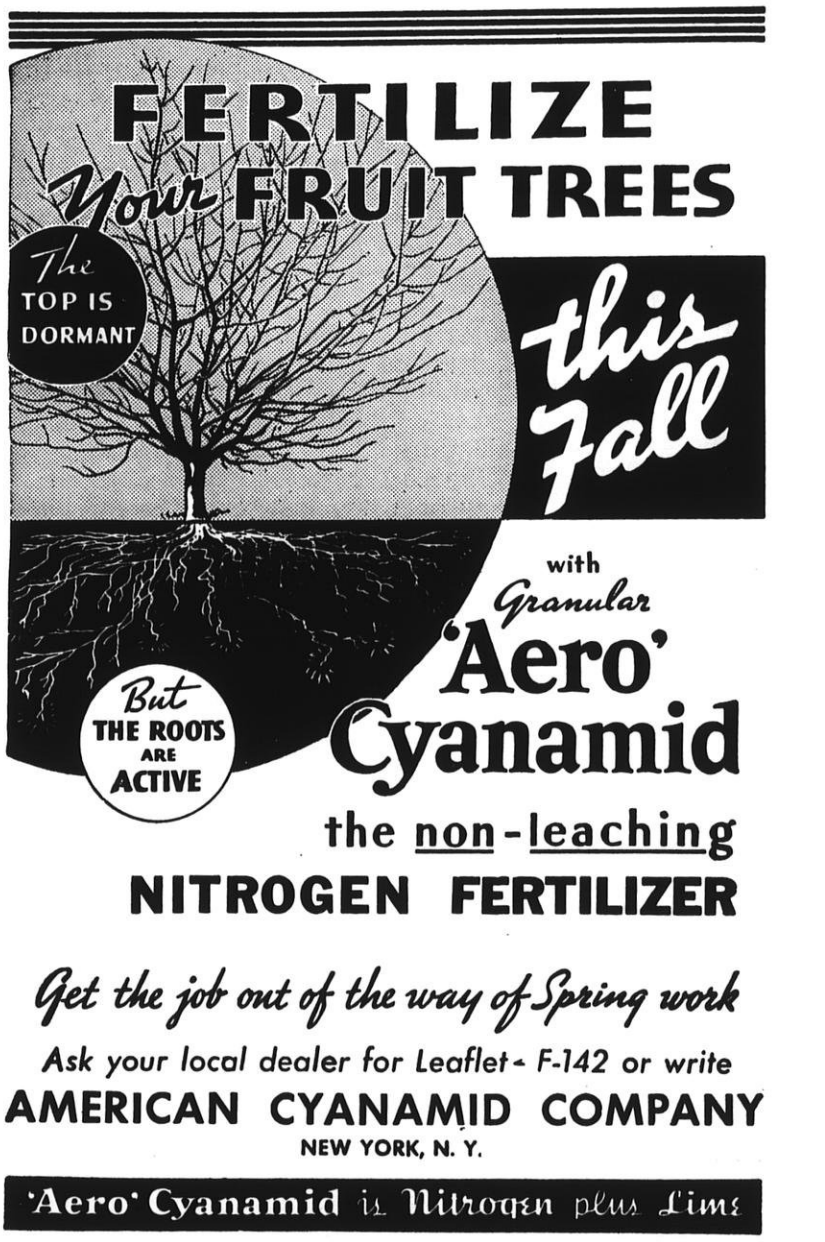
In general, both pre-washing and post-washing operations caused more bruises on both McIntosh and Northern Spy apples than washing practices.

The number of bruises accumulated in washing, as well as in any other handling practice, may be held at a low figure if the equipment is adjusted properly, if it is well-padded with sponge rubber where apples drop onto or against lumber, if the machine is not operated above rated capacity, and perhaps most important, if the apples are handled carefully at the feed end of the washing machines.

Washing practices did not affect the rate of softening, rate of decay or rate of shriveling or moisture loss in storage, nor did they affect the rate of moisture loss of apples that had completed the usual cold storage period and were subsequently removed to conditions of high temperature and low humidity.

More or less incidental to the planned investigations, it was found that large Northern Spy apples (3½ inches in diameter) of the 1936 crop were susceptible to physiological breakdown or decay while apples of medium size (less than 3 inches in diameter) were resistant to this trouble.

In general, unwashed apples excelled washed apples only in respect to numbers of bruises and skin breaks.



In the Berry Patch

SPACE STRAWBERRY PLANTS WITH A HAY RAKE

A GROWER in Maryland has satisfactorily used a hay rake for spacing strawberry plants, according to Mr. Vierheller of the Maryland Station. After two or three hoeings when 12 to 18 runner plants had been set about eight inches apart and tested by raking with the fingers to see if the outermost plants desired were securely rooted, the field was raked crosswise. The poor late rooted runners were dragged into the middle and subsequently clipped with a disc cultivator.

We have heard a great deal in late years about the beneficial effect of spacing strawberry plants. Experiments indicate that if the plants are spaced from 7 to 9 inches apart, the crop is greatly benefited both in quantity and quality. The difficulty has been to get a practical method for doing the work which does not cost too much. Growers might try the hay rake method to see if it will work.

WHEN TO REMOVE THE OLD RASPBERRY CANES

EXPERIMENTS in Minnesota indicate that during a dry season all the old raspberry canes should be cut away as soon as possible after picking. Dr. Brierley found that the old canes will continue to use up moisture for some time following the harvest so that during the dry season the new plants are greatly benefited by their removal. However, in a wet season when new growth is rank, the old canes should be left until late in the season so they will take up part of the surplus moisture.

Sow Oats in the Raspberry Patch

If we get plenty of rains during late August and September, it is well to sow oats in the raspberry patch. This will have the effect of taking the available fertility and excessive moisture stopping the new growth of the raspberry canes so that they will go into winter in a much hardier and more dormant condition. Very favorable growing conditions in late fall is very often the cause of soft late growth which is subject to winter injury.

GREEN MANURE CROPS FOR STRAWBERRIES

A NEWS bulletin entitled 'Commercial Strawberry Growing in Kentucky" has just been published by Prof. Magill. The bulletin emphasizes the plowing down of green manure crops, particularly legumes such as soy beans, lespedeza and sweet clover to maintain a high organic matter content in the soil. The use of fertilizers and lime were needed to improve the growth of the green manure crop is suggested.

Strawberries seem to thrive best in a slightly acid soil and a large amount of lime should not be used without first determing the need for it, unless used in advance on legumes.

STRAWBERRIES BENEFITED BY FALL FERTILIZER

PROFITABLE increases in strawberries resulted from the application of either 200 pounds per acre of sulphate of ammonia, or 500 pounds of 2-12-6 complete fertilizer on plantings on soils of medium or low fertility in tests carried on at Purdue University, Indiana.

However, fields well supplied with organic matter, either as the result of heavy manure application, or plowing down green manure crops, usually showed little effect from the use of commercial fertilizers.

The fertilizers were applied as top dressings to the rows when the plants were dry and flushed from the leaves with a broom, branch or similar implement. The results of these tests emphasize the importance of maintaining a higher plane of fertility to strawberry soils through the use of green manure crops or manure.

A complete report of the work is published in Extension Leaflet No. 169 published by Purdue University, LaFayette, Indiana.

Condensed from article in Hoosier Horticulture.

EXPERIENCE WITH STRAWBERRIES AND PLUMS

WE picked 7,000 quarts of wonderful berries, mostly Premiers, from our scant acre this year, more than one-half of which was old bed. They retailed at from 18c to 22c.

Dorsett and Fairfax strawberries are high quality berries, but do not yield enough to pay unless they bring a higher price than the Premier.

We are discarding Aberdeen, Blakemore and Beaver, and keeping a few Dunlap, which is a good berry for the farmer who does not irrigate.

Our fruiting beds were so free from weeds this year that we merely narrowed it down with a one horse cultivator after mowing. It looks far better than if it had been plowed or harrowed.

Plum Curculio Bad

Our plums are poor this year because we followed a wrong spray schedule unsuited to Wisconsin conditions. We had lots of punctures from the curculio. Next year I will spray earlier and more often.

Virgil Fieldhouse, Dodgeville, Wisconsin.

Muskmelons Must Be Picked Right

UNLESS muskmelons are picked right, they will be disappointing to the customer and eventually will lose money for the producer, is the trend of an article in the Market Growers Journal.

This is only too true. Any customer will testify to the disappointment in buying muskmelons which are of very poor quality. As the article states, "Nothing so surely kills the public appetite for muskmelons as an unripe melon."

The following suggestions are given for determining when to pick muskmelons.

"When the melons are too immature to pick the netting on the fruits of some varieties is creased, on others it is flattened; but as the fruits ripen this becomes more or less rounded by the pressure of juice inside, especially on the 'crown set,' or first melons to ripen on the vines. The skin of immature melons is generally 'grass green' but with most varieties this changes to yellowish as maturity is approached. Little 'sugar cracks' appear around the blossom end and the tissues there become softened before those of other parts of the fruit.

"While the crown set melons are ripening, the vines have a vigorous appearance; so these fruits may be left to grow longer than can later ones; for with the latter the foliage becomes yellowish and ripening is speeded up.

Sight Judgment

"The stem slip method of judging the ripeness of fruit is perhaps most helpful in learning the proper development; but it should be merely a means to an end—sight judgment. The term 'full slip' is popularly applied when the fruit will separate with slight pressure on the stem and leave a clean scar. The fruit is then practically ripe. Should more pressure be needed the scar will be ragged or a piece of stem will be left attached to the fruit. This is called the 'half slip.' The fruit being then less ripe is much more likely to be disappointing to the consumer because though it will gain in softness it will not improve in either flavor or sugar content. Melons picked before the half slip stage never develop sweetness. They are always a disappointment to the man who tries to eat them."

GOOD RASPBERRY VARIETIES

THE raspberry variety **June** is the earliest raspberry grown in this section. It does well in the trial grounds of the Horticulture Department at the Wisconsin College of Agriculture. This variety should be tried more widely in Wisconsin, wherever an early variety is wanted. It would seem a good variety to grow with Latham because the season of picking raspberries would be much longer which would be an advantage especially for the home market.

Indian Summer is a new everbearing variety from the New York Experiment Station and is doing very well especially in Minnesota where it has been on trial for the past two years. It was introduced into Wisconsin last year but has not as yet produced fruit. It is an everbearing or fall bearing raspberry which has been produced, and is attractive because of its large size. Its hardiness is Wisconsin has not yet been determined.

The Newburgh raspberry has been very disappointing wherever whe have seen it in Wisconsin, although Minnesota reports good results with it. It has fruited in the horticultural plots at Madison for several years. The canes are short and form a straggly row, and the fruit while large, is none too attractive.

MARKET OUTLET FOR MINNESOTA FRUITS

A NEW bulletin by Profs. Winter, Waite and Alderman of the Minnesota Agricultural Experiment Station, University Farm, St. Paul, Minnesota, has just reached us. The title is "Market Outlets for Minnesota Fruits," and deals largely with the markets for raspberries and strawberries.

After discussing the fresh fruit market for raspberry and strawberries, the bulletin describes the use of small fruits in the manufacture of jams, preserves, in ice creams and for soda fountain trade. The uses of apples and plums is also discussed. The following are a few of the results as stated in the bulletin.

"There is a wide market for Minnesota-grown raspberries in the preserving industry at prevailing market prices for preserving berries. A hardy red raspberry of preserving quality equal or superior to the Cuthbert variety would be of immediate commercial value to Minnesota growers.

"There is an opportunity for developing a market for Minnesota strawberries in the ice cream industry, if the berries are packed in containers of suitable size and are preserved by the frozen-pack method. There is no sizable market for raspberries in the ice cream industry. Data on other possible markets for berries in commercial manufacture are given.

Factory tests of Dolgo crab, Hennepin plum and Sapa cherry-plum indicated that these varieties are very satisfactory for commercial preserves and jelly.

Horticultural News

A. F. Yeager, North Dakota

WE HAVE just been using some of the odorless cabbage produced by the New York Agricultural Experiment Station. The variety proved to be a very early Savoy or crinkle leaf type, and while it has some odor when cooked it is nevertheless much less strong than ordinary varieties. The flavor is good. We believe the variety would not sell well in this region because it is a Savoy.

* * *

Chinese elm has a place as a shelterbelt tree, but it can be expected to kill back considerably some winters. It does sprout up again and makes a dense growth, hence is a valuable shelter-belt plant. As a shade tree for this area other kinds are preferable. Very few Chinese elm planted for this purpose are in good condition at present.

* * *

One of the governmental agencies which is planting tree seed in quantity in its nursery in North Dakota was recently attempting to collect 1,100 pounds of American elm for the purpose. They did not want Chinese elm.

* * *

"The Production of Cucumbers for Pickling Purposes" is the title of special bulletin No. 273 of the Michigan State College, East Lansing.

* * *

"House Insulation, Its Economics and Application" is the title of a bulletin by the U. S. Department of Commerce. It may be had from the Superintendent of Documents, Washington, D. C., for ten cents.

* * *

I wonder if any of our members have made juice from yellow tomatoes. Some folks seem to prefer the yellow color to the usual red. Previous mention of this use of yellow tomatoes brought us an inquiry from a large manufacturing corporation asking for samples of the product. We were unable to supply them.

* * *

When fruit trees bear an exceptionally heavy crop they are more subject to winter injury the following winter than is the case if the crop is light. If, during the year when heavy fruit crop is produced, the plants can be stimulated into making good vegetative growth by application of nitrogen and water this tendency towards winter killing will be greatly reduced.

* * *

A bulletin of the American Dahlia Society says that dahlia roots may be dipped in paraffin after being carefully washed as a means of preventing their drying out over winter. The warning is given not to heat the paraffin any more than necessary in order that damage may not be done.

* * *

Bittersweet, like the wild grape, may be unfruitful because it carries imperfect blossoms.

* * *

The United States Department of Agriculture says that the high color of autumn leaves is due to the sugar in them.—From August North and South Dakota Horticulture.

TLOO BLAD

"Lighthouse no good for flog," says Chinaman. "Lighthouse he shine, whistle he blow, flog bell he ling, and flog he come just the same. No glood."

HOW THE BING CHERRY GOT ITS NAME

W. S. Campbell in "Virginia Fruit"

A GOOD many years ago when it was first learned that the state of Oregon was especially adapted to the production of cherries, a man with a turn for horticultural experimentation, named Seth Lewellyn of Milwaukee, Ore., set out to find some new varieties of cherries through the process of growing many thousand seedlings. After they had made sufficient growth, he would discard all but a few of the most promising. Employed to help him in this work was a Chinaman named "Bing." One year as they were culling the unpromising seedlings from those that had made sufficient growth, Lewellyn picked one or two from a certain row and instructed Bing to destroy the balance. Down at the end of the row was a seedling that had for some peculiar reason attracted the Chinaman's attention, and he asked his employer to let that one stand. The employer refused and the Chinaman proceeded to pull out the seedlings in that row but left the especial cherry for which he had pleaded. The next day, Lewellyn noticed that the Chinaman Bing had not followed his instructions, called him to task and again ordered him to remove that seedling, but the Chinaman pleaded so earnestly, that at last Lewellyn said, "Well, keep it. If it is any good I will call it Bing." Today it is one of the most popular commercial varieties on the Pacific coast.

1st Bandit: "You look terrible. What's wrong?"

2nd Yegg: "I'm worried! Business is so bad that I'm afraid I'll not be able to keep up the payments on my machine gun."

Apple Varieties and Their Uses

Variety	For Eating	For Cooking
Cortland	Very Good	Pie, sauce, baking
Delicious	Excellent	
Duchess	Good early	Jelly, pie, sauce
Dudley	Fair	Sauce
Grimes Golden	Excellent	Sauce, baking
Jonathan	Excellent	Baking; holds its shape well
McIntosh	Excellent	Has a quince-like flavor when cooked
McMahon	Poor	Sauce
N. W. Greening	Fair	Pie, sauce
Salome	Poor	Pie; holds shape well
Snow (Fameuse)	Very good	
Tolman Sweet	Very good	Pickling, canning
Wealthy	Good	Pie, baking
Wolf River	Poor	Pie, baking

The tendency today is towards the use of better quality apples both for eating and for cooking. This is indicated by the increased demand for Wisconsin McIntosh and the practical disappearance from the market of such varieties as Hibernal, Patten Greening, and others of lesser quality.

The McIntosh is becoming Wisconsin's leading apple. A few years ago it was considered to be only an eating apple, yet many families now prefer it both as a baked apple and for sauce and pie. It requires special handling, however in cooking. In baking it must be baked in a slow oven and must be watched carefully to remove it from the oven before cracking as it does not stand up firmly as do the N. W. Greening. However, a well baked McIntosh with its quince-like flavor appeals to many people who prefer it to any other.

APPLE PEANUT SALAD

Core, and chop slightly acid apples and mix them with half as much chopped celery. Mix a dressing of five tablespoons of lemon juice and one tablespoon of peanut butter. Mix dressing through the apples and celery and season with salt and cayenne pepper. Chill the salad, serve on lettuce, and garnish with peanuts.

RAG WEED RESPONSIBLE FOR HAY FEVER

"RAG Weed Responsible for Hay Fever" is the title of a bulletin just issued by the Department of Agriculture of the Dominion of Canada. The bulletin states: "Of the hundreds of thousands of hay fever cases in the United States each year, 90% east of the Mississippi river are caused by rag weed. Wherever abundant, this plant by reason of the density of its growth, its coarseness when not growing so densely, and its rejection by animals because of rankness and flavor, must be rated as one of the most objectionable of annual weeds."

BLOSSOM-END ROT OF TOMATOES

QUESTION: I should like to know what causes black spots on tomatoes and if it can be prevented.

Answer: The black spots on tomatoes to which you refer are probably what is known as blossom-end rot. It can be controlled by spraying the plants with Bordeaux mixture, or dusting with copper lime dust. Applications of the spray or dust should be made every five days. Both of these preparations can be obtained at any seed store.—From Horticulture.

FRUIT TESTING COMMITTEE INSPECTS FRUIT BREEDING FARMS

THE fruit testing committee of the Wisconsin Horticultural Society will visit the Fruit Breeding Farms of the Experiment Stations at Excelsior, Minnesota; Fargo, North Dakota; Brookings, South Dakota; and Ames, Iowa, the week of September 6th. Plans for the trip have been completed as we go to press.

Those who will make the trip are Mr. R. L. Marken, Kenosha, Vice-president of the Society, and the following members of the Board of Directors: Mr. Wm. Leonard, Fort Atkinson, Mr. W. A. Toole, Baraboo, Mr. Nick Jacobs, Sawyer, and the Secretary, H. J. Rahmlow.

The committee is especially anxious to see the fruit and trees of some of the varieties which have been recommended for trial, namely, Beacon and Minnesota No. 1007 apples, Korean cherries and hardy apricots. A full report of the committee's fiindings will appear in our next issue.

PEONY PLANTING TIME

PEONIES should be planted from the middle of September until frost. New roots may be purchased at that time or old plants divided and reset.

Peonies need sun, good drainage and a good, rich loam soil. The roots should not be set too deeply, in the heavier soils should not be covered more than two inches. The plants should not be set more closely than three feet. Peonies require plenty of room and cultivation should be given for best results. They should not be planted too near trees. The first winter peonies should receive a light mulch of straw or the crowns should be mounded up with about six inches or dirt. Covering with dirt is a good practice even on the older clumps. It provides drainage and good protection to the buds.

EDITORIALS

BOARD OF DIRECTORS OF THE HORTICULTURAL SOCIETY MEET IN MILWAUKEE

THE Board of Directors of the Wisconsin Horticultural Society met in the Schroeder Hotel, Milwaukee, on August 16th. Present were President Karl Reynolds, Vice-president R. L. Marken, Treasurer E. L. Chambers, and Secretary H. J. Rahmlow. Directors present were: Mrs. Chester Thomas, Mrs. Irving Lorentz, Miss Merle Rasmussen, Mr. Wm. Toole, Mr. A. J. Schultz, Mr. Nick Jacobs, Mr. Wm. Leonard, Mr. Wm. Basse.

The important work of the Board was to consider the financial report of the secretary and approve a budget for the coming fiscal year. An addition of $500 to the endowment fund was voted. This amount was obtained from life memberships, donations from officers by salary checks and expense accounts, and profits from the sale of Carpathian English walnuts.

Candidates were selected to receive the honorary recognition certificates of the Society, a plan for voting for officers of the Society by mail was approved, and a program of work discussed. The Board inspected some of the motion pictures made by the Secretary of the Society for presentation to affiliated organizations during the coming year, and expressed themselves as well pleased with the quality of the films. It was voted to hold the annual convention of the Society in connection with a fruit growers convention to be held at Waukesha the middle of November.

IMPORTANT EVENTS

October 14-15. Annual convention Wisconsin Garden Club Federation, Oshkosh.

November 4-5. Annual convention Wisconsin Beekeepers Association, Municipal Building, Hartford.

November 18-19. Annual convention Wisconsin Fruit Growers, auspices Wisconsin State Horticultural Society. Avalon Hotel, Waukesha. Annual business meeting, Horticultural Society.

FRUIT GROWERS MEETINGS

THE Southeastern Fruit Growers Association met at the Meyer Orchards, Milwaukee County, Tuesday, August 31st. Dr. R. H. Roberts and Prof. C. L. Kuehner arranged a fruit growers meeting at Gays Mills on Saturday, September 4. We were sorry not to have had this information for our last issue so all of our readers might have known of the meeting.

NOMINATING COMMITTEE APPOINTED

A NOMINATING committee consisting of Mr. Wm. Leonard, Fort Atkinson, Chairman, Mr. S. S. Telfer, Ellison Bay, and Mr. J. F. Swartz, Kenosha, R. 4, were appointed by president Karl Reynolds at the meeting of the Board of Directors of the Society held at Milwaukee on August 16th.

Members of the Society are requested to get in touch with the members of this committee, making suggestions for nominations as explained in another article on this page.

Members of the Wisconsin Horticultural Society consist of life members, annual members, and affiliated members, affiliated through some organization connected with the Society. All are entitled to vote. Ballots will be published in the October issue of Wisconsin Horticulture.

FRUIT GROWERS DAY IN MINNESOTA, SATURDAY, SEPTEMBER 11

THE Minnesota Horticulture Department is sponsoring a fruit growers day at the University Fruit Breeding Farm, five miles west of Excelsior, on Saturday, September 11. A very interesting program has been prepared with tours of the orchard and small fruit sections of the farm together with a speaking program. A special invitation to Wisconsin horticulturists has been extended.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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

DISTRICT CHAIRMEN

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N. E. France, Platteville
Edw. Hassinger, Jr., Greenville
F. J. Paepke, Burlington

Vol. XIII SEPTEMBER, 1937 No. 9

Annual Convention Wisconsin Beekeepers Association

Hartford, November 4-5

THE Board of Directors of the Wisconsin Beekeepers Association voted to hold the Association's annual convention in Hartford, Thursday and Friday, November 4-5.

The date was selected because it is the week following the National meeting at Washington. Several members will attend this meeting and will bring back reports of what took place.

Hartford has an excellent hall for the convention—the Municipal Building. Several rooms are available to take care of a crowd of any size. While Hartford has no large hotel, nevertheless there will be plenty of accommodations at private homes, and there are several good restaurants.

Beekeepers have remarked for several years that the programs at our conventions have been excellent. The program at Hartford will not be an exception. Several out - of - state speakers will be secured and there will be a special program for the Ladies Auxiliary.

Board of Managers Meeting

To save expenses this year when the honey crop is so short, the Board of Directors decided to hold the meeting of the Board of Managers at a special luncheon the first day—November 4th, instead of meeting the evening preceding the convention.

Sweet Clover to be Studied

One of the important topics to be presented at the convention this year will be that of how to grow sweet clover and its value as a soil builder, for pasture and for white grub control. Beekeepers must act to maintain the acreage of sweet clover in the state if we wish to secure honey in the future.

IMPORTANT WORK FOR SEPTEMBER

SEVERAL years ago we heard an old successful beekeeper make the remark, "A beekeeper must be like his bees. He must store up a surplus in time of plenty to tide him over for a time of scarcity."

This seems especially to the point this year when many beekeepers will not have any surplus or may even have to feed for winter. It is also a time when many will become discouraged with beekeeping. There are such discouragements in all lines of endeavor. The one who becomes discouraged and sells out, gives him who has faith an opportunity to profit in the times of plenty which are sure to come.

Watch the Queens This Month

Not having any honey many beekeepers will not wish to spend any money on them this year. We must, however, see to it that they are in good condition to take advantage of a better season next year. During September we should look at the brood nest of each colony and all queens below the average of the yard should be replaced. If we do not have money to buy a new queen it would be even better to kill a poor queen and let the colony requeen itself than to keep her. A poor queen this fall will be a "boarder colony" next year, and produce little surplus.

There are several ways of judging a queen. Most important is to judge the brood. A solid frame of brood with but few empty cells and filled down to the bottom bar is what we want. Small patches of brood with many empty cells on only four or five frames in a hive is a sign of a poor queen. It is well to go by the average of the yard because queens differ during different seasons.

NOTES

FALL meetings of the Southeastern District and the Fox River Valley District of the Wisconsin Beekeepers Association will probably not be held because of the annual convention to be held at Hartford on November 4-5.

A good foreign bee magazine is the Canadian Bee Journal, published by Lakeside Publications, Ltd., Oshawa, Ontario, Canada. Subscription price $1.00 per year.

The Australian Bee Journal is also good. Mr. P. J. Markham, Whitehorse Road, Mitcham, Victoria, Australia.

POLLEN INFLUENCES BROOD REARING

THIS was a good season to observe the influence of pollen on brood rearing. Many colonies which did not do very much this spring began to raise brood in large quantities during August. Obviously this was from an increased supply of pollen, probably from corn.

This spring we found a colony which had superseded its queen. Both the young and old queens were found in the hive. The old one looked large and vigorous but there was very little brood present. We decided to make a two-queen colony out of this and put the old queen into a new super and separated them with a queen excluder. She produced very little brood during June and July, but about the middle of August we found about five frames solid with brood. It looked very much as if she was not a poor queen at all, but that the colony was probably demoralized from the lack of pollen this spring.

The increase in brood rearing this fall with a very light honey flow will mean light colonies for winter, but strong in bees. Perhaps they will use up a large proportion of their pollen supply and will again be short next spring.

We understand that our Department of Entomology of the College of Agriculture is carrying on investigations on pollen and that they have found that corn yields large quantities. We sincerely hope that a source of pollen either artificial or natural will be found, together with a practical means of feeding it to the bees. As stated elsewhere in this issue the beekeepers passed a resolution at the summer convention requesting our College of Agriculture to carry on such research.

Attend the Annual Convention Wisconsin Beekeepers Association, November 4 - 5.

DISEASE CLEAN-UP PROGRESSING RAPIDLY

WE find beekeepers everywhere enthusiastic over the prospects of cleaning up foulbrood in Wisconsin in a relatively short time. We were fortunate in getting the new appropriation this year because in most sections of the state the honey crop is very short and the work of inspection and eradication is much faster and cheaper than in a good honey year. We are informed by Mr. E. L. Chambers and Mr. C. D. Adams, in charge of the work, that about 40 inspectors are working in the state at this time and making rapid progress. They are working first in counties where area clean-up has been in effect. Second, they are beginning work in counties in which there has formerly been area clean-up. They are also beginning work in counties almost completely surrounded by area clean-up counties.

Work in other counties will be started next spring wherever beekeepers in such counties organize this coming winter and give support to the movement.

We believe the inspectors are doing a good job and we hope that all members of the Wisconsin Beekeepers Association will give them support and help in every way. Only those who have been threatened by the disease or have lost heavily from disease in the neighborhood can fully appreciate the value of this work. We are now on solid ground, working to absolutely eradicate the disease from the state. There must be no half-way measures because thoroughness will benefit all beekeepers.

The State Fair honey exhibit was excellent again this year, but there was some evidence of the short honey crop visible in the spirits of the beekeepers, as well as shortage of comb honey.

IMPORTANT EVENT

International Beekeepers Congress, Washington, D. C., October 25 - 26 - 27. Mr. George Abrams, Secretary-Treasurer, American Honey Producers League, College Park, Maryland.

FOR SALE

100 ten frame standard size comb honey supers; consider trade for comb or extracted honey. Chester Keister, Clarno, Wisconsin.

HONEY WANTED

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

Announcing New Low Tin Container Prices For 1937 Season

Friction Top Pails and Cans

Soldered With Pure Tin Solder

2½ lb. cans, per case of 24	$1.13
2½ lb. cans, per carton of 100	3.90
5 lb. pails, per case of 12	.90
5 lb. pails, per carton of 50	3.05
10 lb. pails, per carton of 6	.75
10 lb. pails, per carton of 50	4.50
60 lb. cans, in bulk, each	.32
60 lb. cans, per box of 2	.96
60 lb. cans, per carton of 24	7.45

F. O. B. Boyd, Wisconsin

1937 Catalog Prices on Glass Jars and Comb Honey Packages to Remain the Same

Write for free sample labels and label prices.

August Lotz Company

Boyd, Wisconsin

HOW TO SUCCEED WITH BEES

A VALUABLE new little booklet entitled "How To Succeed with Bees" by E. W. Atkins and Kennith Hawkins of the G. B. Lewis Company, Watertown, has just appeared. The bulletin describes quite accurately and scientifically the following practices: Late summer management; Successful wintering; Proper equipment; Spring management; Control of Swarming; How to produce section comb honey; How to produce extracted honey; How to increase colonies; Odds and ends around the apiary.

The bulletin sells for 59c, postpaid, by the G. B. Lewis Company, Watertown, Wisconsin. We recommend it to all beekeepers.

International Beekeepers Congress, Washington, D. C., October 25 - 26 - 27.

STATE FAIR PREMIUM WINNERS

The following are a few of the winners in the Bee and Honey department at the Wisconsin State Fair.

County Booth Winners
1st, Sauk; 2nd, Milwaukee; 3rd, Dane; 4th, Wood; 5th, Waukesha.

Individual Booth Winners
1st, Walter Diehnelt, Menomonee Falls; 2nd, Mr. J. Francis, West Allis; 3rd, V. G. Howard, Milwaukee; 4th, A. L. Kleeber, Reedsburg.

Extracted Honey Exhibit
1st, Walter Diehnelt; 2nd, Mrs. Shultis, Reedsburg; 3rd, G. Schultz.

Comb Honey Exhibit
1st, Walter Diehnelt; 2nd, A. L. Kleeber; 3rd, G. Schultz.

Six Jars White Clover Honey
1st, West Side Apiary, Madison; 2nd, Walter Diehnelt; 3rd, Mrs. Shultis.

Six Jars Sweet Clover Honey
1st, West Side Apiary; 2nd, Walter Diehnelt; 3rd, G. Schultz.

Cake
1st, Mrs. J. Francis, West Allis; 2nd, Mrs. Edward Ranum, Mount Horeb; 3rd, Mrs. V. G. Howard.

Bread
1st, Mrs. Edward Ranum; 2nd, Anna Harris; 3rd, Mrs. V. G. Howard.

Canned Cherries
1st, Mrs. Walter Diehnelt; 2nd, Mrs. A. E. Ott; 3rd, Mrs. V. G. Howard.

Cookies
1st, Mrs. Walter Diehnelt; 2nd, Mrs. V. G. Howard; 3rd, Mrs. H. J. Rahmlow.

WANTED

EXTRACTED HONEY

We are in the market for light and amber extracted honey. Send samples and quote price delivered, Milwaukee.

JEWETT & SHERMAN CO.

106 W. Florida St. Milwaukee, Wis.

EXTRACTED HONEY WANTED

White and amber; also comb. Send samples and quote price delivered Milwaukee. Walter Geiger, 325 W. Vine St., Milwaukee, Wisconsin.

Special Offer

Send 10c to Watertown and we will mail a set up Lewis frame containing a sheet of Dadant's wired foundation, ready to give to the bees. (Retail value KD 15c). Look at the heavy end lugs, wedge and slotted bottom bar. See how the foundation fits into the bottom. End your troubles from combs and frames breaking. The assembly is simple. Save yourself hours of time, as thousands of others have learned to do. Send today.

•

G. B. LEWIS COMPANY

Watertown, Wisconsin

Get a free copy of booklet "A Hobby That Pays," write Watertown.

Support the American Honey Institute

AUTHORIZED DEALERS

H. Hodgson, R. F. D. 2, Box 81, Waukesha, Wis.
Schlafer Supply Co., Appleton, Wis.
W. Diehnelt, Menomonee Falls, Wis.
Michael Weis, Allenton, Wis.
Central Wisconsin Seed Co., Waupaca, Wis.
Kundert Bros., Monroe, Wis.
H. W. Knight, Dalton, Wis.
Taylor Lumber Co., Boscobel, Wis.
W. H. Hanesworth, Stoddard, Wis.
W. T. Sherman, R. F. D. 2, Elkhorn, Wis.
R. C. Burnham, Richland Center, Wis.
Koch & Bartholf, Palmyra, Wis.
M. Betthauser & Son, Tunnel City, Wis.
W. R. Hinrichs, Verona, Wis.
Chas. A. Trapp, Sun Prairie, Wis.
Wm. N. Miller, Dodgeville, Wis.
F. Geele Hdwe. Co., Sheboygan, Wis.
Angus Johnson, West Salem, Wis.
Knaub Wunderlich, Fountain City, Wis.
Rall Mfg. Co., Galesville, Wis.
Joe Elsinger, Knowles, Wis.
John Harnack & Sons, McGregor, Iowa
Ohmert Honey Co., 380 Wartburg, Dubuque, Iowa
Standard Lumber Company, Winona, Minn.
O. J. Weisensel, Sun Prairie, Wis.
W. T. Bosworth, R. 2, Merrill, Wis.
Chas. Jakel, Curtiss, Wis.

Successful Summer Meetings Held

THE two summer meetings of the Wisconsin Beekeepers Association, cooperating with the Fox River Valley and the Western Wisconsin Districts, were unusually well attended, and the program was excellent.

At Fountain City there were 110 men and 73 women listening to the program. At Shawano Lake the attendance was slightly smaller. The cafeteria picnic luncheons were excellent and there was plenty of food for everyone. The State Association donated four dollars for each meeting towards refreshments, the district and county associations providing the balance.

Our out-of-town speakers, Mr. M. J. Deyell of the A. I. Root Company, and Mr. H. C. Dadant of Hamilton, Illinois, gave very interesting topics. Mr. Dadant stated that when heavy foundation is used with high, thick side walls, the bees work this out so that almost half the comb is built with the wax thus furnished. He said bees do not necessarily secrete wax during the honey flow unless they need it.

Mr. E. L. Chambers stated that a number of new inspectors are being trained and that inspection work is being rushed in counties which are organized and in which there has been area clean-up. Other counties will be organized this coming winter and work will be started in the spring.

Three resolutions were presented which were unanimously adopted by the beekeepers in attendance. The resolutions were sent to Dean C. L. Christensen of the College of Agriculture, and the Wisconsin Highway Commission. They read as follows:

Resolution

Shawano, July 23, 1937
Fountain City, July 25, 1937

WHEREAS, the success of beekeeping in Wisconsin depends to a large extent upon the growing of sweet clover because it is our best honey plant in mid-summer, and

WHEREAS, it has been found that in areas where there is no sweet clover grown, beekeeping is becoming unprofitable as an occupation with the result that today there are fewer beekeepers than in past years, and,

WHEREAS, fruit growers, strawberry and raspberry growers as well as producers of clover seeds are beginning to realize that their success depends to a large measure upon the presence of a large number of bees for pollination to secure a good crop.

BE IT THEREFORE RESOLVED by the members of the Wisconsin State Beekeepers Association in annual summer convention assembled, that we respectfully request the Wisconsin College of Agriculture to:

1. Actively continue research to determine the best methods of growing sweet clover as a summer pasture for cattle in Wisconsin;

2. Through the county agents and extension workers, and agricultural teachers inform the farmers of Wisconsin of the value of sweet clover either alone or mixed with other clovers as a reliable pasture for the dry period of mid-summer, and of the value of sweet clover as a soil builder and as a repellent to white grub infestation of the soil.

Unanimously adopted.

Resolution

Shawano, July 23, 1937
Fountain City, July 25, 1937

WHEREAS, the success of beekeeping in Wisconsin depends on a large measure upon the growth of sweet clover, and

WHEREAS, in many sections of Wisconsin there is a growth of sweet clover along highways which is of great value to beekeepers, and,

WHEREAS, we consider sweet clover to be a good soil builder, will prevent erosion and is an attractive plant when in bloom,

BE IT FURTHER RESOLVED, by the members of the Wisconsin State Beekeepers Association in annual summer convention assembled, that we respectfully request the Wisconsin Highway Commission to consider sweet clover as a valuable plant, and as far as possible, request the County Highway Commissioners and those who have charge of maintaining the highways that they allow sweet clover to stand and bloom wherever possible. If it is necessary to cut the sweet clover in the spring, we suggest that it be cut very early before it is in bloom, and at least six inches from the ground so that it will send out new branches and bloom later in the season.

Further, that sweet clover and alsike clover be sown along the highways whenever practical.

Unanimously adopted.

Resolution

Fountain City, July 25, 1937

WHEREAS, the beekeepers of Wisconsin are confronted with two serious problems as follows:

1. A frequent and serious shortage of pollen in the spring which prevents colonies of bees from building up properly;

2. A lack of a strain of bees entirely suitable to Wisconsin conditions.

BE IT THEREFORE RESOLVED by the Wisconsin State Beekeepers Association in annual summer convention assembled, that we respectfully request the Wisconsin Experiment Station to help us with these problems by carrying on research work with the view of developing a pollen substitute which may be used to feed bees in the spring, and to carry on breeding experiments to develop a race of bees more suitable to our conditions.

Unanimously adopted. 110 beekeepers in attendance.

FROM WAUKESHA

MR. S. C. Fox, President of the Waukesha County Beekeepers Association, writes the first part of August, "The honey crop in this county is very poor, except where sweet clover is abundant. I expect about 25 lbs. per colony. Where sweet clover is plentiful, colonies are producing five times that much—that is if the owner gives them room soon enough. I bought one package with Italian queen and one with Lower Austrian queen this spring. The Lower Austrian colony has produced more than the Italian, and both are doing better than the average of the wintered over colonies.

"This spring I put a drop of red household art enamel on the thorax of each queen. Now I know when there is a change of queens and they are easy to find."

Plan now to set aside November 4-5 and attend the annual convention of the Association at Hartford.

WISCONSIN FRUIT GROWERS CONVENTION; AVALON HOTEL, WAUKESHA; NOV. 18 - 19

Auspices
Wisconsin State Horticultural Society

THE Board of Directors of the Wisconsin Horticultural Society voted at their meeting in August to hold a fruit growers convention in connection with the annual business meeting of the society at the Avalon Hotel, Waukesha, on Thursday and Friday, November 18-19.

This will be the annual round-up of fruit growers in Wisconsin. There should be at least 300 fruit growers in attendance because there are over 1,000 fruit growers who are members of the Wisconsin State Horticultural Society.

Negotiations have already been started with some outstanding speakers in the middle-West to appear on the program. No effort nor expense will be spared to present a program to fruit growers of the greatest value. A banquet will be held following the first day of the convention at which honorary recognition certificates will be presented to two outstanding horticulturists. There will be a fruit show specializing in the leading varieties of fruits for Wisconsin, as well as the new varieties and seedlings.

An outstanding feature of the program will be the first showing of the film prepared by the Society on "how to spray apples in Wisconsin." It is the finest presentation in pictures of this subject that has ever been made.

A full program will be published in our October issue. We will welcome any suggestions from growers as to the topics they would like discussed at this meeting.

Premiums will be offered on plate classes of all new and standard varieties of apples.

OFFICERS OF THE HORTICULTURAL SOCIETY TO BE ELECTED BY MAIL THIS YEAR

THE election of officers of the Wisconsin Horticultural Society will be done by mail this year. This was provided for in an amendment to the constitution made at the annual meeting last fall.

The president has appointed the nominating committee as listed on this page, and members of the Society are requested to write or give suggestions to the committee in regard to nominations.

Members of the Board of Directors are elected for a period of three years. Directors whose terms of office expire this year are Mr. Wm. Leonard of Fort Atkinson, Mr. S. S. Telfer of Ellison Bay, and there is one vacancy caused by the election of Mr. R. L. Marken of Kenosha as vice-president last year. This vacancy was not filled.

Nominations for the offices of president and vice-president must also be made as these officers are elected for one year, but it has been customary for them to hold office for two years.

The nominating committee is required to nominate two candidates for each vacancy on the Board of Directors. Names of all nominees must be sent to the office of the Horticultural Society not later than September 20th for publication in ballot form in the October issue of Wisconsin Horticulture. One blank line will be left on the ballot for each office, for insertion of the names of any other candidates the same as is done in the national and state elections. This ballot will be published in the magazine, should be cut out and sent to the office of the Wisconsin Horticultural Society, where Mrs. Steinmetz, stenographer, will check all names for membership. They will then be turned over to the chairman of the nominating committee to be counted.

EXCELLENT HORTICULTURAL EXHIBITS AT STATE FAIR

The quality of the fruits and flowers in the Horticulture Building at the State Fair was excellent this year. The apple exhibit was probably larger than for several years and they were of good color and size considering the earliness of the season.

The flower exhibits have been improving in quality for some time, especially the arrangements. Flowers are now being shown well arranged to display their beauty to best advantage.

Some of the Winners

Little Gardens. 1st, West Allis Garden Club; 2nd, Wauwatosa Garden Club; 3rd, Wauwatosa Junior Garden Club.

Dining Tables. 1st, Mrs. A. H. Taylor, Wauwatosa; 2nd, Mrs. L. G. Stewart; 3rd, Mrs. A. W. Krieger, Milwaukee; 4th, Mrs. L. G. Kriz; 5th, Mrs. Conrad Biebler, Milwaukee; 6th, Mrs. A. J. Kubal; 7th, Helen Haasch, Elm Grove; 8th, Mrs. N. C. Nelson, West Allis.

Apple Exhibits

40 tray exhibit. 1st, Wisconsin Orchards, Gays Mills; 2nd, A. K. Bassett, Baraboo; 3rd, Ed. Stoeber, Madison; 4th, Arno Meyer, Waldo.

10 Tray Exhibit

Duchess. 1st, W. H. Milward, Madison; 2nd, Ed. Stoeber; 3rd, A. K. Bassett.

Dudley. 1st, Wisconsin Orchards; 2nd, Ed. Stoeber; 3rd, A. K. Bassett.

Fameuse. 1st, A. K. Bassett; 2nd, W. H. Milward; 3rd, Ed. Stoeber.

Delicious. 1st, Wisconsin Orchards; 2nd, Ed. Stoeber; 3rd, A. K. Bassett.

Wolf River. 1st, Wisconsin Orchards; 2nd, A. K. Bassett; 3rd, Arno Meyer; 4th, Ed. Stoeber.

McIntosh. 1st, A. K. Bassett; 2nd, Ed. Stoeber; 3rd, Wisconsin Orchards.

Northwestern. 1st, A. K. Bassett; 2nd, Ed. Stoeber; 3rd, Wisconsin Orchards; 4th, Arno Meyer.

Wealthy. 1st, Wisconsin Orchards; 2nd, Ed. Stoeber; 3rd, A. K. Bassett; 4th, Arno Meyer.

5 Plates, 5 Commercial Varieties for Wisconsin

1st, Wisconsin Orchards; 2nd, A. K. Bassett; 3rd, Ed. Stoeber; 4th, Meyer Orchards; 5th, W. H. Milward; 6th, F. B. Sherman, Edgerton.

5 Fall or Summer Varieties

1st, A. K. Bassett; 2nd, Wisconsin Orchards; 3rd, Ed. Stoeber; 4th, F. B. Sherman; 5th, Arno Meyer.

Best Pyramid

Wealthy. 1st, Wisconsin Orchards; 2nd, Ed. Stoeber; 3rd, A. K. Bassett.

McIntosh. 1st, Ed. Stoeber; 2nd, A. K. Bassett; 3rd, Wisconsin Orchards.

Northwestern. 1st, A. K. Bassett; 2nd, Ed. Stoeber; 3rd, Wisconsin Orchards.

About the Home and Garden

Mrs. C. E. Strong, West Allis

Open afresh your round of starry folds,
Ye ardent Marigolds!
Dry up the moisture from your golden lids,
For great Apollo bids
That in these days your praises should be sung
On many harps, which he has lately strung.

Keats

Marigolds

Apollo would need many more harps to sing the praises of the new Marigold—**Crown of Gold.** So many times a new flower is rather disappointing, but this Marigold is all it is supposed to be, exactly as pictured in the catalogs. If you have not grown it —you should add it to your next year's list of very worth while annuals.

Hemerocallis

Hemerocallis fans are visiting each other's gardens and comparing flowers. Some of the newer, more expensive varieties are being carefully watched and shielded, so nothing happens to these precious buds. One gardener whose Hemerocallis bed is near some apple trees stretched a burlap awning so no rude apple would bump some particularly choice plants.

Dawn is one of the unusual shades, Ash Rose they call it. At first it seemed rather disappointing—but its unusual color rather grows upon you especially if it is planted near pale yellow varieties.

Ophir bloomed this year in my garden. This is one of the long season sorts; a strong grower with thick petals that stand up well. Two stalks are giving forty blooms.

Bay State is another favorite of mine, each stalk sends many

large clear yellow blossoms. A seedling that bloomed for the first time has the same good quality — many buds to each stalk plus a most delightful fragrance.

Six **Anna Betscher** seedlings were true to type, two others have decidedly different foliage. They did not bloom.

Several seedlings of "supposed to be a very fine strain of seed" were very small greenish partially closed flowers. Not every plant will be all you are hoping for, do not expect them to be—but if you like to grow plants from seed, you will enjoy growing Hemerocallis.

These varieties are growing in my garden. I like them, and have had bloom since May: Dumorteri, Flava Minor, Middendorfi, Sovereign, Fulva, Kwanzo, Anna Betscher, The Gem, Mrs. W. H. Wyman, Thunbergii.

Hemerocallis respond to cultivation, water and plenty of fertilizer. They do not like being crowded, will grow in either sun or shade, but do best where they get some sun.

Vitex Macrophylla with J. A. Crawford is a combination to be remembered both in the garden and to cut for the house.

White Phlox

Do not neglect the influence for beauty in color arrangement that a goodly number of pure white Phlox will give when used in groups to separate other groups of vivid colored Phlox.

A New Lily

Lilium Belandria came to stay (I hope) in my garden. A medium tall, strong stemmed lily, with waxen apricot, peach colored blossoms—a clear color without one freckle. They call it the Yellow Belandria, but just plain yellow does not do justice to this lovely Lily.

Lilium Henryi is blooming under the Pear tree. This lily likes a bit of shade, in order to keep its color. It bleaches badly in the sun.

Was surprised to note that Tiger Lilies also seemed to do the best under that same Pear tree. The color is very deep and richer looking.

It is a splendid time—August and early September, to look for perennial Phlox. The nurseries have fine showings. You can pick the ones you like best and take them home with you. No danger of disappointment.

Is There Any Reason Why?

Every year many lovers of flowering shrubs and trees go down the Azalea trail, or to see the Japanese Cherries in Washington, coming back to tell us how beautiful they were, adding regretfully, "Of course We cannot have anything like that in Wisconsin." And yet some of these people from the southern states rave in the same manner over our wonderful varieties of blooming Thorn and our lovely native Crabs when they see them in bloom.

If every member of the Horticultural Society and Federation

of Garden Clubs, every member of the Women's Clubs who are interested in beautifying Wisconsin, would get together—I mean really get **together** and say, **we** are going to see that thousands of our beautiful native Thorn trees—and more thousands of those also beautiful native Crab trees are planted, so that people from other states will be driving up here to see them in all their beauty—why—it would be done. And we could plant some Amalanchier (Shad) also. It is as beautiful as the far famed white Dogwood.

Really these trees would be much more attractive than billboards—none of us care for the billboards—so why not try to replace them with Crabs, Thorns and Shad Trees?

GIVING ASPARAGUS FERNS A REST

QUESTION: My asparagus ferns are turning brown and apparently dying. What can I do to save them?

Answer: All kinds of asparagus, including Asparagus plumosus and A. sprengeri, the two which are usually grown as pot plants, require an annual rest period. The need of this rest is indicated by the foliage turning brown. They should be watered sparingly and placed in a cool place for a period of six weeks. Then the brown or dead parts should be cut away and a sprinkling of bone meal or one of the special house-plant fertilizers, which are now available at all seed stores, should be worked into the surface soil. Gradually renew the water supply and the plants will soon be more beautiful than before. Asparagus ferns do particularly well when given a western exposure.—From Horticulture.

It isn't too late to buy some of the better iris.

GOOD DAYLILY VARIETIES

MANY fine new varieties of daylilies are being originated but many of the latest are not yet on the market or are priced so high as to be out of reach of the average gardener. A number of the older varieties are seen too seldom in gardens, and many of these are moderate in price.

Dr. J. B. S. Norton contributes the following list as desirable varieties given in the order of their relative season of bloom: (1) Dumortierii, (2) Flava (lemon lily), (3) Sovereign, (4) Aureola, (5) Goldland, (6) Iris Perry, (7) Mikado, (8) Ophir, (9) Hyperion, (10) Maculata, (11) Margaret Perry, (12) Thunbergi.

The common tawny daylily which has escaped from cultivation and is found along streams and roadsides, appears to be absolutely sterile. It is quite a mystery to students how this strain became so widely distributed since it produces no seed.

The Maculata noted in the list is a larger form of the same type which does set some seed and the pollen from which gives fertile seed when crosses on many other varieties.

Circular 42 C, The Yellow Daylily, may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C. The price is five cents.—W. R. Ballard, Maryland Dept. of Horticulture.

The Wisconsin Dahlia Show, Public Service Bldg., Milwaukee, Sept. 11 - 12.

THE FOLIAGE OF HALL'S AMARYLLIS

QUESTION: Last fall I planted several bulbs of Hall's amaryllis. An abundance of foliage came up in the spring, but now it has died down. Can you give me any reason for this behavior?

Answer: It is the nature of Hall's amaryllis, Lycoris squamigera, to behave just as you have described. A heavy growth of foliage is put up in the spring and after a few weeks dies down completely. In late summer a stem will come up, grow with great rapidity, and produce a cluster of showy pink flowers.—From Horticulture.

PROPAGATING DELPHINIUMS

QUESTION: I have several choice delphinium plants which I wish to propagate. Is it best to divide the roots or make cuttings?

Answer: Delphiniums can be increased either by division of the clumps or by cuttings. Even the experts do not agree as to which is the better way. The clumps may be divided either in the fall or in the spring. Spring division, just after the new growth starts, seems to be preferred by most gardeners. Cuttings may be taken in the early spring from the new shoots, or from the second-growth shoots which develop in late summer after the faded flower stalks have been cut back. Cuttings taken in the late summer should be carried over in coldframe or greenhouse.—From Horticulture.

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Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

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Frank Thomas, Kenosha
Chester Harrison, Waldo
Clarence Kunde, Oshkosh

THIS SEASON WITH THE GLADS

Walter C. Krueger

WHILE the blooming season is not yet complete and several new things have not bloomed, they have been observed in other gardens. It is safe to name **New Era** as the most outstanding new variety in my garden. If this sparkling ruffled pink increases well it has an enviable future. The light pink variety **Oregon** repeated its tremendous flower heads and large sized florets without losing in stylish appearance which is not true of the equally large **Vista Bonita** which is an even more vigorous grower.

Frost pink **Ornatus** in frosted pink in a small flower and plant is very beautiful.

The Whites

While I had an opportunity to see Star of Bethlehem, Superwhite, Maunga, Heligtum, Albatros, Maid of Orleans, Polar Ice, White Sword and Bob-white in my garden almost at the same time, I prefer Maid of Orleans and Bob-white as they perform here, because they have a style of floret and spike that is pleasing to me.

Good Reds

In this year of heavy flecking and poor placement even on the old reliables it was hard to evaluate the reds. My garden offered an oportunity to observe the following reds and scarlets: Koehl, Bennett, Flaming Meteor, Amador, Eric the Red, John Bach, Smiling Maestro, Tip Top, Aflame, James Fitzjames and Red Phipps. Koehl and Bennett still rank first in proven performance although I want to see how the giant sparkling red James Fitzjames propagates and if it continues its fine bloom of this year. Flaming Meteor is the most vigorous, Tip Top the best exhibition variety.

Dr. Hoeg in the dark reds seems to grow better each year and I like its color sheen.

New Orange

The orange color class brought out a real prospect in **Orange Delight** which seems to endure the heat very well. **H. Bromley Amber** in the small flowered section in red-orange is very fine.

Golden Fleece and **Yellow Emperor** proved to be good deep yellows but I still shade **Golden Goddess** in this weak color class. Olive Marie Brown is a yellow Orange Butterfly. Amber Glow is a small flowered deep yellow.

Paradise and **Lady Winsome** in buff and pink respectively proved to be giants in growth and flower in their respective classes.

No new lavender threatened **Minuet's** rank in that color.

The rose-red and rose-pink color groups are in particular need of strengthening.

The performance of many varieties now on the market with respect to heat resistance and uniformity of floret placement can be distinctly improved. In this respect Mildred Louise, Margaret Fulton, Minuet and Mrs. Heaton stand supreme.

GLADIOLUS SOCIETY ELECTS NEW OFFICERS

AT THE annual banquet and business meeting of the Wisconsin Gladiolus Society held at Oshkosh, August 14th, the following officers were elected for the coming year.

President, Ben Robinson, Kenosha; vice-president, K. J. Timm, Markesan; corresponding secretary, H. J. Rahmlow; recording secretary-treasurer, O. Kapschitzke, Sheboygan.

Directors: Walter C. Krueger, Oconomowoc; A. S. Haugen, Stoughton; A. J. Strobel, Hartford; Harold Janes, Whitewater; W. E. Menge, Oshkosh; Walter Miller, Sun Prairie.

Regional vice-presidents: Robt. Jantz, Eldorado; Frank Thomas, Kenosha; Chester Harrison, Waldo; Clarence Kunde, Oshkosh.

SMALL PROFIT FROM SHOW

TREASURER Otto Kapschitzke, Sheboygan, reports total receipts from the State Gladiolus Show of $276.85. Disbursements amounted to $266.48, as paid by August 26th. This leaves a profit of $10.37.

Gladiolus Show Premium Winners

THE largest point winner at the Gladiolus Show this year was Walter C. Krueger, Oconomowoc, with a total of 160. Next was E. A. Lins, Spring Green, with a total of 105, and third was Clarence Kunde, Oshkosh, with a total of 87.

Champion Spikes

Mr. Walter C. Krueger, Oconomowoc, won a grand champion ribbon on his exhibition spike of Miss New Zealand. He also had the grand champion decorative spike of the show, variety New Era. Mr. Krueger also had the champion decorative seedling. Mr. Edwin H. Ristow, Oshkosh, had the champion exhibition seedling. Both seedlings have great possibilities.

Variety Table Winners

The winners of the 20 variety and artistic arrangement table were: 1st, Chester Harrison, Waldo; 2nd, Albert Haugen, Stoughton; 3rd, R. W. Jantz, Eldorado; 4th, F. J. Blood, Stevens Point.

Winners of the 25 variety table variety were: 1st, Albert Haugen, Stoughton; 2nd, Dr. Geo. H. Scheer, Sheboygan; 3rd, Chester Harrison, Waldo.

The traveling cup donated by Colonial Gardens, Rushford, Minnesota, was won by Mr. John Zuege, Oshkosh, for the best bouquet.

Division Champion winners were: Section B, Wm. Neuberger, Reeseville, 3 spikes Minuet; Section C, Walter C. Krueger, Oconomowoc, late introductions, exhibition, James Fitzjames; Section D, Walter Krueger, late introductions, decorative, New Era; Section E, Walter Krueger, large exhibition, Miss New Zealand; Section F, Clarence Kunde, Oshkosh, exhibition spike, Duna; Section G. Robinson Gardens, Kenosha, decorative spike, Blue Admiral; Section H, Otto Kapschitzke, Jr., Sheboygan, exhibition spike, Picardy; Section I, B. Haberman, Jefferson, decorative spike, Lindesta.

Shadow Box Winners

Shadow box of gladiolus only: 1st, Miss B. M. Pease; 2nd, Mrs. E. J. Bell; 3rd, Mrs. E. J. Bell, Oshkosh.

Shadow box of gladiolus and other flowers: 1st, Mrs. Eva Robinson, Kenosha; 2nd, Miss B. M. Pease, Oshkosh; 3rd, Miss Agnes Phillipson, Oshkosh.

Artistic Dinner Table

1st, Bessie M. Pease; 2nd, Mrs. Wm. Nelson; 3rd, Miss Reifsteck, Oshkosh.

Artistic Arrangement Classes

Vase of gladiolus only: 1st, Mrs. E. J. Bell; 2nd, Miss B. M. Pease, Oshkosh.

Gladiolus with other flowers: 1st, Miss B. M. Pease; 2nd, Mrs. E. J. Bell.

Floor basket of gladiolus: 1st, Miss B. M. Pease, Oshkosh; 3rd, F. J. Blood, Stevens Point.

Basket of gladiolus, smaller than floor basket: 2nd, Mr. Alvin Hopper, Oshkosh.

Gladiolus in low bowl: 1st, Mrs. E. J. Bell, Oshkosh.

Commercial Exhibits

Two large and very excellent commercial exhibits were made by Mr. Walter Miller of Sun Prairie, and Mr. A. S. Haugen of Stoughton. Both exhibited excellent blooms of all the leading varieties. Their cooperation was greatly appreciated.

Work of Committees Appreciated

A great deal of credit for the success of the show and the good attendance is due Mr. Edwin Ristow, Oshkosh, who had charge of local arrangements. The work of Mr. Noel Thompson of Madison in handling the arrangement of tables and exhibits on the floor and as chairman of the entry committee was excellent and also greatly appreciated.

Mr. Arthur Strobel did a good job as supervisor of judges. He made all the arrangements and everything went smoothly in this department. Treasurer O. A. Kapschitzke of Sheboygon handled the sale of tickets and finances in his usual efficient manner.

We wish to extend our thanks to members of the Oshkosh Horticultural Society and the Oshkosh Garden Club who so efficiently helped on the entry committee and as clerks for the judges. A number of them acted as ticket sellers which was also greatly appreciated.

IN APPRECIATION

WE WISH to say a word in appreciation of the services of Mr. Walter C. Krueger, Oconomowoc, as president of the Wisconsin Gladiolus Society during the past year. We found Mr. Krueger both cooperative, an excellent presiding officer, and a diligent worker for the welfare of the organization. He helped plan a very successful fall meeting at Oconomowoc last September, another successful meeting at Oshkosh this spring, and did a vast amount of work for the Gladiolus Show. In addition he wrote many interesting and timely articles for this page.

We feel sure that his work is highly appreciated by everyone who knew of it, and who worked with him.

Clerk: "Mr. McPherson, how about buying the latest atlas?"

Mr. McPherson: "Not noo, mon; I'll wait until the affairs in Europe are more settled."

In My Garden

By the Editor

A LARGE mass of color in the flower garden seems especially attractive to the average garden visitor. For late July and August bloom Phlox in variety creates a most impressive garden picture.

This year the late blooming Hemerocallis or Lemon Lilies added to this picture by greatly softening the tone. These Lemon Lilies are tall growing and bloom over a period of about three weeks because of the large number of buds on each plant. Only three or four will open each day on a medium sized plant. The lighter lemon yellow colors seem the most attractive.

One must be careful not to plant too many of the red and pink varieties of Phlox or the garden will look too brilliant. The whites and the mauves are excellent shades to add.

Tuberous Rooted Begonias are excellent this year. They began blooming in early July and will bloom continuously until frost. However, they must have almost complete shade, although on the north side of a house they do well in the early morning or late afternoon sun. They are as beautiful as roses. This year our mixture contained light and dark reds, yellows, pink, cream and white.

Miss Kenosha Phlox

Two years ago Mr. Oscar Hoefer of Kenosha, nurseryman, made the remark "I think Miss Kenosha Phlox is fully equal to Columbia." Whereupon we ordered several plants and are very glad we did. Not only do we think Miss Kenosha is equal to Columbia, but in some ways better. It is stronger growing and seems to bloom over a longer period. It is a salmon-pink and grows quite tall. This as well as the variety Zenith were originated by Mr. Hoefer. The latter is a darker pink.

Vesper Iris

Iris Dichotoma or the Vesper Iris was recommended for trial by our plant testing committee last fall. We hope many of our members ordered it. Once you have seen it you will certainly want several plants. A small plant set out this spring sent up four flower stalks which grew about three feet tall and contained many flower buds. They started blooming the first week in August, four or five opening daily at about 4 p. m. They are dainty and exquisite in shape and color—a wonderful addition to the garden.

Mildew

The weather being rather dry during latter July, we did not suspect that mildew would attack the rose leaves, especially the climbers. We were surprised to find it very severe which teaches us the lesson that we should keep all plants susceptible to leaf diseases covered with lime sulphur dust. A duster and a bag of dust—preferably lime sulphur mixed with arsenate of lead—is a nice thing to have on hand at all times.

Divide peonies soon. Beginning September 15th and thereafter is a good time to divide peonies or order new ones. We have often been asked if it is a good thing to divide peonies frequently. In our own garden we have not found it so. Peonies obtained from Mr. Sisson of Rosendale about six years ago have bloomed very well each year and we see no reason for dividing them now unless we wish to increase our plants. Of course, if they are not blooming well, something may be wrong, but we suspect that plenty of room and sunlight for each plant with cultivation and water if it turns quite dry will keep the clumps blooming well. If too many shoots start in the spring resulting in spindly growth and small flowers, some of these shoots should be pinched off. Better and larger flowers will result.

Transplant Evergreens This Fall

Evergreens may be successfully transplanted this fall. Be sure to take a large enough clump of dirt as the branches cannot be pruned as in the case of trees or deciduous shrubs. Therefore, the small, fibrous roots of evergreens must not be injured. It will be well to thoroughly soak the ground several feet deep a few days before planting so the soil will "ball" well and not fall away from the small roots. Then after transplanting they should be kept well watered until frost.

Verbenas

A bed of verbenas is a thing of beauty. We like a bed of one solid color best. To make a solid bed the plants should be set about ten inches apart and then the old flowers should be kept pruned to provide new growth.

TREAMENT OF LUPINES

QUESTION: The lupine plants which I planted last fall bloomed profusely during the spring, but since then have withered and appear almost dead. Should I have cut them back after blooming?

Answer: Lupines should be cut back as soon as the flowers fade. If this is not done the plants will wither and become unsightly, as yours have done. If the plants are cut back after blooming, they will usually send up new growth and will often flower again during the summer. —From Horticulture.

Shadow Boxes In Our Flower Shows

Pearl Johnson, Wauwatosa

SHADOW boxes have always created a great deal of interest at flower shows. To make a good shadow box or "flower picture," taxes the skill of the highest authorities on the subject of flower arrangement.

Shadow boxes may be divided into various classes as: "still lifes," "niches," "flower arrangements," and other variations. I have noticed this: There is often very little relationship between these groupings of flower pictures and accessories in the flower show and groupings of the same type in the home.

Let us review the following definitions to refresh our memory. A shadow box is usually a box, 30 inches high, 24 inches wide and 18 inches deep, or of some other size arranged for the **pictorial effect** of material exhibited in it, with lights placed to produce shadows which are planned as a part of the composition. Still Life, as used in Flower Shows, is shown in a shadow box or niche, with artificial lighting, in which is exhibited lifeless objects such as fruits, mounted animals, birds, flowers, plants and vegetables with accessories and should be composed within the borders of the frame as one would compose a picture to be painted. This gives wide latitude to the exhibitor of the still life picture. So long as a pleasing composition is made, using objects of harmonious texture, color and size, there are practically no limitations.

A typical entry in such a class at one of the smaller shows, usually includes a flower arrangement, a jewel box with a string of beads spilling over the edge, perhaps a partly opened fan lying close by. The composition may be excellent, the flower arrangement interesting and according to all the principles, the lines and colors well selected. Yet it leaves the beholder cold; fails to stimulate and warm those who view it. Why? I believe it is because such a composition, well done as it may be, is so unrelated to real life. No one can imagine using such a group of things in the home.

The Flower Niche type is shown in a shadow box or niche, and is a floral arrangement without accessories. It should be composed for pictorial effect. I suggest this class for the beginner. In these classes, the proportion of the arrangement and accessories (if any) to the size of the space is of the greatest importance. No exhibit should be so small as to look lost in the space nor so large that it touches the recess or fills it too much. Try living with your arrangements before taking them to the flower show. If it is "easy" to live with and receives appreciative comments from your family and guests, then use it at the show. These groupings may be used to decorate a desk top, bookcase, end table or a bed-side table.

The object in holding flower shows is to educate the public. Not only should the entries demonstrate what local gardens can produce in a way of high quality flowers and new introductions offered to the public; they should in the so-called "artistic" classes not only show fine arrangements of flowers but demonstrate the uses of such arrangements in the home.

WISCONSIN DAHLIA SHOW

THE Wisconsin Dahlia Society will hold its annual show in the Public Service Bldg., Milwaukee, on Saturday and Sunday, Sept. 11 - 12.

The Society is cooperating with the Bureau of Visual Instruction in preparing a film on Dahlia growing and varieties.

IMPROVE THE LAWN THIS FALL

WHEN the fall rains come is a good time to improve the old lawn or make a new one. Grass seed requires plenty of moisture and a cool season for best growth.

One of the recommendations for controlling crab grass in the lawn is to give an application of complete plant food this fall, then seed in a good lawn mixture or Kentucky blue grass and rake and roll the seed into the soil. If there is not plenty of rain, this area should be watered at least three times each week. As a matter of fact to get the seed to grow well, the soil should be kept looking damp all the time.

Fertilizers

A good time to apply fertilizer, especially nitrogen fertilizer to both the lawn and shade trees, is in the fall, while the leaves are still green. The nitrogen fertilizer will be absorbed by the tree and grass roots where it will be available early next spring. Early October is a good time to do this. We could never see the reason for drilling holes around trees for applying fertilizer. These holes are unsightly and the fertilizer is concentrated in a very small area. Nitrogen fertilizer is as soluble as sugar or salt in water, and if applied on top of the soil, it is not long before moisture from rains or heavy sprinkling will carry the fertilizer to the roots. Orchard men have found that ammonium sulphate or cyanamid (nitrogen fertilizers) applied broadcast over the soil greatly increased the growth of fruit trees. Why not shade trees?

STATE GARDEN CLUB FEDERATION NEWS

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Mrs. E. R. Durgin, Hon. President
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H. J. Rahmlow, Cor. Secretary
Madison
Mrs. E. A. St. Clair, Rec. Secretary
2418 N. 65th St., Wauwatosa

Mrs. J. M. Johnson, 1st V. President
Ripon
Mrs. Robert Alder, 2nd V. President
Elkhorn

ANNUAL CONVENTION, WISCONSIN GARDEN CLUB FEDERATION, OSHKOSH, OCT. 14-15, ATHEARN HOTEL

THE next event in garden club history will be the annual convention of the Wisconsin Garden Club Federation. The Board of Directors voted in August to hold the convention in the Athearn Hotel, Oshkosh, October 14-15.

Plans are already under way to obtain outstanding speakers for the program. Mr. Alfred C. Hottes, who is known to all garden club members, has been invited to be one of the speakers. Mr. Hottes is at present in Europe but is expected to return the first part of October. He will have an interesting message.

Dr. Rufus Bagg of Appleton, who gave such an interesting talk at our summer meeting at Sturgeon Bay, will tell us of the geological history of this section of Wisconsin.

A complete program will appear in the October magazine.

In the meantime plan to attend. Each garden club will be asked to send two delegates, one as a member of the Board of Managers to transact business ot the organization, and another delegate to give a report of the work of the club in the open meeting. Both sections will be held the first forenoon. There will be a special flower show, special luncheon, and a banquet.

The Federation has made a reputation for holding most interesting meetings. Following the summer meeting at Sturgeon Bay in July and the annual convention at Madison last fall, those who attended said, "I wouldn't have missed it for anything." This convention will be no exception. The Oshkosh Horticultural Society and the Oshkosh Garden Club will cooperate in making it a success.

The Athearn Hotel has ample accommodations, and is a quiet hotel with reasonable rates.

A SUGGESTION

WE have recently heard the suggestion that the Wisconsin Garden Club Federation cooperate with the State Fair management and take over a section of the Horticulture Building for a special flower show for a period of two or three days during the Fair. What do you think?

FOR MORE GARDEN CLUBS

MRS. C. E. Strong, West Allis, suggests that the Wisconsin Garden Club Federation work more closely with the Women's Clubs of the state in order to develop more interest in gardening. Women's Clubs could organize garden club sections within their clubs. Such sections could affiliate with the Federation without losing their identity and receive the help that we give to all our affiliated clubs.

Mrs. Strong says, "There are many splendid workers among the Woman Club members. I know because I have been a member for 25 years."

The organization of garden club sections by Women's Clubs would give the members a very important program of work to do which would help beautify their city, improve the gardens in the community, and provide an interesting and profitable subject for study.

We will appreciate suggestions as to how to go about interesting Women's Clubs in garden club work. We need an active program in Wisconsin to increase interest and membership.

NOMINATING COMMITTEE MEETS

THE Nominating Committee met on Aug. 25 and nominated several candidates for the offices of 1st and 2nd vice president and recording secretary-treasurer. Acceptances not having been received as we go to press the list will be published in the October issue.

FLOWER SHOW SCHEDULE WISCONSIN GARDEN CLUB FEDERATION

In Connection With Annual Convention

Exhibits are to be entered in the name of the garden club, with the name of the committee members also appearing on the entry tag.

Exhibits must be ready for judging by 11 a. m. Tuesday, October 13. Judging will be done by the new rating system.

SHADOW BOXES

Awards: Each entry will be given $1.00.

Twelve shadow boxes, size 28x22x16 inches are available. We will reserve one box each for the first 14 clubs making entries. Additional entries may be made by a club if there are any left over. Entries close October 8.

Class 1. A harvest scene using Wisconsin fruit or vegetables, or both, with or without other accessories such as leaves.

Class 2. An autumn picture using any type of horticultural material excepting fruit or vegetables.

Class 3. Arrangement of hardy garden grown chrysanthemums.

ARTISTIC ARRANGEMENTS

Awards: 50c for each entry given rating Excellent or Very Good.

Class 4. An artistic arrangement, any type of horticultural material, appropriate for Thanksgiving.

Class 5. An artistic arrangement of hardy garden grown chrysanthemums.

Class 6. An artistic arrangement of woody branches with berries or fruit, with or without leaves.

Class 7. An artistic arrangement of any type of dried herbaceous material —annuals, perennials, wild flowers, etc. Not woody branches.

DINNER TABLES

Limited to 8 entries from the first 8 clubs making reservations. **Awards: $2 for each entry.**

Class 8. A Hallowe'en Dinner Table. Center-piece may be of any type of horticultural material—fruit, flowers, vegetables, branches. Not artificial.

Class 9. A Thanksgiving Dinner Table. Center-piece of horticultural material.

No flat silver on tables. Napkins allowed. To be set for 6.

Class 10. Exhibit of garden club Year Books. Ribbons.

Class 11. Junior Garden Club Exhibit. A table showing work done by Juniors.

Premiums paid by the Wisconsin Horticultural Society.

NEW METHOD OF JUDGING GARDENS IN CONTEST

A GARDEN club in Maryland has been experimenting with a new plan of judging gardens in garden contests which seems to have possibilities, writes W. R. Ballard, Extension Horticulturist.

A suitable certificate is given for some worthwhile achievement in the garden. The judges may take note of a particularly good lawn, an excellent rose garden, a beautiful lily pond, good maintenance, unusual taste in the selection of architectural features, special skill in the growing of certain flowers. The certificate would praise only that which was worthy, perhaps overlooking the hideous rock garden, the utter disregard of landscape principles, in the hope that the pleasure attending the receipt of the certificate would stimulate interest in improving other phases of the garden art. Suitable newspaper publicity of course is necessary to develop interest.

FOND DU LAC GARDEN CLUB PROMOTES BRIDAL WREATH FOR CITY BEAUTIFICATION

THE Ledgeview Garden Club of Fond du Lac has chosen the Spirea vanhouttei or Bridal Wreath as its city shrub, and is promoting its planting throughout the parks and other areas of the city.

Says the Fond du Lac Commonwealth Reporter: "The beautification project was started by the club in the spring when the Association of Commerce voted to make Fond du Lac a 'bridal wreath city.' The club planted 30 bridal wreaths on a 125 by 11 foot 'drift' in the park and since then a group of WPA workmen have been working on the project."

CAN YOU ANSWER THESE QUESTIONS?

1. What garden flowers have aromatic foliage? What trees and shrubs?
2. Is a zinnia leaf smooth or hairy?
3. Is a delphinium leaf smooth or hairy?
4. Is a columbine leaf smooth or hairy?
5. What is the difference between the shape of a columbine and a meadow rue leaf?
6. How many stamens does a petunia have?
7. How many petals does a nasturtium have?
8. How many petals does a pansy have?
9. How many petals does a snapdragon have?
10. How does the seed pod of a delphinium open?
11. How does the seed pod of a poppy open?
12. How does the seed pod of a California poppy open?

Compiled by Victor H. Ries, Extension Floriculturist, Ohio.

KEEPING HYDRANGEAS BLUE

Question: I have a blue hydrangea which is a good blue color in the bud, but the flowers turn white as they open. Is there anything I can do to keep the flowers from turning white?

Answer: A light application of alum, sprinkled on the soil about as one would apply salt to one's food, will usually keep the blue color of a hydrangea from fading to white. Alum can be purchased at any drug store.—Horticulture.

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How To Grow Clematis

THE best time to plant clematis is in spring, but the hybrids are usually grown in pots, and these may be set out almost any time during the growing season. The soil should be deeply dug; the deeper and wider the hole the better. This is not the place to discuss the complex problem of clematis and lime, and no one is as yet in a position to say whether lime or the texture of the soil is the essential element. It is sufficient to say that most of the wild species grow in limestone regions. A light loam, moist and well-drained, and with some lime added, is the ideal soil; if the soil is heavy, it may be lightened with leaf mold and a little sand; and in the case of all hybrids and most species, it should be enriched with manure—cow manure preferably on light soils and well-rotted stable manure on heavier soils. Moisture and a cool root-run are essential to the happiness of clematis, and in dry weather they should be given an occasional watering.

Most clematis prefer some shade, which can be provided by planting them behind a shrub or small tree, or if this is inconvenient, they can be given a mulch of spent hops or possibly peat moss sweetened with lime. The ball of roots should be set two or three inches below the surface of the soil, and the stem immediately trained to a stake or post. I protect my own plants with a zinc collar about eight inches high, inserted in the ground two or three inches, for any kink or break in the stem may lead to disaster. I prefer this to the inverted bottomless flowerpot filled with sand that is sometimes used in Europe.

Various methods have been suggested for increasing the sturdiness of the young plants. One method is to peg one of the lower nodes of the stem below the surface of the soil, so that a new mass of roots may be encouraged to grow. Another and more heroic device, in case the plants are not thriving, is to cut the stem at the beginning of the second year below the ground right down to the root, so as to encourage the growth of new and healthier stems. But with strong plants and the proper soil and situation, neither of these devices need be employed.—By J. E. Spingarn. Condensed from article in Horticulture, Aug. 15.

The Twenty Best Large-Flowered Hybrid Clematis

Variety	Color	Type
Ascotiensis	azure-blue	Viticella
Belle of Woking	double, silvery-gray	Florida
Comtesse de Bouchaud	satiny rose	Jackmani
Crimson King	bright red	Lanuginosa
Duchess of Albany	scarlet	Texensis
Elsa Spath	bright blue	Lanuginosa
Gipsy Queen	dark velvety purple	Jackmani
Henryi	white	Lanuginosa
Jackmani superba	dark violet-purple	Jackmani
Lanuginosa candida	grayish white	Lanuginosa
Lady Caroline Neville	delicate mauve with darker bars	Lanuginosa
Lord Neville	dark plum	Lanuginosa
Madame Edouard Andre	velvety purplish red	Jackmani
Mrs. Cholmondeley	light blue	Jackmani
Nelly Moser	pale mauve with red bar	Lanuginosa
Prins Hendrik	azure-blue	Lanuginosa
Ramona	blue	Lanuginosa
Sir Garnet Wolseley	bronzy blue with plum-red bar	Patens
Ville de Lyon	reddish purple	Viticella
William Kennett	deep lavender	Lanuginosa

All bloom on new wood except Belle of Woking and Sir Garnet Wolseley.

All Hail — September!

Mary A. Lowerre

SEPTEMBER—when the air is sweet with the tang of ripening things. When we hear the rustling wings of flocking birds, and the merry ringing of school bells throughout the land, reminding us that vacation time is over—and work begins.

September — the month for Junior Flower Shows—when every school in Wisconsin should be holding a Flower Show before Jack Frost comes to cut down, and waste, all the beautiful flowers which Mother Nature has so generously provided for the enjoyment of every beauty-loving child.

September—the month when every garden has a profusion of bloom just waiting to be gathered into the harvest—the harvest of fun! Mothers, fathers, why not urge the kiddies to gather this harvest as a means of teaching them more about beauty, and about the grawing and use of flowers? How to cut them, how to **arrange** them, and display them—both at the Flower Show, and in the home.

Many Flower Shows Held

In over thirty Flower Shows held in the schools of Waukesha county last September — hundreds of children thrilled with the joy of their own effort, and achievement. The result far surpassed the expectations of parents and teachers, and proved a source of pleasure and satisfaction to all

Consult with your school board and your teachers. Many teachers are glad of the splendid interest aroused through the show as a basis, throughout the year, for the teaching of Nature Study and Conservation included in the curriculum of the schools of Wisconsin.

A simple plan will suffice for the show, which may be held

either in the auditorium or in the school room, depending upon the size of the school and its facilities. Tables or shelves made with boxes and boards may be used to display the bouquets. Pasteboard markers, made by the children to tag each display with the name of the exhibitor. Stars or ribbons should be used by the judges—for these awards furnish much of the zest of effort. To receive a blue ribbon (paper streamer) may open the mind of a child to a new world of beauty about him which he will never cease to explore and enjoy—the Nature World.

In every community there are persons familiar with flowers and who know their proper use in the home. Ask them to judge the show. Your library may contain a book on flower arrangement which will greatly help the novice.

The show should be set up by the children under the supervision of the teacher. Invite all parents and friends to attend.

Show Classes

A simple schedule of five classes is sufficient. No. 1. Bouquet for Teacher's Desk; No. 2. For the Dining Table; No. 3. For the Living Room, in vases; No. 4. Bouquets in bowls or baskets; No. 5. Miniature bouquets. Any number of classes may be added, but too many may prove confusing to the placing committee—for committees must be appointed for each activity of the show.

Committees: **Tagging committee**; to make tags, class cards and awards. Tags must have string attached; class cards must have names of classes to be placed on table; awards should have pins to fasten to a stem. **Placing committee**; this committee will take the finished bouquets and place them on the tables—carefully leaving space between classes.

Committee to arrange background—if any. Space forbids enumerating committees — appoint as many as needed. Let all work for the show be done by committees as this stimulates interest, and teaches unity of activity. Keep the floor clear while judging is being done. Judges must be neutral.

Caution children not to crowd flowers. An uneven number of large blooms should be used, length of stems varying. Any number of small blooms.

All bouquets must be arranged at the school, and by the children themselves.

See that the show is written up in the local papers, listing names and awards.

I should greatly appreciate a cliping with the account of your Junion Flower Show.

(Miss Lowerre is Chairman, Junior Garden Club Section, Wis. Garden Club Federation.

THE WILD FLOWER PRESERVATION SOCIETY

ANYONE interested in wild flowers and wild flower preservation will find the magazine "Wild Flower" very interesting. It is published by the Wlid Flower Preservation Society, 3740 Oliver Street, Washington, D. C. Membership dues including the magazine are $1.50 per year. The magazine is published quarterly and contains many beautiful pictures as well as interesting articles.

Sometimes people lose their fall peony plantings due to carelessness and partly from an open winter.

We cannot afford to lose a single root so we ridge up the dirt high over the rows. Peonies cling to life and will not die unless the eyes are exposed above ground through heaving.

Now is the time to plant and up to freezing weather. Late plantings are best. We never plant before late October.

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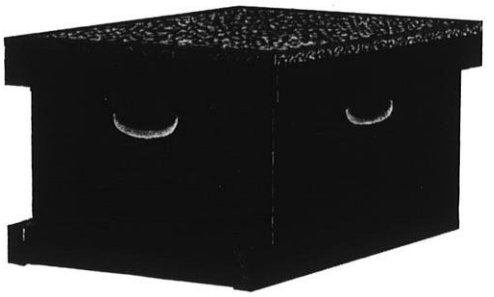

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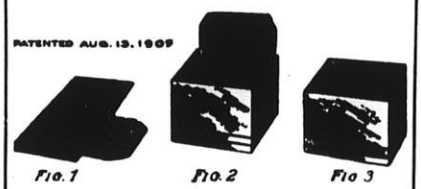

Fig. 1 Fig. 2 Fig 3

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

Established 1910

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

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY

1532 University Ave.

Madison, Wisconsin

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

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

Volume XXVIII. OCTOBER, 1937 No. 2

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Wisconsin Horticulture

OUR PROGRAM

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

OUR PROGRAM

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

New Fruits Found

Fruit Testing Committee Visits Fruit Breeding Farms

BRIGHT and early on the morning of Labor Day, September 6, four members of the Wisconsin Horticultural Society left Madison to attend the first official tour of the fruit testing committee to western Fruit Breeding Farms.

The party, this year's fruit testing committee, consisted of R. L. Marken, Kenosha, vice-president of the Society, and Directors Wm. Leonard of Fort Atkinson and Nick Jacobs of Sawyer, and H. J. Rahmlow, secretary.

Arriving at Minneapolis Monday afternoon, we were able to attend the Minnesota State Fair and see exhibited there many of the new varieties of apples and plums. We were immediately impressed with the splendid color of the Beacon apple recommended for limited trial last spring.

Tuesday forenoon was spent at the Minnesota Fruit Breeding Farm at Excelsior. Mr. Fred Haralson, superintendent of the farm, acted as our official guide, while Dr. W. Brierley and Dr. A. M. Wilcox explained the apple, strawberry, raspberry and grape breeding work.

From time to time we will explain in more detail the merits of the many varieties we inspected so this article will be rather brief in its description.

The Fruit Testing Committee with Prof. N. E. Hanson, in front of a new hardy apricot tree, at Brookings, S. D. Left to right, Nick Jacobs, Prof. Hansen, R. L. Marken, Wm. Leonard. H. J. Rahmlow took the picture.

Prunus Japonica

We were greatly impressed with the high quality of the fruits of the Prunus Japonica or Korean cherry, seedlings No. 60, No. 20 and No. 57. Number 60 is especially sweet. This is the shrub recommended for trial last spring. A large number of seedlings were introduced. The shrub grows about 2½ feet tall and produces fruit the size of sour cherries, much as currants are produced on a bush. The seedlings mentioned above were equal in quality and the No. 60 sweeter than the cherries we grow. The plants are very hardy and it should therefore be an excellent shrub for the home grounds.

Beacon Apple

The committee considered the Beacon apple a "find," because of its wonderful red color, its uniform size and fair quality. Mr. Haralson stated, "Twice during the last three years we took five bushel of Beacon and five bushel of Duchess to the Minneapolis market and received $2 per bushel for Beacon while the Duchess brought only 75c. The reason was the better appearance of the Beacon. It is also of better quality than Duchess.

We had heard that the Beacon was expected to replace the Duchess and after seeing it, we have no doubt of it. No grower would plant Duchess after seeing the fruit and tree of the Beacon.

Minnesota No. 1007

Unfortunately Minnesota No. 1007 was not mature on September 7th so we could not test its quality, but it looked very promising. Mr. Haralson agreed to send us a half bushel of the fruit for the convention. This is the most promising of the late apples developed in Minnesota. The tree is very hardy, the fruit is red, and will keep until spring, and has an excellent quality, quite distinctive from any other apple. It may be another find.

Latham Crab

The Latham Crab, Minnesota No. 240, was said by the late Mr. Latham to be the best crab he ever tasted. It matures one week later than the Whitney and makes a very delicious sauce. It will keep for six weeks.

Flame Crab

A brilliantly colored and beautiful crab apple has been developed by the Minnesota Station called Flame. It makes an excellent jelly but is probably too small for kitchen use. However, it was brought out that it is excellent food for pheasants and as such, should be planted in the fields and edge of woodlots for the birds.

Plums

As our members well know, Minnesota has developed many excellent varieties of plums of which Underwood, Superior and Ember are among the best. Regarding the profitableness of a plum orchard, however, there is some doubt. Mr. Haralson dropped the remark that their six year old plum orchard hasn't paid for itself yet, while the Haralson apple orchard adjoining, has a heavy crop this year, and is profitable.

Hardy Grapes at Minnesota

The Minnesota Fruit Breeding Farm will no doubt have some hardy grapes of excellent quality to introduce in the near future. The committee was shown several varieties in white, blue and red grapes which showed considerable promise. Grape No. 27 for example, a red variety, purplish red when ripe, was very sweet and quite hardy. The Station is trying to perfect a grape that need not be covered during the severest winters, and still produce high quality fruit.

At Fargo, North Dakota

From the Minnesota Station at Excelsior the committee drove northwestward to Fargo, North Dakota. For about a third of the way we drove through an excellent farming section, very much like the best dairy section of Wisconsin. The last fifty miles, however, when we reached the Red River Valley was entirely different. The Valley would be one of the grandest farming sections in the whole United States if ample rainfall could be depended upon. A rich, glacier lake bottom of black soil, thousands of acres of level farming land, makes it ideal for producing grains, alfalfa and sweet clover. Because of the acreage of sweet clover which is planted with the grain, it is becoming well known as a beekeeping section, and crops of from two to three hundred pounds per colony are produced by the best beekeepers during good seasons. One is impressed with the size of the farms in the area.

Grain fields are evidently planted by the hundred acres rather than by ten acre fields as in Wisconsin.

(To be continued in the November issue)

Eat Wisconsin apples. They have quality and flavor. You will like them.

APPLE ADVERTISING COMMITTEE APPOINTED

AT the request of National Apple Groups, an organization composed of apple advertising groups in various apple growing regions of the United States, the Wisconsin Horticultural Society appointed a committee to act on the National Apple Stabilization Committee.

This committe consists of Mr. Karl S. Reynolds, Chm., Sturgeon Bay, Dr. R. H. Roberts, Madison, Mr. Peter Swartz, Waukesha, Mr. N. A. Rasmussen, Oshkosh, Mr. Fred Sacia, Galesville, and Mr. H. J. Rahmlow, Madison, Secretary.

Each of the above growers represents a growing and consuming section of Wisconsin. The duties of the committee are to cooperate with the National organization in distributing literature and advertising materials to newspapers in their consuming sections. Further, to cooperate with the grocers in various parts of the state in a campaign to sell more apples.

The apple growers of the nation are faced this year with one of the largest crops in history. It is for the purpose of moving this large crop at a profitable price, that the organization was formed.

All fruit growers should lend their support to this movement.

Nationally advertising the food and health value of apples will stimulate the use of apples, and help to sell the big crop. Wisconsin growers will probably be confronted this year with apples shipped in from other states. This cannot be helped. In fact, we should be more willing to contribute to the national advertising campaign in order to increase the use of apples everywhere to get rid of the entire crop. Just as long as there is a surplus in one section, it will be shipped to some other section.

Codling Moth In Kickapoo Apple Orchards

John A. Callenbach

AFTER two seasons of practically semi-arid conditions, instead of the normal humid condition, the codling moth situation in the Kickapoo region has been assuming a status somewhat similar to that generally found in the orchards of our western semi-arid regions. In 1936 an exceptionally hot and dry spring and summer built up a large codling moth population and injury to the 1936 crop was somewhat above average. In 1937 similar conditions built up the population to enormous proportions, and with the issuance of the second, or summer brood, bait pan catches recorded the largest flights since records were first taken in 1932.

Besides the severity of the infestation this season the flight had other peculiar features. In an average year the moths can be expected to build up to a fairly distinct peak in the first brood, gradually diminishing over a period of weeks and occasionally overlapping the beginning of the second brood. The second brood normally builds up quickly to a distinct peak, generally 60-65 days following the first. The flight then tapers off until cool weather arrives. In 1937 the first brood behaved normally. However, the second brood came to a peak on August 1, only 50 days after the first brood peak, and resembled in almost all details the 1936 flight, which occurred 56 days after the first brood peak. Instead of tapering off, as was expected, on August 14, sixty-four days after the first brood peak, the flight took an enormous jump and 300 moths were caught. What had evidently happened was that the August 1st peak for some reason not yet determined had occurred prematurely, and the August 15 peak was the normal peak.

Spray Schedules Out of Balance

With such variations from the normal flight our spray schedules were thrown considerably out of balance. Ignoring the preblossom scab sprays, for codling moth we have been recommending a calyx plus 10, 20, 30 day sprays; that is, 10, 20, and 30 days after the calyx spray, and a second brood spray to be applied according to the date of the second brood flight. The importance of first brood control cannot be too strongly emphasized, as 40% of the larvae resulting from this brood of moths carries over for next year's infestation while 60% emerge as the summer brood. Control is likewise more difficult in the first brood because the surface of the apple is rapidly increasing making it difficult to keep adequate coverage without frequent spray applications.

The second brood spray was applied this year about August 5 in order to catch the early fringe of the flight and also the larvae from the peak emergence of August 1st. With the appearance of a second peak of such huge proportions drastic measures were needed. In order to stay under the tolerance limits for lead and arsenic it was inadvisable to apply any further sprays containing either of those materials. Therefore it was decided to recommend the use of Black Leaf 155, a fixed nicotine in bentonite clay material. Some delay was encountered in obtaining sufficient quantities of this material, but by August 28th most of the major orchards had applied this spray to their late varieties, particularly McIntosh. While it is too early to determine at this date the effectiveness of the spray, observations of check trees as compared to sprayed trees showed a striking decrease in new stings and entrance holes in the sprayed fruit.

Regarding the prospects for 1938, it seems probable that with a favorable winter a heavy infestation may be expected and stringent control measures should be planned.

Mats for the above design are available to growers for use in advertising, in two sizes, one column and two column widths, free of charge. Write Wisconsin Horticultural Society, 1532 University Ave., Madison, Wisconsin.

In the Orchard

ATTENTION FRUIT GROWERS

ON page 37 of this issue of Wisconsin Horticulture, you will find the official ballot for the election of officers of the Wisconsin State Horticultural Society.

This is the first time that members not attending the annual convention have been given an opportunity to vote for the officers.

You are entitled to vote if you receive Wisconsin Horticulture by having either paid up your dues as a life member, an annual individual member, paying $1.00 per year, or an affiliated member through some organization affiliated with the Society—whether you pay direct to the Society or if the secretary of your local association pays the dues to the Horticultural Society.

We want you to feel you are a member of the Society, and as such, cast your ballot for the officers.

You will notice a blank line following the nominations of the nominating committee for each office. You may vote for someone of your own choosing who is a member of the Society, if you do not wish to vote for those nominated by the committee. At any rate, we hope you will send in your ballot as directed on page 37.

SURPLUS APPLES TO BE PURCHASED FOR RELIEF PURPOSES

AN announcement was made on September 21 that the Federal Surplus Commodities Corporation will purchase surplus apples in commercial producing areas where such purchases will benefit growers and help to relieve the stress of marketing conditions, and where such apples can be distributed effectively by relief agencies.

Prices to be paid will depend upon marketing conditions in producing localities.

The total national production is expected to reach more than 204 million bushels, or nearly 25% more than the 164 million bushels of the 1928-32 average.

Says F. R. Wilcox, Director of Marketing Agreement. "With an abundant supply of apples of good quality, the purchase program would be much more satisfactory from the standpoint of total returns to growers if low-grade apples for fresh consumption could be kept off the market.

THE APPLE CROP

THE U. S. apple crop this year is estimated at 190 million bushels. Last year's crop was 117 million bushels. The five-year average crop is 134 million bushels.

Every one who ate two apples last year must be **persuaded** to eat three this year — or those who ate apple pie twice a week must be taught to eat it every other day this year.

The big apple growing sections of the east and west will spend thousands of dollars advertising their brand. So far, Wisconsin growers haven't shown any interest.

Wisconsin growers have had their market at their door. The problem will be to increase that market. We can be sure that fancy apples will be shipped in.

However, it won't hurt to contribute to the advertising of apples all over the United States. Perhaps then folks in other states will eat up most of the apples grown elsewhere and not so many will be shipped here.

It's good business not to try to sell poor grade apples in a big crop year.

If you have good apples to sell, have a **good sign** made to advertise them. A poor sign does not attract customers.

It's better to display apples under the shade of a tree on a lawn than to take the customer into a dark, smelly building or cellar.

POISON OATS AVAILABLE FOR MOUSE CONTROL

A LARGE shipment of poisoned oats bait to control mice in the orchard has been received by the Wisconsin State Horticultural Society, from the Federal Mixing Plant in Idaho, operated by the U. S. Bureau of Biological Survey.

The bait will be shipped to anyone express collect. It is illegal to ship poison material by mail. Prices are as follows:

10 lb. bag----------$1.20
25 lb. bag---------- 2.50

IMPROVING THE QUALITY OF APPLES

THERE has been considerable complaint about green or immature fruit on the market. This applies especially to peaches and pears. In the state of Washington a ruling has been made that shipments of apples and pears will not be released by the State Department unless the fruit is entirely mature. This is an excellent idea. Placing poor quality fruit on the market reacts against the producers because the consumer stops buying.

Factors Determining Quality In Apples

Writes C. C. Strachan of the Summerland Experimental Station, Canada, in Canadian Horticulture. "Sweetness and pleasantness of flavor in apples may be influenced by orchard practices. There appears to be a dis-

tinct relationship between leaf area and sugar accumulation in the fruit. As a general rule the greater the leaf area, the more sugar will be stored in the fruit. However, a heavy dense foliage sometimes produced by excessive applications of nitrogen, is not desirable as it shades the fruit, delays color development and affects keeping quality. Pruning to improve light penetration is beneficial in that it promotes uniformity in quality of the crop produced. Thinning of the fruit of an excessively heavy crop also encourages sugar accumulation in those apples which are left on the tree.

"The stage of maturity at which the fruit is picked has a greater influence on quality than any other single factor. Fruit harvested in an immature condition never develops full quality. On the other hand, fruit which is left on the tree too long has a comparitively short life with a result that it is likely to be past its prime before it reaches the consumer.

"The quality of an apple can be ruined by subjecting it to adverse storage conditions. Thus, Grimes Golden when stored at temperatures below 36 degrees Fahrenheit remain green and unattractive in appearance. They are also likely to develop a type of internal breakdown which makes them quite unfit for human consumption. On the other hand, Delicious soon lose their crisp texture and delicate flavor when kept in a warm place. No storage treatment can develop prime quality in fruit which has been grown under unfavorable conditions or picked at the wrong time."

DON'T MISS THE CONVENTION

Plan now to attend the big convention for fruit growers, by the Wisconsin Horticultural Society, at the Avalon Hotel, Waukesha, November 18-19.

FRUIT EXHIBIT

Wisconsin State Horticultural Society Convention

Avalon Hotel, Waukesha
NOVEMBER 18-19

Committee in Charge: C. L. Kuehner, Madison; J. F. Thomas, Waukesha.
Judges: J. G. Moore, Madison; R. L. Marken, Kenosha.

SHOW OF APPLE VARIETIES

Plate of Three Apples

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

First prize, $1; Second, 75c; Third, 50c; 25c for each additional entry.

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

PLATES OF APPLES

Premiums on each variety, Classes 10-23. First, 75c; Second, 50c; Third, 25c; Fourth, 25c.

10. Gano
11. Grimes Golden
12. Jonathan
13. Delicious
14. Northern Spy
15. Salome
16. Tolman Sweet
17. Windsor
18. Golden Delicious
19. Snow
20. McIntosh
21. N. W. Greening
22. Wealthy
23. Any other variety

SEEDLING APPLES—PLATE OF 5 APPLES

Committee in charge: E. E. Skaliskey, West Bend; C. C. Gilman, Port Washington.

Special ribbons will be awarded for the best seedlings.

Premiums: First prize, $3; Second, $2; Third, $1; five additional prizes at $1.

Seedlings should be sent to the State Horticultural Society, 1532 University Avenue, Madison, not later than November 15th, 1937. Seedlings may also be brought to the convention before 9:30 a. m., November 18, by the exhibitor.

SEEDLING NUT SHOW

Plate of Seven Nuts

Judges: Peter Swartz, Waukesha; Wm. Leonard, Fort Atkinson; C. L. Kuehner, Madison. Hugo Klumb, Rochester, in charge.

24. Hickory
25. Walnuts
26. Butternuts
27. Any other variety nuts

Premiums: First, $1; Second, 75c; Third, 50c; Fourth 50c; Fifth, 25c.

Aptly Defined

Teacher: "William, what are the two genders?"

William: "Masculine and feminine. The feminine are divided into frigid and torrid, and masculine into temperate and intemperate."

Not So Bad

Teacher: "Now, children, since we have described what trees, flowers and plants are, who can tell me in his own words what grass is?"

Small Boy: "I can, teacher. Grass is whiskers on the earth."

In the Berry Patch

FALL CARE OF STRAWBERRIES

Questions Answered by H. H. Harris, Warrens, Wis.

Question: Do you think it pays to cover strawberries with mulch in the fall?

Answer: Yes, I think it really pays to cover strawberry plants, both for protection of the plants in the winter season and to keep the fruit from getting soiled when ready to pick.

Question: When should mulching material be put on the beds?

Answer: We used to wait until the ground was frozen hard enough to hold up a loaded wagon to avoid cutting up the ground, but Professor R. H. Roberts has been studying the injury to the roots of the plants and has found that the damage was done by the early freezing. So we try to put the cover on before the first hard freezing weather arrives.

Question: Which do you think is the best material for mulching, marsh hay or straw, and how deep should it be put on?

Answer: We like fine marsh hay better than straw as it is less liable to have weed seed that will grow and bother in the fruiting season. Our rule is to put enough mulch on to hide all the foliage entirely all over the rows and spaces between.

Question: Do you think mulching pays for itself the following year by conservation of moisture in the soil?

Answer: Yes, the mulch pays well in preserving moisture during a dry season.

Question: How do the new varieties being tested look at the present time?

Answer: Catskill, Dorsett and Fairfax are all making as good growth of vines as standard varieties like Premier and Beaver. The Dorsett vine and roots have shown no more injury from the cold winter weather than any of the others. I think the blossoms are more subject to frost injury than Premier, Beaver or Catskill. Our old renewed bed looks better than our new bed this year.

NEW EVERBEARING RASPBERRY MAY BE TOO LATE FOR WISCONSIN

INDIAN Summer is a new everbearing raspberry originated by the New York Fruit Breeding Station, Geneva, New York, which is of excellent quality and produces well. The berries are much larger than the St. Regis grown here in the past.

Whether or not this new raspberry will prove satisfactory for Wisconsin conditions is still uncertain. A few plants were introduced a few years ago and during the middle of September had not yet produced any ripe berries, though there were a number of green fruit and plenty of blossoms on the bushes.

A letter from H. L. King, manager of the New York Fruit Testing Co-operative Association, states: "The Indian Summer, for the past two or three years, has started to ripen here about the middle of September, but this year our season is somewhat later, and it will not begin to ripen until about the first of October, and from then on it bears well until a very heavy frost."

In many sections of Wisconsin, of course, we expect frost in late September or early October so it may be that this excellent new raspberry will not be suitable for our conditions. However, it should be tried in the southern part of the state because of its quality until we are sure of this point.

FERTILIZERS ON STRAWBERRIES

IT HAS been mentioned in Wisconsin Horticulture before that results with the use of fertilizers for strawberries has been quite variable in different states. In the 1936 annual report of the Iowa State Horticultural Society is a paper by Profs. Maney, Pickett and Minges on strawberry experimentation work, in which we find this statement.

"A spring application of 800 pounds of 5-7-7 fertilizer to certain plots of Dunlap strawberries, stimulated the growth of the plants and apparently made the plants more resistant to leaf spot infection. However, the yield of these plots was reduced in comparison to the plots which received no fertilizer treatment."

SNOW PROTECTION FOR SMALL FRUITS

IT IS well known that snow is the best covering for protecting plants in the winter. Some type of material or crop to hold the snow may be of considerable value.

In Minnesota many small fruit growers plant sweet corn between new set rows of raspberries, according to the Minnesota Fruit Grower. The sweet corn brings in a cash return in the summer, and later acts as a snow catch. In older plantings, August seeded oats or barley are used to catch and hold the early snows, and to stop the late growth of the raspberries so they will go into winter in a more dormant condition.

Says the editor of the Minnesota Fruit Grower. "Growers who have tried stringing snow fences across the strawberry patch late in the fall believe it pays big dividends in protection from cold and in moisture conservation."

The Wayzata Strawberry At Bradens

NEVER before had the fruit testing committee of the Wisconsin Horticultural Society seen such an excellent crop of everbearing strawberries as they saw at the Braden Farm at Wayzata, Minnesota.

Stopping at the farm at the invitation of Mr. Braden on the fruit inspection trip on September 7th, Mr. J. D. Winter of the Minnesota Fruit Growers Association and Mr. Braden explained the culture and marketing of these strawberries to the committee.

There were three acres in bearing and were producing at the rate of from 200 to 300 twenty-four pint crates per acre. Mr. Braden stated that he is now getting five dollars per crate for the fancy berries, four dollars for the number ones, and two dollars for jams. All berries are carefully graded into three grades, and the appearance of the crates is so good that they have no trouble in getting these prices on the market when ungraded everbearing strawberries are bringing about half that price.

However, the conditions under which the berries go on the market has something to do with it. Mr. Braden is cooperating with the Minnesota Horticultural Department in carrying on tests with a carbon dioxide chamber. The berries are placed in this chamber soon after picking, and as a result, will keep during hot weather for a much longer time than those not so treated. This work is still in the experimental stage but will probably be released by the Minnesota Station in the near future. It looks very promising.

Requirements for Everbearing Berries

We were impressed with the care Mr. Braden took of his three acres of Wayzata everbearing strawberries. All the fields were completely covered with a mulch of marsh hay to conserve moisture and keep the ground cool. In addition, there was a small irrigation plant operated by a gasoline engine pumping water from a well to give the plants the moisture they require during the hot, dry season of this summer. Part of the field had been allowed to bear a crop in June and was producing a good crop in September. The other part of the field was newly set this spring and was also bearing well.

As we have said before, everbearing strawberries require irrigation and heavy mulching to produce profitably. In addition, there must be a good market close by where one can obtain good prices for fancy fruit in order to make it pay. Mr. Braden was making it pay.

COMMENTS ON STRAWBERRY VARIETIES

STRAWBERRY growers have long known that certain varieties do better on some soils and in some locations than others. This is quite striking in the case of some of the new varieties. For example, Dorsett and Fairfax produced the highest yield of any variety several years ago in test plots in the East. Reports from Minnesota and parts of Wisconsin indicate that the growers are a little dissatisfied with the yield produced here.

In northern sections, especially on locations where they are subjected to considerable cold, growers state that they are not as hardy as Premier or Beaver. Mr. Nick Jacobs of Sawyer is growing strawberries on muck soil on low land, and will discontinue them because they have not been sufficiently hardy.

In other sections again growers are optimistic about the prospects for Dorsett because of its excellent quality and appearance.

Catskill seems to be more popular from preliminary tests. Mr. J. D. Winter, editor of the Minnesota Fruit Grower, writes that the Catskill has shown a great deal of promise in Minnesota. The berry is large and unusually bright and attractive, and cooks well. It seems to be a good shipping berry, better than Premier and Beaver.

Observations by Wisconsin growers seem to indicate that Catskill is the highest yielding of any of the new varieties.

All of this indicates the value of widespread trials on a small scale, of the most promising of the new varieties. One variety may do well in one location and not in another.

EXPERIENCE WITH ENGLISH WALNUTS

WE received letters from all over the country during the past two months from those who purchased English walnut seed the past spring, giving their experiences. Most of the letters have stated favorable results.

A very interesting letter was received in early September from L. Roy Schoenberger, Nevada, Ohio, R. 2, who has 40 trees growing from the 50 nuts we sent him.

Included in this shipment were two very large nuts which he greatly prized. About August 1st there was still no sign of germination so he assumed that the nuts had decayed and dug them up. To his surprise he found neatly coiled in the shell of each of those two large nuts, a tiny tree, both sprout and root, and completely filling the shell but unable to make its way out, although the shell was open at the end. He found them to be alive and planted them. They began to grow and are now doing nicely.

The Grasshopper Menace

E. L. Chambers, State Entomologist

MANY promising young apple orchards throughout the state had their trees stripped by the grasshoppers this sumer.

Arsenate of lead was not effective in controlling them, but Paris green when used at the rate of one pound to 50 gallons of water and to which two pounds of hydrated lime were added proved not only effective but the lime made it safe to apply to the apple foliage and little or no burning resulted. The defoliation is serious when it occurs early in summer, but where it takes place after the middle of August with good care they usually survive. Weakened trees are, of course, subject to borer attack and many newly set trees already suffering from drought were lost as a result of this injury, as well as trees set out during the past year or two.

Never in the history of the state has there been recorded such a widespread and serious outbreak of grasshoppers. True grasshopper control in Wisconsin has for many years been an annual necessity, but usually this was necessary only in limited areas, particularly in some of our northern counties with light, sandy soil. This summer the hoppers did serious damage to crops in every county of the state and active large-scale control campaigns were carried on in 52 out of the 71 counties where mixing stations were set up and ready-mixed poisons made available to the farmers. More than 10,500 tons of ready-mixed poison were distributed in this manner and the sodium arsenite used as the killing agent was furnished by the federal government from their appropriation. One thousand and forty 50-gallon drums of sodium arsenite were delivered at 18 distributing centers scattered over the state.

Grasshopper eggs as they appear in sod during egg survey

The counties receiving the poison agreed to furnish the other ingredients and organize and direct its mixing and distribution under the supervision of the state entomologist, who was appointed by the State Grasshopper Control Committee. This Committee consisted of Charles L. Hill, Chairman, Department of Agriculture and Markets, Chris L. Christensen, Dean of the College of Agriculture, and Warren W. Clark, Associate Director of Extension.

The Bait Formula

The formula used was one worked out by the entomologists and county agents of the state to meet the demand for a cheap, effective bait, unlike the formulae used by other states, using bran and molasses. This mixture consisted of sawdust, 1 bushel; whey, 1 gallon; sodium arsenite, 1 pint and water ½ gallon. It was applied at the rate of 20 pounds per acre and when used as directed did not result in a single case of poisoning to live stock, game birds or plants.

Several cases of accidental poisoning and injuries resulted from carelessness including hogs fed from swill barrels made out of empty arsenic drums that had not been cleaned out prior to using and several fields of tobacco that had the foliage burned because the poison was thrown directly on the broad leaves instead of on the ground. The Biological survey has been studying the effects of poison on game birds and animals and as a result of all of their observations report no authentic case of poisoning whatsoever. The department's entomologists have begun an egg survey in co-operation with the United States Department of Agriculture to determine the probable infestation for next spring.

The grasshopper winters over in the egg stage and these eggs are still being laid by the adult females, some species of which began their egg laying early in August. The amount of poison allotted to the thirteen states affected is based on the annual egg survey and until this year it has been a very accurate index. The chief reason for its failure this year was probably due to the fact that the survey was carried on only in about one-half of the area

which actually proved to be infested because the hoppers were so scattered and no real heavy infestations were evident.

Expect Many Hoppers Next Year

All factors indicate that the infestation next summer will be much worse that it was this summer. Many farmers delayed putting out the poison too long and after losing their crops failed to control the hoppers. Consequently they were allowed to lay enormous quantities of eggs to make even more trouble next summer. Too much emphasis cannot be placed on the importance of fighting the hoppers when there is a fighting chance and that is to apply the poison mixture just after they hatch in the limited spots scattered over the farm and before they start migrating into the adjoining crop. A bushel of the poisoned bait at that time will usually do more good than a ton a few weeks later.

NOTICE!

Don't forget to vote for officers of the Wisconsin Horticultural Society. Official ballot on page 37.

Horticultural News

A. F. Yeager, North Dakota

A CORRESPONDENT asked whether it would be possible to raise strawberries inside of a building with glass on the sides. Undoubtedly it would. Whether it would pay is another proposition. Strawberries can be forced in the winter time and high priced caterers have been known to furnish such potted strawberry plants, each carrying a crop of ripe fruit, one plant at each plate, thus permitting the banqueter to harvest his own fruit. Naturally they paid plenty for the service!

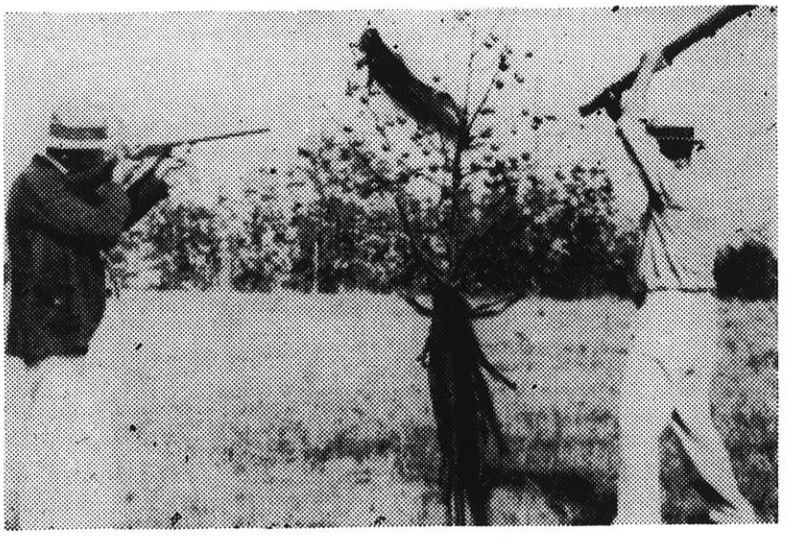
One of our members calls attention to the possibility of carrying four o'clock roots from one year to another. The roots should be stored like dahlias.

Dr. Magruder of the Bureau of Plant Industry finds that the reason why Bermuda onions do not do well here in the north while other varieties prosper comes from the fact that Bermudas start bulb formation when the daylight hours are between 10 and 12 whereas other onions require 13 hours or more, which of course, is what we have here during the summer.

Cornell Experiment Station reports that copper sulfate used as a fertilizer improves the skin of onions both in texture and color. Incdentally, it has been found that the strength of onions depends on the amount of a complex sulphur compound which is present. Platinus and Knott report Early Grano and Sweet Spanish as mild flavored, Southport Globe and the Yellow Danvers as medium, Australian Brown, Ebenezer and White Portugal as strong.

A correspondent asks about how soon orange and grapefruit trees raised from seed will bloom in a pot. I doubt very much whether they ever would. The orange sometimes seen fruiting inside is a special variety grown for the purpose, and so is the Ponderosa lemon.

The New York Experiment Station reports that pop corn 14 years old pops almost as good as fresh provided it has a moisture content of 13-15%.



Cut courtesy Tomah Journal

Giant grasshoppers invade Butts Orchard near Tomah. Above picture shows A. L. Butts, orchard owner, and B. J. Fuller of the Tomah Journal attacking two giant hoppers at the Butts orchard.

LIVINGSTONE'S REPELLANT

For Rabbits and Mice

Is a safe and sure protection to your trees from winter injury by rabbits and mice.

100% protection obtained last winter. Positively will not injure your trees.

For information write to:

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EDITORIALS

FRUIT GROWERS CONVENTION

and

Annual Meeting Wisconsin Horticultural Society

Avalon Hotel, Waukesha NOVEMBER 18-19

THREE out-of-town speakers have been contacted so far to appear on the program for the Horticultural Society's annual convention for Fruit Growers, at the Avalon Hotel, Waukesha, November 18-19.

The complete program will be published in the November issue of Wisconsin Horticulture.

Every effort will be made to have the best speakers available discuss the most timely topics.

Special Women's Program

A special program will be presented for the ladies this year. Mrs. Stevenson, Home Demonstration Agent for Waukesha County, and Miss Mildred Owens of Milwaukee are already working on a program which will be announced in our next issue.

We hope more fruit growers will bring their wives this year to attend the women's meeting and regular sessions.

Fruit Exhibit

The premium list for the fruit exhibit may be found on page 31 of this issue.

Eat Wisconsin apples. They have quality and flavor. You will like them.

IMPORTANT EVENTS

October 14-15. Annual convention Wisconsin Garden Club Federation, Oshkosh.

November 4-5. Annual Convention Wisconsin Beekeepers Association, Municipal Building, Hartford.

November 18-19. Annual convention Wisconsin Fruit Growers, auspices Wisconsin State Horticultural Society. Avalon Hotel, Waukesha. Annual business meeting, Horticultural Society.

Michigan State Horticultural Society, annual fruit growers convention, Civic Auditorium, Grand Rapids, Michigan, November 30-December 1-2.

OUR COVER PICTURE

OUR cover picture this month shows a view of the Valley of the Wisconsin River, Nelson Dewey State Park, in Grant County.

This beautiful park contains 1,671 acres.

Cut was loaned us through the courtesy of the Wisconsin Conservation Department.

HOW TO VOTE FOR OFFICERS OF THE WISCONSIN HORTICULTURAL SOCIETY

ON this page you will find the official ballot for the election of officers of the State Horticultural Society, containing the names of candidates selected by the nominating committee as published in our last issue. The following is a brief introduction of the candidates selected by the committee.

Introducing the Candidates

Mr. Karl Reynolds of Sturgeon Bay, is secretary of the Reynolds Preserving Company, and is at present president of the Society. Since it has been customary for the president and vice-president to hold their office for two years, the nominating committee selected no candidates in opposition to these two officers.

Mr. R. L. Marken, Kenosha, vice-president for the past year, is a well known fruit grower, formerly manager of the Kickapoo Development Company at Gays Mills, and now an extensive orchard operator at Kenosha.

Directors

Mr. Murry Bingham, Sturgeon Bay, son of D. E. Bingham, well known fruit grower, has been interested in fruit growing all his life. Associated with his father in one of the largest orchard operations in Door County, he is well acquainted with orcharding and with many fruit growers throughout the state.

Mr. John Miles of Sturgeon Bay is an active fruit grower, a

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

OFFICERS

A. J. Schultz, Ripon, President
Walter Diehnelt, Menomonee Falls, Vice-president
H. J. Rahmlow, Madison, Cor. Secy.
Mrs. E. Voigt, Box 60, Menomonee Falls, Recording Secretary-Treasurer

DISTRICT CHAIRMEN

S. P. Elliott, Menomonie
N. E. France, Platteville
Edw. Hassinger, Jr., Greenville
F. J. Paepke, Burlington

Vol. XIII OCTOBER, 1937 No. 10

News From Our Beekeepers

IN most sections of Wisconsin the honey crop is very poor this year. A few report a good crop. We have received reports from beekeepers in various sections of the state which are very interesting.

Grant County

Mr. Ralph A. Irwin at Lancaster, writes that he will have about 25 pounds per colony, but some colonies will need feeding. But little of the white or alsike clover survived the dry weather.

Mr. Irwin will winter the heaviest colonies on the summer stands, and the lighter ones in the cellar.

Washington County

Mr. A. E. Wolkow of Hartford writes that there is no honey crop and feeding is necessary. Late swarms have already starved. Prospects for next season are better. Mr. Wolkow winters outdoors, covering the hives with tar paper and plans to try to sift out all the old bees to reduce the feed bill. He will try to reduce the colony to the size of a two or three pound package consisting of all the very young bees.

Kenosha County

Mr. Richard Hansen of Kenosha writes that the honey crop is 10% of normal. Colonies are fairly strong and some will need feed. Prospects for next year are poor. Condition of clovers is poor and alfalfa seedings were destroyed by the grasshoppers. He will winter outdoors using tar paper and straw. Will try some top entrance with tar paper wrapping and celotex over the top. He states, "If the black flies disappear—the parasite of the army worm—we may get a crop next year."

Rock County

Mr. S. J. Riesterer of Janesville, writes that there is no honey crop in that section. The bees are in good condition but many will need feeding before winter. Prospects for next year seem better as the clovers look much better at this time. He winters outdoors, packing with leaves. Rain is needed to stimulate growth of clovers as it is still very dry.

Fox River Valley

Mr. Geo. Jacobson of Kaukauna writes that the honey crop is fair, and is of good flavor, body and color. Bees are in good condition and prospects for next year are good. Mr. Jacobson winters outdoors in packing cases, two colonies per case.

Sheboygan County

Gerald Wentz of Sheboygan, an inspector, writes that the honey crop is very poor, but the bees are in good condition. Only 50% have sufficient stores for winter. New seedlings of clovers, with the possible exception of sweet clover, dried out. He will winter outside, using one-half inch celotex on top and around the hives, and then covering with waterproof canvas. He winters in two stories.

Shawano County

Mr. G. W. Jeske of Cecil states that the honey crop is fair to good with about 75 pounds per colony average. The condition of the bees is normal with plenty of stores and young bees. Prospects for next year are good if there is enough rain. He will winter outdoors with a top entrance, using tar paper with an average of two to four inches of planer shavings.

Marathon County

Mr. Frank P. Reith of Stratford, writes that he has a good honey crop. The bees are in very good condition for wintering both in strength and in stores. Prospects for next year look good. He will winter part of the colonies outdoors and some indoors. The outdoor colonies will be packed with cedar shingles, excelsior and will have a top entrance.

FROM CLARK COUNTY

MR. Frank E. Greeler of Neillsville has an enthusiastic report as follows: "The honey crop was fine in Clark County this year. I had 1,200 pounds of honey from ten colonies of bees.

(Contnued on page 36)

59th Annual Convention

Wisconsin Beekeepers Association

Municipal Bldg., Hartford

November 4-5, 1937

THURSDAY, NOVEMBER 4

10:00 a. m. Welcome to Hartford—Mayor of Hartford.
Response by A. J. Schultz, Ripon, President Wisconsin Beekeepers Association.
The revived area clean-up program. E. L. Chambers, State Entomologist, Madison.
Plans for 1938. C. D. Adams, Chief Apiary Inspector, Madison.
10:45 a. m. A survey of present beekeeping conditions in Wisconsin relative to honey prices. Prof. H. F. Wilson, Madison.
11:30 a. m. Observations of top and middle entrances for winter. What some doctors say about honey. Carl Schaefer, Department of Entomology, Wisconsin College of Agriculture.

BOARD OF MANAGERS MEETING

12:00 M. Special luncheon for delegates from county and district associations, and the Board of Directors of the State Association. Business meeting during and following luncheon.

AFTERNOON PROGRAM

1:30 p. m. Solving some of our beekeeping problems. E. R. Root, Medina, Ohio.
2:30 p. m. How we filter our honey. Its value in marketing. E. F. Peterson, Kewanee, Illinois, Secretary Illinois Beekeepers Association, and large producer.
3:15 p. m. Preparation and care of honey for market. Preserving the color of white honey. Prof. V. G. Milum, Champaign, Illinois.

THE BANQUET

6:30 p. m.

Banquet in Municipal Bldg. Price 65c per plate.
Music and entertainment by the Washington County Beekeepers Association.
Beekeeping the world over. E. R. Root, Medina, Ohio.
How Wisconsin beekeepers pack their bees for wintering outdoors. Moving pictures showing leading beekeepers preparing for winter. H. J. Rahmlow, Madison.
Old time dance, auspices Washington County Association.

FRIDAY, NOVEMBER 5

9:30 a. m. Demonstration—Improved method for using uncapping plane in uncapping comb. A. J. Schultz, Ripon.
Discussion of honey harvesting methods.
10:00 a. m. Tests of bees and combs. Control of wax moth. Prof. V. G. Milum, Champaign, Illinois.
New uses for honey, Mrs. M. Jenson, American Honey Institute.
11:00 a. m. Uniform grading of apiary exhibits at shows and fairs. Exhibits of new automatic section machine. E. F. Peterson, Kewanee, Illinois.
12:00 M. Luncheon. Board of Managers may continue unfinished business.

AFTERNOON PROGRAM

1:30 p. m. How to grow sweet clover. Both the biennial and annual sweet clover, and their requirements will be discussed. Prof. F. V. Burcalow Dept of Agronomy, Wisconsin College of Agriculture.
Growing sweet clover in this section of the state. E. E. Skaliskey, County Agent, West Bend.
Discussion and questions.
2:30 p. m. Annual business meeting Wisconsin Beekeepers Asociation. Election of officers.

BOARD OF MANAGERS TO MEET AT NOON ON NOVEMBER 4

BECAUSE of the short honey crop this year, and in the interest of economy, we suggested that the Board of Managers meet at a luncheon at noon on November 4, the first day of the convention, and continue any unfinished business at the close of the program until the banquet. The president suggested that we write to all delegates and members of the Board of Directors asking them to vote whether they would prefer to meet the preceding evening as has been the custom, or at a noon luncheon.

We have heard from most of the delegates and the vote in favor of the noon luncheon meeting was 100%, or unanimous. "This will save a day of time and considerable expense to us," write the delegates.

Announcing New Low Tin Container Prices For 1937 Season

Friction Top Pails and Cans

Soldered With Pure Tin Solder

2½ lb. cans, per case of 24	$1.13
2½ lb. cans, per carton of 100	3.90
5 lb. pails, per case of 12	.90
5 lb. pails, per carton of 50	3.05
10 lb. pails, per carton of 6	.75
10 lb. pails, per carton of 50	4.50
60 lb. cans, in bulk, each	.32
60 lb. cans, per box of 2	.96
60 lb. cans, per carton of 24	7.45

F. O. B. Boyd, Wisconsin

1937 Catalog Prices on Glass Jars and Comb Honey Packages to Remain the Same

Write for free sample labels and label prices.

August Lotz Company

Boyd, Wisconsin

LADIES AUXILIARY MEETING

HARTFORD, NOV. 4
Municipal Bldg.

9:30-10:15 a. m. Set up honey cookie exhibits.

10:30 a. m. Leave for West Bend. Meet at West Bend Aluminum Company's Demonstration Kitchen.

11:00 a. m. Cooking demonstration by Helena Muehlmeier, Home Demonstration Agent of Washington County

11:30 a. m. Talk by Mrs. M. Jenson, American Honey Institute.

12:00 M. Luncheon at West Bend.

1:30 p. m. Trip through West Bend Aluminum Co. Factory.

2:00 p. m. Principles of coffee making.. Is Aluminum harmful? By Janet Schneider, Home Service Department, West Bend Aluminum Company.

3:30 p. m. Return to Hartford.

6:30 p. m. Annual banquet beekeepers and Auxiliary.

ICE BOX COOKIE CONTEST

In Connection With the Annual Convention Woman's Auxiliary of the Wisconsin Beekeepers Association

Rules

12 ice box cookies. Any type. Not less than 50% honey. No frosting. Recipe must accompany exhibit. Cookies must be wrapped in cellophane.

Entries will be made Thursday forenoon, November 4, and must be ready for judging by 10:30 A. M.

Awards

1st prize, $2; 2nd, $1.50; 3rd, $1.00.

Above prizes by the Ladies Auxiliary.

25c will be awarded each entry made, not receiving one of the above prizes by the Wisconsin Beekeepers Association. The cookies are thereby to become the property of the State Association and will be served at the annual banquet.

THE HONEY CROP

THE U. S. Crop Reporting Service in their September 1st bulletin state: "Except in occasional areas such as Minnesota, part of the Red River Valley, northern Iowa, northern Nebraska and the San Luis Valley in Colorado and Oregon and Washington west of the Cascades, the main flow has been disappointingly small. The total crop will be one of the smallest in years. Many commercial beekeepers are making inquiries to assure them sufficient honey to take care of their anticipated orders during the coming season.

Comb honey is scarce everywhere. The total output of comb honey is unquestionably the lightest since honey became an important factor in American agriculture. In spite of the short crop in extracted honey, the market so far has not strengthened depreciably over last year. Because of the short crop, however, many beekeepers are planning to hold their honey in the hope of higher prices."

Mr. H. O. Rodeske, president of the Buffalo County Beekeepers Association, of Fountain City, writes that his bees will average between 75 and 100 pounds of honey per colony this year. This of course is very good considering the average over the state.

LABELS, PAILS AND GLASSWARE FROM THE ASSOCIATION

DON'T forget that the Wisconsin Beekeepers Association is handling honey labels, honey pails and glassware.

If you do not have a price list, write to Mr. Walter Diehnelt, Honey Acres, Menomonee Falls, for one.

Send all orders for supplies to Honey Acres.

Remember that the profit from the sale of these items will go to the State Association treasury and be used in providing programs for meetings and conventions.

HONEY FOR SALE

Comb and extracted honey; any kind, any quantity. Fulfill the requirements of your local trade during an off year. Write for prices. C. W. Aeppler Company, Oconomowoc, Wisconsin.

HONEY FOR SALE

White honey for sale. Francis H. Beauregard, Route 4, Ashland, Wisconsin.

FROM MARATHON COUNTY

MR. Joseph Garre of Aniwa writes as follows: "With the exception of a few spots in Marathon County where a normal crop was secured, the honey crop is short and ranges from almost nothing to about 50 pounds average. We will have about 75 pounds surplus per colony. While inspecting during August and early September I found colonies strong in bees with plenty of brood, but short of winter stores. Feeding will be necessary. Prospects for next year satisfactory as most of the new seedlings survived the drought. White clover stands in the pastures are fair. Fall rains are needed badly to insure good wintering of honey plants.

"We winter our colonies in a specially constructed bee cellar."

Stork and Sink

Teacher: "Can you tell me the difference between a stoic and a cynic?"

Abie: "A stoic is a boid that brings the babies and a cynic is the place where you wash the dishes."

Be sure to vote. See ballot on page 37.

News From Beekeepers

(Continued from page 33)

"The condition of bees is good in strength and stores. Prospects for next year are good if we get rain this fall and next spring.

"I winter all my bees in the cellar."

FROM ASHLAND COUNTY

WE haven't heard from the far north for some time and so were glad to get a card from Claude Moll of Ashland, who in the past has obtained some excellent crops of honey on the red clay soils of Ashland County. He writes that the crop is about 50% of normal this year, with a poor fall flow due to the drought. Colonies are in fair condition but will need some feeding. There is lots of moisture in the soil now, but not much clover left due to the drought during the summer.

Mr. Moll packs his bees out in winter cases outdoors using leaves for packing.

OCTOBER IN THE BEE YARD

BY this time all good beekeepers have made the fall checkup to see that every colony has a good laying queen to go into the winter. If this was not done, it is rather late to do it now, but some idea can be obtained as to whether or not a colony has a queen by watching to see if it still has drones. If you find drones about the entrance on a warm day it's a pretty good sign that something is wrong. There will be warm days during October when such a colony can be examined. If there is a queen present she may be a drone layer or infertile. It's a waste of money to overwinter such a colony. If the colony is very strong, a queen may still be introduced, but weak colonies should be united with a queen-right colony.

Honey In Center of Hive Body

Beekeepers who winter outdoors often have a colony or two each spring, perhaps the largest and best one, starve to death during a prolonged winter cold spell because they cannot break cluster, and because they have eaten all the honey above the cluster. Such a colony may have several frames of honey on the sides of the hive.

It's a good thing on warm days in October to place several well filled frames of honey in the center of the brood nest so that this cannot happen. Those who feed sugar syrup of course find that this is usually stored in the brood nest.

Heavy Winter Losses Expected

Inspectors and others who know the conditions of bees in southern Wisconsin predict heavy winter losses this year due to starvation, especially among beekeepers who do not examine their bees and know what is in the brood chambers. If there were supers above the brood chamber and these were taken off and extracted there is probably very little if any honey left in the colony for winter.

Feeding

Considerable feeding will be done this year. In preparing sugar syrup the recommendations are to use two parts of sugar to one part of water. This heavy solution must be brought to a boil before feeding in order that the syrup may not crystallize.

CONTAINERS

Write us for prices on friction top pails—60 pound cans and glass jars.

Comb and extracted honey wanted. Send samples and quote price delivered Milwaukee.

WALTER GEIGER

325 W. Vine St. Milwaukee, Wis.

SWEET CLOVER

By F. V. Burcalow

Question: Can sweet clover be sown in waste places in the fall and produce a satisfactory growth?

Answer: In waste places where there is not too much competition from grass or weeds, unhulled seed can be sown during November or before the ground freezes very hard. This is probably much less of a gamble than fall seedlings with scarified seed. When unhulled seed is used, it will not germinate in the fall but will be scarified by frost and ready to make an early growth the following spring. Seed sown this way will not produce flowering plants the first year but will be ready for very good growth the second year.

Sweet clover can be sown during the month of August and if a favorable fall follows with sufficient moisture, enough growth will be made so that it will live through the winter and produce a satisfactory crop the following year. However, under our conditions, fall seedlings over a period of years have not proved too successful.

Question: Must sweet clover seed sown in waste places be scarified and inoculated?

Answer: Experiments have shown that better results are obtained by using unscarified seed for November seedings. In all cases, however, inoculation should be practiced and the seed sown on ground well supplied with lime. (To be continued)

AN OVERSIGHT

OUR attention has been called to an oversight in giving credit to those who helped with the appropriation for the eradication of foul brood from Wisconsin. Credit should be given to Senator C. E. Dempsey of Hartland for his efforts in getting the bill out of committee. Senators Douglass and Dempsey deserve special recognition for the work they did for this bill.

booster for Door County fruits, and is secretary of the Door County Fair. He is also well versed in horticulture and well acquainted with fruit growers throughout the orchard sections.

Mr. Clare Fancher is associated with his father in the operation of the Fancher Nurseries at Sturtevant, just west of Racine. The Fancher Nurseries are well known as among the largest and most successful in the state.

Mr. Charles Patterson of Franksville is a farmer and fruit grower and is president of the Racine County Fruit Growers Association which office he has held for a number of years. He takes an active interest in fruit growing problems and cooperates with the College of Agriculture in conducting tests on codling moth control, etc.

Mr. Carroll Krippner of Fort Atkinson is a farmer and fruit grower located between Cambridge and Fort Atkinson. He has been secretary-treasurer of the Jefferson County Fruit Growers Association for a number of years. He operates a very successful roadside stand at which he sells the high quality fruit he produces in his orchard.

Mr. E. L. White of Fort Atkinson is an all-around horticulturist. He has been secretary of the local spray ring association, secretary-treasurer of the Fort Atkinson Garden Club, was first vice-president of the Wisconsin Garden Club Federation, and has sold nursery stock for the Coe, Converse and Edwards Nursery Company.

How Votes Will Be Counted

The ballots will be checked for membership by Mrs. A. E. Steinmetz, the Society's stenographer, and counted by the nominating committee. The name of the member on each ballot will be kept secret by the committee.

Eat Wisconsin apples. They have quality and flavor. You will like them.

Official Ballot

FOR THE ELECTION OF OFFICERS

of the

WISCONSIN STATE HORTICULTURAL SOCIETY

For President

KARL S. REYNOLDS, Sturgeon Bay ☐

_____ ☐

For Vice-President

R. L. MARKEN, Kenosha ☐

_____ ☐

For Director to Succeed S. S. Telfer, Ellison Bay

MURRY BINGHAM, Sturgeon Bay ☐

JOHN MILES, Sturgeon Bay ☐

_____ ☐

For Director to Succeed R. L. Marken, Resigned

CLARE FANCHER, Sturtevant ☐

CHARLES PATTERSON, R. 1, Franksville ☐

_____ ☐

For Director to Succeed Wm. Leonard, Fort Atkinson

CARROLL KRIPPNER, Fort Atkinson ☐

E. L. WHITE, Fort Atkinson ☐

_____ ☐

Instructions: Mark an X after the name of the person for whom you vote, for each office. You may fill in the name of a new candidate on the blank line if you desire. Cut out the ballot and mail to Mrs. A. E. Steinmetz, Wisconsin Horticultural Society, 1532 University Avenue, Madison, Wisconsin.

ALL BALLOTS MUST BE MAILED ON OR BEFORE OCTOBER 20th, SO ANNOUNCEMENTS CAN BE MADE OF THE ELECTION IN THE NOVEMBER ISSUE OF THE MAGAZINE.

Notice: You must sign your name, as only members can vote. Your name on the ballot will be kept secret by the nominating committee.

Sign Name _____

About the Home and Garden

Mrs. C. E. Strong, West Allis

MY FLOWER BORDER

SEPTEMBER and October are the months when we should go over the borders with the notes made during the spring and summer, taking out a plant or shrub here, or filling in somewhere else.

The notes on my north border were quite satisfactory. In this border the background is Persian and French Lilacs, Mock Orange, Conrad F. Meyer and Silver Moon Roses. There is also a white picket fence. In this border which faces south of course —are Tulips in shades of pink, yellow and lavender; Narcissi, and Scillias, pink and white Peonies, white and pink shades of Iris with several real blue clumps. There are Delphinium, Clematis Recta, Elder Daisies, a goodly number of Astilbe in shades of pink to rose and white, a good sized plant of Vitex Macrophylla, Phlox in pink and white, White Physostegia and a small Red Bud or Judas tree.

The spring edging is hardy Candytuft, very hardy and evergreen. The summer edging has been pale blue Petunias while about four pots of Heavenly Blue Morning Glories have covered the fence with bloom. A few giant pink and rose Zinnia plants, a few more of the tiny rosebud variety, and two small groups of dwarf rose snapdragon, have covered the spots where the bulb groups were. There has been constant bloom during spring and summer and will be until frost.

This border needs some tall white and blue Tulips. I like the double Blue Celeste. For later white spikes shall add Hyacinthus candicans. It also needs a bit more yellow which can be furnished with Hemerocallis.

Moving Time

A climbing Rose Philadelphia Rambler is entirely too near the gate and needs to be moved to the south fence along with some other vivid red roses. I like more restful colors as I enter or leave the garden. Why did I plant them there then? Well—you see I moved the gate—and so the roses must be moved.

Some clumps of Phlox must be dug up and divided, the ground well enriched, for several years growth has taken most of the nourishment out of the soil. Several groups of Delphinium clumps are to be planted; some very fine Peony clumps are to be carefully moved from where a Waneta Plum tree is reaching out with greedy roots. I cannot move the Plum tree, so it must be the Peonies. By working carefully I am quite sure the Peonies will scarcely know — insofar as the bloom is concerned next spring, that they were disturbed. After that I am sure they will just simply revel because of ample space for their roots.

Lilies

Am beginning to be quite enthusiastic about the new Lily bed. So far have had some Regals, Tigers, Elegans, Tenuifoliums, Concolor, Williamettia, Henryi, Speciosum, Formosanum, and Speciosums in bloom. The Auratums and Martagons decided they were not ready to come up, the bulbs are sound and are making good root growth. (I dug down to see what had happened).

A number of years ago I tried potting lily bulbs that were at all doubtful. Had very good luck so long as they were kept in the pots—when I planted them carefully in a lily bed with good drainage, they disappeared. Am trying this same method again. Miss Fox, who wrote Garden Cinderellas, approves of this treatment. She also favors the growing from seed of as many varieties as possible, she thinks we are apt to get stronger, healthier bulbs.

Dolga Crab

Every visitor to the garden in late summer has been enthusiastic over the beauty of the Dolga Crab tree. It has been loaded with its striking red fruit. Judging by the many times this question has been asked, "Where can I get a tree like that?" there should be a good many sold next spring.

If you want something very fine in the way of double Tulips try those new Double Triumphs. Like the singles they are very worth while.

In a damp spot near the foot

of the rock garden the Trollius were unusually fine this year. They bloomed at least three times during the summer. They like the moist situations. Those in the drier spots winter killed.

A very important note in my ga.den book. "Be sure and have the ground well prepared this fall where you intend to plant those dozens of Violas, Aquilegias, and other seedling plants growing so nicely in the cold frame." With the ground prepared they can be planted out quite early and get a good start.

The early Chrysanthemums are beginning to bloom. (Tenth of September.) Soon they will be the outstanding display of the garden.

IF we have not planned for the window garden, we should begin immediately. All too soon Jack Frost will spoil the out-door gardens and we want to be able to turn to the plants indoors. Most of us have a few standby plants, such as ferns. Perhaps an ivy or two for brackets—also that popular blooming plant — the African Violet.

If you have foliage plants — have you ever tried the dwarf fancy leaved Caladiums? If your rooms are quite warm during the winter, these plants will do very well. They need plenty of moisture and light, but not direct sunlight. Direct sunlight is apt to spot the leaves. You can get the plants from your florist. These small Caladiums have a bulb just as do the larger varieties seen growing in the decorative beds in the parks.

Leucocoryne, (Glory of the Sun). Did you see it at the flower show last spring? Sprays of light blue flowers with white centers with a most delightful fragrance. Best of all, long lasting —even when cut they will last for weeks.

Holton & Hunkel Company Celebrate Fortieth Anniversay

Mr. Herman Hunkel admiring anniversary gifts sent by friends.

ON September 1st the Holton and Hunkel Company celebrated the 40th anniversary of the establishment of the company as growers and wholesalers of cut flowers and plants, at their establishment at Brown Deer.

In honor of the event the company entertained the members of the Milwaukee Florists Club and florists and nurserymen from various parts of Wisconsin and Illinois. The afternoon was spent in inspection of the greenhouses, and the plant of the company, which is the largest in the country. Following the business meeting of the Milwaukee Florists Club, refreshments were served and entertainment followed.

Mr. Hunkel was presented with several gifts.

On September 1, 1897, Frederick Holton started with Herman Hunkel in the purchase of the business of the Wisconsin Flower Exchange from Charles E. Whitnall and leased the greenhouses of that firm at North Humboldt Avenue which were operated until 1911 when the Holton and Hunkel Company constructed their own greenhouses at Brown Deer. Later, Adam Zender, a grower from Chicago, joined the Company.

During the forty years the Holton and Hunkel Company store and offices have occupied a location in the same block on North Milwaukee Street.

The plant at Brown Deer today comprises 100 houses of various sizes and is equipped with the most modern heating and power system obtainable. Fourteen of the houses are for growing roses, the rest being devoted to growing pot plants, orchids, gardenias, lilies, etc. In addition there is a nursery of 40 acres, and a farm of 232 acres.

In September, 1926, the interest of the Company was purchased by Herman Hunkel and the officers now consist of Herman Hunkel, president; E. C. Hunkel, vice-president and treasurer; O. A. Nimmer, secretary; Frank Berndt, superintendent, and Wilfred Schultz, assistant superintendent.

Worked Over

"I'm a self-made man."

"You're lucky. I'm the revised work of a wife and three daughters."

Surgery Drainage Bracing and Cabling Large Tree Moving Feeding Spraying Transplanting Free Consultation Pruning

JOHN J. CONERY
TREE EXPERTS

RENDERING—A Complete Year-Round Service in Tree Care, by a Highly Trained, Efficient Body of Expert Tree Surgeons

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Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

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Our Most Popular Gladiolus

Symposium by Members

EARLY in September we sent a card to each member of the Wisconsin Gladiolus Society asking for the favorite varieties in each of the important color classes. The result was very good. We have received a large number of replies, and we will begin this month to tabulate the results, which will be continued in our next issue.

The Reds

In the reds, **Commander Koehl** was the outstanding favorite, receiving more votes than all the other varieties put together.

In second place were **Bill Sowden** and **Tip Top**, each receiving five votes.

Scattered votes were given Pfitzer's Triumph, Flaming Meteor, Aflame, Wurtembergia, Dream O'Beauty, Regent, Resolution, James Fitzjames, Red Phipps.

Cream or Buff

The vote on the cream or buff varieties was not so decided as in the reds. **Duna** was the winner, but **Wasaga** was a close second with **Paradise, Hercules** and **Shirley Temple** in third place. It would seem that Shirley Temple would receive more votes when it has become better known. Other varieties which received scattered votes were Magna Blanca, Lotus, Debonair, Valesta, Coral Glow and Fern Kyle.

Salmon Pink

There isn't much choice in the Salmon Pinks because **Picardy** easily carried off the honors in this color class. However, **Margaret Fulton** received three votes, and **Rapture** and **New Era** two each. Then the following varieties received one vote: Phyllis McQuiston, Debonair, Oregon, Mrs. E. J. Heaton, Mildred Louise and Lavinia.

Pure Pink

In the pure pinks, **Debonair** was the winner with a good margin, though **Phyllis McQuestin** received seven votes and is in second place. **Heritage** with five votes is in third place.

F. J. McCoy received four votes and scattered votes were given the following varieties: Ken, Mrs. P. W. Sisson, Sonatine, Mr. Frederick Christ, New Era, Coryphee, Lady Winsome, Pearl of California, Mrs. H. M. Whitcomb and Mr. W. H. Phipps.

Yellows

In the yellows, **Golden Chimes** was an easy winner, with **Golden Cup** and **Golden Goddess** in second place with six votes each. Golden Dream received five votes with Ruffled Beauty and Canberra three each. Scattered votes were given to the following varieties: Golden Poppy, Desert Gold, Spray of Gold, Gold Stuabe, Yellow Wonder, Hope Sheriff, Gate of Heaven, Jonquil, Prairie Gold and Yellow Emperor.

The Lavenders

As might be expected, **Minuet** was an easy winner in the lavender class, though **King Arthur** received a few votes and **Lavender Delight** and **Jubilee** one each. It looks as if it will be a long time before Minuet will be superseded in our affections.

The Purples

Chas. Dickens was an easy winner in the purple class, though **Paul Pfitzer** received seven votes. Takina received three votes, and Pirate two. Scattered votes were given the following varieties: Royal Prince, Pelegrina, Troubadour, Sultan, Improved Henry Ford and Rameses.

The Violets

There is still room for an outstanding variety in the violet class but **Pelegrina** was the winner. **Blue Admiral, Blue Danube,** and **Milford** each received a good number of votes. Aida and Ave Maria were next, and scattered votes were given Veilchenblau, Chas. Dickens, Violet, Constancy, Blue Triumphator, Allegro, Viola, Gem, Kalamazoo and Max Reger.

The Whites

As we expected, **Maid of Orleans** was an easy winner in the white class, and it will probably be some time before a better white is found. **Star of Bethlehem** received fourteen votes, however, showing its popularity. Scattered votes were also given the following: Mammoth White, Helen Wills, Solveig, Albatross, and Mary Elizabeth.

The Best Variety of Any Color

Picardy was an easy winner as the best variety of any color, receiving twenty-two votes as compared to five for **Bagdad** in sec-

ond place. **Mother Machree** received three votes in third place, and **Marmora** and **Heritage** two. Single votes were given the following varieties: Gloriana, Shirley Temple, New Era, Lucifer, Chief Multomah, Tairoia, Duna and Flaming Meteor.

Best Seedling in 1937

The honor for the best seedling in 1937 goes to Mr. Edwin Ristow of Oshkosh on his No. 3644 which received nine votes as the best seedling seen this year.

Mr. Krueger's orange No. 70 received several votes, while scattered votes were given to Valley Queen, Aladdin, Troyers B650 to be called September Morn, a salmon pink, No. 25 and Hope Sheriff.

THE GLADIOLUS BULB HARVEST

By Noel Thompson

AS the gladiolus season draws definitely to a close, we must consider the best method of handling the corms during the winter. They must not be allowed to freeze, though no harm will result if a light freeze occurs before they are dug. Many growers, however, prefer to dig their corms as the cool weather starts, as this gives cleaner, brighter looking corms than if they are left until later. Whenever they are dug the tops should be cut off about an inch from the base and the corms spread out in shallow trays for several days before being placed in close storage. In mild weather they may be left out-of-doors but if there is danger of freezing they should be taken in. They will dry quite as well in a dry cellar as in the open, provided they are spread out.

After the first drying, the trays, with the corms not over four inches deep, may be stacked together if separated by about one inch slats. This will allow all the ventilation needed for the final curing. The storage space should be relatively dry and a temperature well above freezing maintained. Small lots of corms may be placed in paper sacks rather than trays but the sacks are best left open until the corms are well dried and cleaned.

When the corms are sufficiently dried so that the old corm and roots snap off readily they should be cleaned and may then be packed away for the winter. In cleaning the old corm and roots are snapped off and usually the outermost husk is removed. Any badly diseased corms should be discarded at this time and all refuse should be burned to aid in the elimination of thrips.

Use Naphthalene for Thrips

After cleaning they should be treated with naphthalene flakes for thrips even though you may not think any thrips are present. A teaspoonful of the flakes in a paper sack of corms and the top well folded over is sufficient. If the corms are stored in flats, use one ounce of the flakes scattered over the surface for each 100 corms. Then pile the flats closely and cover with paper or heavy canvas for a month or more. Above all, see that every last corm is either treated or burned.

KILLING THRIPS BY HEAT

MR. Wm. Lange of Green Bay, a large grower, writes that he controls gladiolus thrips by the heat method. In the fall after cleaning the bulbs he puts them in large trays and stacks them up in a small room. He then heats the room with a coal fire to a temperature of 110 degrees F. for four days and nights. Then he drops the temperature to 40 degrees. In this way the thrips are all destroyed and he has no trouble from them in the summer.

The important thing is to use some method of winter control. Then if the neighbors have done likewise there should be very little if any thrip injury next year.

WINTER COVERS FOR LAWNS UNNECESSARY

THERE is no need for applying covers of manure, leaf mold, humus, and similar materials to the lawn in fall or winter, as a protection against severe freezing weather.

This statement is made by Howard B. Sprague, agronomist of the New Jersey Agricultural Experiment Station. Mr. Sprague goes on to say:

"Healthy lawns will experience no winter injury even though left fully exposed. The application of mulches may actually injure the grass by giving protection to harmful insects, or as a result of the exclusion of air from the sod. Furthermore, winter covers applied at this time of the year are not only frequently unsightly, but certain of the materials contain considerable amounts of weed seed."

A most effective treatment for the prevention of winter injury to turf is the timely application of commercial fertilizer. In general, lawns should receive ten to twenty pounds per 1,000 square feet of a complete fertilizer analyzing approximately 5 per cent nitrogen, 10 per cent phosphoric acid, and 5 per cent potash (or an equivalent amount of plant food) in early autumn.

From HORTICULTURE.

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Use Proven Safe Insecticides
for
Controlling Garden and Crop Pests
Derris—Rotonone Products
Agicide Laboratories
108 N. Water St., Milwaukee, Wis.

Garden Notes

By the Editor

COTONEASTER soongarica was again the most striking shrub in the garden beginning in mid-September. It was so heavily loaded with bright red berries that it looked like a rope of beads. In fact, the berries bent the branches down like a canopy over a stone seat beneath this tall growing shrub. It is a rather large shrub growing ten to twelve feet in height and seems to be very hardy.

The **dwarf hybrid Asters** were the showiest flowers in the garden during September and until frost this year. These dwarf plants growing only from nine to twelve inches high, have now become definitely established along the border and form a very compact and almost solid mass of flowers in lavender, white and pink.

Lilium philippinense formosanum, of the late blooming variety, made a wonderful appearance in the horticultural gardens of the College. Prof. G. Wm. Longenecker stated that he likes the late blooming variety even better than the early because it blooms at a time when there aren't any other lilies in the garden. It blooms beginning about the middle of September, with unusually large, pure white flowers. It seems to be hardy and should be more widely tested.

The **Dolga crab** still has first place in our affections as a medium size, ornamental and useful tree. Its brilliant red apples made a beautiful showing in late August and early September, and when they were ripe were used to make a very excellent jelly.

Our **Tuberous rooted begonias** continue to surprise visitors. There hasn't been a day from the first part of June until frost this fall that the begonias have not been in bloom and we have had some large, gorgeous double flowers in reds, pinks, cream and white. For the shady garden corner and on the north side of a house, they are ideal.

The three rows of **hary chrysanthemums** in the horticultural gardens of the College again made a wonderful showing of bloom during late August and September. They seem to be quite hardy where they are growing, although the writer lost them last winter due to the ice sheet.

Helenium or Helen's Flower is one of the most attractive of the fall perennials. The bronze Riverton Gem and Riverton's Beauty, a lemon yellow, are especially good.

Storing Flower Bulbs and Roots

Bulbs and roots of the type of dahlia and tuberous rooted begonias, should be packed in large quantities of peat moss, dry sawdust or sand to prevent shriveling and drying out over winter. The ideal root cellar for storing such bulbs unprotected is rare and the temperatures in the average basement are too high and the air too dry for successful storage without protection. At least a foot or more of packing material surrounding the bulbs on all sides, is desirable. Even then it is well to allow some dirt to adhere to the roots or bulbs in digging.

An exception to this rule is probably for gladiolus bulbs. They withstand considerable drying. All bulbs should of course be stored in as low temperature as possible. Around 40 degrees seems to be good, though tuberous rooted begania bulbs may be stored in a higher temperature, up to 50 or 55 degrees, but then must be especially well protected from drying out.

MONKSHOOD — A HARDY PERENNIAL

A HARDY perennial doing well even where delphiniums cannot be successfully grown, is the Aconitum or Monkshood, sometimes called Wolfbane and Helmet flower.

Monkshood prefers a semi-shaded location and will grow in any good garden soil. Once established it should not be moved and will bloom for years. It is therefore a valuable plant for the flower border where trees or shrubs give shade during portions of the day.

There are a number of varieties of Monkshood. Fischeri having rich blue spikes blooming in September. There are also white and yellow varieties, but the blue is the most common.

ORANGE SNEEZEWEED AS AN URN PLANT

HELENIUM hoopesi, the orange sneezeweed, is deservedly popular as a hardy border ornament and as a cutting subject. It seems not so well known, however, that the plant readily adapts itself to pot culture. Its long blooming season, from May until August, and the pleasing bright orange-yellow flowers make an ideal combination for porch and lawn decoration. The possibilities for artistic uses when it is planted in urns which can be moved from place to place on the lawn are limitless. And as the plant does very well in shady situations, it may be used on porches where the sun reaches only a part of the day. It should be remembered, though, that a rich soil and much shade is apt to induce growth as high as three feet, while a growing medium of average fertility and full sun usually gives a plant not more than half that figure.— From Horticulture.

Be sure to vote. See ballot on page 37.

Tulip Types

THE earliest flowering tulips are the **Single Early.** They are April flowering. Because of their brilliant colors and early blooming, they are very popular. One great advantage of the Single Early tulips is that they mature quickly after flowering, so that the bed can be planted with annuals and a good second display of flowers secured before summer is too far advanced. The Single Early tulips follow the daffodils, and precede the Darwin tulips, in the garden scheme of bloom.

The **Double Early** tulips are just a little later blooming than the Single Early. It is most essential that the bulbs have ample nourishment for development of the best double blooms.

The **Cottage** tulips, the Darwin tulips, and the **Breeder** tulips, which three classes comprise by far the bulk of all tulips planted, are all May-flowering strains.

The Cottage tulips differ from the Darwins chiefly in the shape of the flower, which is more graceful and lily-like. This class of tulips offers some especially good yellows, among the most outstanding being Mrs. Moon (fragrant) and Moonlight. The Cottage tulips were so named because they were found growing in the old cottage gardens of England, Scotland, Ireland, and France. They are prized for cutting.

The Darwin tulips are perhaps the most popular of the May-flowering tulips. The flowers are mostly bowl-shaped, somewhat flaring at the top, with leathery petals of good substance and long-lasting qualities. There is a wide color-range, although the white and yellows are not plentiful.

The Breeder tulips are a race of tall tulips. They are usually of subdued color and include many shades unusual in flowers, such as browns, bronzes, purples, blue-blacks, deep mauves, dull gold, and dark lilac, all exquisitely blended.

New and improved Darwins have been developed by hybridizers, and this race has been called the Ideal Darwins. They are distinctly a new type which combine all the best features of the old Darwins, plus larger and more substantial flowers, with longer lasting qualities; but their greatest value lies in the many new and beautiful colors and tones. Among them are especially fine whites.—By the Master Gardener.

HARDY VESPER IRIS

THERE is considerable interest in Vesper Iris-Iris Dichotoma. The Fruit Testing Committee visiting with Prof. N. E. Hansen at the Brookings, South Dakota, Experiment Station, inspected a large planting of Vesper Iris which Prof. Hansen had obtained from Shilka, on the North Fork of the Siberian Railroad where the winter temperatures drop to 67 below zero. These Vesper Iris were found on stony hillsides and are called Shilka Iris.

This strain of Vesper Iris therefore should be hardy anywhere in Wisconsin. It is especially interesting because of its habit of blooming every afternoon at about 4 o'clock. The flowers are very attractive, mostly lavender in color. A new crop is produced every day for a period of about two weeks or more, one good plant producing from four to fifteen blooms daily.

Mixed Narcissi, $2 per 100. Tenuifolium lilies, $3.50 per 100. The Far North Gardens, Iron River, Wisconsin.

VARIETIES FOR LOW HEDGES

By E. L. Kammerer, Morton Arboretum

GOOD low hedges are always in demand, and the selection among them is not as limited as one might expect. Perhaps the greatest number of possibilities lie among the versatile Wintercreepers, Evonymus in variety, so named because of the semi-evergreen character of their foliage. There is the type species, Evonymus radicans, with thick foliage of dark green, which, in spite of its creeping habit, may be easily trained into a low hedge of neat outline. Its variegated variety, the Silveredge Wintercreeper, E. radicans variegata, denser and of more upright habit, is also good. Still better is E. radicans colorata, an introduction of E. H. Wilson, noted for its larger, thinner leaves, bright green in summer, but changing in autumn to purplish red.

Unequalled for a low hedge of less than one foot in height is salix purpurea nana, a dwarf, fine-textured form of the Purple Osier (Willow), characterized by slender purplish branches and small leaves of soft gray green. Its compactness of form and density of habit are noteworthy.

There is a barberry of recent introduction well worthy of a place among the better low edgings. I refer to the Truehedge Columnberry, Berberis Thunbergii pluriflora erecta, a discovery of M. H. Horvath of Mentor, Ohio. Being perfectly pyramidal in shape "Immediate effect" hedges become a reality with its use. In growth it is close and compact and its early leafing, box-like foliage is larger, thicker and glossier than that of the parent plant. We have found that it may be clipped as low as 10 inches with perfect success, although it is normally taller.

From September, 1937, Morton Arboretum Bulletin.

STATE GARDEN CLUB FEDERATION NEWS

Mrs. Chester Thomas, President
Route 2, Thiensville
Mrs. E. R. Durgin, Hon. President
1815 Park Ave., Racine

H. J. Rahmlow, Cor. Secretary
Madison
Mrs. E. A. St. Clair, Rec. Secretary
2418 N. 65th St., Wauwatosa

Mrs. J. M. Johnson, 1st V. President
Ripon
Mrs. Robert Alder, 2nd V. President
Elkhorn

GARDEN CLUBS PROMOTE CIVIC PROJECTS

A NUMBER of Wisconsin garden clubs are devoting considerable time to educational work in their communities. The Racine Garden Club will help with a flower arrangement program in the public schools and in the vocational school. The La Belle Club, Oconomowoc, has offered leadership to the Y. M. C. A. Night School on a course in "Building The Home Landscape," and will put on the November P. T. A. Christmas Lighting program.

The Fond du Lac Community Garden Club created a garden spot at the entrance to Lakeside Park, where a perennial garden project was carried out.

This is excellent work. May it continue to grow.

SEED TIME AND HARVEST

ONE of the problems of Junior Gardening is sufficient seed for all. We know that Nature provides enough and to spare for all it is wanting for the harvest. Will you, gardeners of the State, gather your surplus flower seeds for the children of your community?

The seed may be distributed through the schools, or through your garden club groups. This is a most worth while service and I am asking you to help every child in Wisconsin to make a garden in 1938. Thank you.—Mary Lowerre, Chm. Junior Garden Club Section.

Be sure to vote. See ballot on page 37.

ATTENTION GARDEN CLUB MEMBERS

ON page 37 of this issue of Wisconsin Horticulture you will find the official ballot for the election of officers of the Wisconsin State Horticultural Society.

All garden club members affiliated with the Wisconsin Garden Club Federation are also members of the Wisconsin Horticultural Society and entitled to vote.

This is the first time members not attending the annual convention have been given an opportunity to vote.

You will notice the blank line following the candidates selected by the nominating committee for each office. You may write in and vote for a member of your own choosing if you desire.

At any rate, won't you send in your ballot. We are trying this mail voting for the first time and we would like to see it succeed. There are over 4,000 members in the Wisconsin Horticultural Society, and we hope for a large vote.

Tops Wedding

Tom: "Was it a big wedding?"

Tim: "Yes. I got in line twice to kiss the bride and nobody noticed it."

REPORT OF THE NOMINATING COMMITTEE

MRS. A. Taylor, Wauwatosa, has sent us the report of the nominating committee, nominating officers for election at the annual business meeting of the Wisconsin Garden Club Federation to be held at Oshkosh, Thursday, October 14th.

The following is the ballot as presented by the committee. Additional nominations from the floor will be asked for by the chair.

For President

Mrs. J. Martin Johnson, Ripon.

For First Vice-President

Mrs. Clarence James, Fox Point.

Mrs. E. A. St. Clair, Wauwatosa.

For Second Vice-President

Mrs. R. C. Schissler, West Allis.

Mrs. Charles Schuele, Oconomowoc.

For Recording Secretary-Treasurer

Mrs. Sam Post, Madison.

OUR CONVENTION PROGRAM

"A MOST interesting convention program" was the verdict of everyone who read the program for the tenth annual convention of the Federation as shown on the next page.

A large attendance is expected. The Superior Garden Club is sending two delegates.

The Oshkosh Horticultural Society and the Oshkosh Garden Club are making every effort to insure a pleasant and profitable time for all who come.

Wisconsin Garden Club Federation

10th Annual Convention
Athearn Hotel, Oshkosh
October 14-15, 1937

BOARD OF MANAGERS MEETING

Mrs. J. M. Johnson, First Vice Pres., Presiding

The Board of Managers of the Federation will meet at 9:30 a. m. to 11:30 a. m. in the Athearn Hotel. Join main group at 11:30 a. m.

The Board acts on all matters of business and makes recommendations on all important matters to come before the convention.

MAIN PROGRAM
Thursday, October 14

Mrs. Chester Thomas, Pres., Presiding

9:30 a. m. Two minute reports by garden club delegates on worth while accomplishments of their club during the past year. Present only topics of value to other garden clubs.

Reports of standing committee chairmen. Five minutes each.

Five minute reports by district chairmen on accomplishments in districts.

11:40 a. m. Our first line of defense. Mrs. Frank Quimby, Racine.

12:00 M. Noon luncheon. President's luncheon for all garden club presidents. Special program directed by Mrs. Chester Thomas, State President.

Garden Experiences, by Mrs. E. E. Browne, Waupaca.

12:00 M. Luncheon with program at Stein's for all other members. Auspices Oshkosh Horticultural Society and Oshkosh Garden Club.

AFTERNOON PROGRAM

1:30 p. m. Tree flowers by Prof. W. E. Rogers, Lawrence College. Beautifully illustrated with colored slides. An exceptional piece of work.

2:30 p. m. Vision in the garden. Alfred C. Hottes, Des Moines, Iowa. Mr. Hottes has just returned from a visit to European gardens and will give us much of interest.

3:15 p. m. The landscape we live with. Kenneth Bangs, Landscape Architect, Oak Park, Illinois.

4:00 p. m. Annual business meeting. Election of officers Wisconsin Garden Club Federation. Report of program of the Wisconsin State Horticultural Society presented by the Secretary. (10 minutes).

THE BANQUET
Banquet Room, Athearn Hotel—7:00 p. m.

Music and entertainment by the Oshkosh Horticultural Society and the Oshkosh Garden Club. Price $1.00.

A word from past Federation officers. History of the Wisconsin Garden Club Federation by the Historian, Mrs. C. E. Strong, West Allis.

The stories behind our flowers. Alfred C. Hottes, Des Moines, Iowa.

Lecture with colored films by Mr. C. L. Harrington, State Conservation Commission. In charge of state parks. Films: Spring and fall wild flowers; Wisconsin parks in autumn colors.

New garden flowers in color. Colored movie of varieties and gardening methods. H. J. Rahmlow, Madison.

FLOWER SHOW CLINIC
Friday, October 15

9:00 a. m. The art of table arrangement. Slides from Better Homes and Gardens.

10:00 a. m. Demonstration of line and design in flower arrangement by Mary Cokely Wood, Ann Arbor, Michigan. Mrs. Wood is a nationally known lecturer on flower arrangement. Spent several years in Japan.

11:15 a. m. Principles versus rules in flower arrangement. Mrs. B. W. Wells, Madison.

11:30 a. m. Can we standardize judging? Mrs. Sam Post, Madison.

11:45 a. m. Discussion of awards made at the convention flower show. Mrs. D. W. Weart, Oconomowoc.

12:00 noon. Special luncheon, Athearn Hotel. Topic: Working with youth. Miss Mary Lowerre, Junior Chairman, presiding.

Nature projects. W. A. McNeel, Madison, Assistant State Leader 4-H Clubs.

New ideas in teaching Conservation. Mrs. Frank Quimby, Director Junior forests.

AFTERNOON PROGRAM

2:00 p. m. Landscape design for the home grounds. Kenneth Bangs, Chicago. Well known landscape architect.

3:00 p. m. The Geological history of this part of Wisconsin by Dr. Rufus Bagg, Geologist, Appleton.

3:45 p. m. Some gardens I have known. Colored slides on garden design. Prof. Franz Aust, Madison.

Notice: A registration fee of 25c per day will be charged to help pay the cost of the program.

THE CONVENTION FLOWER SHOW

THE flower show schedule for the annual convention of the Wisconsin Garden Club Federation was published on page 21 of the September issue of Wisconsin Horticulture.

An error was made, however, as to when the judging will be done. All exhibits must be ready for judging by 11 a. m. the first day of the convention, Thursday, October 14. They may therefore be put up by those who attend the convention.

In order that the committee in charge of exhibits may know how many tables to have ready, and how many shadow boxes to put up in advance, it is important that all entries be sent to Miss Bessie Pease, Stoney Beach, Oshkosh, by October 12th at the latest.

COMMITTEES APPOINTED BY OSHKOSH CLUB FOR ANNUAL CONVENTION

THE Oshkosh Horticultural Society was the first to send in a complete list of committees to aid in the staging of the annual convention of the Wisconsin Garden Club Federation. The following are the committees.

Host and Hostesses

Hostesses: Mrs. E. W. Mouck, Mrs. W. Davis, Mrs. Wm Nelson, Mrs. Wm. Blake, Mrs. N. A. Rasmussen. **Hosts:** E. W. Mouck and H. C. Christensen. **Housing:** Mrs. Wm. Ebel, Mrs. P. Harrman, Mrs. J. Kubasta.

Exhibits: Miss Bessie Pease, Chairman, Miss Anna Christensen, Miss Agnes Phillipson, Mrs. P. Koehn, Mrs. N. Hutchinson.

SAVE
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Pruning — Cavity Treatment
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Good Books To Read

WHEN active work in the garden comes to an end, the garden enthusiast turns to books in his favorite field. The following titles were recently purchased by the Traveling Library Department, State Office Building, Madison. They may be borrowed through your local library, or, if you have no library in your community, by writing to the Traveling Library direct. Jennie T. Schrage, Chief.

In General

Cummins—Flower garden primer.
Hill—Garden portraits.
Leighton—Four hedges; a gardener's chronicle.
McFarland—Roses of the world.
Matschat—Garden calendar.
Meade—Adam's profession and its conquest by Eve.
Ortloff & Raymore—Color and succession of bloom in the flower border.
Salisbury—The living garden.
Seymour—The garden encyclopedia.
Wister—Four seasons in your garden.
Wood—Bulbs for your garden.

On Flower Arrangement

Arms & Arms—Design in flower arrangement.
Biddle—How to arrange flowers.
Cary & Merrell—Arranging flowers throughout the year.
Hine—The arrangement of flowers.
Rockwell & Grayson—Flower arrangement.

Some Related Topics, Not Strictly Garden

Eaton—Wild gardens of New England.
Kains—Five acres.
Roberts & Lawrence—American ferns.
Shepardson — Furnishing the home grounds.
Van de Water—A home in the country.

WEEKEND GARDENING

WEEKEND Gardening by Sterling Patterson is an ideal non-technical and practical book for the amateur flower grower, which covers most problems met in creating and managing a small garden. There are twelve chapters, one for each month of the year. These are subdivided into four week-ends each. Under each week-end is discussed a subject which is of special interest to the gardener at that time of the year.

MacMillan Company, New York City, price $2.50.

DELPHINIUMS BY PHILLIPS

DELPHINIUMS by Phillips. In this first full-length authoritative book on delphiniums, is recorded the history and developments of the species, its cultivation, propagation and breeding. There are chapters on delphiniums in the garden and in the conservatory, on diseases that attack them, on how to exhibit them, and how they may be used to the greatest decorative advantage. MacMillan Company, New York City, price $2.50.

A NEW BOOK ON GOURDS

LIBERTY H. Bailey has written many interesting books on horticulture, so his new book entitled "Garden of Gourds," should be of value on this interesting subject. After 60 years of study and growing of gourds, Mr. Bailey has published the results of his interest in this curious family. In addition to their history and origin, he discusses some twenty species and their varieties. The pen and ink and colored illustrations are an important feature. Just off the press. Price $2.50. MacMillan Company, 60 Fifth Avenue, New York City.

FLOWER LORE

A CATALOG which is really a bulletin of information about flowers is "Flower Lore" published by Mr. W. A. Toole, Baraboo, Wisconsin.

Flower Lore was discontinued for a short time and we are glad to again see it in the mails. It describes many varieties of perennials and plants and will be of interest to all flower lovers. If you are interested in receiving it, write to W. A. Toole, Baraboo, Wisconsin.

THE ROADSIDE BULLETIN

AN excellent bulletin is published by the National Roadside Council, 119 E. 19th Street, New York City, entitled The Roadside Bulletin. It is filled with pictures and articles on how to improve the scenic beauty of our highways, and points out the evils of billboards, ugly filling stations plastered with signs, and the auto junk yard.

The bulletin is available at 10c per copy, or $1.00 per dozen. The June, 1937, issue is especially well illustrated.

THE STATE FAIR

THE attendance at the Wisconsin State Fair this year was 20 thousand more persons than last year, acording to Ralph Amman, State Fair manager. The total attendance we understand, was 602,436. This splendid attendance enabled the Fair management to make a profit which will be used in making improvements on the Fair grounds.

Planting the Small Garden

TOO many gardeners assume that because their yards are so small that they can do little to develop a garden effect. This is the wrong attitude to take, and although it may require more thought and care in developing a small area than one of greater extent, some of the most charming gardens are very small.

The Design

Certain suggestions may be of assistance in making plans. Generally the small area is dominated by the straight lines of the boundaries and the area is likely to be square or rectangular in shape. For this reason the design should be mainly one of straight lines and should be relatively simple. In order to conserve space, vines on the fence may form the enclosure and background for the flowers, with shrubs used across the end furthest from the housee and with a few good specimens near the building. Keeping the center in open lawn with borders of flowers will usually result in an effective plan. A few well placed architectural features may add the finishing touch needed.

One of the most frequent mistakes in planting the little garden is the failure to keep the planting in scale. Tall growing, coarse subjects are out of keeping with the character of the garden. The selection and proper arrangement of dwarf and medium sized plants will give the most effective results. Since the garden is to be viewed at close hand, plants with neat, compact habit are to be preferred. Many of the so-called rockery types should be selected for this reason.

Quite frequently shade is a problem in the little garden, but fortunately there are many dwarf perennials which prefer a certain amount of shade. Careful search will generally bring to light suitable plants for almost any situation.—By W. R. Ballard, Extension Horticulturist, Maryland.

MORE CRANBERRIES AVAILABLE THIS YEAR

WISCONSIN housewives will find a larger than usual supply of cranberries on the market this year.

The Wisconsin cranberry crop will be considerably above average this year, according to estimates by the Wisconsin and Federal Crop Reporting Service. There was some concern for the crop due to the lack of rain. The hot, dry weather of the past two months has reduced the water supply and increased the possibilities of frost damage. However, if preliminary estimates materialize, the state's production will be about 88,000 barrels, compared with 62,000 barrels harvested last year. This year's yield per acre is expected to be almost double the ten-year average.

THE GRAPE HYACINTHS

GRAPE hyacinths, or muscari, with their spikes of bell-shaped, blue flowers, which are borne in spring, are ideal for naturalizing in grass or for planting in the rock garden. They are also beautiful when planted as edgings or massed in the mixed flower border and may be grown in pots in the unheated greenhouse.

It is important to plant the bulbs as early as possible, so that they can develop a good root system. Ordinary garden soil is satisfactory for grape hyacinths, although if it is somewhat heavy it is advisable to add leaf soil and sand. Plant the bulbs in irregular groups or clumps, setting them two inches deep and two to to four inches apart.

From HORTICULTURE.

QUESTIONS FOR GARDEN CLUB MEETINGS

CAN you answer the questions listed below? They are suggested by Mr. Victor Ries of Ohio in his circular to garden club members. Bring them up at your next garden club meeting.

What are colchicums? When do they bloom?

How many kinds of crocus can you find listed in the bulb catalog?

How would you grow tuberoses?

When and where would you plant Camassia?

What is the earliest blooming bulb?

Are Guinea Hen flowers hardy? What color are they?

What lilies should be planted only 4 inches deep? What lilies 8 to 12 inches deep?

What is the difference between the lily family, the Amaryllis family and the Iris family? (Look this up in a botany manual or encyclopedia).

What colors do you find in single early tulips?

What colors do you find in Darwin tulips?

What lilies have recurved petals?

What are hardy amaryllis? When do they bloom?

Green As Grass

Visitor: "And what's the building over there?"

A Sophomore: "Oh, that's the greenhouse."

Visitor: "I didn't know the freshmen had a dormitory all to themselves."

NOTICE!

Don't forget to vote for officers of the Wisconsin Horticultural Society. Official ballot on page 37.

Sometimes people lose their fall peony plantings due to carelessness and partly from an open winter.

We cannot afford to lose a single root so we ridge up the dirt high over the rows. Peonies cling to life and will not die unless the eyes are exposed above ground through heaving.

Now is the time to plant and up to freezing weather. Late plantings are best. We never plant before late October.

Sisson's Peonies

ROSENDALE, WISCONSIN

Highways 23-26 Intersection

Prices Reduced
on
Manufacturing Your Wax Into Bee Comb Foundation

We have improved our equipment and speeded up our milling machines to enable us to make this big reduction in our working charges. In quality, our comb foundation is now better than ever.

Kind of Foundation	Size	Sheets Per Pound	Cost of Manufacturing Per Pound		
			10 lbs.	25 lbs.	100 lbs. or more
Medium Brood	8x16¼	8			
Medium Brood	8 9/16x16¼	7½			
Jumbo Brood	10x16¼	6	25c	20c	11c
Medium Brood for shallow frames	4½ x16¼	15	29c	26c	17c
Thin Super	3⅞ x16½	28	10 lbs.	25 to 99 lbs.	100 lbs. or more
Thin Super	3 11/16x14¼	30			
Thin Super	4⅛ x17	23	30c	25c	19c

We will work your wax on shares, accept it in trade or buy for cash. Free storage on your wax.

We have just received notice of another advance on nails. Steel, lumber, etc., have advanced a great deal since we published our 1937 catalog. We advise buying supplies this fall while we are continuing to quote our lowest prices.

THE WALTER T. KELLEY CO.
Paducah, Kentucky
Manufacturers of bee supplies

Are You Increasing Your Apiary?

GET OUR PRICES

on your next year's requirements. We can give you the very best. Now is the time to sort out the poor combs. Replace them with the famous

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Sell Your Honey at a Profit
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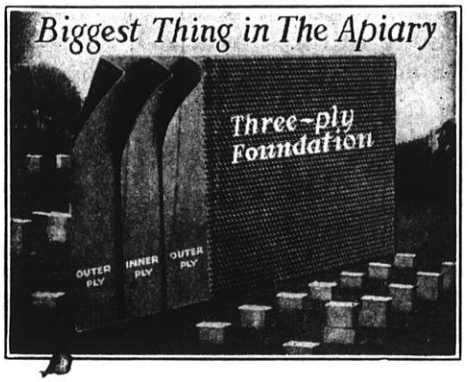

Write for 1937 Prices

A. I. Root Co. of Chicago
224 W. Huron Street
CHICAGO, ILL.

Root QUALITY BEE SUPPLIES

A. I. Root Co. of St. Paul
290 E. Sixth Street
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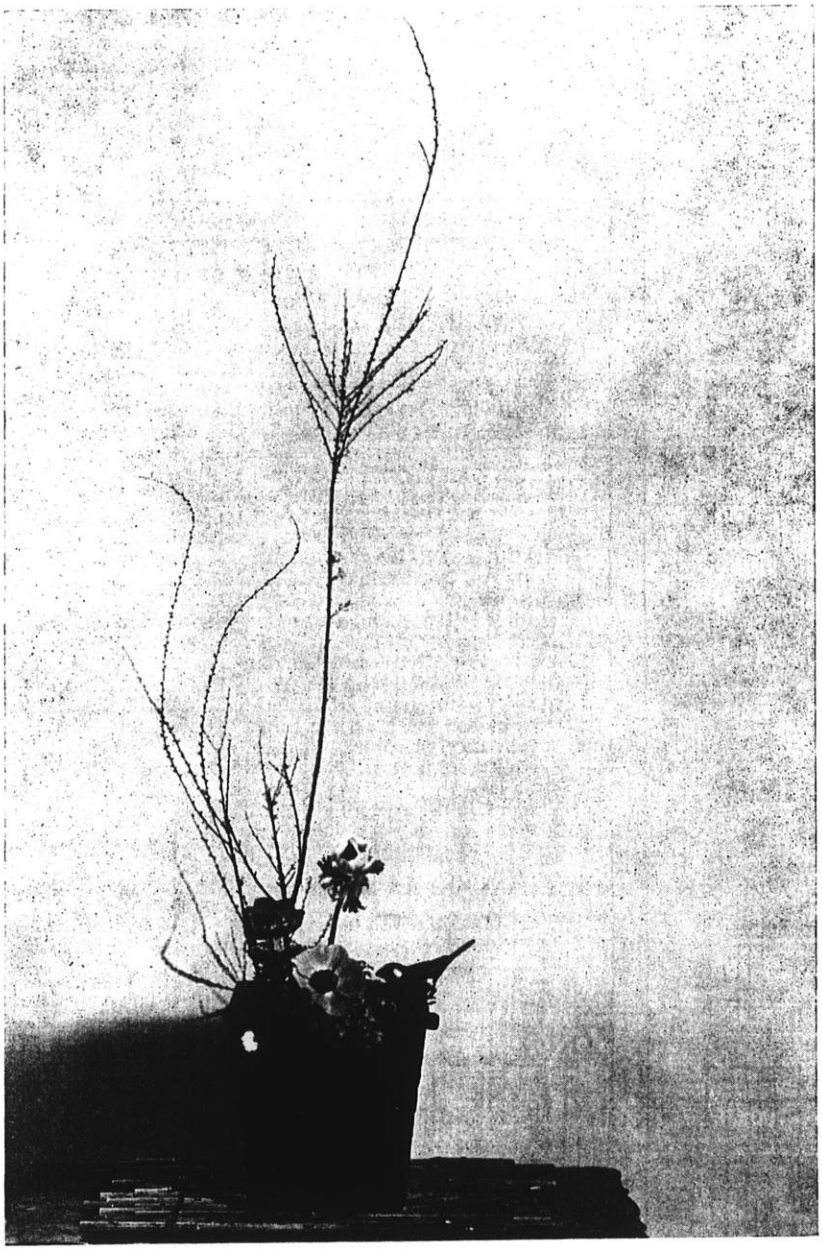
WISCONSIN HORTICULTURE



Anemone and Thunberg's Spirea

NOVEMBER, 1937

ORCHARD AND GARDEN SUPPLIES

BEAN Spray Machines
Spray Materials
Berry Box Materials
Dust Materials
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Harvesting Supplies

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2201 University Avenue
Madison, Wisconsin

FRUITS AND FLOWERS PLANT THIS FALL

Haralson, Anoka, Cortland, McIntosh, Wealthy, Duchess apples. Whitney, Transcendent Crabs. New Minnesota aples.

Minnesota No. 1007; Beacon No. 423; No. 790.

Plums: New Ember plum, Hanska, Monitor, Red Wing, Superior, Fiebing, Waneta, Underwood, Opata. Compass and Oka Cherry, Chinese Elms. Peony roots, red, white and pink. Bleeding Hearts, Delphiniums.

Bargain Prices. Send for our Catalog — It's Free

SWEDBERG NURSERY
Battle Lake, Minnesota

Fig. 1 Fig. 2 Fig 3

Berry Boxes

Crates, Bushel Boxes and Climax Baskets

As You Like Them

We manufacture the Ewald Patent Folding Berry Boxes of wood veneer that give satisfaction. Berry box and crate materials in the K. D. in carload lots our specialty. We constantly carry in stock 16-quart crates all made up ready for use, either for strawberries or blueberries. No order too small or too large for us to handle. We can ship the folding boxes and crates in K. D. from Milwaukee. Promptness is essential in handling fruit, and we aim to do our part well. A large discount for early orders. A postal brings our price list.

Cumberland Fruit Package Company

Dept. D. Cumberland, Wis.

Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

Established 1910

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

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
1532 University Ave.
Madison, Wisconsin

H. J. RAHMLOW, *Editor*
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Volume XXVIII NOVEMBER, 1937 No. 3

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PLEASE DO NOT SEND STAMPS

Wisconsin Horticulture

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

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

New Fruits

Fruit Testing Committee Visits Fruit Breeding Farms

At Fargo, North Dakota

IN the October issue of Wisconsin Horticulture we told of the visit of the fruit testing committee to the Minnesota Fruit Breeding Farm at Excelsior, and the new varieties seen there, discussing a trip into North Dakota we continue with the discussion of conditions there.

We were impressed, however, with the fact that there have been some severe droughts and trees have suffered. Most farm homesteads have windbreaks of elms or poplar surrounding the buildings. It was depressing to see bare, dead tops on so many of these trees against the sky line, killed by the drought of past seasons. They have sprouted again from the trunks lower down, but the dead tops are still there.

Rhubarb and Gooseberries

Prof. A. F. Yeager, Chief of the Horticultural Department at Fargo, spent most of the forenoon showing the committee around. They are working largely with the hardiest varieties, and trees are grown in bush form rather than as tall trees. Temperatures drop here to below 40 degrees below zero and often there is not very much snow.

The MacDonald rhubarb im-

pressed the committee. It is a light red and excellent for sauce. A Ruby variety is a dark red, probably a little too much so and MacDonald was considered the best.

Two excellent gooseberries have been developed at Fargo. Abundance which is a most prolific variety and a heavy producer, it can be highly recommended. Prof Yeager stated that he hired some boys to pick the gooseberries and they were able to pick one bushel per hour from this variety, because the berries hang downward on long stems which have no thorns.

Pixwell is another good variety. It has the longer stems of the two, and picks easily.

Tomatoes

Prof. Yeager and his associates are doing some excellent work in the breeding of tomatoes adapted for that region. The strain, called "Determinate Vine," has vines which are very short and appear somewhat like a hill of potatoes. The crop is very heavy and can be easily picked. This is a great piece of work. Several older varieties of this type are now on the market but considerable improvement is being made by increasing size and improving the color. It will be an especially good tomato for northern Wisconsin because of earliness.

Prof. Yeager is also crossing the native strawberry of which he had more than a dozen strains and types sent to him by farmers throughout the state, with standard varieties, in the hope of obtaining a good producing variety to withstand dry conditions.

At Brookings, South Dakota

A trip from Fargo, North Dakota, to Brookings, South Dakota, is an interesting one. One drives south for several hundred miles through the Red River Valley—a vast section in which grain is grown on farms consisting of at least one section of land each. Grain fields of several hundred acres in size were seen everywhere and one could see farm homes two or three miles distant.

The committee spent a very

interesting half day with Prof. N. E. Hansen at Brookings. He told us many interesting experiences on his trip to Russia and Siberia. He is enthusiastic about the possibilities of two introductions he made from the dryer sections of Siberia—the perennial wheat grass which is being crossed by agronomists with common wheat in the hope of obtaining a perennial wheat which will grow in very dry sections. Also a Chee grass which grows in Siberia where there is only an annual rainfall of eight inches. It may be possible to plant this Chee grass in the Dust Bowl of our own western states, and perhaps a perennial wheat can be developed for the same section.

Thornless Roses

Prof. Hansen is very much interested in the development of thornless roses and has already a number of varieties without any thorns on the main stems. He is now breeding for strains without any thorns on the smaller branches. The thorns are the cause of much inconvenience and often sickness by infection from pricking. No doubt in the future many varieties will be developed without thorns.

Hardy Apricots

The hardy apricots Prof. Hansen introduced from Siberia were inspected by the committee. The trees are quite ornamental with large, somewhat heartshaped leaves, and were found growing where the winter temperatures are often 50 below zero. They should grow anywhere in Wisconsin and produce fruit suitable for canning and jam, which is the principal use for apricots.

Siberian Crab Stock

Prof. Hansen is working with Pyrus baccata, the Siberian crab, both as a hardy stock and for hybridizing. The Siberian crab if one of the hardiest varieties known. Some strains are dwarfing when top-worked. Prof. Hansen made the suggestion, "Why not use Siberian crab stock for standard apple varieties to get a dwarfing effect on the tree? We don't want such large trees in our orchards because of difficulty in spraying and picking. Smaller trees may produce more fancy grades of fruit."

His suggestion might be considered. If our trees would never reach more than three-fourths of their normal size, we could plant more trees per acre and possibly obtain better quality fruit with lower cost of spraying and picking. There would be no root injury to varieties top-worked on Siberian Crab stock.

Redflesh Apple

Prof. Hansen has developed an apple having red flesh throughout and making an excellent sauce. It is an ornamental tree, the flowers being red in color. The fruit, however, is a little smaller than Dolga crabs.

He is breeding larger strains of red flesh apples and will soon have some as large as Wealthy.

Hardy Raspberries

Prof. Hansen has developed two very hardy raspberries suitable for northern Wisconsin—the Starlight and the Oata. The Oata has been named Flaming Giant by the Stark Brothers Nursery. These raspberries can withstand the coldest winters of northern Wisconsin, and might be well worth trying.

At Ames, Iowa

At the State College, Profs. B. S. Pickett, T. Maney and H. L. Lantz spent considerable time showing us the new variety orchard and the experimental orchard plots. A remarkable piece of work is being carried on at Ames in testing new and standard varieties on various types of hardy stock, mainly Hibernal and Virginia Crab. Most varieties showed a remarkable uniformity of growth when top-worked on both Virginia Crab and Hibernal. Virginia Crab, however, is not a good stock for apples of the Winesap group. This piece of work is so intricate and technical in its nature that one must really visit the orchard to appreciate and understand it. It will be of considerable value to nurserymen in determining the stocks to use for various kinds of apples. Literature on the subject may be obtained by writing Iowa State College, Ames, Iowa.

Joan a Heavy Producer

Joan was the heaviest producer of any variety of apples seen on the entire trip. It is a cross between Jonathan and Anism. While of good size and a beautiful red color, it is not of high quality, and therefore has not been recommended highly before. However, last year, the Minnesota Station carried on a baking test with various standard and new varieties of apples including Joan. The bakers rated Joan one of the best for baking of any tried.

The trees of Joan were so heavily loaded that we at once raised the question, "Is it biennial bearing?" We were assured by Prof. Pickett that it was not and that this was the third consecutive year that it had borne such a heavy crop. We were also shown that the branches of Joan are unusual in their ability to carry heavy loads of fruit, bending readily without breaking. The committee felt that even though the apple was not of high quality, there would be money in growing it because of the heavy crop and the hardiness of the tree. It would be a better apple, for example, than N. W. Greening and many other varieties of that type, especially because the fruit is red in color.

Spray Storage Cellar for Molds

To control mold in storage cellars, the Iowa Station was spraying the walls and floors of the cellars with bordeaux mixture of Chlorax, one part to eight parts of water for effective control.

Fall Care Of Sprayer

Glen Sowders, Purdue University

NOW that the spraying season is past and the apples are on their way to market, let us not neglect our spraying equipment.

For some time many growers have (or should have) kept their sprayers filled with water, providing emergency fire fighting equipment. Now that winter is approaching the sprayers should be drained and protected against machinery's worst enemies, rust and corrosion. A mixture of three (3) parts of used crankcase oil and one (1) part of kerosene makes an excellent preventive for use against these two sprayer "pests."

After draining the water from the supply tank, pumps and all piping of the stationary plant, let the equipment stand empty for about 36 hours. Now place in the supply tank a sufficient amount of the crankcase oil-kerosene mixture to fill the entire pipe system and pumps. Pump the entire system full of the mixture, shut off the power and let stand for about 48 hours.

After closing the main gate valve between the pipe system and the pumps, remove all drain plugs in pump bases and drain the crankcase oil-kerosene mixture from the pumps into a container. Now, by introducing compressed air into the pipe line ahead of the main gate valve, force out all of the oil-kerosene mixture. The mixture is easily collected in a barrel mounted on a mud boat, the mixture being drawn out at the end of each lateral until the air reaches the end of the lateral. The mixture is seved and used again the following year.

If the stationary plant is powered by a gasoline engine, the radiator and block should be drained and then refilled with the crankcase oil-kerosene mixture. Drain out the mixture immediately. Also drain all oil from the crankcase of the motor and leave the drain plug out so that condensed moisture from the inside of the block can escape. If the motor is inclined to condense moisture in large quantities, the side inspection covers or oil pan should be removed and the crankcake and connecting rod bearings should be flushed with a No. 55 or heavier grade oil for the best of bearings will rust.

In preparing a portable sprayer for the winter, remove the suction hose from the supply tank and place it in a container filled with the oil-kerosene mixture. Start the motor and pump the mixture through the pump and out the overflow pipe back into the container. After shutting off the motor, remove all pump drain plugs, allowing all surplus mixture to drain out. Treat the gasoline engine in the same way as suggested for the stationary unit.

If the equipment happens to have a steel supply tank, remove all scales from the inside through the use of a wire brush or scraper. Paint the inside of the tank with a special paint which can be purchased from the company which manufactured the outfit.

All spray guns, rods, brooms, etc., should be removed from the spray hose and filled with the oil-kerosene mixture. After draining, cover the outer surface with a thin coating of cup grease.

Even though the outfit needs a complete overhaul later in the winter, it should be given the treatment suggested above. This treatment, which involves only a few hours' time and practically no expense for materials, will give beneficial returns in sprayer performance the following season.—From October Hoosier Horticulture.

APPLE RELISH

1 cup diced pared cored apples
1 cup seedless raisins
3 cups shredded cabbage
¾ cup French dressing

Arrange apples, raisins, cabbage in alternate layers. Add French dressing. Chill thoroughly and serve.

If preferred, add 1 tablespoon catsup, 1 teaspoon chili sauce, 1 teaspoon lemon juice, ¾ teaspoon sugar to the dressing.

This recipe serves six.

FRIED CARROTS AND APPLES

6 tart apples
6 medium-sized carrots
2 tablespoons fat
1 tablespoon sugar
¼ teaspoon salt

Scrape the carrots and cut them lengthwise into thin slices. Pare the apples or leave the skin on, as preferred, core and cut into slices about a fourth of an inch thick. Place a single layer of the apples and the carrots in a large skillet with the fat, cover tightly, and cook until well browned, turn, and brown the other side. Just before the cooking is finished, sprinkle with sugar and salt. Serve on a hot platter, first a layer of carrots, then a layer of apples, so the two can be lifted together.

LIVINGSTONE'S REPELLANT

For Rabbits and Mice

Is a safe and sure protection to your trees from winter injury by rabbits and mice.

100% protection obtained last winter. Positively will not injure your trees.

For information write to:

JAMES LIVINGSTONE, JR.

Station F, Route 9, Milwaukee, Wis.

In the Orchard

POISON OATS BAIT FOR MICE AVAILABLE

Poison oats bait from the Federal Mixing Plant provided by the U. S. Department of Biological Survey, is available from the Wisconsin State Horticultural Society, 1532 University Avenue, Madison, at the following prices:

10 lbs. ----------$1.20
25 lbs. ---------- 2.50

The oats bait must be sent express collect as it is not mailable.

THE APPLE HARVEST

MR. D. E. Bingham, Sturgeon Bay, writes on October 11th. "We are about finished picking apples for 1937. We had a very fine crop of Snows and McIntosh. In fact, everything was of good size and quality and free from worm infestation."

KICKAPOO ORCHARDS HAVE BIG CROP

VISITING in the orchards at Gays Mills during October, we found that a very large crop was being harvested.

Mr. Theo. Bakke, Superintendent of the Kickapoo Development Company, stated that his organization operating eight orchards, would harvest somewhat over 100,000 bushels of apples this season. There are a number of other large orchards which also have a good crop.

In size and color the Wealthy, McIntosh and Snows were excellent this year. Considerable trouble from second brood codling moth was experienced, presenting a new problem in orchard management. This was due to the extreme heat and drought of the past two years.

ILLINOIS ORGANIZES APPLE INSTITUTE

THE apple crop of the United States has been estimated at 16 million bushel more than the crop of 1935 for the nation as a whole, or a total crop of 194,000,000 bushels.

"With this in mind, knowing that every apple producing section is well supplied with apples," writes the secretary of the Illinois Horticultural Society, "a committee met with the president of the Society in July to discuss the advisability of organizing an apple advertising campaign for this state.

"Practically all of the other sections from the north to the south and from the east to the west have, within the past two or three years, been developing regional advertising organizations which have been quite helpful in the movement of their fruit. During this time, two of these sections which have organized advertising, have been concentrating some of their efforts in our own locality and have increased the sale of their apples while our own stood unsold."

The last sentence above may also apply to Wisconsin. With all the other apple growing sections organizing apple institutes and raising money to advertise their apples in the markets where these apples are sold, naturally it will be **harder than ever to move Wisconsin apples.** In self defense we may have to raise some money to advertise our own apples in our own market.

This organization of Regional Institutes really amounts to competition between growers, and in the end will be much more expensive than the original plan advanced by the American Apple Institute of advertising apples in the markets of the United States — not the apples of one section against those of another —but the food and health value of apples to increase the consumption everywhere.

In the meantime we may have to tell folks that Wisconsin apples are also good.

The Wisconsin Horticultural Society is ready to help at any time.

FALL FERTILIZERS FOR THE APPLE ORCHARD

Question: Would you consider November application of sulfate of ammonia or cyanamid practical on bearing apple trees?

Professor Collison: Fall application of nitrogen fertilizers has proven practically as effective as spring application. Late September or October seems to be preferred. In fall application these two fertilizers would be preferred to more easily leached forms?

Question: Should McIntosh and Rome trees that bear some apples every year receive nitrogen every year?

Professor Collison: Although there is some "carry over" effect of nitrogen applications, we have found that it is not great, especially if the application has not been an excessive one. I would be inclined to apply some nitrogen every year. If any variation is made in the amount per year, the larger amount can be applied in the fall of the large crop year or in the spring of the small crop year, since even annual bearers have their large and small crop years.

—From 1937 Annual Report, New York Horticultural Society.

OPINIONS ABOUT THE KENDALL APPLE

Question: What have been the annual yields of the original Kendall trees at Geneva during the past five years? What has been the average size of fruit compared to Cortland from trees of similar age? How does the yield compare with Cortland? How early does it come into bearing as compared with McIntosh?

Professor Howe: No accurate measurement of the annual yields of the original Kendall tree has been kept. The tree bore its first good crop of apples 9 years ago and each year since the yield has been very satisfactory despite the fact that the tree has been severely pruned to get propagating wood. The tree comes into bearing early—about with McIntosh. The productiveness of Kendall compares favorably with that of Cortland.

Question: Will the Kendall become as popular as the McIntosh?

Professor Wellington: One man's guess is as good as another. My guess is that in those localities where McIntosh colors poorly and is subject to winter injury, the Kendall will prove the more popular. Kendall will appeal to those who like a more sprightly flavored apple.

Question: Has Kendall fruited several years along the Hudson?

Professor Anderson: Kendall has not fruited over three years in the Hudson Valley and has been confined to a very few young trees and some grafts. Mr. D. Davies, Congers, New York, is among the first to fruit Kendall.

—From the 1937 New York Horticultural Society annual report.

PITY THE GROOM

"What does the bride think when she walks into the church?"

"Aisle, Altar, Hymn."

Consumers Reaction Toward Poor Quality Fruit

DURING September we had a complaint from a consumer who wished to can peaches. This lady wished to buy several bushel of peaches and waited for some time in the hope that the peaches on the market would be of better quality—that is riper. Those she found were all very green and she considered that green peaches would never reach high quality. She finally appealed to her grocer who remarked, "The peach trade this year has been a headache to all of us, retailers and commissionmen alike. We have been getting nothing but green peaches and I sent back to the wholesale house, several different lots because they were too green. Here," he said, indicating a basket on the floor, "is a basket of peaches I purchased over a week ago and have sold only half of them and they still aren't ripe."

He then broke one of them in two. "You see," he said, "the quality isn't good even now."

Whereupon the consumer disappointedly went home and decided to wait a little longer to see if she could get peaches that were of good quality. Unable to do so, she will probably not do any canning.

With one of the biggest peach crops in the history of the country, it is too bad that every effort is not made to satisfy the consumer in order to get rid of more peaches.

The same thing applies to apples. We have one of the biggest apple crops in history. Good quality fruit will probably bring good prices, but the "by-products grade" will probably be a sore spot this year.

Furthermore, growers should not sell apples for canning too cheaply. This will aid the canner to sell canned apples cheap. So cheap, that housewives may turn from fresh apples to the canned products.

To solve some of these problems, National Apple Groups has been organized. Already the organization is appealing to Senators and representatives to see that adequate purchases of apples are made for those on the relief rolls by the Government. See that this is done in your community.

Mats for the above design are available to growers for use in advertising, in two sizes, one column and two column widths, free of charge. Write Wisconsin Horticultural Society, 1532 University Ave., Madison, Wisconsin.

McIntosh Apples Fed By Northern Spy Leaves

WHAT will happen when McIntosh apples are fed by Northern Spy leaves? This question was answered in an experiment conducted at Cornell University, Ithaca, New York, by A. J. Heinicke.

The following is a condensed report of this work as given by the author in the Proceedings of the American Society for Horticultural Science.

"A young McIntosh tree which had been partially top-worked with the variety Northern Spy, produced a heavy bloom on the remaining basal branches of the original tree. Practically no blossoms were borne on the Northern Spy branches even though the foliage of this variety constituted more than 90 per cent of the leaf area of the entire tree.

"Soon after petal fall all foliage except one leaf per fruiting spur was removed from four McIntosh branches, each of which was about 1½ to 2 inches in diameter at its point of origin. New leaves were subsequently formed on the lateral spur growth originating from the cluster base, but all except one or two of these leaves were again removed. One of the four defoliated McIntosh branches was ringed near its base. The others were left without further treatment.

Changes In Fruit

"One of the first clear indications that the McIntosh fruit had been definitely modified by being nourished by Northern Spy leaves was the fact that the apples did not drop as readily when ripe as is characteristic for the variety. In this respect they resembled the Northern Spy apples which adhere to the tree very tenaciously.

"While the fruit attained a good size and high color about the same time as the fruits on the nearby McIntosh trees and on a portion of the McIntosh tree with its own foliage, they nevertheless ripened much later and remained firmer for a much longer time. At harvest time the pressure test for the normally grown McIntosh fruit averaged about 16 pounds as compared to 20 pounds for those nourished by Northern Spy.

"While the general appearance of the Northern Spy-nourished fruit was that of the McIntosh, nevertheless there were modifications around the calyx and stem end which strongly suggested the characteristics of the variety Northern Spy.

"The flavor of the McIntosh fruit suggested a blend between Northern Spy and McIntosh but the characteristic McIntosh flavor was not entirely submerged. In general the flesh seemed crisper and more acid to the taste.

"This bit of evidence shows distinctly that apples on a branch with practically no leaves can obtain full size and color provided they have access to the products of foliage on other parts of the tree. The variety characteristics of the fruit may be definitely modified by the nature of food material which is available to them."

THE APPLE HARVEST

"A BIGGER apple crop than last year, but less money for it," is the statement often made this year relative to the 1937 apple crop.

This is particularly true in the commercial sections. At Gays Mills, Mr. Bakke, manager of the Kickapoo Development Company, stated, "The demand this year is only for No. 1 apples. We can sell our No. 1 grade and we are very careful in putting up a good pack. The second grade we either cannot sell at all or they are not bringing the cost of production. It is therefore very important to have a big percentage of No. 1 fruit, because that's where we make our money."

In fact, in commercial sections it is now conceded that the profits from an orchard are from No. 1 fruit.

Wisconsin McIntosh are still in good demand and are bringing good prices for the higher grades. Difficulty as always, is in getting them picked before they drop. The demand for Snows was good this year. However, several growers have reported that the demand for N. W. Greening is dropping off. As time goes on, the market seems to be increasingly more in demand of red apples.

Mr. Bakke reported that they will probably pick somewhat over 100,000 bushels in the eight orchards operated by the Kickapoo Development Company this year. The other orchards in that section also report a very good crop.

In the consuming section the market has been brisk. Mr. Peter Swartz of Waukesha reports that their crop will soon be sold. The buying power of the public seems to be good this year, and prices at roadside stands and at small orchards near large consuming centers have held up satisfactorily considering the big crop, and prices in the big terminal markets.

Small Fruits

FERTILIZERS FOR STRAWBERRIES

Question: Do you use fertilizer on young plants? I have dry ground and want to plant this year.

Professor Hoffman (New York Exp. Station): In regard to fertilizers for strawberries, I believe we have enough evidence to say, whatever we do we can do it more profitably the year we are getting the added growth. I doubt if we can fertilize strawberries during the fruiting year. I think strawberries would show a response to phosphorus on a good many soils where corn or potatoes have been grown, and the phosphorus can usually be put on the year before the plants are set. If you have soil where other crops will respond to fertilizer, perhaps 300 pounds of super phosphate the year before the plants are set would be advisable.

The **most profitable fertilizer is nitrogen.** If you cannot get enough of that, supplement it with manure. The best results are obtained with two applications and both should be put on during the season that growth is being formed. A little supply of nitrogen in August will help to make larger fruit buds with more flowers per cluster. We put on some of this fertilizer in August, which resulted in injury to the foliage, so I hesitate to recommend nitrogen at that time. I think some of the organic materials we have would be safer and give as good results in August.

Mr. Shoemaker has done a lot of work on the fertilization of strawberries and I have seen statements in which he recommended one application of nitrogen before they fruited, because a little nitrogen at that time would bring up the foliage and make a larger crown which makes for more production the next year. If you do not have your fruit buds on in the fall, it is too late to get them the next spring. I have been able to reduce the yield by putting on an application of nitrogen in the spring. A heavy application of nitrogen in the spring will cause too much leaf surface with the result that the plant may suffer more in dry weather. If you have black root trouble, the plant is more likely to suffer from lack of moisture. It is a good idea to put nitrogen on a little bit early. If you can get a run, and a good set of plants by the first of July, you will get a heavier yield next year than if the growth forms in August.

From the 1937 New York Horticultural Society Annual Report.

RASPBERRY VARIETIES AND FERTILIZERS

Question: Is there any better money-maker than Latham?

Professor Hoffman: For commercial production in your market (Hudson Valley) there is nothing that will make more money than Latham. It is a hardy variety for a climate where there are alternating periods of cold and warm weather. Cuthbert is fairly hardy if there is uniform cold weather through the winter, but if there are warm periods we get a lot of winter killing. In West Virginia, Cuthbert is winter-killed more than in New York State. Latham is hardy. It has been my observation that if you keep Latham growing vigorously the plant is long lived and that is something to be considered.

A Farmer: In regard to raspberries I do not know of any raspberry that you would say is desirable from all standpoints. We find Newburgh is lacking in vigor. Commercially it is satisfactory three out of four years but it will freeze in the winter. The Latham will produce more money for the grower than all the rest put together. The Columbian is a great deal better quality and hard to beat. The Viking, next to Cuthbert, has the finest flavor. The Chief is a pretty good berry but winter injury has to be considered.

Question: What type and quality of fertilizer would you use and what time would you apply it?

Mr. Cooley: I think any nitrogen fertilizer will give increased yield. The big thing in handling raspberries is to get plenty of humus in the soil by using manure and cover crops.

Question: Do you think it advisable to let up on commercial fertilizers?

Mr. Cooley: Yes, if you get good cane growth. If you put on enough manure, you can accomplish as much as with commercial fertilizers. You better the soil condition and at the same time grow better canes for the next year. The larger you can grow these canes, the better crop you will have next year. I do not think you can use better material than a manure application if the soil seems to need fertilizer. If you do not have enough manure, it may be supplemented with nitrogen.

—From 1937 Annual Report, New York Horticultural Society.

A mountain man who rarely, if ever, visited a town of any size, came to a city with his son, traveling in a rattletrap car.

Climbing out on one of the main streets, the old man appeared fascinated by the pavement. He scraped his feet on the hard surface, and, turning to his son, remarked:

"Well, I don't blame 'em for building a town here. The ground is too darn hard to plow, anyhow."

Wrapping Golden Delicious Apples

By Clarence E. Baker, Purdue University, Lafayette, Ind.

THE Golden Delicious apple is recognized by growers, cold storage operators, and fruit distributors as a variety that is very difficult to hold in cold storage without excessive shriveling. Even in modern cold storage where favorable humidity conditions prevail this variety tends to wilt severely if held much later than February first. These tendencies may partially be overcome by picking at the correct stage of maturity and other orchard practices. Ordinary paper wraps and oiled wraps tend to check excessive wilting to some degree, but cannot be depended upon to effect a satisfactory control.

Tests conducted during the past two seasons and again this year indicate that wrapping Golden Delicious apples in a moisture-proof grade of transparent cellulose sheets prevents wilting to a very high degree. Fruit so treated has been held until early summer in a crisp and juicy condition without visible shriveling and with no serious effect on flavor. These experimental lots have been held in a cold storage where the relative humidity remained in the neighborhood of 69 per cent. Under these conditions unwrapped apples in tub bushel baskets, with paper liners and pads, were unsaleable from excessive shriveling by late December.

To produce the maximum effectiveness the wrap must be large enough to cover the apple and make a tight fold to confine the air about the fruit. Wraps carelessly applied so that air has access to the fruit are not effective. Golden Delicious appear to stand this close confinement better than some other varieties. Grimes, similarly treated, tended to scald more severely than untreated fruit. When they did not scald they assumed a "dead" unattractive color and developed an unpleasant flavor.

—From Proceedings of the American Society for Horticultural Science.

Blossom End Rot Of Tomatoes Controlled By Uniform Moisture Supply

THE blossom end rot of tomatoes or dry rot as it is sometimes called, is a physiological trouble that occurs when tomato plants fail to receive an adequate or uniform supply of moisture, according to Farm Research published by New York Experiment Station.

"When the plants are unable to obtain sufficient moisture from the soil to meet their transpiration needs, then moisture is taken from the developing fruits. This causes the cells at the blossom end of the fruit to collapse and a dark brown to black area occurs which gradually increases in size and makes the fruit unmarketable. This trouble is particularly severe during dry periods and often occurs on greenhouse tomatoes which are not uniformly watered.

"The character of growth, that is, whether the plant has made a soft succulent growth or a slower growth with harder, firmer tissues, greatly influences the amount of blossom-end rot. When growing conditions are very favorable so that the plant makes a rank growth with rather soft, succulent tissues, the tomatoes will be most susceptible to this trouble. Such conditions occur in the greenhouse and outdoors when plants are grown in a very fertile soil with an abundant supply of moisture. If a shortage of water then occurs, there is most likely to be very heavy losses.

Staked Tomatoes Suffer Most

"Pruning and tying-up tomato plants on stakes or trellises tends to increase the amount of blossom-end rot. This is because unpruned, untrained tomatoes shade the soil better and restrict movement of air and therefore reduce the rate of evaporation from the surface of the soil, thus tending to conserve moisture. Furthermore, there is more rapid transpiration from staked plants and they have a smaller root system; consequently they are at a decided disadvantage in a dry period and suffer much greater losses from blossom-end rot.

Remedy Is Uniform Moisture Supply

"Blossom-end rot can be prevented by supplying the plants with a uniform and adequate amount of moisture. If the plants can be irrigated and water supplied at regular intervals so that there is no sudden or acute shortage of soil water, blossom-end rot will not occur. Anything that adds to the water-holding capacity of the soil, such as the incorporation of organic matter, will tend to reduce blossom-end rot. Also deep working of the soil in preparing the field will stimulate the development of a deeper and more extensive root system which will tend to reduce losses from this trouble."

Experiments On The Care Of Nursery Stock

H. B. Tukey

YEARS ago when the nursery industry was small and demand for stock was limited, it was possible for a grower to have his stock delivered fresh dug from a nearby nursery. But nowadays with production of nursery stock on an extensive scale and thousands of orders being shipped in a limited period of time, it has become impossible to handle orders in so intimate a manner. This means that the nurseryman is forced to dig his stock in the fall of the year, grade it, store it, and pack it for early spring delivery.

Tests at the Geneva, New York, Station have shown that well-grown and well-ripened stock over-winters well both in storage and out-of-doors, but that poorly grown and poorly ripened stock is subject to fungous attack in the nursery cellar and winter injury out-of-doors. Observations have beed made in western New York nursery cellars on humidity, temperature, fungous development, and vigor of the plants with some helpful suggestions. Nursery stock has been coated with various waxes and paraffin to reduce loss of moisture in storage, with some favorable responses from some plants and some failures with others.

No Response From Fertilizers

In addition, plants have been fertilized with various fertilizers in late summer and early fall with the idea of their taking up the materials before digging so that they may be present to start the trees off the next spring with extra vigor. Unfortunately, no responses have been secured from such treatments. Apparently, well-grown nursery stock has within it all the food materials necessary for a vigorous growth when planted out.

Other trees have been injected with fertilier materials and with water, through both the shoots and the roots, but again with no favorable response.

Finally, attention has been focused upon planting methods, and the manner of planting have sults, showing that the methods used in handling nursery stock after it is received by the planter and this time with favorable re- a great deal to do with the success of the stock.

Be Careful With Fertilizers

For example, fertilizer applications in the tree hole or close to the tree roots the first year the tree is set have been injurious—particularly upon light or sandy soils. On the other hand, tight firming of the soil around the roots of the plants and the incorporation of granulated peat moss in the soil mixture around the roots have given noticeable benefit.—From **Farm Research,** New York Experiment Station Bulletin.

The Fruit Growers Convention

ON page 65 of this issue will be found the convention program for fruit growers to be held at the Avalon Hotel, Waukesha, November 18-19.

We asked fruit growers to notice particularly that this year for the first time we will have a special program for the ladies. We are sure that the ladies will find considerable of interest and value in the program to be given in the apple cooking school. Bring your family.

This year we are to have with us three members of the Horticulture Department of the Illinois Experiment Station at Urbana. Dr. J. C. Blair is one of the best known horticulturists in the country. We understand that he has some very fine moving pictures on horticultural subjects.

Dr. W. P. Flint is well known for his work on the control of insects of fruits. This year the codling moth control problem was so different from that of past years and so similar to that experienced by the states south of us, that the presentation of Dr. Flint should be of great value.

Dr. V. W. Kelley will present a topic which has been requested by a number of our growers—that of soil management in the orchard.

In a recent issue of Virginia Fruit, Editor W. S. Campfield in discussing their annual convention program, speaks very highly of the motion pictures on the pollination and fertilization of blossoms which he saw at a large meeting some time ago. These pictures will be shown at their onvention. These are the same pictures we are showing at Waukesha on Nov. 18. They explain a great deal of the mystery connected with why flowers are self-sterile, etc.

The Cranberry Harvest

E. L. Chambers

Harvesting cranberries in Wisconsin. The marshes and lower areas of the Central Plain furnish admirable bogs for cranberry growing. Wisconsin's berries are recognized as of superior keeping quality.

THERE always is a certain amount of fascination in connection with the harvest of any crop, but few such scenes are as impressive and colorful as the cranberry harvest. The harvest season generally gets underway shortly after Labor Day and continues until nearly the middle of October.

The beautiful fall weather, prevalent at this time with a background of rich autumn colors among the foliage everywhere, offers a stage hard to beat for the scenes to follow. Hundreds of Winnebago Indian pickers are seen swinging their cranberry rakes with their machine-like activity around the bog, soon filling the warehouses with berries and putting a big smile on the face of the grower who all summer has combatted nature and her elements in growing the crop. Once under cover the grower once more rejoices as the realization of his hopes have at last come about in return for his big investment and months of hard labor. Yes, the cranberry grower has plenty to worry about. From the time he has wondered whether he would have enough water to put on the necessary winter flood to protect the vines against winter killing, he has gambled with his crop first as to whether there would be sufficient water, needed for frost protection during the growing season and until the berries were safely in storage, and then all summer he gambled against hail-storm damage, beaver injury to his reservoir and dams, losses from weeds and pests, labor troubles, and finally the market.

Varieties

While 20 varieties of cranberries are grown in Wisconsn, about one-third are natives and the other principal varieties in order of their importance are McFarlin, Searles Jumbo, Bennett, Howes, Berlin, and the Metalic Bell. Practically all of the Wisconsin berries are sold by the American Cranberry Exchange and graded to meet their specifications. There are 82 different grades based on the size, variety etc.

Cranberry production in Wisconsin is in a transition stage between the former practice of harvesting wild cranberries and the modern highly specialized cultivation of this crop. Many acres of wild vines still exist from which fair-sized crops are harvested in favorable years. Other wild marshes are ditched and supplied with limited flowage protection. From this point there are many graditions in degree of cultivation. These conditions make it practically impossible to estimate the acreage of producing vines. The difficulty is enhanced by the presence of abandoned, formerly cultivated marshes which occasionally produce crops, some of which are of late years being rrought back to a state of cultivation.

Cranberries on the vine. Wisconsin's cranberry harvest was nearly 60,000 barrels in 1934.

Wisconsin Ranks Near Top

There are, at the present time, nearly 3,000 acres of cultivated vines in the state making Wisconsin third in production with Massachusetts first, and New Jersey second. Wood county with more than 900 acres has the largest acreage of vines in the State. The majority of these plantings are grouped on an extensive marshland situated in the town of Cranmoor. Others are located near Biron and in the towns of Remington and Saratoga. The other leading counties are Jackson and Monroe each with approximately 300 acres and Juneau and Washburn with about 200, and two marshes in each of Barron and Burnett counties and one each in Marquette, Waupaca, Price, Rusk, and Waushara.

The average crop for the past five years has been 6,200 barrels. Twenty years ago nearly all cranberries were sold in special barrels slightly smaller than our apple barrels and holding about 85 quarts and weighing 90 to 105 pounds, which were legalized by separate Act of Congress. Today

Airplane dusting of cranberry bog for insect control near Wisconsin Rapids.

these are sold mostly in attractive white pine, quarter-barrel ventilated boxes. The average production per acre varies with the bog, ranging from 20 to 70 barrels. One hundred barrels per acre is not uncommon and as many as 150 barrels per acre have been harvested. The average price per barrel last year for everything from the pie berries to the best was $9.75. With incubator tests the field men have been able to forecast the keeping qualities of the berries by maintaining them at high temperatures for a considerable period, thus making it possible to dispose of them and have them consumed before the storage rots get underway.

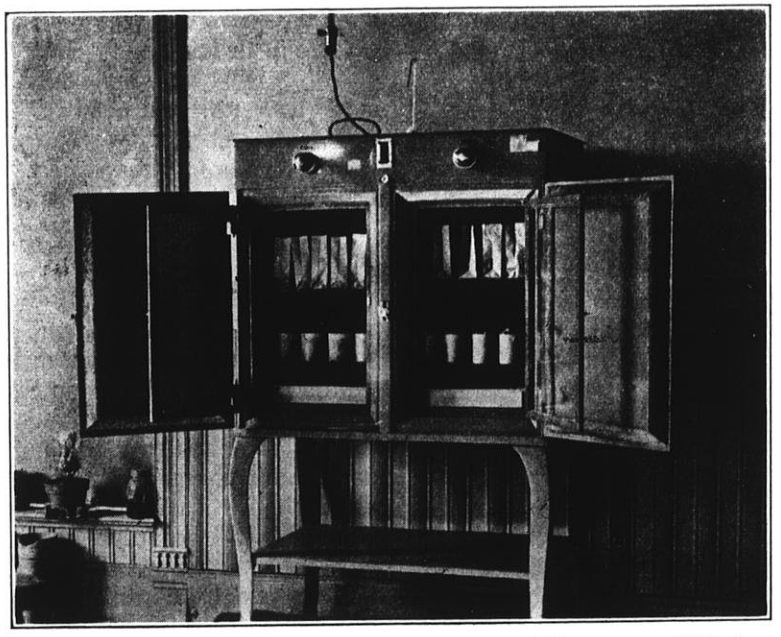
The crop is harvested with the Wisconsin rake or scoop shown on the accompanying picture which differs from the eastern scoop chiefly in having long handles which permit its use from the standing position. Hand picking is done only on young or very thin vines. About 50 per cent of the crop is at present water-raked or raked on the flood. A few of the larger growers have installed chaff-picking and drying machines to aid in more rapid drying of water-raked berries. Wisconsin cranberries are superior to those from other sections of the country both in eating and keeping qualities.

Marsh Construction and Management — Types of Flooding Systems

The severe climate of Wisconsin has led to the development of a uniform plan of cranberry marsh construction dominated by the water-control system. There are no "dry bogs" in the sense that this term is used in other cranberry districts. In addition to being fully equipped for winter flowage, every cultivated marsh in the state is subdivided by dikes and cross-dams into comparatively small, level sections for more economical use of water during reflows. On many of the marshes inlet and outlet ditches are further ararnged in a manner that permits independent flooding of individual sections.

Eight marshes obtain water directly from streams or natural lakes, six of them by gravity and two by means of pumps. The remainder are supplied by artificial reservoirs, many of which are fed by steady or intermittent streams. In the Mather and Cranmoor districts the same water is used repeatedly by growers at successively lower loca-

(Continued on page 63)



A cranberry testing incubator in the state laboratory which has been established in Wood County to help growers with their many problems. Berries are placed in this incubator to forecast their keeping qualities.

Horticultural News

A. F. Yeager, North Dakota

JOHN E. Bosher in English GARDENING ILLUSTRATED reports success in grafting Melba apple on a species of cotoneaster. That might be a good thing to try for someone particularly interested in propagation using our Cotoneaster acutifolia as a stock.

SASH GREENHOUSES is the title of Leaflet No. 124 of the U. S. Dept. of Agriculture. It tells how to construct a small greenhouse using ordinary hotbed sash as the principal material.

The Michigan Experiment Station is developing a wedge type of pruning fruit trees, which, as I understand it, consists of leaving a wedge shaped opening in the side of the tree so that the person spraying the tree may walk in and spray the inside of it as well as spraying the outside as is usual.

Because tomatoes very rarely cross in the field, it is entirely practical for home gardeners to save their own seed. If you have a good Bison tomato plant, for example, you may squeeze out some of the seed on paper and let it dry, or if you wish more, squeeze a quantity into a glass jar, permit it to ferment several days in a warm place, then stir up and wash. The seed will settle to the bottom and the pulp may be poured off. Incidentally, the seed saved from the last tomato on a plant will produce just as early tomatoes next year as though you had saved the first tomato on the same plant.

A correspondent asks about the plant known by the name of Sauramfer, resembling rhubarb, but finer. The leaves are eaten and they make delicious soup. I find that the scientific name for this is Rumex acetosa. It is sometimes known by the common name of Dock or Sorrel.

Rhubarb may be transplanted in the fall in much the same way as peonies.

The question is asked whether it is well to mulch a tomato patch the middle of July to keep down weeds. We have never run experiments on this, but I doubt whether it could be recommended. There might be some tendency for it to keep the soil cooler and thus retard maturity.

A package of apples was sent in this summer when they were about one-quarter grown. The accompanying letter stated that they were dropping for no apparent reason. When examined, it was found that none of them contained seeds, thus indicating that a pollenizer of some other variety was needed.

We in North Dakota are often inclined to think that we have all the troubles, and that it is only our trees that have suffered in the past two years. However, a trip as far south as Kansas this summer showed in some places whole orchards of many acres with every tree dead. The reason lay in a combination of grasshoppers and drouth.

Dr. N. E. Hanson of the South Dakota Experiment Station, the originator of the greenhouse method of fruit breeding, this year adopted another system. He began making crosses in the Central States when the fruit was in bloom outdoors, and moved northward with spring until he finished his work in Canada. I have no reports on the amount of crosses and seed procured in this way, but it sounds like a most logical system.

Dr. E. A. Helgeson, Plant Physiologist at the North Dakota Agricultural College, gives the following formula as a good nutrient solution for the raising of plants in either liquid or sand culture: Super-phosphate (20%) 3.785 grams; NoN03 (14%N), 2.310 grams; Ca (N03)2 (14%N), 2.380 grams; KC1, 0.76 grams; MgSO4.7820, 1.96 grams. These materials are to be dissolved in one gallon of water. Here is a place to begin if any of our members want to try such a thing.

One of the interesting sidelines in connection with fruit breeding is that encountered with peaches. Investigators found that in breeding extra early peaches they had varieties which ripened up the flesh very early, but that the germ on the inside of the seed was still immature. The next thing necessary was to devise methods by means of which these immature germs could be grown. It was done.

This is the time of the year when the usual story about how someone raised a mammoth pumpkin by feeding it milk begins its annual circulation. The fact of the matter is that so far as I know, there has never been an authentic case of such feeding, and the botanists who are supposed to know about such things say that milk is not a good diet for a plant no matter how fine it might be for an animal.—From North and South Dakota Horticulture

Hints On Gardening

Choosing Your Ground

By George Fitch

NOTHING requires so much care as the choice of a garden site. The ground must be high, so that it will drain well. It must be low so as to retain moisture in dry seasons. It must be on a hillside, with a southern exposure for spring growth. It must also be on a northern exposure with plenty of shade for July drought. All parts of it must be visible from the back window of the kitchen, and within good easy rifle range. Some gardeners move from house to house continually searching for a suitable back yard, but it is much easier to put the garden on wheels, so that it can be readily moved about to conform with the requirements. Moreover, by this method you can haul the garden around in front of the house in May when you are proud of it, and want your neighbors to admire it, and late in June, after you have overslept four weeks in succession, you can take it away into the suburbs, and hide it where no one can see it.

After selecting your garden, your first task will be to remove the foreign substances which have accumulated there since America was discovered. If you have a friend who owns a steam shovel, you can do the whole job in a day. The garden must then be spaded. This is the finest of all exercises. Select a well balanced spading fork, rise early in the morning, dress is a light loose fitting costume, and then wait on the front porch with the aid of a good cigar until the first tramp applies for the job. When you have put him to work, save carefully all the angle worms he turns up and put them in a dark, damp place for further use. If the yield of angle worms is poor, it is a sign that the soil is impoverished, and should be enriched. You can do this by adding more angle worms to it. Any boy will sell you angle worms at 25c a dozen.

In the meantime, you should have purchased your seeds. Great care should be observed in this work and it cannot be gone about too early. Along in December you should begin to save seed catalogues and by March you should have a woodshed full. They come in exceedingly handy for kindling purposes. In fact, angle worms and seed catalogues are two of the best garden crops.

While choosing the seeds, go carefully through the catalogues, selecting only the ripest and brightest colors. When you find a catalogue that is a little off color, reject it instantly. When in doubt about a color, boil the picture. If it fades, buy no seeds from this catalogue. To find the size of the actual vegetable, measure the picture in the catalogue, divide it by four and take the square root of the remainder.—From an old newspaper clipping submitted by a member.

APPLE COBBLER

Tart apples, pared and quartered
½ cup sugar
1 teaspoon cinnamon
2 cups flour
5 teaspoons baking powder
1 teaspoon salt
2 tablespoons shortening
¾ to 1 cup milk

Mix dry ingredients. Work in the shortening. Add enough milk to make a dough soft enough to stir. Fill a baking dish three-fourths full with the apples, and spread the dough over them. Make several cuts in the center to allow the steam to escape. Bake for three-quarters of an hour and serve hot with sugar and rich cream.

DEEP FILLINGS DANGEROUS TO TREES

ANY fill over six inches deep is dangerous and may kill trees, was the general concensus of opinion at the National Shade Tree Conference held in Baltimore, Maryland, recently. This is especially true if the soil is heavy. By covering the roots with a layer of gravel or crushed stones to allow aeration of the root system, the danger may be partially overcome. Such a porous covering may be to the depth of 12 to 18 inches. Cinders should never be used. In addition, several lines of drain tile should be placed vertically in the soil to provide for a circulation of air from the surface.

Wells built around the trunks of trees in no way lessen the danger of smothering the roots even though they protect the trunks.

CRANBERRY HARVEST

E. L. Chambers

(Continued from page 61)

tions on the watershed. Many marshes are equipped for pumping flowage water back into reservoirs during periods of water shortage.

The size of reservoir required to protect an acre of vines of course depends upon many factors, chief among which are depth of water per unit area, and volume and regularity of feeding stream. An analysis of the water supply systems in the Cranmoor district showed that on the average there are seven acres of reservoir for each acre of vines. This district is situated on an extensive, nearly level plain, and all its marshes depend upon water impounded by dams. Some of the reservoirs are partly stream-fed while others have no source of water other than surface drainage and wastage from marshes located above them. The Cranmoor district ratio of reservoir to vine area is fairly typical of the state as a whole.

EDITORIALS

NEW OFFICERS ELECTED

THIS year for the first time the Wisconsin Horticultural Society conducted the election of officers for the Society by a mail ballot. This gave every member an opportunity to vote regardless of where he or she lives, or in what line of horticulture they are interested. The following is the result of the election as certified by the nominating committee consisting of Mr. Wm. Leonard, Fort Atkinson, Chairman, Mr. J. F. Swartz, Kenosha, and Mr. S. S. Telfer, Ellison Bay.

Officers Elected

For president, Mr. Karl S. Reynolds, Sturgeon Bay.

For vice-president, Mr. R. L. Marken, Kenosha.

Director to succeed S. S. Telfer, Ellison Bay, Murray Bingham, Sturgeon Bay.

Director to succeed R. L. Marken, resigned, Clare Fancher, Sturtevant.

Director to succeed Wm. Leonard, Carroll Krippner, Fort Atkinson.

The officers and Board of Directors now represent all the different branches of horticulture. There are four commercial fruit growers; two amateur fruit growers (spray ring members); three nurserymen; three garden club representatives; 1 small fruit grower; 1 beekeeper; the State Entomologist, and the chairman of the Horticulture Department of the College of Agriculture.

The name of Mr. Ralph B. Locke, Omro, was written in and received quite a few votes for director.

COMING EVENTS

November 17-18. Minnesota Horticultural Society annual convention, St. Paul Hotel, St. Paul. R. S. Mackintosh, Secretary, University Farm, St. Paul.

November 16-19. Iowa State Horticultural Society annual convention and annual meetings of affiliated societies, Iowa State College, Ames.—R. S. Herrick, Secretary, State House, Des Moines.

November 30-December 1-2. Michigan State Horticultural Society annual fruit growers convention, Civic Auditorium, Grand Rapids, Michigan. — Don Hootman, Secretary, East Lansing, Michigan.

December 8-10. American Pomological Society annual convention in joint session with Missouri State Horticultural Society, Springfield, Mo. Program and exhibits in Shrine Mosque. Headquarters for APS, Hotel Kentwood Arms.—H. L. Lantz, Sec'y, APS, Ames, Iowa. W. R. Martin, Sec'y, Mo. Society, Columbia.

BEEKEEPERS NOTICE!

Wisconsin Beekeeping will be found in the back part of this issue, on pages 76-79.

CARPATHIAN ENGLISH WALNUT TREES BEARING

A LETTER from Rev. P. C. Crath of Toronto, who brought into this country the Carpathian English Walnuts which the Wisconsin Horticultural Society has distributed the past three years, writes on September 24th as follows: "I have just returned from the Washington National Nut Growers Conference and on my way stopped at Belleville, New Jersey and examined my trees growing there. Two of them are bearing walnuts this year. They are twelve years old.

"A number of the trees planted by the late Prof. Neilson in Ontario are also bearing."

A shipment of the walnuts from the Carpathian Mountains is expected this winter, and will again be distributed by the Wisconsin Horticultural Society next spring.

OUR COVER PICTURE

OUR cover picture this month shows Anemone and Thunberg's spirea in a Japanese type of arrangement. The cut was loaned us through the courtesy of the American Horticultural Society, and was used in connection with an article in the National Horticultural Magazine, entitled "Ideas Behind Japanese Flower Arrangement" by Ikko Greger. If interested in the magazine write the Society, Room 821, Washington Loan and Trust Bldg., Washington, D. C.

APPLE COOKING SCHOOL FOR THE LADIES

In Connection with the

FRUIT GROWERS CONVENTION

WISCONSIN HORTICULTURAL SOCIETY

Avalon Hotel, Waukesha, Thursday, November 18

Mrs. Karl Reynolds, Sturgeon Bay, presiding.

10:00 a. m. Colored moving picture of garden flowers with discussion. H. J. Rahmlow, Secretary Wisconsin Horticultural Society.

10:30 a. m. Apple pie baking demonstration by the Stargard 4-H Club Demonstration team, Milwaukee County.

11:15 a. m. Value of apples in the diet. Mrs. Carolyn Stevenson, Home Demonstration Agent, Waukesha.

1:30 p. m. Aplpe recipes for everyday use, by a member of the Home Service Department, Milwaukee Railway and Light Company.

2:00 p. m. Cherry pie baking and cherry recipes. Mrs. Karl Reynolds, Sturgeon Bay. Mrs. Reynolds coached the winner of the cherry pie contest for 1937.

2:30 p. m. Discussion of leading apple varieties. Prof. J. G. Moore, Chief, Dept. of Horticulture, Madison.

3:00 p. m. The best uses for our leading apple varieties. Miss Mildred Owen, Home Demonstration Agent, Milwaukee County.

THE CONVENTION FRUIT SHOW

THE premium list for the fruit exhibit to be held in connection with the annual convention of the Wisconsin Horticultural Society at the Avalon Hotel, Waukesha, November 18-19, was published on page 31 in the October issue.

Premiums are offered for plates of three apples of each of the new varieties which are being tested in Wisconsin, and plates of five apples of standard Wisconsin varieties. In addition, there is a seedling apple show, and a seedling nut show.

We hope to have a very interesting and educational exhibit.

69th ANNUAL CONVENTION

Wisconsin Horticultural Society

FRUIT GROWERS PROGRAM

Avalon Hotel, Waukesha

NOVEMBER 18-19, 1937

THURSDAY, NOVEMBER 18

10:00 a. m. Some changes in the codling moth situation. Dr. C. L. Fluke, Entomology Dept., Madison.

10:45 a. m. Relation of the apple scab spraying program to weather conditions. Dr. G. W. Keitt, Dept. of Plant Pathology, Madison.

11:30 a. m. What we learned about spraying this season. Theo. Bakke, Supt. Kickapoo Development Company, Gays Mills.

AFTERNOON PROGRAM

1:30 p. m. 1. How to spray apples in Wisconsin. Moving pictures of how and when to spray. Prepared by the Horticultural Society.

2. How flowers are pollinated and fertilized. Movies shown and discussed by H. J. Rahmlow, Secretary, Madison.

2:15 p. m. Opinions on some of the new fruit varieties. Report of the trip of the Fruit Testing Committee. R. L. Marken, Vice-president Horticultural Society, Kenosha.

Discussion by Wm. Leonard, Fort Atkinson, and Nick Jacobs, Sturgeon Bay, members fruit testing committee.

2:45 p. m. Factors effecting the abundance of codling moth in the orchard. Prof. W. P. Flint, Dept. of Entomology, Urbana, Illinois.

Discussion.

3:30 p. m. Managing our orchard soils. Dr. V. W. Kelley, Dept. of Horticulture, Urbana, Illinois.

ANNUAL BANQUET — 6:30 P. M.

Music and entertainment auspices Waukesha County Fruit Growers Association, and County Agent J. F. Thomas.

Honorary recognition services. Presentation of certificates to two outstanding horticulturists. Mr. Karl S. Reynolds, President, presiding.

Observations. Ben Rusy, District Extension Leader, College of Agriculture, Madison.

Changes and Personalities in Horticulture. Color in Nature—movies. Dr. J. C. Blair, Chief, Dept. of Horticulture, Urbana, Illinois.

FRIDAY, NOVEMBER 19

9:30 a. m. Lead arsenate or substitutes for codling moth spray. Prof. W. P. Flint, Dept. of Entomology, Urbana, Illinois.

10:15 a. m. Some principles of pruning. Dr. V. W. Kelley, Dept. of Horticulture, Urbana, Illinois.

11:00 a. m. Requirements and value of an apple storage cellar. Guy S. Hales, Port Washington.

11:30 a. m. What can we do about the grasshopper menace in our orchards in 1938. E. L. Chambers, State Entomologist, Madison.

12:00 M. Noon Luncheon.

AFTERNOON PROGRAM

1:30 p. m. Annual business meeting Wisconsin Horticultural Society.
President's address. Karl S. Reynolds, Sturgeon Bay.
Annual report by the Secretary.

2:15 p. m. Orchardist School.

Observations in our orchards during the past season. Dr. R. H. Roberts, Horticulture Dept., Madison.

About the Home and Garden

Mrs. C. E. Strong, West Allis

Marigolds

EVIDENTLY the hybridizers are just starting to work on the Marigolds. Crown of Gold was their first surprise, both in shape and fragrance. This year a number of gardeners tried out the Chrysanthemum Hybrids—and really the name suits them for they look very much like tiny Japanese "Mums." Only the foliage retains the Marigold form. Both blossom and foliage have a delicate fragrance. They are charming for bouquets and table decorations.

Chrysanthemums

On this date, October 10th, I have a number of Chrysanthemums in bloom, Aladdin has been blooming for a month, so has Glory of Seven Oaks. Argentuillaisn, Two Weeks, Barbara Cummings is beginning to open, even a few flowers on this "mum" makes a showing. The always lovely Pink Azaleamum along with her bronze, white and rose sisters, are a mass of color. Jean Treadway and a single pink trailing variety are making a brave showing for more then ten days, while the unnamed variety I am so fond of has been winning admiration from every one who calls.

All other varieties have nice fat buds showing color, so they too will join the parade—if only Jack Frost holds off a bit. All mum plans will be tucked in the cold frame this winter, am not going to risk losing them as I did last winter—we might get another ice blanket!

Vitex Agnus Castus is still blooming. This shrub with its dainty cut foliage would be a worth while shrub even if it did not bloom. The bloom is quite lasting when cut.

Helleborus Niger is budding up nicely, evidently intends to keep up its reputation as a winter bloomer.

Two seedling **Laburnums** have been growing along with no protection for several years, not even the tips freezing. The buds form very early, I found to my sorrow last spring when a heavy frost killed every bud. Shall give them a spring overcoat after this.

Azalea Mollis have nice fat buds formed for next year's blossoms. They need no protection from frost—but they do from rabbits.

Viburnum Carlesii has made a wonderful growth, will have to give it the whole corner pretty soon. Every tiny branch has buds, and it will indeed be a thing of beauty. I can understand Mr. Wilson's enthusiasm over this shrub.

A Good Lily

Late last spring I picked up several Lilium Speciosum Rubrum bulbs in the ten cent store. They were really nice firm bulbs. Each bulb has given about twenty flowers. If they never come up again they have more than paid back the twenty cents paid for the bulbs. The individual flowers with their long stems were fine for vases, each blossom lasting about ten days. I have them planted in a well drained spot with plenty of sand around each bulb. Each bulb is resting on a handful of gravel and is covered at least eight inches. I have some Speciosum Album (they were not bought in the ten cent store) planted in a large pot. These are special favorites of mine, and am hoping to keep them safely in this way.

Just dug up some of the old fashioned Tiger Lilies. Will store them in sand and replant in the spring. They will bloom about a month later than those now established.

Was I pleased when I dug up the **Giant Ismene** bulbs. I have twice as many as I planted. Am sure they were given the right treatment—plenty of water for several weeks after blooming.

Hyacinthus Candicans were especially nice also, this year, each bulb giving several stalks of bloom. Foliage is also good.

Gypsophila Bodgeri is a very good plant for the rock garden or edge of the border. It has bloomed steadily ever since it was planted in the spring, the blossoms being double and quite pink in sunny weather.

Gypsophila Oldhamini is a late blooming delicate pink, quite hardy, and has a very nice habit of self seeding, so one will soon have a nice group of the plants. It is fine for late cutting.

Planted some Heavenly Blue Morning Glory seed in pots for winter blooming. The seed came up in four days, and is growing strongly.

Freesia seeds planted in late summer came up thickly and there are nice little bulbs growing amazingly fast. As sure to have flowers in March.

One of the reasons why **Muscari,** or **Grape Hyacinths** should be planted early is that they make a top growth in the fall, as do Madonna Lilies. Unless this growth is made the flowers will be small and many times there will be no blossoms until the second year. Narcissus and Daffodils also need early planting. While they do not make a top growth, they do need to make a good root growth in order to bloom well.

I have to admire those lovely new dwarf Asters in other gardens, because the rabbits keep mine chewed right down to the ground. Not one blossom in two years. Shall either have to build a rabbit proof fence around these Asters or—get rid of the rabbits—and you know these dear little bunnies are protected???

Notice! An apple cooking school for the ladies in connection with the fruit growers' convention at Waukesha, November 18-19.

ABOUT BULBS

If you intend to force Tulips, Hyacinths, Daffodils, buy top sized bulbs, else you are liable to be disappointed. After planting, place in cold frame where they can be covered and readily got at when you wish to bring them indoors. Be sure to give them plenty of time to root properly, else the blooms will be very disappointing.

Try potting up a few roots of the earlier blooming varieties of Hemerocallis, placing them also in the frame. You will be delighted to see how nicely they bloom.

Iris Pumila, if potted in the fall will also give satisfactory bloom, as will Phlox subulata and the old fashioned Bleeding Heart. Do NOT wait until spring to dig up and plant in pots—but do this before freezing time, so they will be settled and growing naturally.

Plant a few seeds of the heavenly blue Morning Glory in small pots. Have the soil quite sandy and do not add any fertilizer, you will have constant bloom all winter.

Do not let the vines get too long, clip them so they will branch and give more bloom.

Ephidendrum Tampense, (Butterfly Orchids) is one Orchid that can be grown by the veriest amatuer. Just fasten to rough bark and sprinkle with water when you water the other plants. The flowers are greenish brown with white lip marked with bright rose purple.

The Air Pine is another easily grown and striking plant. This also grows and blooms when fastened to a piece of rough bark. The Air Pines resemble Pineapple plants.

Try a window garden that is a bit different than those you have had in the past.

Read the fruit growers' convention program on page 65.

IRIS AWARDS FOR 1937

EACH year the Awards Committee of the American Iris Society makes awards of the best iris. The Dykes medal award is the highest which can be given.

The following is a report of the awards committee for 1937, as reported in the September bulletin of the American Iris Society.

DYKES MEDAL

Variety	Originator
Missouri	Grinter

Second Choice

California Gold	Mitchell

AWARD OF MERIT

American Varieties

Variety	Originator
Copper Lustre	Kirkland
Snow King	H. P. Sass
Junaluska	Kirkland
Naranja	Mitchell
California Gold	Mitchell
Happy Days	Mitchell
Brunhilde	Salbach
Jasmania	Ayres
Mohrson (Hybrid)	White
Eleanor Roosevelt	H. P. Sass
(Fall Blooming)	

AWARD OF MERIT

Foreign Varieties

Variety	Originator
Shah Jehan	Neel
Alice Harding	Cayeux
Golden Hind	Chadburn
Director Pinelle	Cayeux
Seduction	Cayeux

HONORABLE MENTION

Tall Bearded

Variety	Originator
Anitra	H. P. Sass
Arethusa	Gage
Attye Eugenia	Snow
Cafe Au Lait	Graham
Casque d'Or	J. Sass
City of Lincoln	H. P. Sass
Copper Crystal	Washington
Deseret	Thorup
Dymia	Shuber
Eilah	Loomis
Exclusive	Grant
Far West	Kleinsorge
Garden Magic	Grinter
Golden Bear	Mitchell
Janet Butler	McKee
Jelloway	Parker
Lighthouse	Salbach
Manchu Prince	Washington
Marco Polo	Schreiner
Midwest Gem	H. P. Sass
Michelangelo	Weed
Morocco Rose	Loomis
Orloof	H. P. Sass
Prairie Sunset	H. P. Sass
Sable	P. Cook
Sir Launcelot	J. Sass
Snow Belle	McKee
Spring Prom	D. F. Hall
Wabash	Williamson
Waverly	Williams

Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

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Chester Harrison, Waldo
Clarence Kunde, Oshkosh

GLADIOLUS SYMPOSIUMS COMPARED

THE vote of the members of the Wisconsin Gladiolus Society on the most popular varieties of gladiolus was published in our October issue. In this connection we found it of considerable interest to compare a vote of the officers—Board of Directors and Regional Vice-Presidents of the Society—with the vote of the entire membership. We are therefore presenting this month the choice of both groups. There is some difference of opinion.

Inasmuch as the Board of Directors consists of some of the leading growers who are well posted on the newest and latest varieties and their value, no doubt the vote of the officers will be of interest.

The following are the favorite varieties as presented last month by the membership of the Society:

The reds: 1st, Commander Koehl; 2nd, Bill Sowden and Tip Top.

Cream or Buff: 1st, Duna; 2nd, Wasaga.

Salmon pink: 1st, Picardy; 2nd, Margaret Fulton.

Pure pink: 1st, Debonair; 2nd, Phyllic McQuiston.

Yellow: :1st, Golden Chimes; 2nd, Golden Cup and Golden Goddess.

Lavender: 1st, Minuet; 2nd, King Arthur.

Purple: 1st, Chas. Dickens; 2nd, Paul Pfitzer.

Violet: 1st, Pelegrina.

White: 1st, Maid of Orleans; 2nd, Star of Bethlehem.

Best Variety

Picardy; 2nd, Bagdad.

Best Seedling

1st, Ristow's 3644 named Valley Queen; 2nd, Krueger's No. 70.

Favorite Varieties of the Officers Wisconsin Gladiolus Society

The following are the selections by the officers of the Wisconsin Gladiolus Society.

Red: 1st, Commander Koehl; 2nd, Tip Top.

Cream or Buff: 1st, Shirley Temple and Paradise; 2nd, Duna.

Salmon pink: 1st, Picardy; 2nd, New Era.

Pure Pink: 1st, Phyllis McQuiston and Debonair.

Yellow: 1st, Golden Goddess; 2nd, Golden Cup and Ruffled Beauty.

Lavender: Minuet — unanimous,

Purple: 1st, Chas. Dickens; 2nd, Paul Pfitzer.

Violet: 1st, Pelegrina, Ave Maria, Blue Admiral and Milford receiving tie votes.

White: 1st, Star of Bethlehem; 2nd, Maid of Orleans.

Best variety any color: 1st, Picardy; 2nd, Mother Machree, New Era, Heritage, Rosemarie Pfitzer, Gloriana and Tairoia receiving one each.

Best seedling: 1st, Ristow's No. 3644 or Valley Queen; 2nd, Krueger's No. 70.

FAVORITE GLADS IN CANADA

"AN observation made this summer is worthy of comment. Many keen fans and hybridizers are planning to grow fewer varieties and grow all they desire of their chosen few. One enthusiastic grower in Ontario plans to limit his planting of over 10,000 to 30 varieties. Let's try his plan and see what happens. I'm sure it will do much to popularize the gladiolus. Just imagine walking down through a patch of 4,000 'Picardy' or 500 'Star of Bethlehem!'

"Varieties noted thus far this season and comments thereon—'Picardy', still stands at the head of the class and is as lovely as ever; 'Bit O' Heaven,' is a wonderful orange that you must try; 'Star of Bethlehem' and 'Maid of Orleans' are the best whites; 'Golden Chimes,' 'Ruffled Gold' and 'Primate' are all fine light yellows; 'Bleeding Heart' is much superior to 'Mrs. Frank Pendleton,' which it resembles; 'Bright Sides' orange and yellow, beautifully ruffled; 'Jessie,' a lavender pink, tall and willowy; and 'Zora' a bluish-white, very satisfactory small decorative variety.

"A new commercial type is to be found in Milton Jack's 'Early Rose.' The color is quite distinct and causes most favorable comment wherever shown."

By R. E. Ives in Canadian Horticulture and Home Magazine.

Read the fruit growers' convention program on page 65.

The Enjoyment Of Gladiolus

Ralph Baerman, Rushford, Minn.

A GOOD many years ago, when starting out with a friend for my first national gladiolus show, which was being held several hundred miles distant, I was somewhat amused when we got into the car at his taking along a couple of spikes of gladioli "for study" on the way. The varieties were, as I recall, **Crinkles** and **Salmon Glow,** both then rather new. Though I am sure I got as much thrill out of the well-grown spikes of these two sorts which my fellow-fancier had brought along as he did himself, nevertheless the conception of "study" as applied to flowers struck me as rather strange. Yet everyone accepts the idea of analytical study of a beautiful painting as a prerequisite to its full enjoyment.

Most glad lovers have experienced the chagrin of showing to casual garden visitors a rare and expensive new variety of superlative beauty, only to have some one exclaim, "Why I have a whole row of that kind in my garden at home!" In justice to the uninitiated it must be said that most fanciers can observe in retrospect how their own standards of gladiolus beauty have been raised through the years and how their faculty for the enjoyment of the fine points of the newer creations has been accentuated.

Size alone is a quality of many modern glads which requires no particular esthetic sensitiveness for its appreciation. Beauty of color and beauty of form plus an element of individuality comprise the essential factors rewarding the fancier for his years of unconscious "study" through enjoyment and comparison.

A friend, a noted landscape architect, who has made an extensive study of floral colors from the standpoint of his profession, having compared thousands of flowers in all shades for their effectiveness in the garden picture, remarks that he wishes all smoky glads could be carried out to the middle of the Atlantic Ocean and dropped in. (Yet I have before me as I write a magnificent spike of **Zuni,** one of the finest of all smokies, to which I'll warrant he would be willing to make an exception. Nevertheless, the fact remains that critical judges of flowers thrill to few smokies.) . . . What gladiolus colors meet the greatest favor with this critic? The range between **Salbach's Orchid** and **Dream O' Beauty**—colors just a trifle on the cool side of pink and red. The hot flush of salmon tones he considers a disturbing element to the sense of repose sought in the landscaped garden.

But glads are not primarily a landscape flower, and grown in the cutting garden for other uses, other considerations prevail. At close view substance and texture (sheen) of the petals become vital aspects of color. Ruffled **Amrita,** also before me as I write, in a simply superb spike, affords a splendid illustration of fine color: pale apricot-yellow with a light yellow throat, it would look washed out were it not for its extremely heavy substance. Close examination reveals that the apricot effect is produced solely by an overlay on the underlying yellow of a single layer of red-gold sheen. Immaculate throats are **de rigeur** in the perfected modern gladiolus, yet blotches possess value for variety and, large or small, are fine in themselves if clear-cut and **rich.**

So much of gladiolus personality is dependent on beauty and variation of form. Ruffling, out for several years now, is coming into its own again—this time with finer coloring (esp. in the throats) and greater size than characterized the ruffled sorts of one and two decades ago. Yet the serenely round plain-petaled types such as **Coryphee** will always be popular. Crowded florets, narrow petals (if unruffled), and general looseness of character result in woefully undistinguished looking blooms. Copious breadth of petal, sprightly ruffling, grace of carriage, plus a touch of informality please as expressions of style and character.

Vitality (i.e. spike length), charm of form, and fineness of color comprise a trinity of factors essential to an outstanding gladiolus. In the wide range of colors, form, and size lies the secret of the varied types of personality found in this flower.

GLADIOLUS SOCIETY HOLDS INTERESTING MEETING

A MOST interesting meeting was held in the Chamber of Commerce rooms, Sheboygan, by the Wisconsin Gladiolus Society, on Saturday, September 25.

The forenoon was spent by the Board of Directors in visiting the Eagles Club and considering the invitation of the Sheboygan members to hold the next gladiolus show in that city. An interesting proposition was presented for holding next year's show which may greatly increase the attendance. This will be published as soon as a decision has been reached.

In the afternoon program a number of our members presented interesting talks on harvesting, storing and growing gladiolus, and a discussion of the leading varieties. The meeting ended with a trip to the large gladiolus breeding gardens of Dr. Geo. Scheer, Sheboygan, where hundreds of new seedlings were seen. Dr. Sheer is doing an important piece of work.

Ornamentals For Testing In 1938

THE members of the Plant Testing Committee of the Wisconsin Horticultural Society met in the Society's office on Tuesday, September 28th. Present were: Miss Merle Rasmussen, Oshkosh; Mrs. E. A. St. Clair, Wauwatosa; James Livingstone, Milwaukee; W. A. Dustrude, Hartland; H. C. Christensen, Oshkosh; W. A. Toole, Baraboo; J. C. Ward, Fort Atkinson; Prof. G. Wm. Longenecker, and H. J. Rahmlow, Madison.

The committee spent the forenoon in inspecting new varieties growing on the University Campus and in the Horticultural gardens, and then proceeded to the home of Secretary H. J. Rahmlow where they inspected a beautiful large shrub of Cotoneaster soongarica, which is unusually loaded with fruit this year. Dwarf Hybrid Asters, the new Apple Blossom Rose Springtime, Symphony Rose and several varieties of Tuberous Rooted Begonias were also inspected.

The afternoon was spent in going over the prospective list of varieties, and in examining the specimens of flowers and shrubs brought in by members of the committee from their own gardens or nurseries. As a result of the day's work the committee made the following recommendations for ornamentals to be tested during 1938.

VARIETIES FOR TESTING

TREES

Apricots
Gleditsia triacanthos inermis — Thornless honey locust
Malus sargenti

SHRUBS

Berberis thunbergi pluriflora erecta —Truehedge
Elsholtzia stauntoni, Mint shrub
Euonymus alatus compacta, Dwarf winged burning bush
Viburnum americanum, American highbush cranberry
Viburnum lanana

VINES

Ampelopsis aconitifolia, Monkshood vine
Hydrangea petiolaris

ROSES

Springtime (Apple blossom)
Symphony (Pink Druski)

PERENNIALS

Asters: Alderman Volkes; Charles Wilson; Skylands Queen; Frikarti

Chrysanthemums: Emmet (bronze Amelia); Nacola - yellow; Panola - pink; Rozika-deep rose
Cimicifuga racemosa
Gaillardia Burgandy
Helenium Crimson Beauty-crimson-red; Moerheim Beauty-crimson
Iris dichotoma
Eupatorium coelestinum-Mistflower
Strawberry Baron Solemacher
Lilium formosanum

Committee Members to Test Varieties Before Making Recommendations

To show the caution of the committee members in recommending varieties for general trial throughout the state, it was decided that the list of ornamentals below be tested by the committee members themselves during 1938 before making any further recommendations. Arrangements were made so that each of these varieties will receive quite a wide trial during the coming year and the committee's report will then be made available.

THE VARIETIES

Bronze leaf crab, Malus athabaska-pink; slocan-red
Prunus Japonica
Buddleia Hartwegia
Viburnum burkwoodi — improved carlesii
Forsythia Ovata-more reliable flowering

WAX EMULSION FOR YOUNG TREES

AN emulsified wax containing bentonite and other materials is now available to fruit growers. Its particular application to the fruit field is for coating young, newly-set trees to prevent their drying out.

At Michigan State College, out of 173 young cherry trees set in a block, 81 were sprayed with the new wax emulsion, known as "Dowax," while 92 were left unsprayed. Of the 81 trees sprayed, survival was 87.6 percent, with an average total terminal growth of 64 inches. Of the 92 unsprayed trees, 69.5 survived and their average total terminal growth was 41.6 inches.—From October American Fruit Grower.

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Vision In A Garden

Convention Talk by Alfred C. Hottes, Des Moines, Iowa
Reported by Mrs. B. W. Wells, Madison

MR. Hottes' name on a State Garden Club program is always a special inducement to attend. As usual he brought us inspiration and factual knowledge. Mr. Hottes prefaced his talk on "Vision In a Garden" by telling the story of a woman who could not understand why her two favoriate sons left their perfectly good home to join the navy. They loved their home, she told an acquaintance. "Did you ever think of what you have in your dining room?" he asked. She asked him to come and see and what he saw was a picture of the Navy named "Always at Peace on the Sea." The sons had concluded that they wouldn't have to work so hard on the sea. This vision had enticed them.

Mr. Hottes said: "The best lesson statement on landscaping I know is 'It's only a home when it's planted.' When we make a garden do we think of what it will look like thirty or forty years hence? Do we vision the future or do we say, 'This soil looks pretty good, let's plant a garden.' Vision would tell us to prepare the soil so that its fertility will nurture plants for lasting beauty.

"When a visitor comes to your garden do you place her on a bench and say, "Don't you think our garden's pretty?' Are you more apt to say, 'I'm so sorry that you came when you did. We wish you had come in April instead of May.' If we planned each year to take another step in perfecting our garden picture we need not be apologetic. Hurry to get a pool, a rock garden, and a border all started at once is apt to be disappointing in lasting pleasure. 'Without vision the people perish.' His inference was that pools and other garden features do likewise.

"When each of us plans a garden like everybody else's we lack vision. With vision we plan so that from every window and door a satisfying garden picture will greet us. We are doing this more and more. On my recent trip to Europe I saw beautiful estates and gardens—the result of long distance planning and the fact that they can grow flowers more easily than we. However, we too are gradually eliminating museums and dog graves. A copy of nature or work of art if it follows art principles, is good. If it's an atrocity or a museum, it's neither a copy of nature nor a work of art. Such are rock gardens that are a collection of rocks rather than a comfortable spot for plants to grow. We sometimes see remarkable gardens where mountains, a desert and a dead sea all spring from one spot of ground. If we have made these mistakes we should not be ashamed of them or sentimental. Instead, let's plant shrubs and trees that form the picture we want, and cut out what we find that we have erred in. Let's not be like the housekeeper who said, 'I like cinnamon, I like pineapple, I like chocolate and I'm going to bake a cake that has all these in.' Don't say, I like a rock garden and I like a border and so I'll have all of these in my garden.

"A simple plan, a single pergola, a few plantings and a seat make one picture in your outdoor living room.

"In my magazine work I have noted how styles change as the years pass. A garden based upon principles of good design does not change as do styles in clothing or washing machines.

"If your space or soil is such that you cannot plant your picture in the ground, plant a window box or a pot. If your vista is spoiled by a tree, cut out the tree. If the birds sing in your neighbor's tree and he doesn't like it, it's yours, not his to enjoy."

Mr. Hottes used the blackboard to illustrate the principles of perspective in the garden picture to emphasize width or length. Differences in ground level, the use of steps, garden furniture and plantings of different heights all add variety, and unity to a picture, just as one green dress may need a gold belt or a tie to give it variety and interest.

"The garden planned with a vision is never finished. It is always growing and always arouses interest."

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Mrs. E. A. St. Clair, Rec. Secretary
2418 N. 65th St., Wauwatosa

Mrs. J. M. Johnson, 1st V. President
Ripon
Mrs. Robert Alder, 2nd V. President
Elkhorn

OUR 10th ANNUAL CONVENTION

AN excellent program, a wonderful convention!

That is a summary of the comments heard from garden club members attending the 10th annual convention of the Wisconsin Garden Club Federation at the Athearn Hotel, Oshkosh, October 14-15.

The program began with the wonderful slides of tree flowers and the lecture by Prof. W. E. Rogers of Lawrence College.

Alfred C. Hottes of Better Homes and Gardens was at his best. His talks which are always inspirational, thrilled his listeners. He said that he feels he is a member of the Wisconsin Federation by adoption, because he is with us so often.

Kenneth Bangs, landscape architect of Oak Park, Illinois, wired that illness prevented him from coming, but the program was so full that while many regretted not hearing Mr. Bangs, the time was well taken up.

The attendance at the program the first day ran up to 250. There were 180 at the banquet.

Mrs. C. E. Strong of West Allis gave an interesting resume of the work of the Federation for the past ten years at the banquet, while Alfred Hottes' "Stories Behind Our Flowers," was fascinating.

Mr. C. L. Harrington of the State Conservation Commission, told of the vast amount of work being undertaken by the Conservation Commission in developing forests and parks. One of the new projects is the building of small recreational parks along our highways.

OFFICERS WISCONSIN GARDEN CLUB FEDERATION FOR 1938

From left to right, seated: Mrs. Chester Thomas, Thiensville, Honorary President; Mrs. J. Martin Johnson, Ripon, President; Mrs. E. A. St. Clair, Wauwatosa, First Vice-president. Standing: Mrs. Charles Schuele, Oconomowoc, Second Vice-president; H. J. Rahmlow, Madison, Corresponding Secretary; Mrs. Sam Post, Madison, Recording Secretary-Treasurer.

Many favorable comments were expressed on the new colored motion picture film of garden flowers shown by H. J. Rahmlow, and produced for garden clubs by the Horticultural Society. These were followed by four reels of motion pictures by the Conservation Commission which ran until almost 11 p. m., but practically everyone stayed because they were so interesting.

The Flower Show Clinic

Friday forenoon was devoted to a flower show clinic. The slides from Better Homes and Gardens were very good, while Mary Cokely Wood, Ann Arbor, Michigan, gave a most excellent demonstration and talk on line and design in flower arrangement. This was followed by able discussions on various phases of arrangement and flower show management by Mrs. B. W. Wells and Mrs. Sam Post, Madison, and Mrs. Ralph R. Hibbard of Wauwatosa.

In addition to the regular programs, special luncheons occupied the noon hours of both days. Mrs. E. E. Browne of Waupaca gave a most interesting talk at the president's luncheon. About 150 members went to Stein's where special entertainment and a style show was presented.

Miss Mary Lowerre, Junior Chairman, Mrs. Frank Quimby, Director of Junior Forests, and W. A. McNeel, Assistant State 4-H Club leader, presented a most interesting program at the Junior Luncheon.

The convention ended with an afternoon program on The Geological History of a Wisconsin Swamp, by Dr. Rufus Bagg, Ap-

pleton, and colored slides of gardens with a discussion of their design by Prof. Aust, Madison.

The flower show was one of the most artistic held in recent years. Special thanks goes to the flower show committee of the Oshkosh Horticultural Society consisting of Miss Bessie Pease, Chairman, Miss Anna Christensen, Miss Agnes Phillipson, Mrs. P. Koehn, Mrs. N. Hutchinson, for their work in staging this show. Miss Merle Rasmussen also deserves special mention for her untiring efforts in making many of the arrangements, including the banquet decorations and the luncheon and banquet entertainment.

NEW OFFICERS ELECTED

THE following officers were elected at the annual business meeting of the Wisconsin Garden Club Federation at Oshkosh on October 14th.

President, Mrs. J. Martin Johnson, Ripon; Honorary President, Mrs. Chester Thomas, Thiensville; 1st Vice-president, Mrs. E. A. St. Clair, Wauwatosa; 2nd Vice-president, Mrs. Charles Schuele, Oconomowoc; Recording Secretary - Treasurer, Mrs. Sam Post, Madison; Corresponding Secretary, H. J. Rahmlow, Madison.

The new officers assume their duties on January 1st.

RAILROAD MEN ORGANIZE GARDEN CLUB

GARDEN club work is taking an important part in the lives of an increasingly large number of people. We hear, for example, that the employees of the Pennsylvania Railroad have organized garden clubs throughout the system, with membership running into the thousands. Flower shows are being held at strategic points along the System. The official family of the railroad is in sympathy with the garden club movement and is giving much encouragement to the work.

FLOWER SHOW AWARDS ANNUAL CONVENTION

Oshkosh, Oct. 14 - 15

SHADOW BOXES

An autumn picture using any type of horticultural material excepting fruit or vegetables.

Excellent: City Club of Milwaukee, Mrs. W. F. Roecker; Blue Mound Garden Club, Mrs. A. H. Taylor.

Very Good: Ripon Garden Club, Mrs. A. W. Hargrave; Menasha Garden Club, Miss Edna Robertson and Mrs. Geo. Loescher.

Good: Oskosh Horticultural Society, Miss Anna Christensen; Oshkosh Horticultural Society, Mrs. Wm. Blake; Whitewater Garden Club.

Fair: Oshkosh Horticultural Society, Mrs. Ward B. Davis; Oshkosh Horticultural Society, Mrs. G. Hutchinson.

DINNER TABLES

A Halowe'en dinner table. **Very Good:** West Side Garden Club, Mrs. E. L. Sevringhaus, Madison.

A Thanksgiving Dinner Table. **Excellent:** Oshkosh Horticultural Society, Miss Bessie Pease and Miss Agnes Phillipson. **Fair:** Oshkosh Horticultural Society, Miss Bessie Pease, and Miss Agnes Phillipson.

Special table — Chistmas. **Very good:** Plymouth Garden Club, Mrs. E. Bade.

ARTISTIC ARRANGEMENTS

An artistic arrangement of hardy garden grown chrysanthemums.

Excellent: Ripon Garden Club, Mrs. Clara Mears; Menasha Garden Club; Elm Grove Garden Club, Mrs. Geo. Schroeder; City Club of Milwaukee, Mrs. W. F. Roecker.

Very Good: Waupaca Garden Club, Mrs. T. J. Peterson; City Club of Milwaukee, Mrs. A. H. Taylor; Whitewater Garden Club, Miss Nan Larson; Milwaukee County Horticultural Society, Mrs. Erick Raisch.

Good: Ledgeview Garden Club, Mrs. Thomas Mullen; Yard and Garden Club, Ripon, Mrs. Clara Tinkham.

Fair: Yard and Garden Club, Ripon; Whitewater Garden Club, Mrs. B. M. Cleland.

Any type of horticultural material, appropriate for Thanksgiving.

Excellent: Milwaukee County Horticultural Society, Mrs. Irving Lorentz, Milwaukee; Ripon Yard & Garden Club, Mrs. Clayton Tinkham.

Very good: Milwaukee Art Institute, Mrs. A. H. Taylor, Wauwatosa.

GARDEN CLUB YEAR BOOKS

Excellent: Mrs. Erwin J. Wells, Oakfield Garden Club; Mrs. A. W. Hargrave, Ripon Garden Club.

SHALL WE HOLD A STATE FLOWER SHOW?

Considerable sentiment was expressed at the annual business meeting of the Garden Club Federation at Oshkosh on October 14th, to again hold a State Flower Show. Five such shows were held, from 1929 to 1933. They were then discontinued for financial reasons.

Practically all the delegates at the business meeting were in favor of holding a flower show, but so many problems presented themselves that it was decided to ask the various garden clubs to discuss the matter and advise the recording secretary of their decision. The following matters should be discussed:

1. Is your club willing to cooperate by taking a block of tickets and selling them in advance, without returning any of the tickets? This would be necessary in order to provide advance funds to assure the expenses of the show. The number of tickets would be assigned according to location and the number of members.

2. Would your garden club be willing to cooperate by staging major exhibits such as little gardens, dinner tables, shadow boxes, etc.?

3. Do you feel that a large expensive show would be a financial success at this time?

Clubs should send their decisions on this matter to Mrs. E. A. St. Clair, Recording Secretary, 2418 No. 65th Street, Wauwatosa, by December 1st.

SHALL THE DUES BE RAISED?

One of the important matters of business coming before the meeting of the Board of Managers of the Wisconsin Garden Club Federation, and also the annual business meeting, was the matter of increasing the dues to the Federation.

At the present time the constitution calls for dues of 50c per member per year. This is divided as follows: The Wisconsin Horticultural Society, including magazine Wisconsin Horticulture, 35c; State Garden Club Federation, 10c; National Council of Garden Club Federations, 5c.

It was felt that the amount of 10c did not provide enough money for the operating expenses of the State Federation. The total income with a membership of about 1,800 is about $180 per year. It was felt by many who discussed the problem that the Federation could do a great deal more for the clubs if they had more funds.

It was decided, however, not to take any action until the matter has been discussed by the garden clubs at their regular meetings.

All garden clubs are therefore requested to discuss at their next

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monthly meeting whether or not they could increase their Federation membership dues to either 60c or 75c per member. Another 10c increase in dues would provide an additional $180 for the Federation, while 25c would increase the amount by $400.

Inasmuch, however, as the Wisconsin Federation is lagging behind neighboring states in the total number of affiliated clubs and total number of members, it was felt that no action should be taken which would jeopardize an increase in membership, or which might result in a dropping off of the present membership.

If the membership could be increased to 5,000, as is the case with some neighboring states, this would also provide the needed funds.

All clubs should report by December 1st their vote on this matter. Drop a card to Mrs. E. A. St Clair, 2418 No. 65th Street, Wauwautosa, Recording Secretary-Treasurer.

THE GARDEN CLUB OF THE AIR

Radio Talks On Gardening Over WHA

TUNE in on the State Radio Station WHA, Madison, every Tuesday at 10 to 10:45 a. m. for **The Garden Club of the Air.**

Programs of interest during the coming two months over this hour are as follows:

November 2. Bulbs for Indoor Gardens (a demonstration). Prof. J. G. Moore.

Noember 9. Norwegian Folk Day. Let's Visit Norway with the Daleyville Group.

November 16. When Flowers Helped Pay School Bills. John Haldiman and H. J. Rahmlow.

November 23. (Bohemian Folk Day) Let's Visit with the Yuba Group.

November 30. Gardens in Books for Winter Reading. H. J. Rahmlow.

December 7. Christmas Light —Indoors and Out. Fort Atkinson Garden Club.

December 14. (French Folk Day) Let's Visit with the Blue River Group.

December 21. When Food Habits Begin. Home Economics Specialist; "Old Christmas Songs," Mozart Club (Music club).

December 28. Having a Popcorn Party, Margaret Baker; We Can Plan Winter Beauty in Shrubs, L. G. Holmes.

THESE ARE GOOD

A NUMBER of interesting things have happened in my garden this year.

My Beauty Bush which is 6 feet tall bloomed beautifully after six years in the same location. Makes a fine cut flower with white peonies.

Clematis Texensis planted with a southern exposure is hardy with a light mulch of evergreen branches. Blooms from June to frost.

C. Tangutica is easily raised from seed. Germination period seven days. Has not bloomed yet.

C. Veichtiana (Honeybells) is in bloom now.

Planted Darwin tulips — Mrs. Hoog and Mrs. Potter Palmer last fall on the east side of the garage. Soil is rich and moist here in early spring. Cut the flowers for Memorial Day, and a few days later I noticed perfect tulip bulbs developing in the axils of leaves. These matured with a thin brown husk as the leaves died and the three largest were three-fourths of an inch in diameter.

Fairy or Surprise Lilies planted near south wall of house foundation wintered over and have been a mass of bloom all summer. Cinnamon vine is also hardy in same location and grew twenty feet high this year.

Coronilla Cappidocica—a trailer with golden flowers for a sunny rock garden, is easily raised from seed.

Erigeron Double Beauty is a very attractive plant when in bloom and makes a fine cut flower. Easy from seed, some double, the rest attractive though only semi-double.

Have read a number of articles on Winter Bouquets, also a few radio talks with no mention of Echinops Ritro or Globe Thistle which I find very attractive when cut and dried, also has landscape value.

Mrs. Theo. J. Peterson,
Waupaca, Wisconsin

SPEAKERS FUND SHOWS A BALANCE

AFTER carrying a small deficit in the speakers fund for the past year, Mrs. E. A. St. Clair, Recording Secretary-Treasurer, reports a substantial balance left over from the convention at Oshkosh.

This balance was due largely to the registration fee of 25c per day which was charged at the convention, which netted some eighty dollars. Added to this are $80.00 contributed by garden clubs, and $25 from the Horticultural Society.

It is encouraging to have a balance in this fund because it will enable the Federation to proceed with future programs with more confidence. For example, there will be funds available for speakers for the summer convention next year, and a balance in case of unexpected expenses.

Garden clubs contributing to the speakers fund this year are as follows: Hillcrest, $10; Milwaukee County Horticultural Society, $5; Blue Beech, $5; Racine, $5; Art Institute, $5; Wauwatosa, $5; Sum-Mer-Del, $3; Madison, $3; Sheboygan, $3; Ripon Yard and Garden Club, $2;; Waupaca, $2; Plymouth, $2; Elkhorn, $2; Wausau, $2; City Club of Milwaukee, $2; Oakfield, $2; West Side Club of Madison, $2; Superior, $2. The following contributed $1 each: Cambridge and Lake Ripley; La Belle, Oconomowoc; Iola; Fox Point; North Prairie; Dopp Community; Jefferson; Cedarburg; Violet Club of North Prairie; Omro; West Bend; Menasha; Marinette; Whitewater; Ledgeview Club of Fond du Lac; Ceresco Club of Ripon; Baraboo, and Fond du Lac Community.

Notice! An apple cooking school for the ladies in connection with the fruit growers' convention at Waukesha, November 18-19.

Varieties For Medium Hedges

By E. L. Kammerer, Morton Arboretum

IN considering hedges of medium height we cannot justly omit the Privets, for included in the genus are several outstanding ones. The well known Amur Privet from North China, Ligustrum amurense, is one of these. As its iron-clad hardiness adapts it for the very coldest parts of the country, it is the one most frequently planted in this area. The Common Privet, Ligustrum vulgare, often distributed as Polish Privet, is another reliable form. With us it seems to lack the density and richness of foliage of amurense and is more susceptible to disease. In the Regal Privet, L. obtusifolium Regelianum, is a third hardy form, unusual in that its habit of branching is horizontal. Notwithstanding this fact it bears shearing well and has developed into an extremely dense hedge, well clothed with foliage right to the ground. In autumn the leaves assume decorative purplish tints.

Highest Honors

Highest honors for medium hedges of all around merit go to the two Cotoneaster species, acutifolia and lucida. The first, the Peking Cotoneaster, already well known for its ornamental qualities, is the hardiest of all Cotoneasters and one of the most adaptable. Of erect, slightly spreading habit with smooth, dark, lustrous green leaves, it is easily trained into a close branched hedge, fine in texture and of unusual density. Early leafing, and one of the last to lose in the fall, its effectiveness never wanes throughout the season. Similar in every respect, though even denser in habit and glossier of leaf, is black fruited Cotoneaster lucida, from the Altai Mountains of eastern Asia. Its native habitat bespeaks its iron-clad hardiness.

Ninebark Is Good

The Dwarf Ninebark, Physocarpus monogynus, a neat shrub of western origin, also ranks as one of our best medium height hedging materials. For it not only satisfies the necessary requirements as to texture and density, but possesses the admirable quality of bearing its light green foliage well to the ground Drouth does not seem to affect it either, and it is tolerant of soils and exposure. To some the yellowish green cast of its leaves might prove objectionable, although we do not find this the case.

For Shady Locations

For hedge use in shade or partially shaded locations nothing can take the place of the Alpine Currant, Ribes alpinum. Fully leaved by the first week in May, its small, five-lobed foliage soon forms a solid, persisting wall of light green. In bright sunlight burning of the leaves is apt to be experienced, otherwise its faults are few.

The Mentor Barberry, Berberis Mentorensis, has been much discussed of late, and after several years' trial, we are thoroughly convinced of its hedge possibilities. A hybrid of B. Julianae and B. Thunbergii parentage, it is fortunate in possessing the former's erect habit and semi-evergreen, leathery dark green foliage combined with the latter's hardiness and vigor.

Clean appearing summer foliage which assumes beautiful colors in autumn and interesting winter twig texture are the qualities which most highly recommend the Winged Evonymus, Evonymus alata, for hedge use. The openness of habit often noticeable in new hedges will disappear in time.

From September, 1937, Bulletin of the Morton Arboretum.

COMMUNITY LIGHTING FOR CHRISTMAS

A CIVIC project of considerable value as well as interest which our garden clubs may undertake during December is that of promoting a Christmas lighting contest.

There are several types of contests which have been used by some of our garden clubs. One type consists of outdoor lighting of evergreen trees and lighting about the homes, and the other consists of indoor decorations and lighting.

Mr. Wm. Heth, 2021 Underwood Avenue, Wauwatosa, is specializing in this type of work and is giving lectures to garden clubs. He brings with him all the necessary equipment for giving a demonstration on lighting and reports from several clubs indicate that the lecture is of considerable interest and value. His fee is $25 and expenses. Clubs may find it possible to cooperate with other organizations in presenting a program on Christmas lighting in their community.

MANY SUCCESSFUL FLOWER SHOWS HELD

A LARGE number of Wisconsin garden clubs held successful flower shows during August and early September.

The Cedarburg Garden Club reports that they sponsored a flower show on September 18-19 in the Cedarburg Public Library which was very successful and attracted a large attendance of show visitors.

To stimulate a public interest in gardening and flowers, every effort should be made by garden clubs to conduct worth while flower shows and secure as large an attendance as possible, especially of children. This will create a greater interest throughout the community in gardening.

Read the fruit growers' convention program on page 65.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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VOL. XIII NOVEMBER, 1937 No. 11

Influence Of Size Of Brood Cells Upon Size Of Honey Bee

A NEW bulletin has just been published by the Iowa Experiment Station, Ames, Iowa, entitled "The Influence of the size of brood cell upon the size and variability of the honey bee."

The problem of raising larger honey bees, especially those having longer tongues, has been a topic of interest in this country since the beginning of the present century. We are pleased to present the discussion of the findings of the research work presented in the bulletin as follows:

Discussion

The data presented show conclusively that size of brood cell is a factor in determining the size of the adult worker bee and that significantly larger bees are obtained through the use of artificial foundation having enlarged cell bases.

These data, therefore, substantiate the contentions of Baudoux and Pincot, according to Gillette-Croix, that worker bees reared in brood combs constructed from enlarged cell foundation are larger than their worker cell sisters. However, we cannot agree with Baudoux either in the magnitude of the results he obtained or the consistency of them. While Baudoux records an increase of from 11.9 percent to 25 percent in tongue reach as the size of brood cell increases from 850 cells per square decimeter to 700 cells per square decimeter, we are able to record increases of only 2.07 percent, 1.51 percent and 1.40 percent in length of proboscis for colonies 25, 21 and 18 respectively.

Our data from colony 25 substantiates those of Michailov which show that an increase in the size of brood cells is accompanied by a corresponding increase in the weight, length of right forewing, width of right forewing, sum of widths of third and fourth tergites and length of proboscis. Colonies 18 and 21 yielded somewhat conflicting results.

Whether the increases in the measurements of the worker bees recorded in these data are significantly related to honey production has yet to be proved.

It is apparent, however, that size of brood cells alone is not sufficient to produce a much larger worker bee. It is reasonable to state that selection and breeding of bees plus the application of extrinsic factors such as size of brood cell should accomplish marked results in that direction and that, with selection and breeding for a larger bee, a larger brood cell may be a necessary factor.

It is of interest to mention that difficulties were encountered in getting the queens to oviposit worker eggs in the enlarged cells when all three sizes were in the same hive at the same time. This was particularly true in the case of Cell C. While the worker bees apparently recognized no difference in constructing the three sizes of cells, the queen bees showed a preference for the normal-sized cells for ovipositing.

SMALL ENTRANCE MEANS LATE BROOD REARING

OBSERVATIONS by beekeepers and inspectors seem to indicate that if the entrances to the colonies are closed about October 1st, or still earlier, brood rearing continued later than if the entrances were left open. Beekeepers have also observed that large entrances in the spring may curtail brood rearing.

THE STATE BEEKEEPERS CONVENTION

IT so happens that the November issue of Wisconsin Beekeeping will be mailed at about the time the annual convention is held at Hartford, November 4-5. Consequently we will be unable to publish any news about the convention until our next issue.

We will appreciate hearing comments from our members as to the type of information they would like to receive in Wisconsin Beekeeping.

November In The Bee Yard

WHILE it is now practically too late, nevertheless there may be a few warm days when it will pay to feed a ten-pound pail of sugar syrup to colonies which are light. It is at least better than letting the colonies starve. Use two parts of sugar to one part of water. Heat the water to boiling and then stir in the sugar. Continue to stir while heating it again to the boiling point. Do not boil, however. A little tartaric acid added may be a good thing to prevent granulation though many beekeepers do not use it.

Now is the time to watch out for mice. When cold weather comes mice are looking for a warm nesting place and seem to prefer building a nest between the combs in a bee hive. Close all entrances to mice with hardware cloth or nails.

If you find any drones in a colony at this season of year, mark that colony for examination next spring. Then observe whether the colony is queenless or whether it has an infertile or drone laying queen. This experience will enable the beekeeper to determine what to do in the future with colonies which have drones late in the fall.

Does it pay to keep over used 60 lb. honey cans, or even old honey pails? Our observation is that used 60 lb. cans are often in very poor condition the following year. Then cannot be thoroughly cleaned inside and the cover especially may be dirty looking. Producers may feel they have saved a few cents, but the purchaser has a resentment against buying food which he is to eat, in a dirty looking can. Most of us are particular about the appearance of the things we buy. Well—the buyer of our honey feels much the same as we do.

Is the demand for honey from the baking trade falling off? That seems to be the case in Madison. We would like to hear from other beekeepers.

PRODUCER SHOULD NOT HAVE TO SELL HONEY

Marketing Is Specialized Business, Says Prof. Paddock

SEPARATION of the functions of honey production and honey marketing would result in greater cash returns to beekeepers, believes Prof. F. B. Paddock, state apiarist.

"It is unfortunate," he says, "that it has seemed necessary for the honey producer to undertake the problem of marketing for too often he is not equipped for such an enterprise.

"The producer of most any other product has little concern with the factors that enter into the marketing of the commodity," Mr. Paddock goes on to point out. "It would be comparable for the wheat grower to be interested in the consumers' attitude on shredded wheat."

Honey is often not properly prepared and properly offered to the trade, with the result that many potential consumers have become indifferent toward it.

With production so widely spread and scattered as it is in Iowa it will be a long time before honey can be marketed without the help of the producers, Mr. Paddock says. The problem under these conditions is for the producer to become better acquainted with the principles of successful marketing. — From Iowa Beekeepers' Bulletin.

FOOLISH QUESTION

Jack and Charley were watching their mother skim milk.

"Mother," asked Charley, "why does the cream come to the top?"

"Because," exclaimed Jack, "Don't you know, if the cream stayed at the bottom, people couldn't skim it off."

HONEY FOR SALE

Comb and extracted honey; any kind, any quantity. Fulfill the requirements of your local trade during an off year. Write for prices. C. W. Aeppler Company, Oconomowoc, Wisconsin.

HONEY WANTED

State your best price and send small sample if possible and advise whether the honey is in new 60 lb. cans or used cans.

J. K. WOLOSEVICH
6315 So. Damen Ave., Chicago Ill.

CONTAINERS

Write us for prices on friction top pails—60 pound cans and glass jars.

Comb and extracted honey wanted. Send samples and quote price delivered Milwaukee.

WALTER GEIGER
325 W. Vine St. Milwaukee, Wis.

NOTICE!

New Tin Container Prices Effective OCTOBER 1st

Cancel all Previous Quotations

2½ lb. cans, per case of 24	$1.20
2½ lb. cans, per carton of 100	4.10
5 lb. pails, per case of 12	.95
5 lb. pails, per carton of 50	3.20
10 lb. pails, per case of 6	.80
10 lb. pails, per carton of 50	4.70
60 lb. cans, with 2¼" caps, in bulk, each	.34
60 lb. cans, per box of 2	1.00
60 lb. cans, per carton of 24	7.85

F. O. B. Boyd, Wisconsin

For Prices on Comb Honey Wrappers, Shipping Cases, and Glass Jars, refer to our 1937 Catalog

All Shipments Made Within 24 Hours After Order is Received

August Lotz Company
Boyd, Wisconsin

Sweet Clover Questions Answered

By F. V. Burcalow

Continued from October

Question: Can sweet clover be seeded in a permanent sod pasture next spring, and how is this done?

Answer: The seeding of sweet clover in permanent pastures is a recognized practice in our pasture renovation program. This is done by ripping up the old pasture turfs as early as possible in the spring by disking or the use of a spring tooth harrow or the combination of the two, adding the necessary lime and fertilizer and then reseeding with the inoculated and scarified sweet clover seed. On pastures with a very thin sod, unhulled seed sown in late fall will give good results. When this is done, grazing must be so controlled and so managed that the clover seedlings can become well established and in the second year's growth, given a chance to reseed.

Question: Will sweet clover continue to grow year after year?

Answer: The sweet clovers commonly used in this region are the yellow or white biennial sweet clover. The individual plant dies at the end of its second year's growth. However, if given a chance in its second year's growth it will produce a large amount of seed, most of which is classed as hard seed and will oftentimes lie dormant in the soil for years before germinating. When once established and properly managed, sweet clover will give a good crop on the same ground due to the large amount of self re-seeding and hard seeds.

White Clover

White clover which somewhat disappeared in the last two years of dry weather in most cases will again reappear when favorable weather conditions prevail. Alsike clover, however, unless it has had a chance to set seed, in most cases will have to be reseeded.

Never try to establish sweet clover in unfavorable soil conditions. The acidity of sour soils should be corrected by liming in advance of seeding. The dust from highways surfaced with limestone often provides sufficient lime for an excellent growth of sweet clover along the roadside and where it has been growing for several years, inoculation is not necessary.

The bulletin "Renovating Blue Grass Pastures" describes sowing sweet clover in sod pastures. Available free from the Wisconsin Experiment Station, Madison.

NORTHERN WISCONSIN HAS GOOD SEASON

IN a letter from Frank P. Reith one of our northern Wisconsin beekeepers who has to fight the bears to get his crop of honey, he writes as follows: "My last report of the honey crop was made about conditions here on the Flambeau River west of Phillips. I again have a very good crop of raspberry and goldenrod honey. I had full sheets of foundation, drawn and capped which were put on August 27, and a new swarm caught on August 27 finished ten frames by September 4.

"Have had plenty of trouble with bears the last three weeks and have hurt a few."

APPLE AND BACON SANDWICHES

Cover a slice of toasted bread with a thick layer of heavy apple sauce. Place two slices of bacon on top of the sauce and put it in a hot oven until the bacon is crisp. Serve at once.

ANNUAL SWEET CLOVER OR HUBAM LOOKS PROMISING

VISITING with Prof. F. B. Paddock at Ames, Iowa, during September, we were interested in the statement he made in regard to the value of annual sweet clover, Hubam, both as a late honey producing crop and as a soil builder. Two large fields of Hubam were growing near an 80 colony apiary near Ames, from which the bees were obtaining a good surplus. As a soil builder Hubam is also popular because it is a cheap and easy way of obtaining a green manure crop—at least if the price of the seed is not too high. It is sown with barley or oats and makes a rapid growth after the grain is cut. It starts to bloom in August and blooms continually until frost. It can be plowed under in the fall or spring and with good summer moisture conditions can also be pastured in the fall.

If the seed can be purchased at about 15c per pound and from ten to fifteen pounds per acre used, it will provide a cheap manure crop without any extra labor in producing it.

At the Wisconsin College of Agriculture it is being used as a soil builder. Although it was very dry during the summer, the crop made a fair growth and yielded honey during late August and September.

Prof. Paddock made the statement that a farmer near Ames harvested $1,000 worth of Hubam seed last year from a large field which had been grown following oats. This can probably not be done in Wisconsin because of the shorter season here. However, in the extreme southern part of the state it may be possible to mature the seed. As a soil builder, however, it has real value.

Read the fruit growers' convention program on page 65.

Bee Fever

By Clarence J. Tontz, Crescent, Oklahoma

A LARGE new automobile came to a stop in front of young Frank Waker's honey stand. With the exception of a small dog in the rear seat, an elderly couple were the only occupants of the vehicle.

The elderly man carefully shut off the ignition, loked up at the imposing sign above the stand which read "Waker's Honey Farm," cleared his throat and said, "Good morning, young man. Have you got some good home-made honey?"

"Yes," answered Frank, "I have good honey made by my bees."

"Are those bees in those white boxes out there?" the man next asked.

"Yes," answered Frank, "I get my honey from those boxes."

"Well, that is interesting," the man said. "How much do they turn out per day?"

Frank saw that an explanation was in order. So, as simply and briefly as he could he explained the primary factors of beekeeping. The couple now seemed to have a little better conception of beekeeping. At this point Frank decided it would be a good time to employ a little sales talk to move some of his honey. He first showed them a jar of extracted honey with an oblong piece of comb standing upright. Next he brought out a square section of light amber honey.

"Oh!" exclaimed the lady, "how in the world did you fix that honey in the little box so nicely?"

"I didn't," replied Frank, "the bees did it."

"Did you train them to do it, then?" asked the lady innocently.

"No," said Frank, becoming slightly amused, "they just picked it up themselves."

After having been assured that the honey in the sections would not spoil before they arrived home, the couple bought several and also a few jars to put away for later use. After Frank had carefully tucked the honey in a box and placed it in the rear compartment, the couple still appeared reluctant to depart.

"There are some questions I would like to ask you," ventured the elderly man.

"Surely, go ahead," said Frank.

"What influenced you to go into the beekeeping business?"

"Oh, I hardly know just what it was. I guess I just got the bee fever from being around other beekeepers."

"The bee fever?" the lady's voice was slightly raised. "Were you affected much?"

"Well, I suppose I was," replied Frank, "I felt kind of restless nights and would get a feverish feeling when bees were mentioned."

"Did you finally get cured?" asked the lady, her face full of sympathy.

"Well, I bought some bees and began working with them; that sort of helped, but I still have the bee fever pretty bad."

"Do you ever get stung by your bees?" asked the man.

"Yes, once in a while when I get in with some mean bees. Once I opened a hive of hybrids without a veil on and about a hundred of them stung my face and hands. My eyes were swollen shut for a day or so."

"Good heavens!" exclaimed the lady, "and yet you go on working in such a dangerous occupaion."

"I guess it is the bee fever in me," offered Frank, grinning.

The elderly man, reminded by his wife that it was time they were going, started his car and drove at a moderate speed down the highway.

"That was quite an experience, wasn't it Henry?" ventured the lady. Then without waiting for his reply, she continued, "But you know, Henry, I kind of feel sorry for that young man being afflicted with that bee fever. Just think of those terrible chances he has to take of getting stung by thousands of bees should they go on a strike or something."

"Now Elsie," Henry was patient, "bees don't go on strikes and things like that. That is," he added dryly, "unless they have been reading the papers and go on a 'sit-down' strike and use the young man to sit down on."

"Well, I wouldn't want to be in his place," said Elsie. "He is forced to stay with his job by that fever. He did have a queer look in his eyes," she mused, "and especially did he look queer when I asked him to explain how the bees baked their beebread, and if the cells were used to imprison robber bees."

"Henry," she spoke sharply, "you have just been staring ahead saying nothing, and not listening to a word I'm saying. Look at me, Henry. Heavens! I do believe you have caught the bee fever from the young man. How do you feel, Henry?"

Henry turned to her with a strange light in his eyes and replied, "I feel fine, Elsie. If this is bee fever I want to get sick."

"Let's see now," Henry mused half to himself, "the younk man said there is little danger of getting stung if one keeps only gentle bees, and he said one could learn how to keep bees if he were interested enough."

Most women would be cured of jealousy if they would only take one good, steady, and impartial look at their husbands.

ARE OLD BEES OF VALUE IN THE HIVE?

IN the last issue of Wisconsin Beekeeping, Mr. A. E. Wolkow of Hartford mentions that he plans to sift out the old bees from his colonies to reduce the feed bill.

There will be no old bees to sift out. They have worn themselves out trying to find fall nectar and the colonies contain practically all young bees, a condition which may not always count towards good wintering, especially in the case of undersized colonies. It has seemed to me that colonies with only young bees are likely to become chilled during periods of extreme cold and may starve with plenty of stores all around them while stacks consisting mainly of old bees, even though queenless and not overly strong, may pull through the winter and into the spring until they dwindle out for lack of young mees to take their place. I believe a reasonable number of old bees are needed to help maintain the proper cluster temperature. — G. M. Ranum, Daffodil Bee Farm, Mount Horeb, Wisconsin.

A NEW RED CLOVER NEEDED

IN A letter from Mr. G. H. Cale, editor of the American Bee Journal, commenting on the decrease in sweet clover acreage, he states: "I prefer to call it a shifting decrease. Places without sweet clover gradually obtain it. Those that had it, gradually lose it. Sweet clover will remain permanent I think, however.

"We are concerned about the decreasing acreage of red clover, and hope to be able to develop some hybrid red clover upon which bees will work. That is one of the experiments at our sub-station at Atlantic, Iowa. A clover developed by Dr. Zofka of Roumania has been obtained which gives great promise."

You must ridge up the dirt high over your fall plantings to avoid heaving and standing water. Peonies cling to life and will not die except through your carelessness.

Sisson's Peonies
ROSENDALE, WISCONSIN
Highways 23-26 Intersection

Prices Reduced
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Manufacturing Your Wax Into Bee Comb Foundation

We have improved our equipment and speeded up our milling machines to enable us to make this big reduction in our working charges. In quality, our comb foundation is now better than ever.

Kind of Foundation	Size	Sheets Per Pound	Cost of Manufacturing Per Pound		
			10 lbs.	25 lbs.	100 lbs. or more
Medium Brood	8x16¾	8			
Medium Brood	8 9/16x16¾	7½			
Jumbo Brood	10x16¾	6	25c	20c	11c
Medium Brood for shallow frames	4½ x16¾	15	29c	26c	17c
Thin Super	3⅞ x16½	28	10 lbs.	25 to 99 lbs.	100 lbs. or more
Thin Super	3 11/16x14¼	30			
Thin Super	4⅛ x17	23	30c	25c	19c

We will work your wax on shares, accept it in trade or buy for cash. Free storage on your wax.

We have just received notice of another advance on nails. Steel, lumber, etc., have advanced a great deal since we published our 1937 catalog. We advise buying supplies this fall while we are continuing to quote our lowest prices.

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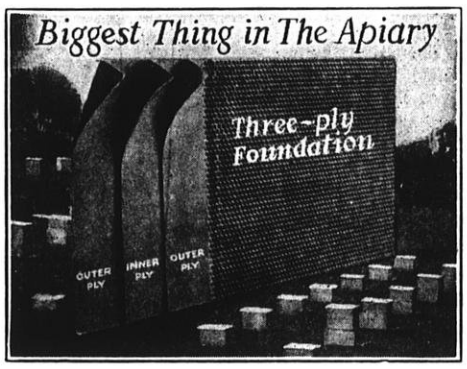

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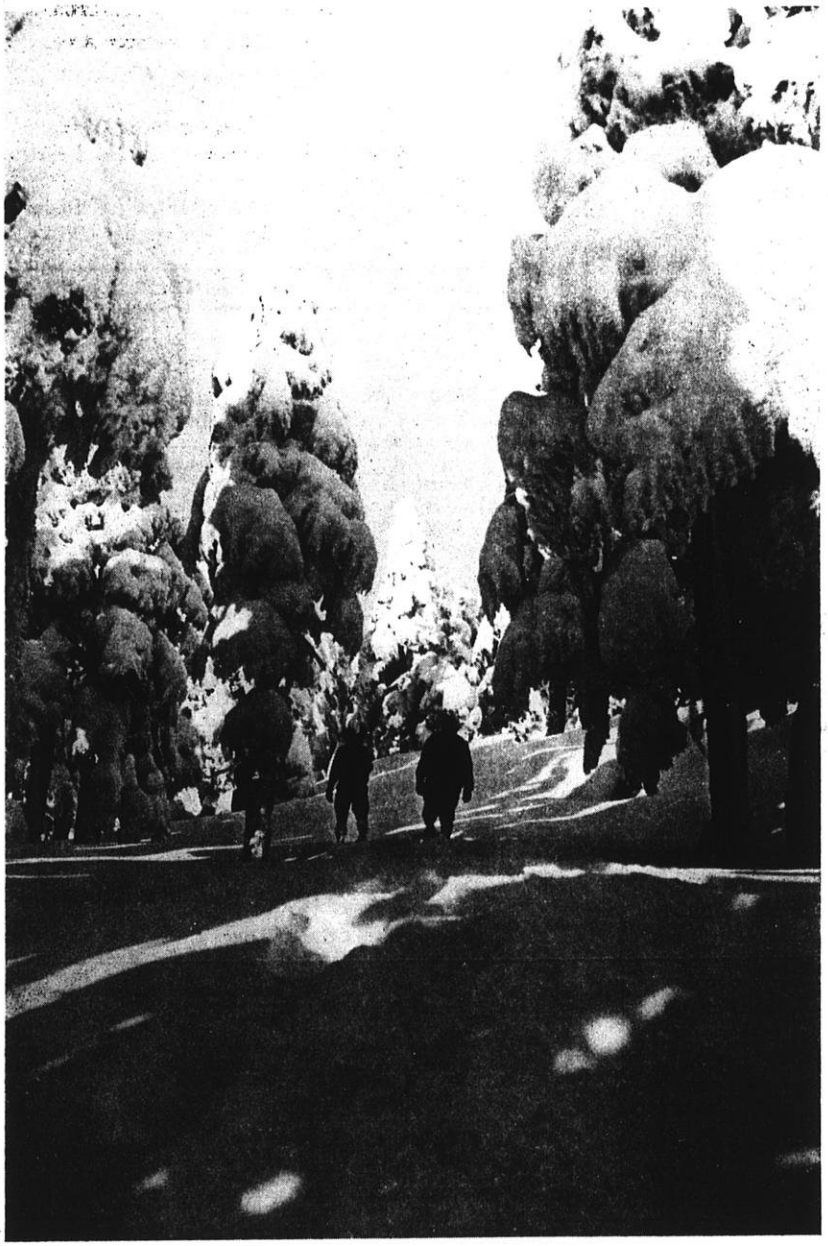

Merry Christmas

December, 1937

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Write for Prices

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EVERGREENS MAY BE PLANTED IN THE WINDOW BOX

EVERGREENS may be planted in the window boxes which were used for flowers during the past summer and will make these boxes very ornamental during the winter time. Nurserymen can provide small evergreens ranging in height from 10 to 18 inches, which will do very well.

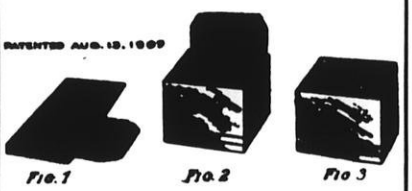

Fig. 1 Fig. 2 Fig 3

Berry Boxes

Crates, Bushel Boxes and Climax Baskets

As You Like Them

We manufacture the Ewald Patent Folding Berry Boxes of wood veneer that give satisfaction. Berry box and crate materials in the K. D. in carload lots our specialty. We constantly carry in stock 16-quart crates all made up ready for use, either for strawberries or blueberries. No order too small or too large for us to handle. We can ship the folding boxes and crates in K. D. from Milwaukee. Promptness is essential in handling fruit, and we aim to do our part well. A large discount for early orders. A postal brings our price list.

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Dept. D, Cumberland, Wis.

Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

Established 1910

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

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
1532 University Ave.
Madison, Wisconsin

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

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

Volume XXVIII DECEMBER, 1937 No. 4

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PLEASE DO NOT SEND STAMPS

Wisconsin Horticulture

OUR PROGRAM

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

OUR PROGRAM

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

Successful Fruit Growers Convention Held

THE 69th Annual Convention of the Wisconsin Horticultural Society and Fruit Growers program at the Avalon Hotel, Waukesha, November 18-19, was unusually well attended and interesting. About 130 fruit growers attended the two-day session and listened to a very interesting program.

We wish to mention especially the success of the Apple Cooking School for the ladies. About 50 ladies attended this session on Thursday. So enthusiastic were they that this kind of meeting will no doubt be continued at future conventions. It gives an opportunity for the wives of fruit growers and others interested to have a meeting of their own, become better acquainted, and discuss topics of special interest to women. A great deal of credit for the success of the meeting is due to Mrs. Karl Reynolds, Sturgeon Bay, who presided and talked on cherry recipes; Mrs. Carolyn Stevenson, Home Demonstration Agent, Waukesha, and Miss Mildred Owen, of Milwaukee County, who spoke and cooperated in planning the meeting; also to the Stargard 4-H Club Demonstration Team, of Milwaukee County; and Professor James G. Moore, Madison; and Miss Marguerite Case of the Milwaukee Railway and Light Company, for the excellent topics which they presented.

The Fruit Show, especially the exhibit of new varieties and seedlings, attracted much attention. Samples of the new varieties were available for tasting. Special effort had been made to obtain a bushel of Kendall apples from a New York grower. These arrived, but were found to be overly large, poorly colored, and immature, so that they did not give a fair representation of this excellent McIntosh cross. Good specimens of Secor were shown which were of good color and quality. Minnesota 1007 apples were shown, but were also green and immature.

A number of our members exhibited unusually good samples of Cortland and Orleans. Considerable interest was displayed by growers in Cortland. One grower stated that his family now preferred Cortland for home use, both for cooking and eating, in preference to other varieties they grow.

There were no changes in the speaking program as given in our November issue. Each number was very good, and many comments from fruit growers were heard expressing their appreciation for the excellence of the program.

The banquet program was especially good. The presentation of honorary recognition certificates by President Karl S. Reynolds to Mr. D. E. Bingham, of Sturgeon Bay, and Professor James G. Moore, of Madison, for outstanding service in horticulture was impressive. Mr. Ben Rusy, District Extension Leader, Madison, was outstanding as a speaker and entertainer, and brought new spirit to the group.

Dr. J. C. Blair, Chief of the Horticulture Department at Urbana, Illinois, was the highlight of the banquet program, discussing first personalities in horticulture and then showing colored slides and movies along horticulture lines which were beautiful.

Factors That Cause Codling Moth Abundance

Convention Paper

W. P. Flint, Illinois

DID you ever know of a case where codling moth was abundant in an orchard and you could not determine the cause?

This insect has been so intensely studied in practically all the apple-growing sections of the world that the factors that effect its abundance are pretty well known. Some of the most important in our sections are the weather of the growing season, weather of the winter, especially periods of very low temperature, the age of the trees, the crops of previous seasons, the type of bark on the trees, orchard surroundings, type of pruning, size of pruning wounds, disposal of culls, thoroughness of spraying, kind of spray materials used, and the relative abundance of parasites.

All these factors, of course, work together. Sometimes one set of them will form an alignment which will tend to increase the numbers of codling moth, with only one or two of the adverse factors exerting much influence for a given season. On the other hand, nearly all factors may be favorable and under these conditions we have periods of severe damage. In some sections of the country the favorable factors are so often predominant that it has been found impossible to produce apples at a profit in these regions.

Effect of Weather

It might be well to review each of these factors hurriedly and to get clearly in mind what can be done to change the naturally favorable factors for the codling moth to unfavorable ones. In the first place, the weather during the growing season. As a rule, codling moth is highly favored by warm or hot and dry weather. If both broods of the codling moth encounter favorable weather conditions, a special effort will have to be made to keep down the increase in numbers. This may mean applying one or two sprays later in the season than is normally done. We nearly always have an increase in the general abundance of codling moth following a season which is dry and which has high temperatures during June, July, August, and early September.

Weather during the winter exerts a great influence on codling moth abundance. A dry mild winter will permit most of the insects to come through. In northern Illinois we have had winter survivals running up to 60 or 70%, and higher than this in the central and southern part of the state. If at some period during the winter we experience extremely low temperatures, with two or three days of 20 deg. F. or more below zero, practically all codling moth above the snow line will be killed. If the ground is bare during such periods nearly all codling moth larvae on the trunk of the trees will be killed and the winter survival may drop to 10% or even lower.

The age of the trees has a marked effect on codling moth survival and abundance in several ways. Old trees as a rule have very much rougher bark and so provide more favorable places for hibernation and the formation of cocoons during the summer period. On old trees there nearly always are some pruning wounds which have decayed out, leaving open punky cavities which are ideal for sheltering the codling moth larvae. Once they have cocooned up in these cavities they are relatively safe from birds and can survive adverse weather conditions better than on the trunk of the tree.

Another factor causing trouble in old orchards is the size of the trees, which often makes it impossible, with the equipment at hand, to spray the tops of the tree thoroughly.

Little need be said about the importance of the crop of the previous season. While the adult codling moth is a fairly strong flyer it is a rather sluggish insect and apparently prefers to remain largely on the tree where it matured, or at least within three or four rows from the tree where its cocoon was spun. If the crop of the previous season has been a heavy one there is a greater chance of a considerable carry-over within the orchard.

Disposal of Culled Fruit

The disposal of the culled fruit has an important bearing on this. If the culls are allowed to remain in the orchard, or if they are piled near the packing shed, which is near the orchard, most of the worms will escape from the apples and may carry through to the next season. If the culls are carefully picked up and carried out of the orchard, much of this difficulty can be overcome. The old trees as a rule have a much heavier and rougher type of bark and this of course provides better quarters for cocoons.

It is often the case that the outside two or three rows of an orchard will show a much greater number of worms than will be found in the center of the orchard. The reason for this may be the presence of poorly cared-for orchards in the neighborhood which are furnishing the supply of codling moth to invade the better cared-for orchards. It may be due to buildings, poorly-kept fence rows, or woodlands, as such areas provide good hibernating places for the codling moth. Some other unusual fac-

tors are piles of lumber near the orchard, road-side stands where large numbers of second-grade or cull apples are sold. We recently had an opportunity of checking the codling moth infestation in two separate blocks of orchards owned by a large commercial company. Both these orchards were very well taken care of. They were pruned in the same manner, by the same men, and sprayed under the supervision of the same man, with exactly the same spray mixtures and on the same day. There was a difference of approximately 20% in the infestation in the two orchards. In checking to see what made the difference, the only thing we could find was that a large roadside sales stand was located on the state highway immediately adjoining the orchard with the high infestation. The proprietor of this stand made a specialty of buying rather low-grade apples and selling either in bulk or in baskets; consequently, he was bringing in many codling moth-infested apples and keeping them at the stand long enough so that the worms crawled out of the apples, spun their cocoons, and brought about a heavy infestation in the orchard the next season.

Type of Pruning Important

The type of pruning is of very great importance. Thorough spraying cannot be done when a tree is so bushy and thick-headed that the spray cannot be forced into the center of the tree or up to the top. Probably we are not paying nearly enough attention to this fact. During the past year we have had several orchards under observation where it seemed doubtful if codling moth could be held down to below a 10% infestation unless the trees were opened up to permit more efficient spraying.

The general matter of orchard sanitation is also highly important. Any object left lying around the orchard may serve as protection for over-wintering codling moths. Such objects as discarded clothing, corrugated packing boxes in which insecticides have been received, pieces of old baskets, discarded sacks, and even bits of boards, prunings, or piles of wood where a tree has been taken out may serve as a center of infestation. Seventy-five codling moth larvae have actually been found in one discarded gunnysack lying under a tree in a very well cared-for orchard. In every orchard where codling moth is a problem the trees should be thoroughly scraped sometime during the winter and the scrapings removed from the orchard. All rubbish, bits of trash, or any material in which the codling moth can be sheltered should be taken out of the orchard and either burned or carried to a distance of at least a half mile.

Spraying

In our fight against the codling moth we depend to a larger extent on spraying than on any other means of control. In the first place, of course, the material used in spraying is of greatest importance, but next to this, and sometimes just as important, is the matter of thoroughness. In an area where codling moth is only moderately abundant there are three or four spray materials which, if properly mixed and thoroughly applied, will control codling moth to such an extent that the infestation will not be of any great importance, i.e., holding it down to below two per cent. The same materials can be used in the same amount or in greater amounts, and if they are not applied thoroughly only a poor degree of control will be obtained. Perhaps there is no other one factor in codling moth control that we need to emphasize as much as thoroughness in spraying. As a rule, trees that are 20 years old should receive at least 20 gallons of spray per application. In areas where the codling moth is at all abundant it is a safe rule to apply approximately one gallon of spray material for each year of the age of the tree after the trees are 15 or more years old. A good sprayer will put on this amount of material without wasting it, and apply it it in such a manner that most of it will stick to the tree. Control cannot be obtained unless a thorough job of spraying is done. Thorough spraying means complete coverage of the trees, including the tops.

Editor's note: An article by Prof. Flint on Lead Arsenate or Substitutes, will appear in an early issue.

A GOOD CRANBERRY CROP THIS YEAR

WISCONSIN, the nation's third largest cranberry-growing state, will produce an estimated crop of 115,000 barrels of high-quality cranberries this year. The price, too, is quite reasonable, and lower than that of a year ago.

There are about 20 varieties of cranberries grown, with about a third of the crop of native varieties. Other varieties are McFarlin, Searles Jumbo, Howes, Berlin, and Metallic Bell. In Wood County alone there are 900 acres devoted to cranberry growing. Jackson and Monroe Counties each have approximately 300 acres, while Juneau and Washburn Counties have about 200 acres each. The cranberries are all sold in attractive white pine, quarter-barrel, ventilated boxes. The cranberry industry of Wisconsin is especially deserving of encouragement according to Mr. E. L. Chambers, State Entomologist, because it utilizes land that is useless for any other productive purpose, and gives employment to thousands of people.

A Free Country

Lady: "I wouldn't cry like that, my little man."

Boy: "Cry as you please; this is my way."

The Convention Fruit Show

NEW VARIETY APPLE EXHIBIT

FOR the first time, we had an excellent exhibit of new apple varieties recommended for trial in Wisconsin at the Annual Convention. Some excellent and high quality specimens were shown. This was probably the best way to study these new varieties, that is, to have them exhibited by Wisconsin growers.

Referring to the winners of premiums, it is seen that all varieties excepting Kendall were shown this year. The specimens of Cortland, Orleans, and Macoun were especially good. We were surprised at the well-matured samples of Macoun because this is considered to be a rather late variety for this state. They were superior to the sample of Kendall which we received from a New York grower, but this was simply a case where the variety did not show up as it should, as Kendall is earlier than Macoun. Secor was also shown and attracted some attention.

Premium Winners, New Varieties

Orleans: 1st, C. W. Aeppler, Oconomowoc; 2nd, L. B. Irish, Baraboo; 3rd, N. C. Jacobs, Sturgeon Bay; 4th Dawson Bros., Franksville.

Newfane: 1st, C. W. Aeppler; 2nd, Dawson Bros.; 3rd, Jos. L. Morawetz, West Bend.

Macoun: 1st, N. C. Jacobs; 2nd, M. Cooper, Waukesha.

Cortland: 1st, C. W. Aeppler; 2nd, Nieman Bros. Orchards, Cedarburg; 3rd, M. Cooper; 4th, Fromm Bros., Cedarburg.

Haralson: 1st, J. Morawetz; 2nd, A. Plummer, Oshkosh.

Secor: 1st, Gilbert Pieper, Oakfield; 2nd, W. H. Steele.

Any other new variety: 1st, L. B. Irish, Baraboo, on Gem City; 2nd, Wm. Steele, Pewaukee, on Gem City; 3rd, Gilbert Pieper, Oakfield, on Parkins; 4th, Gilbert Pieper, on Bancroft.

Premium Winners, Standard Varieties

Gano: 1st, N. C. Jacobs; 2nd, F. Kelsey, Delavan; 3rd, Dawson Bros.

Grimes Golden: 1st, Nieman Bros. Orchards; 2nd, N. C. Jacobs; 3rd, J. L. Morawetz; 4th, Swartz Bros., Kenosha.

Jonathan: 1st, H. E. Pierce, Edgerton; 2nd, F. Kelsey; 3rd, Nieman Bros. Orchards; 4th Wm. Steele.

Delicious: 1st, Ed. Kassner, Casco; 2nd, N. C. Jacobs; 3rd, L. B. Irish; 4th, H. E. Pierce.

Northern Spy: 1st, J. L. Morawetz.

Salome: 1st, Swartz Bros.; 2nd, H. E. Pierce.

Tolman Sweet: 1st, M. Cooper; 2nd, J. L. Morawetz; 3rd, Swartz Bros.

Windsor: 1st, N. C. Jacobs; 2nd, Wm. Steele.

Golden Delicious: 1st, Ed. Kassner; 2nd, L. B. Irish; 3rd, H. E. Pierce; 4th, J. L. Morawetz.

Snow: 1st, Nieman Bros. Orchards; 2nd, F. Kelsey; 3rd, H. E. Pierce; 4th, J. L. Morawetz.

McIntosh: 1st, Ed. Kassner; 2nd, N. C. Jacobs; 3rd, F. Kelsey; 4th, J. L. Morawetz.

N. W. Greening: 1st, M. Cooper; 2nd, H. E. Pierce; 3rd, L. B. Irish; 4th, Swartz Bros.

Wealthy: 1st, Ed. Kassner; 2nd, J. L. Morawetz; 3rd, Swartz Bros; 4th, J. E. Paulson.

Any other variety: 1st, Nieman Bros. Orchards, on Winter Banana; 2nd, Nieman Bros. Orchards, on Ben Davis; 3rd, M. Cooper; 4th Joseph Thronsmetz, West Bend, on Pewaukee.

SEEDLING APPLE EXHIBIT

SIXTY-FIVE samples of seedling apples were exhibited at the annual convention of the Wisconsin Horticultural Society at Waukesha. They came from all over Wisconsin. Many of the samples were of excellent quality, shape, size, and color. However, there were many samples that did not merit consideration. The winning seedling was shown by W. B. Sanderson of Crivitz.

What Wisconsin is looking for is a late-keeping apple, of high quality, red color, medium size, smooth shape, having a hardy, productive, annual-bearing tree. Such an apple is probably more than the search of a lifetime, but progress is being made.

The winning samples this year were exceptionally good. The first prize sample was solid dark red in color, medium size, smooth finish, short stem, oval to round in shape, with good quality and texture. Its deep red color was outstanding.

The second prize was a solid bright red color. The apple was medium size, smooth finish, with a medium stem, and of oval to round shape. It was also of good quality.

Third prize was somewhat similar to the first prize sample. In fact, Mr. Peter Swartz was of the opinion that it is the same apple. Competition between first and second prize was very close. Those who prefer a bright red apple probably thought that the second prize sample was the best, but the judges thought that the first prize had a little better quality.

Seedling Premium Winners

1st, W. B. Sanderson, Crivitz; 2nd, Frank Wilkens, West Bend; 3rd, Swartz Bros., Waukesha; five additional prizes to: Chas. Mullard, Crivitz; N. C. Jacobs, Sturgeon Bay; John Kipp, Dousman; M. H. Bingham, Sturgeon Bay; and Ed. Dick, Oregon.

SEEDLING NUT SHOW

THERE were 33 samples of black walnuts, butternuts, and hickory nuts exhibited in the Seedling Nut Show at the Horticultural Society Convention at Waukesha. Some very large black walnuts were exhibited which attracted considerable attention. The judges, Mr. Peter Swartz, of Waukesha; Mr. William Leonard, of Fort Atkinson; and C. L. Kuehner, of Madison, did an excellent job of judging. Mr. Swartz brought in a vise and a hack saw. A sample from each plate was sawed directly across through the center. The meat could then be seen and the amount of "furniture" determined. As Mr. Swartz remarked,

"Some of the varieties were all furniture and very little meat." Others, again, had very thin shells and were quite meaty. After selecting the best by their appearance on cross section, the better varieties were cracked and the meat tasted for quality.

The Premium Winners—Seedling Nuts

Hickory: 1st, Charles J. Bartlett, Pewaukee; 2nd, A. E. Johnson, Waukesha; 3rd, Herb Hipp, Waukesha; 4th, Mrs. R. J. Weber, Janesville; 5th, Mr. Nat Wittig, Durand.

Walnut: 1st, J. A. Kawatski, Waukesha; 2nd, Dawson Bros., Franksville; 3rd, Mrs. Emil Ast, Dodgeville; 4th, Herb Hipp, Waukesha; 5th, N. C. Jacobs, Sturgeon Bay.

Butternut: 1st, Mrs. Emil Ast; 2nd, Chas. Jona, Crivitz; 3rd, E. Schneider, Glenwood City.

LIKES KENDALL APPLE

A BOX of Kendall apples were received for exhibit at the annual convention from Mr. A. David Davies, Congers, New York. In sending these apples Mr. Davies writes as follows relative to his experience with the Kendall:

"We planted our first Kendall tree the spring of 1931, and have grafted or budded some additional 225 trees, mostly on McIntosh stock. The first tree had its first crop of a few apples this year. We have, however, had apples from the grafted trees for the third year. The trees have very fine crotches for the scaffold branches, with ample fruit spurs to give an excellent crop the entire length of the branch, similar to the McIntosh habit. We have noticed the tendency for terminal fruit bud formation for three years on the annual wood, like Cortland or Rome Beauty. Annual wood growth as much as five feet.

"So far the fruit has been excessively large, probably due to the vigor of the young trees, as has been the case with Cortland. Our Cortland are now growing much more uniform on older trees. We expect Kendall to average around 2¾ to 3 inches when the trees get into heavy bearing.

"We like the Kendall better than McIntosh for flavor in eating raw or cooked. We like the short stem of the fruit, and feel sure that this variety will fill our needs much better than Baldwin. May we wish you a very successful meeting of your Society on November 18."

THE POTATO PROBLEM

THe potato marketing problem is not well understood by many people. The Secretary of Agriculture in his report to the president as of November 1, 1937, states the problem rather clearly as follows:

"Potato prices are extremely low this year. At country markets in August the prices ranged from 30 to 50 cents a bushel. Such prices do not cover costs, and growers asked the Agricultural Adjustment Administration to coordinate their efforts toward getting better returns. This can be done with benefit to consumers also.

"Not all the potatoes seen in grocery stores are of good quality. Frequently the offerings include small or damaged potatoes. This is unnecessary when we have a big supply of good potatoes. Culls and other low-grade potatoes hurt the market and prevent consumers from getting their money's worth.

"Low prices do not necessarily protect the people who buy potatoes; they may herald a shortage and high prices the next year. Consumers are better off when prices are stable at a fair level. They pay more in the long run when growers cannot market their potatoes efficiently and when handlers lose money in unstable markets. In years of moderate production and marketing, consumers pay about 20 cents a bushel less than they do on the average when the market goes very high. Potato growers have had relatively low prices in 3 out of the last 5 years—1934, 1935, and 1937. They got relatively low prices similarly in 1931 and 1932. About a quarter of a million people make their living by growing potatoes, and about half a million people depend on potatoes for a good share of their living. Low returns from potatoes hurt much other business."

Mats for the above design are available to growers for use in advertising, in two sizes, one column and two column widths, free of charge. Write Wisconsin Horticultural Society, 1532 University Ave., Madison, Wisconsin.

IMMATURE APPLES

IN many sections, growers were troubled with apples being green or immature at picking time. At our Fruit Growers Convention, we were confronted with several samples of new varieties which were brought in for exhibition and were immature and off flavor. This was noticeably true of the Kendall apple which had been sent to us by a grower in New York. It was also the case with the Minnesota No. 1007 apple sent us by the Minnesota Fruit Breeding Farm.

The Kendalls were unusually large as well as immature. In discussing the matter with Prof. James G. Moore, he was of the opinion that it might be due to the availability of nitrogen late in the season due to rain following possibly a hot, dry summer when there was little nitrogen available. The availability of fall nitrogren probably started the fruit growing, and they were still immature at harvest time. He stated that in former years the University had some Delicious trees in a poultry range. These Delicious apples were immature at harvest time almost every year. This was probably due to the availability of nitrogen from the poultry droppings late in the season.

What to do about it is something else again. The use of only quickly available nitrogen fertilizers, together with a vigorous cover crop throughout the orchard to take up the nitrogen available in the fall, would seem the logical solution. Who can suggest something else?

Rural Free Delivery

A Kansas farmer stopped at a bank to see if he could get a loan on his farm.

"It might be arranged," said the banker. "I'll drive out with you and appraise it."

"You won't need to bother," said the farmer, noticing a huge cloud of dust rolling up the road. "Here it comes now."

All American Vegetables For 1938

SIX foreign and six American seed firms were winners in the All American Committee awards according to its announcement for 1938.

The American firms, which are really 7 counting a Canadian entry, are responsible for new varieties of Squash, Cabbage, Pepper, Tomato, Lettuce. Holland firms offer new varieties of Bean, Beet, Cabbage, Spinach, Radish.

Following are the 1938 vegetables.

Commodore Bean — A bush Kentucky Wonder type of green podded snap bean, productive, big, long, round, stringless, wine colored seed when mature. Zwann & Van der Molen, Voorburg, Holland. Award of Merit.

Del Monte Spinach — Same firm. Recommended for Garden and Commercial use.

Perfect Model Beet—Detroit type of deep globe shape, tender flesh, dark crimson and faint zoning. Fine tap root, grows erect of medium height. Abraham Sluis, Enkhuisen, Holland. Special Mention.

Sauer Kraut King Cabbage—Same firm. Recommended.

Billiard Ball Radish—N. V. Sluis en Groot, Enkhuisen, Holland. Recommended.

Early Prolific Straightneck Squash—Of Ferry Morse Seed Co.: given Award of Merit. It is about a week earlier and more productive than present strains of straightneck summer squash; smaller, less warted, more uniform, brighter yellow and quite free from greenish coloring on young fruits.

Chieftain Cabbage—Of Ferry Morse Seed Co.: given Award of Merit. It is an early Savoy variety; crisp, large, firm heads of good quality and long standing.

Windsor A. Pepper—Of L. C. Curtis, Connecticut Experiment Station; given Award of Merit. Reported last fall and seed will be available this season from F. H. Woodruff & Sons, Associated Growers, Ferry-Morse Seed Co.

Rocky Ford Pepper—Of D. V. Burrell Seed Growers Co., given Special Mention. Large plant and leaves; prolific bearer of large, thick walled, uniform sweet fruit; earlier than California Wonder and thicker walled than World Beater, its parents.

Spearhead Lettuce — Of W. Atlee Burpee, recommended for garden and commercial use.

Harkness Tomato—Of McFayden Seed Co. of Winnipeg, Canada. Recommended for garden and commercial use. This has special features adapted to Canadian conditions that are described elsewhere.

From November 1 Market Growers Journal.

NEW STRAWBERRY VARIETIES IN DOOR COUNTY

EARLY in November we received a letter from Mr. Don W. Reynolds, Sturgeon Bay, commenting on the varieties of strawberries which they are testing out this year. The Reynolds Company is growing a considerable acreage of strawberries and is interested in a good canning variety such as is grown on the coast. The following are Mr. Reynolds' comments:

"As you know, we tried out several new varieties this year, and the results are from very good to very poor. We have found that the Ettersburg and Corvallis from the west coast are doing very well, whereas the Marshall does not seem to hit it off in this climate. The Catskill look great, and we believe that this particular berry has a great future ahead of it—at least from our observations the first year. Of course, we will not know until next year what it will do in the line of production. For some peculiar reason, our Premier set-

tings are more outstanding than our Beaver settings. In 1936, the results were just the opposite. We have a small setting of Redhearts which grew very nicely as far as the individual plants were concerned, but we find this variety to be very poor in sending out new runners."

STRAWBERRIES AT WARRENS

H. H. Harris

WE covered our strawberries the week of November 8. We covered with marsh hay—about three tons per acre. The temperature dropped to 20° on October 23. The Beavers on the old-renewed bed had their leaves singed by that freeze so they looked quite bleached. This does not show on any of the other varieties on the old bed nor on the Beaver on this year's setting. The temperature went down to 16° November 3 followed by a heavy rain, and warmer weather. The roots on the plants do not show any injury from the freeze.

Some fields I have seen show a nice stand of plants, and some are quite narrow and broken, and I think most plants rooted later than usual. I know our own did, and most growers I have heard spoke as though the plants were not taking root until our September rains.

I have not seen any indication to show that the plants of either Dorsett or Fairfax are more subject to injury from cold than any other variety. Both of them have bright green foliage like the Premier since these freezes and frosts that nipped the Beaver foliage on same old bed. But I do think the blossoms are more tender, especially the Dorsett.

I do think strawberry growers, as well as all farmers, would be the gainer by plowing under more green crops—on all soils—soy beans or any of the other legumes are best but even weeds before seeds ripen are better than nothing.

TIMELY TOPICS

PROTECTION of trees against rabbits and mice is best accomplished by wrapping with wire screen. A copper soap rodent repellant is on the market and is quite effective.

An unusual number of perennials have remained in full bloom until mid-October. Some of the best of these are plumbago, Salvia azurea, gaillardia, Verbena canadensis, V. wrighti, and physostegia.

It is time to think about house plants for the winter months. Those who experience difficulty in keeping some of the more tender types should content themselves with hardier plants, such as Aspidistra, Asparagus sprengeri, Crassul arborescens (sometimes erroneously called rubber plant), Ficus elastica, and F. nitidus. All these are dependable house plants.

Grapes should be pruned this fall as soon as the leaves are off. In general, the directions are to remove as much old wood as possible and retain from 16 to 24 feet of strong, new-cane growth to produce next years crop.

Helxine or Irish moss is reported to withstand very well the unfavorable conditions of city homes.

Asparagus planting that are well established do not need winter protection. If the tops are not diseased, however, they are often left standing and serve as a snow trap, thus protecting the bed somewhat against alternate freezing and thawing which may do some damage by breaking and drying out the fleshy storage roots.

Gourds make interesting and attractive ornaments for the home. A skillfully arranged bowl of gourds makes a very decorative centerpiece for the dining table or buffet. Properly cured and treated, they retain their attractiveness for a long time. Try your hand at arranging and finding new uses for them.

Dry tomato vines may not be the best kind of mulch for covering perennials in the fall, but they may be used to supplement other more desirable materials.

—By Professor W. H. Alderman, assisted by Louis Sando and A. E. Hutchins, in the November Minnesota Horticulturist.

DR. U. P. HEDRICK TO RETIRE

DR. U. P. HEDRICK, Director of the New York Experiment Station at Geneva, will retire on his 68th birthday in January.

Dr. Hedrick is the author of numerous books and bulletins of value to fruit growers. Because of the number of new varieties originated under his supervision at the New York Station which are being grown in Wisconsin, we feel he has contributed to the success of fruit growing here. During the past thirty years more than 25,000 fruit tree seedlings, over 21,000 grape seedlings, and more than 30,000 small fruit seedlings have been originated at the Station as the result of the fruit breeding work under his supervision.

Some of the outstanding new varieties are Cortland, Kendall, Milton and Orleans among the apples; Cayuga and Gorham among the pears; Stanley plum; Fredonia, Golden Muscat, Portland and Sheridan grapes; Indian Summer, Marcy and Newburgh red raspberries; Bristol and Naples black raspberries; Catskill, Clermont and Culver strawberries. Most of these are being tried in Wisconsin.

Thirty Years of Wisconsin Fruit Growing

James G. Moore

AT times it is interesting and even profitable to recall past events as a means of measuring the progress which has been made. The advance made in Wisconsin fruit growing during the 32 years that I have been observing its development has been truly remarkable.

Coming from a section in which questions of varieties were reasonably well settled, the first distinct impression made by the first meetings of the Wisconsin Horticultural Society which I attended was that the paramount matter in Wisconsin horticulture was the search being made for suitable varieties.

The Search for Varieties

In 1906 and 1907 we were probably nearing the close of what might be called the second phase or period of fruit growing in the state. The early settlers had brought with them eastern varieties which in large part had proved inadequate with the result that it became necessary to largely build a new list of hardy varieties. Hardiness and seedlings occupied a front seat during this period. The wood lot, and fence corner were contributing their part and Prof. Goff and other pioneers were growing quantities of seedlings from which it was hoped valuable new sorts might be selected; and the experiment station and growers were trying out a long list of Russian and other important varieties of reputed superior hardiness. The merits of these were discussed at the meetings and lists were made for recommendation to those desirous of making plantings.

Time has taken its toll of the varieties looked on with favor in those days. There were 30 varieties of apples recommended for planting in the annual report of the Society for 1906. Of those 30, at least 15 would not appear in a recommended list today and not more than 7 or 8 would be included without question. Not a single plum in the list of native plums given in that report would be included in a list today except possibly as pollenizers of the varieties we are now planting. New raspberries have almost completely replaced the old ones and only Senator Dunlap among the strawberries occupies a place of importance, and even it appears to be slipping rapidly.

Although other things have taken a relatively larger place in Wisconsin horticulture in recent years, the quest for varieties has not ceased. The breeding of varieties of known parentage superseded the search for worthy seedlings. For about 25 years we have placed our dependence upon this method of improving our fruits and in some cases the results have been truly remarkable while in others there has been cause for disappointment. Perhaps we are too impatient and forget that it took 300 years to develop the list of 7 or 8 varieties of apples which we now recommend which were found in the 1906 list, although it is true that most of them were developed within a period of about 50 years.

I sometimes think that possibly we have completed the cycle and at least here in Wisconsin we are entering a period of renewed interest in the possibility of chance seedlings adding something of value to our fruit list. I am inclined to believe that we should not put our dependence upon the plant breeder to the extent of forgetting that what we have, at least so far as apples are concerned, we owe largely to the interest and keen observation of our earlier horticulturists in searching out valuable seedlings. Perhaps there is something of value still which the fruit growers can do for future generations in searching out valuable seedlings. We must not expect such rapid advances as were made by Patten, Gideon, Daniels, and others of the earlier horticulturists because their contributions materially raised the standard which we are called upon to excel.

Development of Commercial Orchards

In the early years of this century we were entering the third period in Wisconsin fruit growing—commercial orcharding. When I came to Wisconsin in 1905 there were probably not more than a half dozen orchards that could properly be called commercial. The development in Door County due to the pioneer work of Goff, Hatch, and Bingham had not yet started. The Bayfield section apparently had not even been thought of as a fruit section; and it was several years later before the trial orchard at Gays Mills, which gave rise to the development of our largest commercial apple section, was planted. It was then quite generally held that Wisconsin was not suited to commercial fruit growing but the daring and enthusiasm of a few men, and the work of the Society were destined to correct that erroneous idea.

Wisconsin may never become a great commercial fruit state compared to some others, but the efforts of Goff, Hatch, Bingham, Cranefield, Hanchett, Harris, and many others which we might recall, have proved that in certain commercial phases she is able to take and hold her place among her sister states.

During the period of commercial development there was slowly but gradually taking place another significant development in Wisconsin fruit growing. Fine

as the commercial phase of fruit growing in Wisconsin may be, an even finer, more significant phase is the home fruit plantation because it touches and contributes to a greater portion of the life of our state.

Except for some attempt at pruning, care of the orchard was practically unknown in the farm orchard and little practiced in commercial orchards. In 1907 the Department of Horticulture instituted a program of extension work in orchard spraying. It was a difficult task to convince the home orchardist, and in many cases the commercial orchardist, that a program of orchard pest control was essential to successful fruit production and actually worth while. It is interesting to note the comparatively ready acceptance today of a spraying program which in those days it would have been entirely futile even to suggest. With an increase in the work made possible because of an increase in funds through the enactment by Congress of the Smith-Lever Extension Law, and the persistent efforts of the specialists of the Department of Economic Entomology, Horticulture, and Plant Pathology, and the continuous preachment by the Society of the doctrine of good orchard practice, there is now taking place an almost unbelievable advance in the acceptance of recommended practices in the orchards of the state.

Spray Rings

One of the outcomes of the extension work of the Department of Horticulture among farm orchardists is the development of a new type of commercial orcharding which I am prone to believe constitutes a fifth phase in Wisconsin orcharding. Some years ago the spray ring was introduced as a practical means of meeting the objection of time and expense in farm orchard spraying. Out of this has developed the commercial orchard catering to local trade.

The commercial orchardists of the Sparta, Sturgeon Bay and Bayfield areas had long been taking advantage of the benefits of cooperative effort. The smaller orchardist soon realized that if he could benefit by cooperative spraying he doubtless could benefit in other ways as well if other phases of the industry were organized on a cooperative basis. The result is the Southeastern Fruit Growers Association.

Possibly the Swartz orchard was the first of the commercial orchards of the state traceable directly to this extension program of orchard spraying, but today there are many other ventures of the same type which can be traced directly or indirectly to this campaign started 30 years ago. Sometimes we become impatient because the changes which we desire to see, come slowly, but often when they have arrived and we look back we marvel that the change has come so soon.

There is one phase of fruit growing in Wisconsin which has made great advances in the past 30 years which most of us are prone to overlook. While the orchardist and small fruit grower has been changing his varieties and practices, the cranberry industry has not remained static. Thirty years ago the cranberry growers, with the assistance of the Experiment Station, represented by O. G. Malde, were carrying on investigations at Cranmoor which had much to do in establishing the cultural practices which put cranberry growing in Wisconsin on a cultural basis. Cranberry growing, like orcharding, had its variety problem. There were also serious handling and marketing problems needing solution. Searles, Bennet, Judge Gaynor, James Gaynor, Fitch, Chaney, Whittlesey stand out as leaders in laying the foundation upon which the Wisconsin cranberry production has been builded into the stable industry which it is today.

Surely the past 30 years have seen a marked advance along the entire front of fruit growing in Wisconsin. We have not, however, made all the possible advances. There are still problems to be solved, and improvements to be made, and a waiting public to be supplied with still higher quality products. The challenge to advancement which the pioneer generation of fruit growers passed on to us we are soon to pass on to another generation of fruit growers. We have every confidence that they too will carry on, that the problems we have not solved and new ones which may arise will be solved and Wisconsin fruit growing go on ever making advance and to a greater extent fulfilling its function in contributing to the life of the people of Wisconsin.

POTATO GROWERS VOTE FOR ACREAGE CONTROL

POTATO growers voted 4 to 1 in favor of including potatoes in the proposed 1938 Agricultural Conservation program, is the report of the U. S. Department of Agriculture.

They voted on the question, "Are you in favor of establishing a potato acreage goal for each commercial potato farm, in connection with the 1938 Agricultural Conservation Program?"

A national acreage of between 3,100,00 and 3,300,000 acres is proposed under this plan.

It is reported that in Maine, Wisconsin and Minnesota the vote was 10 to 1 in its favor. Over 30,000 votes were cast. Only those growing three or more acres of potatoes voted.

The plan does not apply to counties that are not commercially important nor to farms that raise less than three acres. Payment per acre by the government is to be based on the annual normal yield of potatoes for the farm amounting to 6c per bushel for early potatoes, and 4c per bushel for late potatoes.

Is There A Substitute For Our Elm Tree?

E. L. Chambers

IT is quite generally recognized that there are few trees, if any, that can take the place of our towering elms for street planting in Wisconsin. Let us, therefore, put forth every effort to avoid the necessity of sending in a substitute for our favorite "All American Star," the elm.

Threatened by insect pests such as the European elm scale and fungous diseases like the elm canker, we have had to carry on spray campaigns with miscible oil in several cities in Wisconsin to control the former and cut out the infected limbs or entire trees to check the latter.

With the discovery that the budded elm were practically immune to the elm canker and that the scale could be kept in check by spraying, we thought our troubles were solved. No sooner than we began to feel this security for our favorite shade tree again, we were given another scare with the discovery of the dreaded Dutch elm disease on four trees located at Cleveland and Cincinnati, Ohio, in 1930. Having observed how effectively the Chestnut blight, one fungous disease had wiped out the chestnuts in the eastern states and learned how this new disease (**Graphium ulmi**) had practically wiped out the elms over large areas in Europe we began to fear for our predominant street tree here in America. It is particularly disheartening to know that all species of elm are susceptible to this disease, white elm being particularly so and that no effective means are known for treating an infected tree, once the main stem is affected.

Where the disease is confined to one or two limbs it may be checked by cutting off these and burning and, likewise, to prevent the fungous from spreading it is necessary to destroy all infected trees promptly. To date, only six years after its first discovery in this country, infected trees have been reported from 12 townships in Connecticut, 13 counties in New York state and 11 counties in New Jersey. Besides this area located mostly within a radius of 50 miles of New York City, isolated infections have been recorded in Indianapolis, Indiana; Baltimore and Brunswick, Maryland, and Norfolk, Virginia. No trace of this disease has ever been found in Wisconsin nor west of Indianapolis. Because the introduction of the disease has been traced to imported elm logs shipped in for veneer manufacture, adjoining properties and all veneer plants in this state have been carefully checked with negative results to make sure none of these infected logs were ever brought into any of our plants.

More than $2,000,000 of federal relief funds have been expended by the government in each of the past two years to scout for and destroy any suspiciously infected trees and the states of New York, Connecticut and New Jersey spent more than $150,000 during this past year toward this campaign. Autogiros are used by the government in plotting suspects from the air. Using aerial photographic or township maps, on which the aerial observers had indicated location of wilted elms, ground crews are able to locate, sample and tag any such tree showing symptoms typical of the Dutch elm disease. The trees that cannot be cut and burned immediately are killed by girdling and packing copper sulphate snow in the wound which not only quickly kills the tree but prevents bark beetle infestation because of the presence of the chemical beneath the bark. The disease is spread from tree to tree by apparently one species of beetle which bores into the bark.

One of Wisconsin's many towering elms threatened by the Dutch elm disease. (This disease has not yet been found in Wisconsin.)

Watch for Disease

To make sure that this disease does not have an opportunity to gain a foothold in this state, we wish to urge persons discovering an elm with some of its limbs suddenly wilting and turning yellow during the early part of the growing season, to send us a specimen for diagnosis. This specimen should be cut in short lengths—up to about ten inches —taken from small limbs—not over one inch in diameter—upon which the leaves are wilted or have recently died. By purchasing Wisconsin grown elms you can eliminate the danger of bringing in infected trees, especially from those areas where the disease has already been discovered. We should like to further recommend the purchase of budded elm of the vase or moline type because of their greater immunity to elm canker and other troubles and because of their uniform shape for street planting and absence of the wide angle notches so subject to being broken down by storms on some of the unbudded types.

Block of budded elms in a Wisconsin Nursery.

Nature In Humorous Mood

THE infinite variety of forms in nature has appealed to the curiosity of mankind, and the contemplation of form has been said to be one of the purest of pleasures. Nature is the inspiration of art workers, even though the finished form may be so conventionalized as to be almost unrecognizable.

It is not difficult to find in nature such simple forms as circles, squares, and triangles, and within them endless variety of design. A good example of design is found in the Passion Flower. On the other hand, there is no lack of unsymmetrical forms. Many of these appeal to the esthetic sense as being fully as beautiful as those of more regular form.

Occasionally one finds types so unusual as to give one a feeling of the ludicrous. The Dutchman's breeches and the Dutchman's pipe remind us of fabricated forms.

Unusual Form of Snapdragon

One of the most striking examples of unusual form is found in a very common garden flower, the snapdragon. Almost everyone is familiar with the form of the flower and how by pressing the sides of the tube, the mouth can be made to open and shut. Apparently the interest of most people stops at this point, so that it seems worthwhile to call attention to a much more interesting feature of the plant. If one will examine closely the seed pod, he will see that the shape resembles an ape's head. If the pistil has not broken off, it will have a long slender proboscis. Most curious of all, however, as the pod ripens and prepares to shed the seed, two holes open for eyes and one for a mouth, giving to the ensemble a most grotesque and elfish effect. Children will be delighted with a collection of varying specimens mounted on pins. By careful selection one can acquire a considerable range in expression.

—By W. R. Ballard, in Maryland Gardening Notes.

Why Teachers Get Gray

Prof.: "Now, Mr. Bjones, can you give the class an example of wasted energy?"

Frosh: "Yes, sir — telling a hair-raising story to a bald-headed man.

Horticultural News

A. F. Yeager, North Dakota

SEVERAL new varieties have been named during the past few weeks. The variety of tomato distributed the past two years for trial under the number 216 has now been named "All-red" and will be commercially available this season. At the request of the Nebraska Experiment Station, numbers 215 and 209 have also been given names. 215, we have decided to call "Ruby," and 209 "Redheart." In addition to the above all of which have had fairly wide testing, there is a new one this season, a few samples of which were sent out under No. 500. This we have decided to call "Redskin." "Redskin" may not be entirely purified in some respects. This variety is an egg-shaped, medium sized, very solid fruited variety with a uniform red color and a determinate vine growth. Seed of this was sown in a flat June 4th and transplanted to the field in July. It bloomed almost as early as "Farthest North" and far ahead of "Bison." Ripe fruits were picked in mid-August. The plants, as they grew this year, were very small but very productive and apparently set fruit in hot weather exceedingly well.

Number P-117, the purple raspberry, which has been sent out for two or three years for trial under that number, has now been given the name of "Garnet." This variety seems to have the best combination of winter hardiness and drought and red spider resistance of any raspberry to date.

A correspondent at Grand Forks asks about growing Caragana from seed. Stratifying the seed in the fall and planting in the spring has not given good results. The seed should be left unstratified, kept dry until spring, and then planted.

The "Florists' Exchange" reports that a new edition of "Standardized Plant Names" will probably appear next year. This is the guide book used by horticulturists in the naming of plants. Its object is to insure that all horticulturists will use identical common and botanical names for the same plants. While you may think this is not of much importance to you, eventually it must affect every person who raises flowers, trees or shrubs around his place. It is one of those books which, when published, should be on the shelves of anyone who would claim to be an authority.

Within the past few years several plant breeders have mentioned progress in the production of thornless roses. One of the newest varieties of this type has been named "Mrs. Dorothy Stroh." It is intended as a greenhouse variety.

The New York Experiment Station reports that the popping quality of popcorn is entirely independent of its viability—that is, its ability to germinate. Popcorn, 14 years old, popped as well as when used earlier if stored on the cob. In the shelled condition, it declined about 9 percent in 14 years.

This past growing season was one of the most peculiar we have ever seen. In our variety tests, many of the varieties which are ordinarily first were this year comparatively later and vice versa. One of our students who took notes in the variety trial plots of the Ferry-Morse Seed Company at Detroit, Michigan, says that the foreman there reports this year as being so different that they considered their records of little value for the ordinary season. Such things as this are one of the reasons why it is always well to run variety tests for several years before reaching a final conclusion, otherwise the conclusion may be all wrong.

The Minnesota Fruit Grower reports the following results from strawberry runners: where the runners were rooted in June, production was 14 quarts per 100 plants the following year. July root, 6 quarts; August, 4 quarts; September and November, 1 quart. This shows that strawberry plants need a quick start in the summer. The following year's production depends largely upon it.

From November North and South Dakota Horticulture.

PROF. A. F. YEAGER RESIGNS

WE learn with surprise and regret of the resignation of Prof. A. F. Yeager, Chief of the Horticulture Department of North Dakota Agricultural College, at Fargo, effective January 1.

In the November issue of North and South Dakota Horticulture Prof. Yeager states, "I do not care to go into the reasons for this action at this time."

Prof. Yeager has done excellent work in North Dakota. He has originated many new varieties of fruits and vegetables suitable for their severe conditions. We have enjoyed Prof. Yeager's articles in Wisconsin Horticulture. They were short, timely and full of information. We hope that he may find a very desirable position and continue his excellent work.

The University Arboretum

G. Wm. Longenecker

THE University of Wisconsin Arboretum and Wild Life Refuge is a tract of about 900 acres just south of Madison on the shores of Lake Wingra. Its purpose is to serve the University as an outdoor laboratory for the study of plants, birds, mammals, insects, aquatic life, soils and their interrelationships in nature. Examples of original plant and animal communities native to Wisconsin are being established. These communities include a large area of prairie, the principal forest types, and the principal types of marsh land. Some outstanding forest types from other places in the country are also contemplated. Considerable acreage is also set aside for intensive trials of horticultural material. The Garden Clubs are particularly interested in this area. The Madison Garden Club has been furnishing money for the past several years in order to get a lilac collection started. This past spring 28 new varieties were added bringing the total to 78 varieties and 6 species.

Some nut trials have also been started with more intensive work contemplated.

This year, again, the labor has been furnished by a National Park C. C. C. Camp. The following are a few of the things that have been accomplished:

105,289 currant and gooseberry bushes have been removed (to protect the white pine plantings from the blister rust), the State Department of Entomology cooperating.

3.19 miles of road have been oiled, the State and County Highway Commissions and the Conservation Commission cooperating.

660 rods of dog-tight fence have been completed around test areas.

Two stone shelters have been completed.

The pond work, grading, and tree and shrub planting completed for the Stevens Memorial aquatic garden.

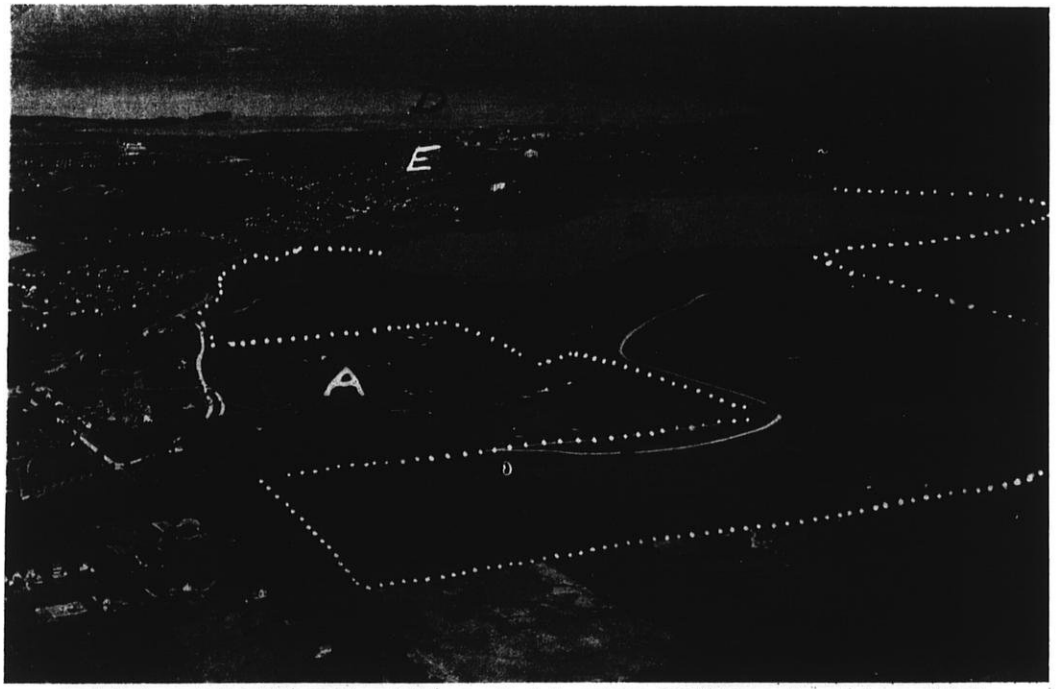
10 acres of ponds about completed for shore bird studies including a dam 40 feet long for controlling water levels.

Three prairie nurseries have been planted in the prairie area and several acres have been seeded to prairie materials by the seed spot method. 50 tons of sod have also been brought into this area.

A series of sixteen game bird food plots and four individual ones have been planted and observed again this year under Aldo Leopold's direction, in order to get first hand information regarding the food habits of upland game birds.

Since the first of January, 1937, 51,600 trees and shrubs and 19,200 evergreens have been planted.

I want to take this opportunity to thank all of you who have aided us with our project this past year.



Aerial view of the University of Wisconsin Arboretum, looking northeast toward Lake Mendota, four miles away. A—Country Club; B—Lake Wingra; C—Lake Monona; D—Lake Mendota; E—University Campus.

CONSTITUTION SLIGHTLY CHANGED AT ANNUAL CONVENTION

BY unanimous recommendation of the Board of Directors, an amendment to the Constitution of the Wisconsin Horticultural Society was adopted at the Annual Convention by unanimous vote. The amendment provides for the election of the treasurer by the Board of Directors instead of by ballot of the members.

Article V, Section 1, of the Constitution now reads as follows:

"The Secretary and Treasurer shall be elected by the Board of Directors following the annual election of officers, and shall serve for one year or until their successors are elected."

Only Paid-Up Members Can Vote

Since the voting for officers of the society is now carried on by a mail ballot, the question of the eligibility of wives or husbands of life members came up at the Convention. On recommendation of the Board of Directors, a motion was made and seconded at the annual business meeting that only life members and annual members in good standing be allowed to vote, that wives or husbands of life members are not to be considered members unless they pay regular dues. The motion was carried.

PLANT TESTING PLANS

IN the November issue of Wisconsin Horticulture, we published a list of varieties of ornamentals recommended for trial

by the plant-testing committee for 1938.

In an early issue we will publish a complete description of each variety listed. In the meantime, the list will also be submitted to members of the Wisconsin Nurserymen's Association for bids for furnishing the varieties to members of the Wisconsin Horticultural Society. This will assure that some nurseryman will have the varieties for sale this spring here in Wisconsin, making the plants easily available.

All of our members who are interested in testing new varieties are urged to look over the list and plan to include some of them among their spring purchases.

An ideal way for garden clubs to test these varieties is to take up the matter in a regular garden club meeting and ask for volunteers to try each of the varieties listed. Then, during the summer, the various gardens can be visited and all of the plants seen.

The committee went over the list very carefully, selecting only kinds which were known to be ornamental and fairly hardy in this state.

JOINT CONVENTION OF ALL ORGANIZATIONS SUGGESTED

THE Board of Directors of the Wisconsin Horticulture Society at the session on Friday, November 19, voted that an effort be made by the society to hold a joint convention of all organizations affiliated with the Horticultural Society in two years—1939. It would be necessary to hold this special convention either in the Loraine Hotel, Madison, or the Schroeder Hotel, Milwaukee. There is no other hotel that would be large enough to house such a large convention. It would mean separate sessions of the Wisconsin Beekeepers Association, the Wisconsin Garden Club Federation, and the Fruit Growers.

The total attendance at the conventions of the three organizations named, this year was approximately 540 persons. There might be some duplication, but we would estimate that at least 500 persons attended. If a similar number attended the joint convention it would indeed be a large and impressive event.

Various problems enter into the holding of such a convention in addition to that of handling the large crowd. Each organization should consider carefully whether it would be desirable to meet jointly or at different times as has been the custom during the past two years.

The officers of the Horticultural Society wish you a very merry Christmas.

BRIEFS FROM THE CONVENTION

A GOOD spreader. Prof. W. P. Flint of Illinois stated that soy bean flour (not meal) is an excellent spreader and sticker for spraying. It is used at the rate of one-fourth pound of the flour per 100 gallons of water. Mix with a small amount of water the same as in mixing arsenate of lead and put in the tank with the agitator running.

Soil erosion under clean cultivation. Prof. V. W. Kelley of Illinois stated records indicated that under clean cultivation it only took 24 years to erode or destroy the top seven inches of soil, while in a bluegrass sod the same amount of soil would last for 2,941 years.

Mr. Alex Vaclavik of Waukesha, Wisconsin, stated at the convention that he has a Russian crab apple tree and can provide seed for anyone wishing to grow stock from this variety.

Arsenate of lead and nicotine continue to be the most effective spray materials for codling moth, according to Prof. W. P. Flint. "In fact," he said, "it is lead and nicotine against the field." Derris or cube and also pyrethrum, while very effective on certain types of insects, are only effective about 1½ days in wind and sunlight during midsummer.

In his underground root cellar, Mr. Guy Hales of Port Washington is able to keep the temperature down to from 45 to 48 degrees in the fall of the year. Mr. Hales gave an excellent illustrated talk on how he built his apple storage cellar which he feels is very successful.

Every year college deans pop the routine questions to their undergraduates, "Why did you come to college?" Last year one co-ed unexpectedly confided: "I came to be went with—but I ain't yet."

DO NOT MULCH YOUR LAWN

THE old practice of spreading stable manure on the lawn is passing out. Stable manure that is not well rotted will smother grass and often result in dead spots in the lawn. Furthermore, manure may introduce weed seeds that will sprout in the spring.

Lawns as a rule do not need any winter protection.

There is a small amount of plant food in the manure which is the only benefit that might come from its use, but this can easily be applied in the form of a commercial fertilizer more cheaply and more safely.

NEW BULLETINS ON BULB GROWING

SPRING Bulbs for the Home Ground and **Growing Dutch Bulbs Indoors** are the titles of two stencil circulars, both the work of Prof. James G. Moore, Chief of the Horticultural Department, and available to anyone in Wisconsin from the Wisconsin College of Agriculture, Madison, free. The bulletin on **Growing Dutch Bulbs Indoors** would be especially suitable for this time of year.

WISCONSIN WINS IN NATIONAL COOKERY CONTEST

IN the national honey cookery contest, sponsored by the American Honey Institute, the following prizes were won in the candy class by Wisconsin women:

First Prize — Mrs. Walter Diehnelt, Menomonee Falls.

Second Prize—Mrs. W. L. Dubois, 2937 N. Hackett Avenue, Milwaukee.

We congratulate these women on their excellent candy.

HONEY ICE BOX COOKIES

PRIZE Recipe used for the winning sample of ice box cookies at the Annual Convention Wisconsin Beekeepers Association.

1 cup honey.
1 cup sliced dates or ½ lb.
1 cup light brown sugar.
1 cup shortening, butter and lard, equal proportions.
2 large eggs.
1/3 teaspoon salt.
1 small teaspoon soda dissolved in two tablespoons warm water.
1 small teaspoon cinnamon.
1/3 teaspoon cloves.
½ teaspoon alspice.
1 teaspoon vanilla.
4 to 5 cups of flour (all purpose).
2 small teaspoons of baking powder.
1 cup chopped nut meats.

Heat honey and dates (do not boil), add sugar and shortening. Let cool. Then add eggs, salt, soda and spices. Mix four cups of flour and the baking powder, also the chopped nut meats and thoroughly stir the mixture. Set aside for an hour or longer then put ½ cup of flour on bread board and knead dough on this. It may not be necessary to use the full cup of flour. Roll in shape of sausage and set in a cool place for several hours or over night. Slice and bake in moderate oven.

By Mrs. A. E. Wolkow, Hartford, Wis.

C. E. STRONG

BOARD of Directors and members of the Wisconsin Horticultural Society extend to Mrs. C. E. Strong their heartfelt sympathy in the loss of her husband, Mr. C. E. Strong, who died on Wednesday, November 17. Mr. Strong had been ill for some time. He was one of the oldest members of the Masonic Order in the state.

APPLES IN THE NEWS

"THE apple is again making news. First it played in a prominent role in the domestic difficulties in the Garden of Eden. Then it bounced off the head of Newton to call attention to the law of gravity. Now a sample shipment of American apples is landed in British Guiana by airplane express in 48 hours."

Horticulturists Honored

HISTORY OF THE PRESENTATION OF HONORARY RECOGNITION CERTIFICATES BY THE WISCONSIN HORTICULTURAL SOCIETY

THIS marks the ninth consecutive convention at which the Wisconsin Horticultural Society has honored some of its outstanding horticulturists by the presentation of the honorary recognition certificate.

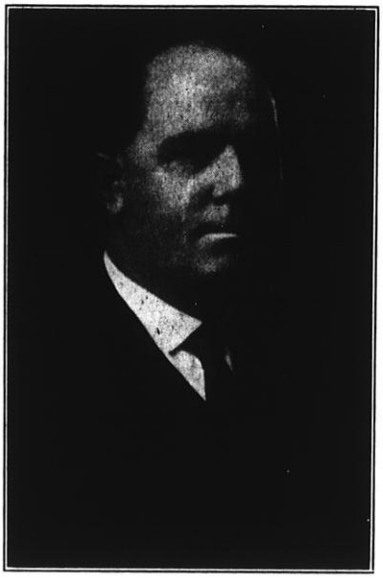
It was back in 1929 that the Board of Directors of the Society inaugurated the plan of presenting the certificates to those men and women who had given of their time and knowledge for the advancement of horticulture in this state.

Many notable pioneers in this field have received the certificate since it was inaugurated at the convention in November, 1929. The first to receive the certificate were **Mr. H. H. Harris,** pioneer strawberry grower at Warrens; **Mr. John F. Hauser,** outstanding in the growing of perennials at Bayfield; and a certificate to the memory of **Geo. J. Kellogg,** deceased nurseryman at Janesville.

In 1930 the certificate was presented to **Mr. Louis G. Kellogg** of Ripon, pioneer fruit grower; **Mr. E. S. Sullivan** of Alma Center, well known strawberry grower; and **Mr. William Knight** of Bayfield, one of our oldest apple growers.

In 1931 the certificate was presented to **Mr. Frederick Cranefield,** Madison, for 22 years secretary of the Horticultural Society; **Mr. Wm. P. Longland, Lake Geneva,** ornamental horticulturist; and **C. B. Whitnall,** Milwaukee, conservationist.

In 1932 the Society honored two women, **Mrs. Frances K. Hutchinson,** who founded Wychwood at Lake Geneva, and **Mrs. C. E. Strong,** West Allis, who has done so much for amateur flower growers.



Prof. James G. Moore

In 1933 the Society honored the memory of **Mr. Huron H. Smith,** Curator of Botany of the Milwaukee Public Museum, who had been killed in an auto accident.

In 1934 the Society honored the work of **Mr. H. C. Christensen** of Oshkosh, pioneer flower and vegetable grower; **Mr. Axel Johnson** of Lake Geneva, ornamental horticulturist; and the late **W. J. Moyle** of Union Grove, pioneer nurseryman and fruit grower.

In 1935 we recognized the services of **Mr. James Livingstone,** widely known horticulturist; and in 1936 **Mrs. E. L. Roloff** of Madison, amateur flower grower; and **Mr. A. W. Lawrence,** pioneer fruit grower of Sturgeon Bay, were honored.

A total of 20 certificates have been given, including the two presented this year.

CERTIFICATE OF RECOGNITION PRESENTED PROF. J. G. MOORE

THE WISCONSIN
STATE
HORTICULTURAL SOCIETY
Recognizing
the eminent services of
JAMES G. MOORE
in the advancement of Wisconsin orcharding and gardening, as a teacher and counselor of the student and horticulturist, presents this

TESTIMONIAL

upon the recommendation of the Executive Committee and approval of the Board of Directors. In Witness Whereof, it is sealed and signed by the President, Vice-President and Secretary of the Wisconsin State Horticultural Society.

PROF. JAMES G. MOORE

PROF. James G. Moore, who has been chairman of our Horticultural Department since July 1909, or a period of 28 years, was born October 22, 1881, on a farm near Shepherd, in central Michigan. He attended the public school and high school at Shepherd, graduating in 1898. He then attended Michigan State College from 1899 to 1903, receiving his Bachelor of Science Degree.

Prof. Moore assisted in the Department of Horticulture at Michigan State College during the summer of 1903 and in December 1903 joined the editorial staff of the Michigan Farmer.

In the fall of 1904 Prof. Moore returned to Michigan State College to do graduate work, receiving the degree of Master of Science in June, 1905.

In July, 1905, he joined the Horticulture staff of the Wisconsin College of Agriculture.

In July, 1909, upon the resignation of Prof. Standsten he became acting chairman of the department and has served continuously in that capacity for 28 years.

During the time Prof. Moore has been chairman of the Horticulture Department the staff has increased from 4 to 11 full time members, and 8 part time members.

During the period that Prof. Moore has been chairman of the Department, he has not neglected any of the branches of horticulture. He has been especially interested in the development of Wisconsin fruit growing. The Department has given great aid to the potato growers, and a vegetable specialist has been added recently. Experimental work for the benefit of tobacco growers is carried on in this department, while ornamental horticulture, has received recognition.

Prof. Moore has long been recognized as the outstanding judge of fruits in the state, and has given considerable time to helping at the various fairs, particularly the State Fair. Many students have received their inspiration to continue along horticulture lines through his teachings, and research work of special benefit to our own branch of horticulture has been pushed vigorously.

He has written many Station Bulletins which have had wide dissemination among the farmers and home owners of this state, and has given valuable advice and assistance whenever it has been requested.

Fruit trees may be pruned to advantage in the fall and early winter. Many trees are carrying considerable dead wood. This can be recognized most easily if the pruning is done before all the leaves have fallen.

The consumption of watermelons in America is just about half a melon per person.

D. E. Bingham, Sturgeon Bay Pioneer Fruit Grower

CERTIFICATE OF RECOGNITION PRESENTED MR. D. E. BINGHAM

THE WISCONSIN
STATE
HORTICULTURAL SOCIETY
Recognizing
the eminent services of
DELBERT E. BINGHAM
in the development of the cherry and apple growing industries of Door County, and as a leader in the advancement of fruit growing in general, presents this
TESTIMONIAL
upon the recommendation of the Executive Committee and approval of the Board of Directors. In Witness Whereof, it is sealed and signed by the President, Vice-President and Secretary of the Wisconsin State Horticultural Society.

D. E. BINGHAM

DELBERT E. Bingham, one of Wisconsin's oldest and most experienced fruit growers, a native of Richland County, was born on August 21, 1873.

Mr. Bingham became interested in fruit growing when but a boy. He was employed by Mr. A. L. Hatch, Richland Center orchardist, from 1891 until 1895, and in the spring of the latter year went to Door County where he took charge of the fruit farm Mr. Hatch was developing there. The first orchard consisted of 16 acres of European plums and one acre of cherries planted in 1893. The following year a large number of plum trees were added to the orchard, and in 1895 three acres more were planted to cherries. In 1897, he set up ten acres more in cherries, and in 1899 planted twelve acres of apples. His connection with Mr. Hatch continued until 1898, at which time he had developed about 45 acres of tree fruit and 20 acres of small fruit. The following year Mr. Bingham started out independently as a fruit grower, purchasing 60 acres near Sturgeon Bay.

Mr. Bingham was one of the incorporators when the first cooperative sales organization was started, and served as a director for many years. He was instrumental in getting the first corporation started in 1909 for planting the first 160 acres of orchard in Door County. This corporation planted a 36-acre cherry orchard in 1910 which was a large orchard in those days. In 1910, with his assistance, another corporation was born and 208 acres of cherries and apples were planted. In 1911 still another corporation ventured into fruit growing, and planted a like acreage in the spring of 1912. Mr. Bingham retained stock in all of the above corporations. Bingham and Lawrence handled nursery stock during the years that the heavy plantings were being made in the county. The above orchards were all planted, managed, and cultivated by Bingham and Lawrence for several years. In fact, in about three years they planted 1500 acres, mostly cherries, for corporations and individuals. This emphasizes what a motivating factor Mr. Bingham was in developing the fruit industry of Door County. The large acreage of fruit he has had under his management has made available a great deal of infor-

(Continued on page 101)

Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

B. A. Robinson, Kenosha, President
K. J. Timm, Markesan, Vice-President
H. J. Rahmlow, Madison, Cor. Sec.

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

Regional Vice-Presidents
Robt. Jantz, Eldorado

Frank Thomas, Kenosha
Chester Harrison, Waldo
Clarence Kunde, Oshkosh

1937 DISCOVERIES
Walter C. Krueger

DURING the season drawing to a close I discovered some twenty new glads that I should miss deeply if I were denied the opportunity of growing them again particularly to ascertain if their field and storage habits will make them truly outstanding kinds. These twenty were found in some fifty new kinds in my garden for the first time this season. They promise much.

The red colored class brought forth Recovery and James Fitzjames. The first throws a fine flower head that opens 8 to 10—5" flat flowers ideally placed for exhibition work. The color is a neutral red. It does not possess the sparkle and sheen of color presented by James Fitzjames, nor the giant florets of that variety.

Truly a "Beacon" is that blazing scarlet variety with the inner parts of all petals colored in cream. This dazzler opens 7 to 8 medium sized florets at one time. In this color class Ninth Symphony, a classic in a scarlet self of exceptional sheen, is truly a symphony of color.

The weak colored orange class will profit by La Fiesta, a fine two toned orange in the smaller floret section, and Orange Delight in medium sized florets, which, because it neither burns or bleaches promises much. The latter has large cream blotches.

The yellow class disclosed Golden Fleece in the smaller flowered deep yellow class and Golden Lancer in medium sized flower in a longer flower head. Golden Lancer shows a few carmine hair lines on its medium yellow. It has a fine flower head and

neither the crowded nor widely separated bloom placement.

In pinks, Frost Pink Ornatus and New Era were aristocratic beauties. The first opens less flowers and they are more airily placed on the stem. Hoar frost on a pink flower seems to describe it. Precision of placement and ruffling are attributes of New Era which opens about 8 florets.

Lady Winsome and Phyllis McQuiston, in large flowered pinks, far differently colored in self pinks should be all that can be expected in size and flowerhead.

Trevonian with its petals colored mid-way between rose red and purple with its wide light center seems to be consistent in its performance.

A different lavender almost a Capt. Boynton with slightly smaller, more open florets is Techny Chimes.

In Smokies, Gabriel with 10 open, 5 inch florets of silver and smoke and rose looks very good.

Euides in creams although the outer petal edge is pink seems a good one of the Australian type of flower. Jersey Cream also shows promise.

Paradise in the buffs seems to outgrow all others and it produces a fine flowerhead and about 8 large florets open at one time.

Heiligtum seemed to be the best new white, not the largest nor the whitest, but more careful of floret placement.

While I did not grow Rima, I saw it several times. A "must have" in a really different color of very light lavender tinted with rose.

Oregon has been in my planting two years. It is a giant of spike and floret with a good salmon pink color not lacking in placement and grace.

GLADIOLUS THRIPS CONTROLLED BY LOW TEMPERATURES

RECENT work indicates that storage of gladiolus bulbs at a temperature of 36 degrees F. for two months or 40 degrees for three months, will completely control thrips, was the statement made by Prof. C. E. Wildon, at the Michigan Florist Convention recently.

NEW SEEDLING NAMED VALLEY QUEEN

A NOTE from Mr. E. H. Ristow, Oshkosh, states that his seedling No. 3644 has been named Valley Queen. That is why several votes were received in the Symposium with Valley Queen as the best seedling for 1937.

Heritage won the grand championship as the best spike at the State Fair twice, on August 20th and 24th.

PEONIES NEED WINTER PROTECTION

W. A. Sisson

SINCE early spring we have had letters reporting that peony plantings of a year ago did not live, or in the words of the buyer, "They did not come up."

Any time in the fall from September first to freeze up, the later the better, is the best time to plant peonies. We cannot afford to lose our plantings and so this is the way we plant. If you follow our method you will never lose a single root.

We plant only small roots or rootlets, planting in the open garden, three feet apart in rows four feet wide. Spade deeply and plant so the eyes are just below the level of the ground. Plant roots down and eyes up. Then ridge up the dirt high over your planting to avoid standing water and heaving through freezing and thawing weather such as we have almost every winter.

Having planted in well stirred up soil, keep it worked up constantly throughout the growing season. This is all the fertilizer we give our peonies.

Having planted your peonies, do not transplant them but keep them well cultivated and they will be a joy to you as long as you live.

The peony today lacks the popularity it deserves because it is often so abused it cannot grow properly. It is hard to believe what I see in my travels over the state, how people simply murder their peonies outright.

I could write much more about what I have seen just this last summer. At one place the eyes were planted down and the roots up. More than one-half of the buyers plant up against the house in the sod or they dig a hole in the lawn and plant there. The rest of the buyers plant just anywhere and never cultivate or care for their plantings. I feel like a highway robber taking people's money when I see what they are doing with the roots which are so dear to me.

A GOOD CHRISTMAS GIFT

I HAVE found the ideal Christmas gift for the family. Our old friend of the Wisconsin Horticultural Society. Alfred C. Hottes, is the author of a new book, "1001 Christmas Facts and Fancies." He has packed the pages with fascinating Christmas material which he has collected over a period of years both here and abroad.

There are stories to entertain the children about Befana, the Italian gift bearer who was too busy with her housework to visit the Christ Child when the Wise Men asked her to accompany them. There is the tale all German children know about the mysterious stranger who stayed at the wood cutter's home. He gives an answer to the children's question concerning a living and real St. Nicholas who became Santa Claus. He tells how to decorate the home. He eases the problem of giving a program at church, school or club. He tells how to make cookies, cards, candles, and colored flames for the fireplace.

Do you know these interesting things?

What kind of a Christmas tree shall I plant?

The first Christmas Card.

Sirloin, how it was named.

The origin of the Pretzel, Mince Pie, Plum Pudding.

Recipes for German cookies.

How to make block prints.

Divinations, omens, and superstitions.

What toast can I give at the Christmas dinner?

The book is really a work of art; it has no competitor. It contains 308 pages, thoroughly illustrated with scratchboard sketches by Lindsay L. Field. The book is over an inch thick. It has magnificent three color maps and a delightful jacket. The price is $2.50.

Mr. Hottes writes that he will autograph all copies ordered direct from him. His address is 829 Thirty-first Street, Des Moines, Iowa.

D. E. BINGHAM

(Continued from page 99)

mation to those interested in watching his practical application of revised methods of orchard maintenance.

Officer of the Wisconsin Horticultural Society

In 1911 Mr. Bingham was elected president of the Wisconsin Horticultural Society, which position he held for two years. In 1915 he was elected vice-president with Mr. N. E. Rasmussen as president, which also continued for two years. He has also served on the Board of Directors in recent years. He is one of the oldest life members of the society.

Mr. Bingham lectured at Farmers' Institutes for nine years, traveling all over the state giving information on fruit growing to farmers and growers everywhere.

To show the scale on which Mr. Bingham operated in the early days, we found in the December, 1910, issue of Wisconsin Horticulture the following article:

"D. E. Bingham returned this week from a trip to Vincennes, Indiana, where he placed an order for 41,000 fruit trees for delivery at Sturgeon Bay. Of this amount, 26,000 cherry trees are for the immense new fruit plantation of the Reynolds Preserving Company property, which will plant 260 of the 670 acres it is proposed to put to fruit, and 15,000 trees for Bingham and Lawrence."

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Christmas Lighting Plans

RACINE CLUB LIGHTING CONTEST

Mrs. H. J. Anderson

WE expect to conduct our Christmas lighting contest about the same as we did last year as we received quite a lot of favorable comment on our endeavor.

We solicited our Service Clubs, Woman's Club, Association of Commerce and Gas and Light Company for financial aid and we (The Racine Garden Club) took care of the balance, considering it as a civic project.

Two of our committee members were designated as "speakers" and spoke at a luncheon at each one of the clubs, explaining our plans and urging their members to enter our contest. These "speakers" were not allowed to do any soliciting, and spoke for only five minutes.

We also sent a letter to every pastor in our city asking them to cooperate by decorating and lighting the front entrance and door of their respective churches. This was not competitive but where carried out, did lend a delightful atmosphere.

Caroling

This year we are going to urge "caroling." I can't think of anything more appropriate than the singing of carols to accompany our Christmas lighting.

We are hoping the children of the grade schools, as well as the high schools who love to sing will form little groups and just go caroling all over the city. This will by no means be restricted to children. We sincely hope that any organization or group who enjoys singing will enter into the spirit of it and help spread cheer and joy over our entire community.

Our Gas and Light Company is putting in a complete line of merchandise suitable for Christmas lighting, also offering blueprints showing complete diagrams and directions for constructing various lighting effects, and will have someone in attendance who will explain every detail. They are also planning on decorating ten or twelve homes of their employees about two weeks before Christmas.

A Community Christmas Tree

Last year we had three out-of-town judges. One was an artist, one an interior decorator and the third a lighting engineer.

Prizes

Prizes will be awarded in each of eight classifications as follows: 1st, $10; 2nd, $5; 3rd, $1.

Rules

1. All entries must be arranged so as to be judged from the street.
2. Entry blanks must be mailed to the contest chairman and postmarked not later than midnight, December 23rd.
3. Lights must be turned on December 24th and every succeeding night including December 31st from 6 until 9:30 p. m.

Classifications

1. Lighted door or entrance only.
2. Lighted door or entrance including other outside effects.
3. Lighted trees.
4. Flood lighting of house, or planting, or both.
5. Window lighting.
6. Biblical display such as "The Star of Bethlehem," "The Three Wise Men," etc.
7. Display depicting the Christmas spirit—(Santa Claus).
8. Business house or store window Christmas lighting display.

PLYMOUTH CLUB SPONSORS CONTEST

Henry Winn

THE Plymouth Garden Club for the sixth time is sponsoring a Christmas lighting contest. We are offering cash prizes this year. Through the cooperation of the local Public Utility Company we are able to give prizes to the extent of $25.00, making the first prize well worth striving for, with twelve prizes altogether. The prizes are as fol-

lows: $10.00, $5.00, and ten $1.00 prizes.

The only rules are that the decorations must be out-of-doors, must be appropriate to the Christmas season, and must feature electric lighting. (Open to the public.)

The judging will be done according to the following points: originality, 25; holiday spirit, 25; and artistic arrangement, 50 points. At our December meeting we will have table, mantle and door decorations. Small prizes will be given.

ELKHORN GARDEN CLUB HOLDS CHRISTMAS SHOW

THE Elkhorn Garden Club will hold a Christmas show and sale in the Masonic Temple on December 10 and 11. There will be a display of Christmas decorations. Christmas bouquets, dolls, cookies, candies and greens will be sold. There will also be a gift booth and the juniors will have an indoor roadside stand to sell gourds and vegetables. In this way funds will be raised to carry on the civic projects of the club. No admission fee.

MENASHA GARDEN CLUB PLANS CHRISTMAS DECORATIONS

THE Menasha Garden Club is planning a community Christmas lighting contest in cooperation with the Junior Chamber of Commerce, and the Community Business Men's Association. A unified plan of decoration is being carried on. A meeting was called of these organizations to plan the project. Attention was called to the method of projecting Christmas trees at an angle of 45 degrees from light poles in the city of Manitowoc.

An evergreen tree trimmed with lights in front of the house will be seen and appreciated by many.

LAKE GENEVA CLUB PLANS CHRISTMAS FESTIVAL AND CONTEST

MRS. F. H. TAGGART, Lake Geneva Town and Country Garden Club, is encouraging in every way all residence and business places in the city in decorating for Christmas. Club members will prepare detail descriptions of each place decorated for the local newspaper.

An annual Christmas Festival will be held in the Y. M. C. A. December 18-19. The club will hold open house from the period December 18, including the holidays, and invites all fellow garden club members to visit Lake Geneva during that time. Hostesses will be on duty at the Y. M. C. A. evenings between 7:00 and 9:30. They will give suggestions on Christmas lighting and information on the interesting spots to visit. The Festival is under the leadership of Miss Edith Hatch, Miss Betty Blackwood, and Mrs. Hiram Smith, Lake Geneva.

TREE FLOWERS

WE have just received a copy of that wonderfully illustrated new book entitled "Tree Flowers" by Prof. W. E. Rogers of Lawrence College, Appleton. A large book of 500 pages, it contains hundreds of beautiful pictures of the flowers of our trees, with descriptions and drawings of the trees themselves in winter. The price is $7.50 and after seeing the book one wonders how it can be sold for that price.

In this issue will be found an ad by Prof. Rogers describing the book and how it may be obtained. We suggest it as a desirable Christmas present for tree and flower lovers.

The Market Growers Journal says that while many folks think an odorless onion would not be an onion, an odorless marigold would be an improvement. Such an odorless marigold is now available.

TREE FLOWERS

of Forest, Park, and Street

By WALTER E. ROGERS
Professor of Botany in Lawrence College

- "To open the cover of this book means to turn page after page in amazed delight."—Journ. N. Y. Bot. Garden
- "The book is a constant and delightful astonishment,—one of those discoveries—at home which outrank foreign travel."—Books
- "There are many other tree books; there is nothing else like 'Tree Flowers'."—N. Y. Her. Trib.
- "One could hardly think of a better gift for a horticulturally minded friend than this book."—Horticulture

121 half-tones, each 6½ by 8½ inches. Winter silhouettes by Olga A. Smith. Five hundred pages in all. Beautifully bound in blue homespun. Price $7.50 postpaid. Order from the author. Box 385, Appleton, Wis.

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STATE GARDEN CLUB FEDERATION NEWS

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H. J. Rahmlow, Cor. Secretary
Madison
Mrs. E. A. St. Clair, Rec. Secretary
2418 N. 65th St., Wauwatosa

Mrs. J. M. Johnson, 1st V. President
Ripon
Mrs. Robert Alder, 2nd V. President
Elkhorn

REPORT OF THE REGIONAL CONFERENCE

By Mrs. Chester Thomas

THE North Central Regional Garden Club Conference was held at Ames, Iowa, November 16-17-18, in conjunction with the annual meeting of the Federated Garden Clubs of Iowa.

Officers of the National Council of Garden Clubs, together with delegates from the states of Iowa, Indiana, Illinois, Michigan, Minnesota, Missouri, and Wisconsin, were in attendance.

As Wisconsin's delegate, the writer is pleased to submit the following report:

The fist day of the meeting was devoted entirely to the Garden Short Course, as sponsored by the Iowa State College.

One of the most interesting talks was "Personal Experiences with Rose Gardens" by Wisconsin's own, Jens Jensen, who emphasized the planting of native shrubs and flowers: for Iowa, the planting of wild roses and wild plums rather than the out-of-place evergreens. He also spoke on "Rocks and Rock Gardens for the Outdoor Living Room." On Wednesday morning, the North Central Regional Garden Club Conference got under way, with Mrs. Forest Huttenlocher, of Des Moines, Regional Vice-President, presiding.

Mrs. Huttenlocher introduced the following National Council officers:

Mrs. O. W. Dynes, Hinsdale, Illinois, President.

Mrs. Warren W. Shoemaker, Hubbard Woods, Illinois, Corresponding Secretary.

Mrs. F. C. Sigler, Des Moines, Iowa, Resolutions Committee.

Miss Marcella Hayes, Muncie, Indiana, Junior Chairman.

The Gardeners' Luncheon was arranged so that each of the twelve tables, seating from ten to thirty persons, was provided with a topic leader and hostess. The subjects included: Fruit Gardening; Orchard Management; Shade Tree Conference; Wild Life Conference; Exhibiting and Judging; For Rock Garden Lovers; Garden Photography; the Rose Clinic; Garden Peeves and Grouches; Lawns, Maintenance and Weeding; Garden Birds; Flower Arrangements; and Flower Painting.

The Wednesday afternoon session included some very interesting lectures which were followed by a visit to the several greenhouses connected with the Iowa State College.

In speaking of the banquet, it would be amiss not to mention the unusual table decorations, consisting of fruits and vegetables most cleverly and artistically arranged.

A business session of the Federated Garden Clubs of Iowa followed the dinner. Mrs. Forest Huttenlocher, Des Moines, was elected President of the Iowa State Federation of Garden Clubs.

The Thursday morning session was a joint meeting of the North Central Region and the Iowa Federation of Garden Clubs.

In addition to the conduct of regular business, including the reading of the reports of delegates and various committee reports, time was given to several very instructive and interesting talks.

"Garden Club Opportunities for a Broader View" was the subject of Mrs. Warren Shoemaker, Hubbard Woods, Illinois. Mrs. Shoemaker made known the fact that a total of 14 lectures with slides were available for individual garden club use, and that these lectures could be had and arranged for by corresponding with the Program Chairman of the National Council of State Garden Clubs, 30 Rockefeller Plaza, New York City.

A very recent addition to the lectures is one on "New England Gardens." A list of the several lectures with information can also be obtained by writing the program chairman.

Mrs. Shoemaker further stated that 40 states are now affiliated with the National Council of Garden Clubs, or a total membership of 130,000, including British Columbia and Bermuda.

"Management of Large and Small Shows" was the topic of Mrs. Dynes' address. Mrs. O. W. Dynes, Hinsdale, Illinois, is President of the National Council. She emphasized especially the importance of planning months

ahead for garden club shows, thereby getting publicity over an extended period of time, and giving garden clubs ample time so necessary to the staging of a successful show.

Another interesting talk was given by Professor Elwood on Roadside Development. He mentioned particularly the importance of proper road planning and construction, and the influence of garden clubs in working with local and county road commissions, so that our roads be more properly zoned and otherwise planned for the retention of natural beauty.

One of the bright spots of the entire program was the very instructive and inspiring talk by J. N ("Ding") Darling, President of the General Wild Life Federation, Des Moines, Iowa.

His subject, "The Unharnessed Forces of Conservation," brought to mind the extreme importance of conservation, not only of forest, but of soil, water, and wild life.

Mr. Darling stated that over 90 per cent of the forests of the United States are gone, which is a most serious national loss: in addition to the harm and destruction to wild life and the loss of soil and lands caused by such wholesale destruction of forests.

The array and display of flower arrangements, table settings, Christmas and Thanksgiving novelties, and exhibits for the table and home decoration, served as a fitting and beautiful background for the meeting.

It was the writer's privilege to serve as one of the judges.

The very successful convention was brought to a close with a delightful dinner at which Mrs. Forest Huttenlocher was hostess to the officers of the National Council of Garden Clubs and visiting delegates.

Officers of the Wisconsin Garden Club Federation will meet in Milwaukee on December 15th to make plans for 1938.

DO WE WANT A FEDERATION YEAR BOOK?

SEVERAL times the question has been asked, "Why does not the Wisconsin Garden Club Federation issue a Year Book for its members?" Many state federations issue such an annual and the National Council is offering a prize of $25 for the best State Year Book.

A Year Book might be a valuable addition to the magazine. It could contain annual reports of the work of each garden club in the state.

Year Books are usually financed by advertising, and of course it entails a large amount of work. The first step would be the appointment of an advertising committee to solicit advertising to determine if it would be possible to raise the money necessary. Then a publication committee would be necessary to determine the cost of such an annual. And finally the editorial committee would solicit the copy from the clubs, have it printed and mailed.

Is there a need for a Wisconsin Year Book? Are there any volunteers who will act on the advertising committee? The Federation Board will be glad to know.

CONTRIBUTIONS TO SPEAKERS' FUND

IN addition to contributions already listed to the Speakers' Fund, the following garden clubs contributed during the past month:

Fond du Lac Community, $1; Elm Grove, $4; Menomonee Falls, $1; Oshkosh Horticultural Society, $1; Home Garden Club of Ripon, $1; Blue Mound, $1; Ledgeview Garden Club, Fond du Lac, $1.

The Federation appreciates very much the support of all the garden clubs who contributed. The financial report shows a substantial balance in the Speakers' Fund this year rather than a deficit as of last year.

FEDERATION SUGGESTS GARDEN CLUB OFFICERS BE ELECTED EARLY

THERE are several important reasons why from the standpoint of the activities of the Garden Club Federation the officers of garden clubs should be elected at the last meeting of the calendar year.

First, a complete list of the officers of all garden clubs for 1938 will be published in the February issue of this magazine if the names are available.

Second, in February and March considerable material is sent out by the Federation to the club officers relative to the collection of dues, announcements for garden club activities for the coming year and other matters. It is far better that this material reach the officers for 1938 than if it is sent to the old officers. Quite often it is difficult to turn such material over to the newly elected officers.

The Federation Board therefore suggests that all garden clubs hold their election at once if it has not yet been held. The constitution can easily be changed to provide for such an election. It is probably well to have the new officers take over their duties either in January or February of the new year.

As soon as the election has been held, the Secretary should notify the Wisconsin State Horticultural Society, 1532 University Avenue, Madison, of the names of all officers for 1938 so they can be published in the magazine.

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Pruning — Cavity Treatment
Spraying — Cabling
Fertilizing — Tree Moving
WISCONSIN TREE SERVICE
2333 N. Murray Ave. Milwaukee, Wis.
Lakeside 2907

Financial Report—Wisconsin Garden Club Federation

GENERAL FUND

Receipts

1760 Federation dues @ 15c	$264.00	
33 Federation dues @ 10c	3.30	
1758 Horticultural dues @ 35c	615.30	
33 Horticultural dues @ 20c	6.60	
Total Receipts from dues		$889.20
Disbursement of Dues:		
1754 Horticultural dues @ 35c	613.90	
33 Horticultural dues @ 20c	6.60	
Total Disbursement of dues		620.50
Balance from dues		268.70

Disbursements

Expenses of printing of stationery	$ 12.50	
Expenses of Sec'y, postage, office supplies, minute book and ledger	23.65	
Bond for Treasurer	5.00	
Salary for Secretary-Treasurer	15.00	
Dues to National Council of Garden Clubs, 1525 @ 5c	76.25	
Junior Garden Club expense—postage	17.74	
Duplicate seal of Federation	3.25	
3 Board meetings, transportation and meals	23.00	
Expenses of Board for summer meeting (partial)	22.75	
Expenses of Executive Board at convention in Oshkosh, transportation, meals, hotel	29.21	
Allowance to President, expenses regional meeting in Iowa	20.00	
Marine National Bank, service charges	6.58	
Telephone bill of Chairman nominating committee	15.00	
Total Expenses		269.93
Deficit		1.23
Deficit of January 1, 1937		2.65
TOTAL DEFICIT		3.88

SPEAKERS FUND

Receipts 1937

Donations from 41 clubs	$ 88.00	
Donations from Wisconsin Horticultural Society	25.00	
345 Registration fees @ 25c	86.25	
35 Student Registration fees @ 10c	3.50	
Sale of Banquet tickets	167.00	
Total Receipts		$369.75

Disbursements

Fees and expenses of speakers	$128.25	
Athearn Hotel for banquet	167.00	
Service at registration desk	4.50	
Luncheon ticket for Speaker	.75	
Total Disbursements		300.50
Balance		$ 69.25
Deficit of January 1, 1937		9.72
BALANCE ON HAND, November 15, 1937		$ 59.53

FLOWER SHOW FUND

Balance on hand, January 1, 1937		$232.37

Receipts

Balance remaining from Nat'l Flower and Garden Show	$ 27.14	
Check not cashed	.50	
Wisconsin State Horticultural Society donations	24.00	
Total Receipts		51.64
		$284.01

Disbursements

Prof. F. Aust, for judging at National Flower Show	$ 9.25	
Ribbons for flower show of convention	1.00	
Premiums to members for exhibits at Flower Show at Oshosh convention	23.50	33.75
BALANCE ON HAND, November 15, 1937		$250.26

NATIONAL COUNCIL MEETS IN MAINE

THE National Council of Garden Clubs held a fall meeting in Camden, Maine, beginning October 7. About 150 members from 21 states were present. Wisconsin was one of those not represented.

Reports from the various states were interesting and helpful. Each of the New England States have contributed slides of their best gardens for the National Council use. These slides are now available to other states. Write the National Council of State Garden Clubs, 30 Rockefeller Plaza, New York City.

A prize of $25 is offered for the best 1937 Year Book, the contest closing December 31st.

The Garden Club of Georgia published a book on Georgia Wild Flowers. The Iowa Federation reports that lilacs have stood the drought better than any other shrub. This organization is establishing colonies of native flowers.

The New York Federation is sponsoring an elementary course in judging and exhibiting for beginners. A senior course will also be held.

Ohio has held four garden pilgrimages since May. Many Federations are holding garden pilgrimages, establishing nature trails and arboretums. Mrs. Fae Huttenlocher, chairman of the Central District, reported that program help is the greatest need of small clubs.

The next annual meeting of the National Council will be held at the Hotel Roosevelt, New York City, May 17-18-19, 1938. On the 21st members will sail for Bermuda where the Bermuda Garden Club will be hostess.

Lawyer for Defense: "What time was it when you were robbed?"

Complainant (angrily): "I don't know; ask your client—he took my watch!"

The Convention Banquet

Mrs. B. W. Wells

GARDEN Club Banquets come, and Garden Club Banquets go—we are entertained, inspired, and well fed. The unusually large crowd at this year's banquet held at Oshkosh, Thursday evening, October 14, was the usual happy, congenial group. The onlooker said, "All's well with the world."

Our Home and Garden page editor, Mrs. C. E. Strong, reviewed the growth and progress of the Federation during the past two decades. "The small group of women in 1917 who were tired of listening to talks about spraying, pruning, and fertilizing, organized an auxiliary of their own. They did not vision the well-organized federation of interested garden clubs of 1937." Pioneering in this field and an ever increasing interest in floriculture on the part of Mrs. Strong herself, and others giving valiant and untiring service have led to this development which is one of the most delightful club affiliations that women now have.

Alfred C. Hottes entertained us royally in relating the stories behind our flowers. Without his personality and presentation, these stories lose their vitality. He voiced a mutual feeling when he referred to himself as "one of your adopted sons." We were so happy when we finally learned that he would return from his summer in Europe just in time to be with us. Our appreciation of common growing flowers was intensified by his stories. He told how the zinnia was named after J. G. Zinn, an old man, who traveling through Mexico gathered a bag of these brilliant flowers. He met a bandit who seized his bag, thinking it held valuables of some sort. When he saw these coarse, partially dried flowers, he spared the man's life, believing it was wrong to kill an imbecile. Botanists named these flowers Zinnias. Lilies of the Valley were so called because they were chosen by gnomes who sought delicate cups for the Ball of the Fairies. Seeking far and wide, at sunrise they came upon these dainty cups fastened to blades of grass, and the Queen, waving her wand, said, "Lilies of the Valley." These are but samples of stories behind our flowers. A philosopher is Mr. Hottes, when he says, "There is no depression in Nature—each spring there is new hope and new vitality. Gardeners are not the types of persons to become depressed. They know something beyond in simple things."

Mr. C. L. Harrington of the State Conservation Commission outlined the broad scope of that department of our state government. Himself chiefly concerned in the conservation of our State Parks, he dwelt upon the historical development of these. The first investigation of state park sites in the 1880's led to the selection of Devil's Lake Park, Patterson Park, and Mississippi Bluff. Using our resources for recreational and inspirational purposes is a trend the value of which grows yearly. The dollar and cents value of this timberland and its use by tourists is part of Wisconsin's income. Mr. Harrington showed beautiful slides of spring and fall wild flowers, and Wisconsin parks in autumn colors.

Mr. H. J. Rahmlow showed colored movies of the newer varieties of garden flowers and gardening methods. This set is unique in that the habits of growth are shown as well as mass effects. The value of proper backgrounds for our flower pictures is also well illustrated. These films should inspire flower lovers to see flower pictures in small yard gardens.

DISTRICT GARDEN CLUB OFFICERS ELECTED

THE South Central District of the Wisconsin Garden Club Federation held a very interesting meeting at Whitewater on November 9. Mrs. Sam Post and Mrs. B. W. Wells, Madison, gave excellent talks on flower arrangement and table setting. H. J. Rahmlow discussed new garden flowers illustrated with colored film.

The following officers were elected for the district for the coming year:

Chairman: Mrs. H. C. Smith, Lake Geneva; 1st Vice-Chm.: Mrs. E. Sorenson, Elkhorn; 2nd Vice-Chm.: Mrs. H. J. Torrence, Whitewater; Sec'y-Treas.: Mrs. Geo. Sherman, Lake Geneva.

CHRISTMAS LIGHTING CONTEST PLANS WANTED

SEVERAL garden clubs have requested information as to how to conduct Christmas lighting contests. We will appreciate hearing from any garden club who has successfully conducted a Christmas lighting contest this season. Information as to the types of lighting, schedule of classes, and how the judging was done, would be especially valuable as suggestions for next year to other clubs. Send the information at once.

GROWING PLANTS WITHOUT SOIL

WE are informed that the Chemical Garden Company, 555 Asbury Avenue, Evanston, Illinois, distributes tanks and chemicals designed for experimental work in growing plants without soil—that is, in water containing plant food provided in the form of chemicals.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

OFFICERS

A. J. Schultz, Ripon, President
Walter Diehnelt, Menomonee Falls, Vice-president
H. J. Rahmlow, Madison, Cor. Secy.
Mrs. E. Voigt, Box 60, Menomonee Falls. Recording Secretary-Treasurer

DISTRICT CHAIRMEN

S. P. Elliott, Menomonie
N. E. France, Platteville
Edw. Hassinger, Jr., Greenville
F. J. Paepke, Burlington

VOL. XIII DECEMBER, 1937 No. 12

ANNUAL CONVENTION VERY SUCCESSFUL

"THE most interesting convention I have ever attended," and, "Doesn't everyone seem to be having a fine time," were comments heard many times at the 59th annual convention of the Wisconsin Beekeepers Association at Hartford. The total registration was over 150, while 110 attended the banquet.

The Mayor of Hartford, the Chamber of Commerce, and even the Chief of Police cooperated in making the convention a success. Special credit is due Mrs. A. E. Wolkow for her efforts in seeing that everyone obtained a room for the night and arranging for the excellent banquet.

As one stepped into the hall a spirit of friendliness and good will was evident. There were 22 officers and delegates of district and county associations attending the Board of Managers meeting, the largest, we believe, that was ever held. Even here there was excellent feeling and good will. Matters of business were discussed amiably with not a word of dissension. This is a healthy condition. Only at the business meeting the second afternoon was there some evidence of "politics" in an effort to elect several new officers. However, the vote was overwhelmingly in favor of all old officers being elected as had been unanimously recommended by the Board of Managers.

Next Convention at Marshfield

By almost unanimous vote the convention decided to meet at

Marshfield in November, 1938, at the invitation of the Mayor of Marshfield, who is also president of the Wood County Beekeepers Association, Mr. G. S. Ives, and Mr. Pritchard of Wisconsin Rapids. Invitations were also received from Shawano, Green Bay, West Bend and Milwaukee.

What Some of the Speakers Said

Unable to give a full report of the convention talks in this issue, we will continue a condensed report in the next issue as well.

Mr. E. R. Root of the A. I. Root Company of Medina, Ohio, gave a very interesting talk at both the afternoon session on Thursday, and the evening banquet. Outlining the advances made in beekeeping during the past decade, he stated that Wisconsin has stood for many notable things in beekeeping. Many years ago Adam Grim produced enough honey to build a bank.

Beekeeping has had many changes. Years ago we recommended packing bees very heavily for winter. Then it was found that too much packing forms an ice house and weak colonies will not build up in the spring because heat cannot penetrate to the hives. "Be careful about carbolic acid in removing your honey," said Mr. Root. "It can be used to good advantage by large beekeepers in removing supers quickly, but only the chemically pure crystals should be used and then with caution or it will impart an odor to the honey which is disastrous.

"We should clean- up our honey houses. Consumers are very particular about how their food is handled. Years ago we had the pollen theory. It was recommended that all pollen and honey be removed from the hive and sugar syrup fed for best wintering. We have now found that pollen is the best investment we can have in the hive. Without it the bees cannot build up in the spring.

"What's the use of knowing so much when so much we know isn't so," said Mr. Root.

Peterson Advocates Filtering Honey

Mr. E. F. Peterson, large beekeeper at Kewanee, Illinois, Secretary of the Illinois Association, is a strong advocate of filtering honey. He has built a complete outfit and exhibited honey at the convention which was certainly clear and attractive in appearance. By filtering properly, nothing of value is removed from the honey. The process consists of heating the honey to a temperature of 160 degrees in a flash heater and then under pressure, forcing the hot honey through a paper disc filter. This removes the air bubbles, particles of wax and other matter, leaving the honey very clear and sparkling.

The filter is constructed in such a way that additional sections may be added to it and the capacity thus increased to the requirements of any type of plant. Anyone interested in a honey filtering outfit might write to Mr. E. F. Peterson, Kewanee, Illinois.

Preventing Granulation in Honey

Prof. V. G. Milum of Champaign, Illinois, who formerly worked in Wisconsin, gave two excellent talks on the preparation and care of honey and on pests of bees and combs. It is the dextrose of the honey which

crystallizes out, said Prof. Milum, and there are dextrose particles floating in the air. If these crystals fall into the honey or form as a natural process, crystallization starts and the honey is soon granulated.

Heating the honey to 160 degrees F. prevents granulation. The method of filling containers is important. The honey should be bottled and sealed while hot, and cooled as quickly as possible. If the hot honey is allowed to stand in large tanks for a long time it will darken in color. It is therefore well to bottle the honey as soon as it has been heated, and then cooled quickly.

In tests made at Illinois, the milk strainer cloth or outing flannel cloth was found to be the best type for strainers. Sugar sack toweling of 46 mesh per inch is also good and was second best. 83 mesh per inch silk bolting cloth was found to be the poorest type of strainer in the tests made.

The strainer does not decrease the granulation however, as this is done only by heating.

Granulation was found to be heaviest at 50 to 70 degrees F. temperatures. At zero degrees there was no granulation. Since the average ice box has a temperature of about 50 degrees, the housewife should be asked not to set the honey in the ice box because it will granulate rapidly.

If honey has once been heated it will granulate much coarser the second time unless treated with fine crystals of granulated honey.

The color of honey is greatly influenced by the storage temperature. Elaborate tests were made at the Illinois Experiment Station, and it was found that at room temperature the honey became darker than if stored at 70 degrees, because in the summer time the room temperature may go up as high as 90 degrees.

Honey stored at 98 degrees became very dark in color.

Honey should therefore be stored in relatively cool temperatures if it is desired to keep it for any length of time.

Honey heated to 180 degrees for 30 minutes lost some of its flavor.

INSTITUTE NEEDS FUNDS

WISCONSIN beekeepers are urged to send in their memberships to the American Honey Institute during December. We are informed that present indications are that it will be necessary to curtail the entire Institute program because of the financial situation.

Let's all send the institute a Christmas present and enable them to continue their valuable work.

THE REVIVED AREA CLEAN-UP

E. L. Chambers

THERE are two ways of traveling on a river, one way is a journey up-stream and the other way is down-stream. The going down-stream is always the easiest but when your destination is in the other direction you cannot make progress going down-stream. Until July 10, when the new annual $31,000 appropriation for bee disease control became available, we were just about marking time although we were headed up-stream. Now, with more adequate funds to work with, we have been steaming steadily up-stream and will soon be going into "dry-dock" for the winter and then we can get our "machinery" overhauled and be ready for an early journey next spring toward our goal, the eradication of American foul brood from the entire state.

We plan to hold schools for instruction to the inspectors at several convenient points scattered over the state to develop a little better understanding with the men and bring about a little more uniformity in technique and simplify our records and reports.

Build Up County Associations

Of most importance, however, the winter months will be utilized to build up the local county beekeeper's associations in cooperation with the state organization and the Beekeeping Department of the College of Agriculture and other agencies. We cannot expect to make any progress in a county until they have an active local association which will support the work and methods as recommended by this group right here, our state beekeepers association. In fact since we do not have trained men enough available to cover the entire state at one time, we plan to concentrate our efforts first on those counties which have the necessary organization to give moral support to the clean-up.

HONEY FOR SALE

Comb and extracted honey; any kind, any quantity. Fulfill the requirements of your local trade during an off year. Write for prices. C. W. Aeppler Company, Oconomowoc, Wisconsin.

"Do you wish the court to understand that you refuse to renew your dog license?"

"Yes, your honor, but—"

"We want no 'buts.' The license has expired."

"Yes, and so has the dog."

CONTAINERS

Write us for prices on friction top pails—60 pound cans and glass jars.

Comb and extracted honey wanted. Send samples and quote price delivered Milwaukee.

WALTER GEIGER

325 W. Vine St. Milwaukee, Wis.

"God Bless ye, Merry Gentlemen
Let Nothing you Dismay,
For Christ our Lord and Savior
Was Born on Christmas Day!"

With this Christmas Carol so true in word and rhyme,
We send you Heartiest Greetings at this Joyous Time.

August Lotz Company

Boyd, Wisconsin

Under the regulations covered in General Order No. 3, adopted after the hearing a year ago in the Commissioner's office, we can not follow the drastic control methods necessary for effective clean-up until the county has been under the area clean-up plan for one season and so in many of our counties we could not get the work underway this summer very effectively but by next summer these obstacles will be out of the way.

Heretofore many counties appropriated small sums inadequate for a good showing while others discontinued their appropriation for a few years just as good progress was being made, jeopardizing and, in some cases, nullifying the work already done. With an appropriation such as we have now, we can take definite areas and follow up with re-inspections year after year and add on adjoining territory as the time and funds permit so that definite progress can be made instead of a hit and miss system which resulted from the limitation to use of county funds and funds inadequate to carry the work to completion in any one area.

We have trained twenty new inspectors, a dozen at least of which will be able to go ahead on their own by next spring. We should progress from the control stage of the past few years to the area clean-up eradication stage we have all been looking forward to and striving to attain.

The fact that you beekeepers were able to convince the legislature of the need of your industry by securing the appropriation when other industries failed to get aid, indicates that the public is coming to realize the importance of bees in agriculture and the practicability of eradication methods. While disease-resistant strains of bees will, no doubt, play an important role in the future, we cannot expect any help for at least fifty to one hundred years.

REPORT OF LADIES AUXILIARY MEETING

THE business meeting of the Ladies Auxiliary of the Wisconsin Beekeepers Association was called to order at Hartford, November 4, by the chairman, Mrs. Andrew Stevens. The secretary reported total receipts from sale of drip cuts and premiums in connection with the booth at the state fair as $60.75; total expenses, $44.75; balance left, $16.00. The committee was given a rising vote of thanks for their work. Mrs. Andrew Stevens asked to be relieved of her office, and, in the election of officers, Mrs. Frank Ortleib, Chilton, was elected chairman for 1938. Mrs. A. J. Schultz was re-elected secretary-treasurer.

Mrs. Malitta Jensen, of the Honey Institute, gave an excellent talk. Mrs. Stevens appointed Mrs. Diehnelt and Mrs. Ortleib on the Resolutions Committee. Resolutions of appreciation were sent to the West Bend Aluminum Company and to the committee in charge of the banquet and program at Hartford. There were eleven entries in the honey cookie contest.

—Mrs. A. J. Schultz, Ripon,
Secretary-Treasurer.

A CHRISTMAS GREETING

A NEW edition of "One Hundred Honey Helpings" has just been published by the American Honey Institute. It certainly is an attractive, valuable little booklet.

A card marked: "Merry Christmas and a Happy New Year from Mr. and Mrs. John Beekeeper" attached to this colorful booklet will make a very nice Christmas greeting, much better than the usual card. Write the American Honey Institute, Madison, Wisconsin, for your supply.

Prices to members of the Institute are as follows: ten at 65c; 25 at $1.50; 50 at $2.75; and 100 at $4.50. Mailing envelopes for the above will be furnished for one cent each in any quantity, which is cost price.

DO NOT SELL GRANULATED HONEY TO CONSUMERS

IN November, the editor received a five pound pail of honey and an indignant letter from the manager of a large chain store asking that the honey be analyzed to see if it was adulterated, and, if so, to send the facts so that they could prosecute the beekeeper.

There was nothing whatever wrong with this honey excepting that it was granulated and possibly because it was a dark honey from fall flowers and did not have a pleasant odor or taste.

Wisconsin beekeepers should take warning from this action on the part of a large store manager. Evidently customers had also complained. The facts are simply that consumers in this country are not prepared to buy and use granulated honey. They do not like the looks of it, and it does not seem to smell as good as when liquified either. Here is another reason why beekeepers should not allow their honey to be sold to consumers when in granulated form even though they print on the label that it should be set in hot water to be liquified. Many consumers do not do this correctly. They may let it stand on the back of the stove for a whole day. The result is that the honey is dark, has a burnt flavor, and is anything but good honey when they get it liquified.

The beekeeper should obtain equipment to liquify the honey at a temperature of from 150 to 160 degrees, bottle it while hot so that it will not granulate again for a long time, or sell the honey to someone who is properly equipped.

"Where's your pencil, Alf?"

"Ain't got one, teacher."

"How many times have I told you not to say that? Listen: I haven't got one, you haven't got one, we haven't got one—"

"Well, where are all the pencils?"

Heavy or Light Winter Packing

THERE is still some difference of opinion as to whether bees should be packed heavily or lightly, or left unpacked in sections where we have cold winters such as in southern Wisconsin and northern Illinois.

Prof. V. G. Milum of the Illinois Experiment Station, speaking at our annual convention gave the following results from an experiment conducted at Champaign on different methods of packing.

Colonies without any packing produced 117 lbs. of honey.

Colonies in double wall hives produced 128 lbs. of honey.

Colonies covered with celotex produced 134 lbs. of honey.

Colonies with 6 inches of packing on top and sides, produced 164 lbs.

Colonies divided in April, the division provided with a young queen and then the colonies reunited in June produced 240 pounds per colony. This is much like the two-queen colony method.

Mr. E. R. Root of Medina, Ohio, called attention to experiences when heavily packed colonies were in very poor shape following certain winters, while unpacked colonies and especially those in old hives with holes providing plenty of ventilation did well.

The result probably depends largely upon the type of winter we experience, and also the time for the honey flow. During winters when we have prolonged cold spells with temperatures of 20 to 30 below for considerable periods, no doubt the packed colonies do best, while in mild winters with considerable dampness, the well ventilated colony would do best.

In seasons when the honey flow comes early from white clover, etc., without any midsummer honey, strong spring colonies would do best, while if the spring crop fails and the flow comes from sweet clover in July and August, the weaker colonies would build up and do well, while the strong colonies might swarm.

There is probably no question but what some protection will pay under Wisconsin conditions. The well packed hive with a top entrance may be the solution under damp situations because it helps control moisture.

THANK YOU

I WISH to thank the members of the Wisconsin Beekeepers Association for my re-election as your president. It has been a pleasure to work with you and for you. For the coming year it shall be my desire that we further those activities that are best for the Association and for the interests of the beekeeping industry of the state. In order that we best accomplish this end, I am asking all beekeepers to cooperate with our association, and that all departments of the state interested in bee culture join with us in the furtherance of better beekeeping conditions.

A. J. Schultz, President.

HONEY COOKIE CONTEST

THERE were a large number of entries in the ice box honey cookie contest at the annual convention at Hartford. Winners were as follows:

First prize: Mrs. A. E. Wolkow, Hartford.

Second prize: Mrs. Chester Keister, Clarno.

Third prize: Mrs. Cornelius Meyer, R. 3, Appleton.

We congratulate all the ladies on their fine cookies. The prize recipes will be published in coming issues of the magazine.

BETTER COUNTY ASSOCIATIONS NEEDED — A CHANCE TO WORK

IT has been emphasized several times by Mr. E. L. Chambers, State Entomologist, that in order to successfully carry on the foul brood eradication program, we must build more and better county beekeepers associations.

We heartily agree. County groups can work most effectively together to solve their local problems. Mr. Chambers states in his article that organization plans will go forward this coming winter. We urge cooperation by every beekeeper in this work.

We wish to suggest that here is an opportunity for the efforts and energies of those who may have felt during the past few years that the State Association did not give them full opportunity to use their energies. The organization of from forty to sixty county associations is a big job, really a job for a full time extension man, which we do not have.

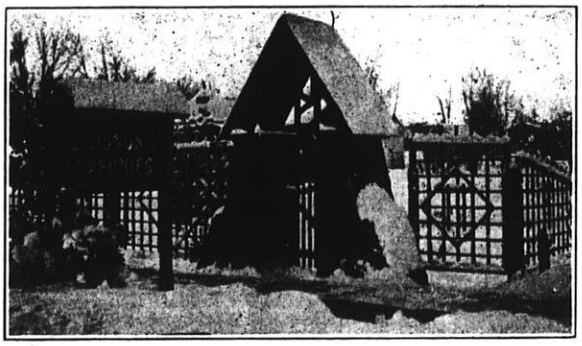
The officers of the State Association should not be asked or expected to carry on this work. That they have done a good job with the State Association is evidenced by the successful meetings and enthusiasm which the beekeepers have felt for the State Association. The editor has stated several times that the time he can give must be limited to the State and District Associations.

Here then is the opportunity for those who have the energy to build Wisconsin Beekeeping.

WE REGRET

SO much material relating to the annual convention of the Wisconsin Beekeepers Association has been sent us for publication in Wisconsin Beekeeping that we are unable to publish even half of it this month.

Therefore a number of important articles will have to wait until coming issues.



Seasons Greetings To All

Sisson's Peonies
ROSENDALE, WISCONSIN
Highways 23-26 Intersection

Prices Reduced
on
Manufacturing Your Wax Into Bee Comb Foundation

We have improved our equipment and speeded up our milling machines to enable us to make this big reduction in our working charges. In quality, our comb foundation is now better than ever.

Kind of Foundation	Size	Sheets Per Pound	Cost of Manufacturing Per Pound		
			10 lbs.	25 lbs.	100 lbs. or more
Medium Brood	8x16¾	8			
Medium Brood	8 9/16x16¾	7½			
Jumbo Brood	10x16¾	6	25c	20c	11c
Medium Brood for shallow frames	4½ x16¾	15	29c	26c	17c
Thin Super	3⅞ x16½	28	10 lbs.	25 to 99 lbs.	100 lbs. or more
Thin Super	3 11/16x14¼	30			
Thin Super	4⅛ x17	23	30c	25c	19c

We will work your wax on shares, accept it in trade or buy for cash. Free storage on your wax.

We have just received notice of another advance on nails. Steel, lumber, etc., have advanced a great deal since we published our 1937 catalog. We advise buying supplies this fall while we are continuing to quote our lowest prices.

THE WALTER T. KELLEY CO.
Paducah, Kentucky
Manufacturers of bee supplies

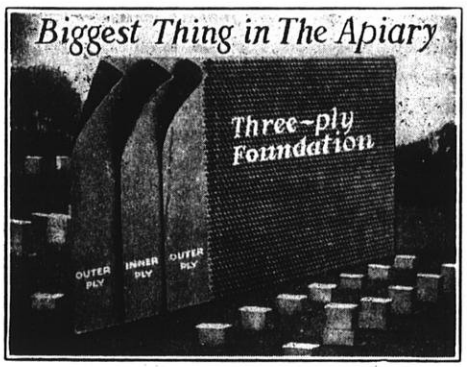
Are You Increasing Your Apiary?

GET OUR PRICES

on your next year's requirements. We can give you the very best. Now is the time to sort out the poor combs. Replace them with the famous

3-PLY AIRCO FOUNDATION
"Best By the Bee Test"

Sell Your Honey at a Profit
CANS, PAILS, JARS, LABELS, ETC.



Write for 1937 Prices

A. I. Root Co. of Chicago
224 W. Huron Street
CHICAGO, ILL.

Root QUALITY BEE SUPPLIES

A. I. Root Co. of St. Paul
290 E. Sixth Street
ST. PAUL, MINN.

WISCONSIN HORTICULTURE

JANUARY, 1938

ORCHARD AND GARDEN SUPPLIES

BEAN Spray Machines
Spray and Dust Materials
Pruning Tools
Grafting Tools
Grafting Tape
Tree Protectors

Write for Prices

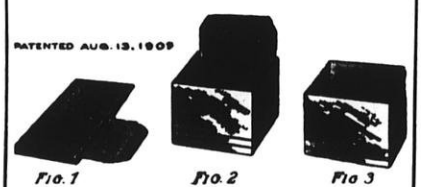
F. R. GIFFORD CO.
2201 University Avenue
Madison, Wisconsin

Fruit Hors d'Oeuvres

Orange segments dipped in warm honey and rolled in cocoanut. Cherries dipped in honey and rolled in chopped nuts. (Use toothpicks for serving.)

Strawberry and Pineapple Plate

Place a nut cup filled with warm honey in the center of a bread and butter plate. Arrange around this fresh strawberries (either in halves or whole) and fresh pineapple dices. Serve with cocktail fork.



Berry Boxes

Crates, Bushel Boxes and Climax Baskets

As You Like Them

We manufacture the Ewald Patent Folding Berry Boxes of wood veneer that give satisfaction. Berry box and crate materials in the K. D. in carload lots our specialty. We constantly carry in stock 16-quart crates all made up ready for use, either for strawberries or blueberries. No order too small or too large for us to handle. We can ship the folding boxes and crates in K. D. from Milwaukee. Promptness is essential in handling fruit, and we aim to do our part well. A large discount for early orders. A postal brings our price list.

Cumberland Fruit Package Company

Dept. D, Cumberland, Wis.

Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society
Established 1910

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

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
1532 University Ave.
Madison, Wisconsin

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Office: Old Entomology Bldg., College of Agriculture
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Volume XXVIII JANUARY, 1938 No.5

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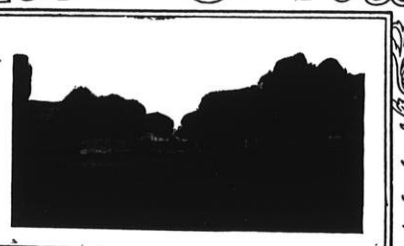


OUR PROGRAM
3. Greater publicity for Wisconsin grown fruits and vegetables.
4. A constantly improving magazine for the distribution of timely horticultural information.
5. Organization of local horticultural clubs in all sections of the state.

Some Principles Of Pruning

Victor W. Kelley, Department of Horticulture, Illinois

MORE than two centuries ago La Quintinye, the great French gardener, wrote, "Everybody cuts but few prune." About 75 years ago a speaker at one of the sessions of the Illinois State Horticultural Society recommended "buy a pruning knife but leave it at home until you have learned how to prune." These statements indicate that a long time ago pruning was considered important by horticulturists, and that there was much difference of opinion as to how it should be done.

Mistakes in pruning can usually be traced to lack of a definite purpose. It may be truthfully said that such indiscriminate cutting is often worse than no pruning. To prune **profitably** one must prune **intelligently.** The ultimate purpose of pruning is to increase profits. There may be aesthetic values in certain types of pruning, to give definite shapes to plants, but to the commercial fruit grower pruning is an expensive operation, the only justification for which is that it may help to "ring the cash register."

Some of the responses of the tree to pruning have been determined experimentally.

Principles Involved

1. **A good framework can only be developed when the tree is young.** The time when the framework is being formed is one of the most critical periods in the life of the tree. The nature of the pruning treatment at this time has far-reaching consequences. It will not only determine the type of framework, but the cuts made during this early period will determine the type and amount of pruning which must be done in later years; and, because of this influence, it will affect the time of coming into bearing, the rapidity of growth, the size of crop, and even the longevity of the tree.

In order to be practicable, a method of securing a suitable framework must fulfill certain requirements, viz. (1) It should produce a **strong** framework which is capable of bearing large crops over a long period of time. (2) It should insure a **permanent** framework which will not be crowded out. The original framework should remain at maturity. (3) To be feasible from the viewpoint of the fruit grower, the framework must be secured **quickly.** (4) A satisfactory method must bring the trees into profitable production at an **early age.**

2. **Pruning is relatively local in its stimulating effect.** An ordinary pruning cut stimulates growth in the vicinity of the cut, but has little effect upon the growth of a neighboring branch. On this basis, a larger number of comparatively small cuts is preferable to a few large cuts. This principle is involved in the detail pruning which is being advocated for bearing apple trees.

3. **Upright branches grow more rapidly than horizontal branches.** Vertical branches as a rule grow very rapidly; they seem to have an advantage in securing nutrients, water, and sunlight. On the other hand, horizontal or drooping branches tend to grow very slowly and for this reason should not be selected for the framework, although their crotches are strong. Branches with moderate angles grow rapidly enough to secure adequate tree size and they also form strong unions with the trunk.

4. **Narrow angled branches form weak crotches.** Experience, as well as research, has shown that a branch which leaves the trunk at a narrow angle, that is in an upright direction, forms a weak union with the trunk. In such a case, instead of the

branch being tied to the trunk with strong, woody, crotch tissue, bark is caught at the union of the trunk and branch, and they are really tied together at this point only by bark. If the angle is relatively wide, that is if the branch leaves the trunk in a somewhat more horizontal direction, no bark will be caught, and the crotch tissue will be made up entirely of wood and will possess great strength.

5. **A branch originating directly over another will eventually shade out and starve the lower one.** Two factors seem to be responsible for this. The upper branch probably has the advantage in position with reference to the food supply as it is transported in the phloem, and since it shades the lower one it interferes with its food manufacture by reducing the light for photosynthesis. In the training of young trees, a lateral arising from the trunk directly over a framework branch should never be selected as a part of the permanent framework.

6. **Too many branches arising from the trunk detract from the growth of individual branches but contribute to the total growth of the tree.** The opinion is sometimes heard that since pruning delays initial bearing all pruning should be postponed until the bearing habit is established. Such a plan is feasible so far as early bearing is concerned but is unsatisfactory from the viewpoint of a desirable framework. Experience has demonstrated that when a large number of branches are allowed to become established along the trunk frequently none of them become dominant. When the time comes to begin cutting out the superfluous ones, the remaining framework branches are disappointing in size.

7. **Pruning a branch decreases its growth.** In an experiment at the Illinois Station two branches of equal size were selected on the same tree. One of the branches was pruned heavily and the other left unpruned. At the end of the season it was found that the unpruned branch had increased in diameter 218%, while the one heavily pruned had grown only 22%. This principle is frequently used in pruning to keep a tree symmetrical, by pruning a branch which is growing very much faster, more severely than the others.

8. **Pruning has a dwarfing effect upon the tree as a whole.** The leaf is the tree's manufacturing plant for food materials and any practice which reduces the leaf surface lowers the food supply and lessens growth. At the Illinois Experiment Station 800 apple trees were divided into four groups, each group receiving a different pruning treatment; group 1 was pruned lightly, group 2 moderately, group 3 severely, and group 4 was left unpruned. At the end of five years the unpruned trees had increased in circumference 85%, the lightly pruned, 80%, the moderately pruned, 75%, and those heavily pruned, 67%. Thus the pruning dwarfed the trees in proportion to its severity. Experiments have also shown that pruning dwarfs the root system of apple trees. An understanding of this principle will make it clear that pruning should be only severe enough to accomplish the purpose intended, and that every cut made beyond this point is an economic loss.

9. **Pruning increases the vigor of growth.** The laterals on a pruned branch will be longer than on a similar one which has not been pruned. Since the number of growing points is reduced, the individual laterals grow somewhat faster than if the entire number were allowed to start. However, the gain in leaf surface on individual shoots due to the increased vigor is not sufficient to make up for the loss of foliage from the buds removed by pruning, and the net result is a decrease in growth for the tree as a whole.

10. **Another principle which has been conclusively proved by experimental work is that pruning the young apple tree delays its coming into bearing.** At the Illinois Experiment Station in the experiment with 800 trees referred to above, at the age of 10 years, five years after the experiment started, 95% of the unpruned trees produced fruit, while only 85% of the moderately pruned and 70% of the heavily pruned bore any fruit. In the formative period, the energy of the apple tree has been used primarily in the production of vigorous wood growth. Fruit buds are formed as a result of a rather delicate balance between the nitrates and carbohydrates in the tree. The very young tree does not produce fruit buds because it is growing too vigorously; the nitrates are too high in proportion to the carbohydrates; a change must be made before fruit can be borne. In the apple the transition from vigorous wood production to the formation of fruit buds is made quite gradually. Any practice of the fruit grower which tends to maintain a condition of excessively vigorous shoot growth will delay the formation of fruit buds. Severe pruning perhaps more than any other single practice tends to promote vigorous shoot growth.

11. **Pruning decreases the crop in young bearing apple trees.** In the experiment referred to immediately above, the severe, moderate, light and no pruning comparisons were continued for about 10 years. Throughout the entire period the unpruned trees produced more marketable fruit than any of the pruning treatments. The reduction in yield was in proportion to the severity of the pruning. Moderate pruning decreased the total yield about one-half while severe pruning reduced the crop approximately three-fourths.

We Plow Too Much

"PLOWING and cultivating land is comparable to performing a surgical operation on a human being—indispensable at times but to be avoided whenever possible." A group of soil and crop scientists recently heard that remark from Dr. Richard Bradfield of Cornell University.

On first thought, it may sound like some professor without experience, preaching. Every farmer knows the necessity and joy of plowing—turning long, straight furrows, with no sod or crop refuse left uncovered—and of cultivating the crop.

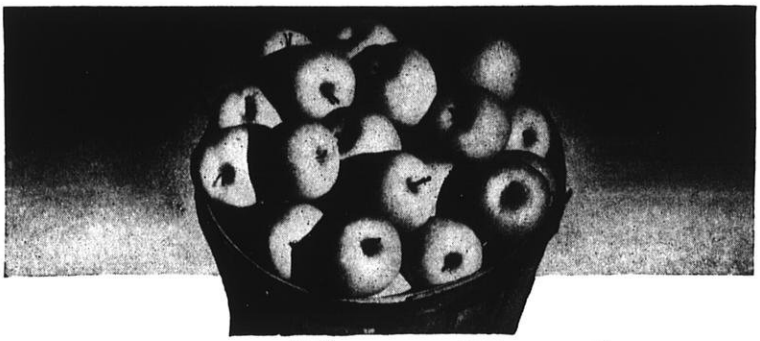
But Bradfield plowed Ohio soil before he became a professor. He has had time since to study the effects. He was speaking of hidden effects over a period of time. Bradfield had taken samples of soil from many fields and compared them with samples of soil from near-by fence-rows, or from near-by forests. And he discovered what the relatively few years of working the land, since it was taken over by the pioneers from the prairie and forest, have done to it.

Virgin soils, other than sands, consist mostly of granules which give them good working-condition. These granules are made up of many small particles, like crumbs of bread. Each granule has pores full of air and water. Continued cultivation tends to break down these crumbs, press the particles together. The soil takes on characteristics somewhat similar to those of dough. "In many cases from 25 to 30 per cent more soil is crammed into a cubic foot than was present in the virgin soil."

Said Dr. Bradfield: "Under grass, most soils assume a granular or crumb structure . . . Grass roots are so numerous that in a well-established soil they are seldom over 1/25th of an inch apart. These roots ramify the soil in all directions. . . . Eventually the roots die and are decomposed. The organic matter constitutes a good reserve of the elements essential to growth. . . . Such a soil has a permeability approaching that of sandy soils, combined with a storage capacity of the heavier-textured soils. It is not definitely known how many seasons of growth of grass are required to produce the optimum structure. The major portion of the work is probably done in the first few years of growth of the sod."

Cultivated soils are also subject to serious loss of topsoil by erosion. The farther removed from the year the land was last in grass, the greater the destruction by wind and water.

—Condensed from Illoinois Horticultural Society Newsletter.



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—IN THE FALL

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How We Make Cider

G. H. Turner, Dalton, Wis.

CIDER, the clear amber sparkling liquid that marks the beginning of fall. Fall and cider are somehow synonymous. Good clean apples, free from worms and rotten spots, are essential for good cider. The tainted or poor-tasting cider often found on the market is from rotten or green apples, and perhaps the wrong varieties. The first step in making cider is to sterilize all equipment. I use cull apples, cutting out the worms, worm holes, and rotten spots, and then wash them. In making a batch of cider, I use five or more varieties as I have very few varieties that make good cider when used alone. The cider that I exhibited at the annual meeting of the Wisconsin State Horticultural Society at Waukesha was made from the following: Wealthy, Fameuse, Pewaukee, Newell's Winter, N. W. Greening, Talmon Sweet, and Winesap.

Filtering

After the cider comes from the press, I strain out the solid parts and add Pectional A at the rate of 1 lb. to 100 gallons of cider. The next morning, I add Hyflo Super Cel, 1 lb. to 20 gallons of cider, then run it through the filter, which consists of a muslin tube 3 feet long and 3 inches in diameter. A keg is placed about 7 feet from the ground, and a short section of hose carries the cider to the filter tube. The cider will not be clear until a coating of Super Cel is built up inside the filter tube, therefore the first bucket of cider should be emptied back into the keg.

How to Pasteurize

The cider is bottled and sealed as soon as it comes from the filter. The bottles are then put into the pasteurizer and covered with hot water. The water is heated to 170° F. and that temperature is maintained for 20 minutes. An accurate thermometer should be used, as 180° will give the cider a cooked taste, and the cider may ferment if the temperature falls below 170°.

Hyflo Super Cel is carried by Reichel - Korfman Company, of Milwaukee, at 8c per pound, F. O. B. Milwaukee. Pectinol A can be obtained from the Hydraulic Press Manufacturing Company, of Mount Gilead, Ohio, at $4.50 per 5 lb. can, F. O. B. Mount Gilead.

Editor's Note: At the annual convention of the Wisconsin Horticultural Society at Waukesha, Mr. G. H. Turner, of Dalton, exhibited bottles of excellent-appearing cider. Several of the bottles had been filled two years ago. Mr. Turner presented the Secretary with a bottle of the older cider and one made this year. We can attest to the fact that the cider was excellent by the way it disappeared after it reached home—much faster, in fact, than most cider we have had. It does seem that there should be a market for high-quality cider that will keep.

SUCCESSFUL APPLE ADVERTISING

APPLES have been more highly advertised this year than ever before. This is the result of the organization of regional apple institutes and apple stabilization committees.

Writes Carroll R. Miller, secretary of the Stabilization Committee for the Appalachian area:

Grocers Cooperate

"In the conference last August between apple growers and the Organized Grocers, the grocers agreed to stage for us the "National Apple Campaign" which has already been a tremendous factor in building up the largest acceptance of apples by the public in recorded apple history.

"One of the major aims of the Organized Grocers in putting on this National Apple Campaign was to secure the active friendship of the apple-grower; instead of the antagonism which frequently hitherto has marked the attitude of the farmer-producer toward the grocer.

"Three of the five nation-wide "Apple Weeks" of the Campaign have now been completed. In our office is a great stack of newspapers containing advertisements by the Chain Stores, the "Voluntary Chains" and in some cases by Independents. In them, apples are featured heavily, in varying degrees ranging downward from a full page in two colors. We have as yet received only a fraction of the advertising already given apples by the grocers. The total value of this one part of the National Apple Campaign alone will be tremendous. In addition, we have a file of circulars to store managers, sent out by headquarters of the various chains, ordering apple displaying, apple selling and such. We have personally checked enough cities over the East and South to know that displays of apples in groceries were generally large, continuous and effective. We have estimated cautiously that a minimum of 50,000 of the largest-volume grocers of the nation are actively engaged in this 'National Apple Campaign.'

"We know that apples this season have been given the largest acceptance (purchase) by the American Public in recent history. The 'National Apple Campaign' of the grocers must be given much credit for this; along with the promotional campaigns of the various regional apple advertising associations.

THE APPLE OUTLOOK; LOWER PRODUCTION EXPECTED

THE long-time trend in total apple production in the United States is expected to be downward at a moderate rate. With average growing conditions, annual production probably will approach 140,000,000 bushels by 1945 compared with present production under average growing conditions of about 156,000,000 bushels.

In the Pacific Coast and Rocky Mountain States production in recent years has been fairly stable at about 50,000,000 to 55,000,000 bushels per year. The peak of production has apparently been passed for the region as a whole, and the general trend is expected to be slightly downward.

In the Central States where annual production varies tremendously, increasing production from young orchards will about offset decreasing production from old commercial and farm orchards for several years, assuming average growing conditions.

In the Eastern States, the removal of unprofitable farm orchards continues. Although production of some of the more popular varieties may increase for several years, on the whole the number of trees yet to come into bearing is not sufficient to maintain the present number of trees of bearing age.

Domestic-apple supplies for the current season are the largest in several years, and apple prices thus far in the season have been substantially lower than those which prevailed for the small crop of 1936.

Improved demand conditions in many foreign countries, trade-agreement concessions on apples, smaller crops in European countries, and lower prices in this country, as compared with last year, are factors that indicate an increase in the volume of apple exports in 1937-38 as compared with last year.

From the U. S. Bureau of Agricultural Economics.

MORE CHERRIES EXPECTED

INDICATIONS are that cherry production in the United States, during the next 3 to 5 years, with average growing conditions, will be slightly larger than average production during the past 5 years. It is expected that the considerable number of trees yet to come into bearing will probably more than offset any normal losses and abandonment of orchards for the next few years.

Farm prices for cherries, after dropping to a decidedly low level in 1932, have been gradually rising in recent years largely because of increased demand and a higher general price level. In view of the present potential productive capacity, however, it is expected that prices to growers in the next few years will not reach the high levels attained during the 1924-29 period.

There was an increase in the United States of about 35 percent in the number of trees of bearing age from 1930 to 1935. About 25 percent of the total number of trees in the entire country were of non-bearing age in 1935 as compared with 36 percent in 1930. New plantings were heavy during the period 1925-30 when prices to growers were at high levels. The increase in bearing acreage and an upward trend in production during recent years have been greater in the eastern group of States (New York, Pennsylvania, Ohio, Michigan, and Wisconsin) than in the western group (Montana, Idaho, Colorado, Utah, Washington, Oregon, and California).

From the utilization standpoint, trends in the last few years have been as follows: canned red pitted cherries, sharply upward; canned sweet cherries, slightly downward; brined and frozen cherries sharply upward. Under average conditions it is expected that the trends of all except canned sweet cherries will continue to be slightly upward for the next 2 or 3 years.

From the U. S. Bureau of Agricultural Economics.

Miss Elizabeth Robbins won another blue ribbon also for her homemade tickles. — Kramer (Calif.) News-Gazette.

Mats for the above design are available to growers for use in advertising, in two sizes, one column and two column widths, free of charge. Write Wisconsin Horticultural Society, 1532 University Ave., Madison, Wisconsin.

In The Orchard

ADVERTISE WISCONSIN APPLES

Bulletin of Recipe and Information Suggested

MR. L. B. IRISH, fruit grower of Baraboo, suggests that the Horticultural Society have printed an inexpensive pamphlet containing recipes and information about the healthfulness and food value of apples. These pamphlets could be sold to growers at cost, and could be placed in each package of apples as sold direct to the consumer. A space could be left on the pamphlet for the name and address of the grower.

Such a pamphlet would no doubt appeal to the smaller growers selling direct to consumers, and those operating roadside stands. The cost of the pamphlet should probably not exceed 1c each, or from $10 to $15 per thousand.

It is too late to have such a pamphlet printed this year. We would, however, like to hear from growers as to whether they would be interested in purchasing such a pamphlet at cost for next fall.

C. I. O. OUT, SAY FRUIT GROWERS

THREE C. I. O. organizers called a meeting at Chelan, Washington, late in October, made enthusiastic speeches to a crowd of about 200. Before they got very far they found the audience was almost 100% fruit growers. Entirely lacking were packing shed employees and pickers, who seem to be satisfied with the present relationship. The meeting adjourned after passing this resolution:

"Resolved, that it is the sense of this meeting that there has been no request or demand for the organization of the growers and the year-round help, other than that provided by present organizations, and particularly the Associated Farmers of Washington, Inc., and," in short, please to get out and stay out.

One of the organizers smiled and said he wouldn't return. The others warned that they would find some way to get a foothold.

Illustrating how labor unions ignore the interests of farmers, women's auxiliaries of the auto workers' CIO unions in several Michigan cities have put on "eat no meat" campaigns. Homer Martin, of sit-down strike fame, called on union women all over the country to follow suit.

From Farm Journal, Dec., 1937.

COUNTY FRUIT GROWERS ASSOCIATION MEETINGS

Waukesha County Fruit Growers Association meeting, Friday, January 14, Waukesha. Wesley Adams, Secretary, R. 1, Waukesha.

Milwaukee County Fruit Growers Association meeting, Greenfield Town Hall, Friday, January 21. Alfred J. Meyer, Secretary, R. F. D. 1, Box 227, Hales Corners.

MOUSE CONTROL IN THE ORCHARD

DURING December, the demand for poisoned oats bait for mouse control in orchards increased over preceding months.

Mice are ravenous eaters, and require about 45 lbs. of food annually for each average mouse. When they become very numerous, they may destroy an entire orchard.

While trampling the snow about the trunks of the trees, and placing hardware cloth guards about each young tree are important measures for control of mice, nevertheless the mouse population should be decreased, and poisoned oats bait is recommended for that purpose.

At this time of year it is easy to determine if there are many mice in the orchard by the tunnels they are making under the snow. If these are numerous, by all means use poison oats bait unless you are sure each tree is fully protected by hardware cloth. Even then it will be profitable to rid the orchard of as many mice as possible.

The U. S. Government poison oats bait is still being handled by the Wisconsin Horticultural Society, 1532 University Avenue, Madison. The prices are: 10 lbs., $1.20, and 25 lbs., $2.50. All shipments are sent express collect.

COUNTIES PRODUCING THE MOST FRUIT IN THE UNITED STATES

THE United States Bureau of the Census has published a bulletin listing the leading counties in the United States producing the most fruit of various kinds.

Based on the number of trees of all ages, Yakima County, Washington, is first in apples and pears; Sutter County, California, in peaches; Santa Clara County, California, in plums and prunes; Door County, Wisconsin, in cherries; Fresno County, California, in grapes; Orange County, California, in oranges; and Hidalgo County, Texas, in grapefruit. Based on acreage, Tangipahoa Parish, Louisiana, was first in strawberries.

Experience With Straw Mulch In The Apple Orchard

L. V. Doud, Orchardist, Indiana

TWO distinct systems of orchard soil management have been used in the Doud Orchards during the last twenty-four years. The first of these consisted of clean cultivation plus a cover crop, while the second consisted of sod plus mulch. The orchards under consideration are on silt loam soils with a rolling to hilly topography.

Until about 1922, all bearing orchards were given a thorough cultivation with a disc-harrow from two to three times each year, and an annual crop of rye or various clovers was planted during the late summer, remaining until the following spring.

Mulch Under Trees

Around 1922, for reasons discussed below, cultivation was stopped and a sod-mulch system adopted. The natural sod which was allowed to form consisted at first of a mixture of weeds, grasses, and various legumes which carried over from the annual cover crops. At the present time, this sod consists predominantly of blue grass, sweet clover, and weeds. Under this system, various mulches, including straw, corn fodder, and hay, have been applied mostly under the trees, but also between the trees where the sod was sparse. The growth from the sod has been mowed each year around the middle of July, the time when the sod begins to compete with the trees for moisture. At various times a disc-harrow and "sod-hog" have been used in the spring to break up the heaviest of the blue grass sod. An annual application of either sodium nitrate or ammonium sulphate has been given.

Cultivation Decreased Organic Matter

Several pronounced effects have been noticeable under each system. For the first few years, the former system produced good foliage color, vigorous vegetative growth, moderately heavy annual sets of fruit, and desirable finish and color on the apples. However, after a time, decrease in the organic matter content and loss of friability in the soil were apparent. This was accompanied by poor "catches" of the cover crops with consequent sheet and gully erosion. The trees on higher ground became perched on mounds and in the hilly sections, large gullies were formed. Under such conditions, a yellowing of the foliage and a decided tendency toward biennial bearing resulted.

Sod Mulch Good

After a few years under the operation of the sod-mulch system, an increase in the organic matter content and friability of the soil was noted. This resulted in an increased moisture-holding capacity of the soil. This, together with the **reduction of surface evaporation by the straw mulch under the trees,** has given a more uniform seasonal growth, thereby tending to offset the effects of wet and dry periods. Return of a healthy green color to the foliage, increase in size of fruit, and a decided trend toward more consistent annual bearing have been the ultimate results.

The specific instance of a section of young Grimes orchard located on a stiff clay hill will serve to emphasize the different effects of these two systems. At the present time, these trees are fourteen years old. At the time they were planted, cultivation of farm crops and sheet erosion had pretty well depleted this hill of its surface soil. Cultivation for three or four years after planting served to aggravate this condition in spite of the attempted cover crops. As a result of this condition, these trees produced yellow, sickly foliage, little vegetative growth, and in a few years came to resemble dwarf trees in all respects. At the same time, similar trees planted on the gentle slope at the base of the hill grew normally. When cultivation was stopped mulch was spread between as well as under the trees. Development of a sod was encouraged by sowing of various legumes. The effects of this treatment are now becoming apparent in better foliage color, increased annual growth, and a more upright habit of growth.

Cost of Straw

At the present time, the mulch used consists almost entirely of straw. An attempt is made to make an annual application of one bale per tree. When stacks are bought locally and the hauling distance is short, the straw is hauled in the loose condition. The cost of this type spread under the trees is around $3.50 per ton. When hauling distances are greater, baled straw is used. This type, applied under the trees, is around $4.50 per ton.

To date, no shortage of straw has been experienced and the straw mulch system outlined above has worked out satisfactorily.

—From Hoosier Horticulture, December, 1937.

APPLE SHOWS DRAW LARGE ATTENDANCE

MORE than 2000 people attended the fruit show of the Ozaukee County Fruit Growers Association held at Cedarburg, early in November.

Sheboygan County growers staged an apple show in Sheboygan which also drew a large attendance. Trays and plates of apples in large numbers were shown. Local newspapers and organizations cooperated. The result was a show that advertised the apples of local growers to local housewives in a very satisfactory manner.

Gift cartons of one dozen apples, with the name of the grower in each carton, were given as door prizes. Eighty-seven cartons were given out at the Cedarburg show, while one hundred cartons were given away at Sheboygan.

The Washington County growers cooperated with potato growers and staged an apple show at the county fair grounds in October. While the show was good, the attendance of prospective customers was disappointing.

The officers of the county associations cooperated with the county agents in staging the shows and all are enthusiastic in their recommendation of an apple show to interest local customers.

NOT WANTED

A SUBSCRIBER of the **Pennsylvania Farmer** found a hen in his orchard this summer which had the maternal instinct so strongly, that she hollowed out a nest in the mulch under an apple tree, and was setting on a dozen little green apples. The subscriber said he was glad that he discovered her before the hatch came out, because he had plenty of green apples without that hatch.

FRUIT GROWERS HOLD MEETINGS

DECEMBER saw three fruit growers meetings which were well attended and at which an interesting program was presented.

At Sturgeon Bay, County Agent Mullendore held a two-day orchard school at which over 200 growers were present.

The Sheboygan County Association held its annual meeting at Plymouth and reelected Arno Meyer, Waldo, President; Hugo E. Wunsch, Sheboygan, Vice-President; Joseph Thackray, Glenbeulah, Secretary-Treasurer.

The Washington County Association met at West Bend in cooperation with County Agent Skaliskey. Plans for a better type of fruit show during 1938 were discussed. Following are the officers for 1938: Jos. L. Morawetz, West Bend, President; W. W. Hamlyn, West Bend, Vice-President; E. E. Skaliskey, West Bend, Secretary-Treasurer.

Mr. C. L. Kuehner spoke at the latter two meetings on orchard practices. The growers seemed very much interested in the moving picture "How to Spray Apples in Wisconsin" presented by the State Horticultural Society.

NEW RECIPES

Apple Sauce Cake

¾ cup honey. 1 egg.
1/3 cup shortening.
1 cup thick apple sauce (unsweetened). 2 cups flour.
1 teaspoon soda.
¼ teaspoon cloves.
½ teaspoon nutmeg.
½ teaspoon cinnamon.
½ teaspoon salt.
1 cup raisins (seeded).
½ cup nuts.

Thoroughly cream honey and shortening, add egg, beat well; add apple sauce alternately with sifted dry ingredients which have been mixed with raisins and nuts. Bake 1 hour in a moderate oven (350 degrees).

HOW TO GROW HORSE-RADISH

HORSERADISH (Armoracia rusticana) grows best in a rather cool, humid climate. The soil should be deep, rich, mellow, and retentive of moisture. River bottom soils and light sandy loams produce the long straight roots which are most desirable. Heavy soils tend to cause much branching. The soil should be deeply dug and thoroughly pulverized before planting.

Propagation is by root cuttings, one-quarter to one-half inch in diameter and four to eight inches in length. These are usually made from side roots which are trimmed off in preparing the roots for market. The cuttings are cut square at the top and oblique at the bottom to indicate which end should be placed downward when planting. They are then bunched, packed in sand, and stored in a cool, moist place, inside or in a pit outdoors, over winter. The cuttings are planted, slightly slanting, with the square end up in a deep furrow or in a hole made with a dibble. The top of the cutting should be three to four inches below the soil surface and the cuttings placed about one foot apart. Plant as early as possible in the spring, to give the plants the full growing season.

Thorough cultivation should be given throughout the season. The roots will be ready for harvesting by October. When winter comes, a few roots can be lifted and placed in a cool cellar, covered with earth or sand. Then they can be grated and used at any time during the winter.—Minnesota Horticulturist.

ANY LOG-ROLLERS?

CCC Foreman: "See here, buddy, that other fellow is carrying two logs when you're moving only one. What's the matter with you?"

Buddy: "That fellow's too lazy to go twice."—Kitty Kat.

Experience With Strawberry Varieties

H. H. Porter, Baraboo

HALF a century or more ago, my uncle grew several acres of strawberries. Then dad started in with two or three acres. At first Wilson and Chas. Downing were the only named varieties they had, but they began trying new varieties, and Crescent finally became the standby.

I've tried about everything that showed any promise, and for several years had them by the acre, but the market has been overloaded around here, so it was hard to sell them at any price. We raised Dunlap nearly 40 years, and still think for our soil and our location it's hard to beat.

Years ago my wife won many premiums on her canned fruit at the county fairs. She picked out the largest and darkest Dunlaps for this, which set me to experimenting to find a larger and better strawberry. I've tried about a dozen varieties of "Largest strawberry on earth"—all a fizzle, and about as many "Earliest on earth" turned out the same way.

A Dry Season

In '35 I set several new varieties for trial. We had plenty of rain and I got lots of plant growth—too much for most varieties. Season of '36 began to get terribly dry just as berries began to ripen, so it was hardly a fair trial. Dunlaps were too thick and dried out badly. (They were on heavy clay side hill.) Beaver dried out worse. Grand Champion, Catskill, and Clermont did fairly well and were almost a normal crop in spite of drought. Dorsett and Fairfax had a big growth of vines but few berries.

I set new plants in the same field that spring right beside the old bed. This year's results were somewhat different. Grubs and dry weather interfered with my '36 setting, but in spite of that we got some of the best berries I ever saw. Weather this spring was perfect for berries.

Dunlaps were good and lots of them. Beaver yielded well but lay flat on the ground and many rotted. All were soft and poor flavor. Grand Champion, Catskill and Clermont were good for two or three pickings, but very sour and suddenly quit bearing.

Results Differ

Dorsett and Fairfax yielded well, and the quality was wonderful. Especially Fairfax. Took a box of each to our Home Coming picnic and all went wild over them. Just one woman preferred Dorsett. All the rest said Fairfax was best in looks, size, and flavor. Fifteen Fairfax, twenty Dorsett filled the boxes. After we got home, I picked twelve Fairfax that filled a quart box heaping full. Wife said they were too large, but no one turned them down on that account. Have a wonderful stand of new plants this year on our old river bottom land where they always do well. Trying more new kinds and few older ones.

WIND MACHINE USED FOR FROST PROTECTION

WIND machines, known in California as "wind jammers," are used to protect citrus crops from frost and are replacing orchard heaters.

It is known that often times when the temperature near the surface of the soil is below freezing, the air at a height of 40 to 50 feet above the ground is 10 degrees warmer. The principle behind the wind jammer, therefore, is to fan some of this warm air down towards the ground. A steel tower is built 30 to 40 feet high, and on top of this is mounted an electric motor of from 50 to 250 H. P., depending upon the area to be protected. Smaller motors, of course, might be used for smaller areas, but we understand that in California the 100 H. P. motor is favored. A giant propeller, directed slightly downward and revolving, forces the warm upper air into the trees and one propeller will protect a considerable acreage. The cost is rather high, and is said to run up to $2,000 for a complete installation in an orchard, but compares very favorably with smudge-pot operation.

If an inexpensive type of windjammer could be invented to protect strawberries against frost, it might be worth while. In the meantime, however, it would be more economical to use overhead irrigation as the original cost would be no greater and the system could be used during dry weather when it is often badly needed.

DERRIS BEST FOR CONTROL OF CABBAGE WORM

DERRIS has not only been found to be the best insecticide for control of cucumber beetle, but in experiments conducted during the past two years, has proven the best material for the control of cabbage worms. This was reported by Dr. T. C. Allen of the Department of Entomology speaking before the Racine County Fruit Growers Association in December. Doctor Allen is in charge of truck crop insect control research in Racine County, and has done much valuable work for truck crop growers of Wisconsin.

A mixture of 12 lbs. of cube or Derris and 88 lbs. of talc gave the best control of cabbage worm. Ninety-one per cent of the heads were marketable and there was an increased yield of over 10,000 lbs. per acre over unsprayed plots. The cube was used as a dust.

Pyrethrum and fluosilicate used as a dust mixed with talc were in second and third place as the most effective insecticides to control cabbage worms, while calcium arsenate or lead arsenate were less effective.

A further report of this work will be published in this magazine in a spring issue.

INTERESTED IN HUBAM

IN A letter from Prof. F. B. Paddock, Extension Apiarist of Iowa, he states, "I am interested in Hubam. This plant is common in the central portion of Iowa and has yielded nectar freely this year. We are finding an increased interest on the part of the growers of Hubam to get bees in their vicinity so as to increase the set of seed. There is one operator north of town who is very much enthused over the value of Hubam for the honey producer."

Hubam bloomed well in southern Wisconsin this year. A field at Madison bloomed for almost two months before frost. The mid-summer heat and drought checked it considerably, and evidently either the seeds did not all germinate, or poor seed was sown, but the stand was very sparse and thin. However, this is not the fault of the crop. If a good stand is secured it would seem like an excellent method of adding humus to the soil which so many soils so badly need. If sown at the rate of about fifteen pounds per acre with barley or oats and it then makes an excellent crop which can be plowed under at a cost of only a few dollars per acre, it's a good thing for the farmer and in ordinary years would be a good thing for the beekeeper. We suggest more experimental work with this crop.

EDIBLE SOY BEANS — A POPULAR VEGETABLE

EDIBLE soy beans are beginning to make a name for themselves as a vegetable. Quite a demand is being created for them by those who have tried them, and the beans find a good market in hotels and restaurants.

Seeds of this variety are planted when all danger of frost is over, either in May or early June. They are planted in rows wide enough apart for cultivation, and the seed is sown in drills about two inches deep. Seed must not be planted too thickly, to allow space for full development. A hundred seeds may be planted in a row 25 feet long.

When the pods have completely filled, but are still green or yellow-green, they are ready for table use. This will be in late August or September, depending on variety and time of planting.

Several varieties are now available. Among the earlier kinds are Hokkaido and Jogun. Giant Green is another variety, but is not of as high quality.

In preparing the beans for the table, they may be baked, used in succotash, or in chili con carne.

HONEY VINEGAR

A BULLETIN entitled **Honey Vinegar** has been published by Michigan State College, East Lansing, Michigan. The following is a summary of the directions given in the bulletin, and which are described in detail.

1. Use a good clean barrel or container properly prepared.

2. Unmarketable honey such as combs from brood combs, honey - dew honey, coniferous honey, washings from extractor, honey from hives infected with foul-brood, etc., may be used if properly sterilized before using.

3. Prepare starters of vinegar yeast and vinegar bacteria according to directions several weeks before the main honey solution is prepared.

4. Prepare the honey solution according to formula 1 or 2 using a saccharimeter to determine the correct percentage of sugar present.

5. Sterilize the honey solution by boiling ten minutes or longer to kill all undesirable micro-organisms.

6. Inoculate with pure cultures of vinegar yeast and when this fermentation has ceased, add the vinegar bacteria as directed.

7. Fill the barrel not over two-thirds full and provide for plenty of air by boring one-half inch holes in each end of the barrel. Cover all openings with several layers of cheese cloth to keep out flies and undesirable micro-organisms.

8. Store the barrel in a room having a temperature from 65° to 75° F.

9. Do not disturb the film of vinegar bacteria.

10. After the vinegar has been made, it will keep indefinitely if properly stored as directed.

Winter Hardiness Of Plants

Heaving Not Principle Cause of Winter Killing

THAT actual freezing of plants by the cold is the cause of much winter killing is becoming more and more evident. Dr. R. H. Roberts, speaking at a meeting of fruit growers recently, stated that in his opinion very little winter killing of strawberry plants was due to heaving by alternate freezing and thawing, because in examining dead plants he had never run across any such heaving.

Of course, we do have heaving, and such a condition can easily be seen and recognized, but there is much winter killing among plants from winter cold or freezing alone.

Writes J. Marion Shull, in the Bulletin of the American Iris Society, relative to winter hardiness of Iris:

"Cold resistance is mostly relative and a Purissima that passed unscathed through 15 below zero on one occasion might on another pass out at a temperature of 15 or above. Disastrous winter injury, whether of iris or of any other susceptible plant material is usually the result of definite weather sequences rather than of absolute cold alone.

Late Growth Dangerous

"Any combination, whether of drought and nitrogen accumulation followed by abundant rain late in autumn, or of normal growing conditions abnormally prolonged because of unwonted warmth late in the season, may result in sappy, vigorous vegetative growth at the near approach of winter. Such a condition predisposes most plant material, and certainly any Iris, toward winter injury.

"Nature ordinarily checks rampant growth of perennial plant materials, whether woody or herbaceous, by a series of gentle shocks in late autumn, shocks that usually take the form of light frosts. Frequently and in many regions these light frosts are accompanied by lessened rainfall as well and this also tends to slow down growth with the result that a preparatory ripening or hardening takes place and the plant goes into the winter fully prepared to meet the severest winter conditions."

Perhaps we shall find that many of our perennials are injured by early frosts in the fall, the same as strawberries, because they are not hardened to withstand cold temperatures. It may be that we will have to cover our plants with marsh hay before such early frosts the same as the strawberry growers are now doing.

Nature Projects

W. A. McNeel

Reported by Mrs. B. W. Wells, Madison

W. A. McNEEL, Assistant State Leader of 4-H Clubs, is a very popular speaker among nature lovers. After his recent talk at the Wisconsin Garden Club Federation meeting, someone said, "I could listen to him all day."

He so firmly believes in what garden-care will do for youth in character building that we quote him at length.

"Whoever has led a child to see the beauty in a flower has added eyes to his vision; whoever has inspired a child to plant and care for a garden has given wholesome directions to his emotions. A person wielding such an influence has made himself immortal. In this rather artificial time when children are exposed to the disturbing, may I say blatant and often cruel, methods of commerce, when entertainment can be purchased for a dime, and distorted ideas about life are eminated on all sides, we need sparkling fountains of inspiration to challenge them to find joys in the countryside, friendship and comfort and guidance in nature. Your organization can be such a sparkling fountain.

"The most sensitive plant in the world is the child, the strength of his morals, his habits of life, and his intellectual leanings as an adult will be those made upon the sensitive plate of childhood. I pledge with you today a little more thoughtful devotion of time and energy in creating more inspiring vistas of life on these sensitive plates. A garden is an instrument for doing this. The mystery of the seed, the sacredness of the soil, the responsiveness of nature to thoughtful, diligent care, the joy of accomplishment for well-directed effort, are all in the garden. 'Get out into the light of things, and let Nature be your teacher,' is the advice of some sage. Here is a recipe for preserving children:

"Take one large grassy field,

(Continued on page 139)

Preview Of 1938 Garden Novelities

From Horticulture

GARDEN makers will find many new plants listed in the catalogues for 1938. Some of them will be perennials, but by far the longest list of novelties will be the one devoted to annuals. The results of this year's All-America tests have just been announced. This test has to do mostly with annuals, and the entries for the present season seem to have been largely petunias.

New Petunia

The petunia Salmon Supreme, entered by the W. Atlee Burpee Co. of Philadelphia, Pa., was first among those receiving awards of merit, having a total of 85 points, while no other annual received more than 53. This petunia is a dwarf bedding variety, light salmon in color with a white throat. The flowers are about one and one-half inches in diameter. The plants are said to bloom until late in the season.

Next in line was the snapdragon Celestial, with salmon-rose flowers on broad, ten-inch spikes. The judges, however, did not find this to be a rust-resistant variety. It was entered by Sluis en Groot of Holland.

Large Pansy

Third was a pansy, Coronation Gold, also entered by the Holland firm. This pansy is said to be the largest yellow variety in commerce, sometimes three inches across. It is canary yellow in color, the lower petals being flush golden orange. In the original announcement, the next annual in the list was a calliopsis called Golden Crown, but the name has since been changed to Golden Crest. This calliopsis was entered by Hurst & Son of London, England. It has a pleasing fragrance and makes a good cut flower. There seems to be a little confusion about this flower, however, because a calliopsis having the name Golden Crest was entered in the competition last year.

All cuts courtesy Horticulture

The new calendula Orange Fantasy

Dwarf Calendula

A calendula called Orange Fantasy received an award of merit. This is a dwarf variety with heavy foliage and large orange flowers with a crest or seal of bronze. It was entered by the W. Atlee Burpee Co. and seems to be an unusually good novelty. The petunia Orchid Beauty was last in the list of awards-of-merit annuals and will not be released for another year.

Annuals

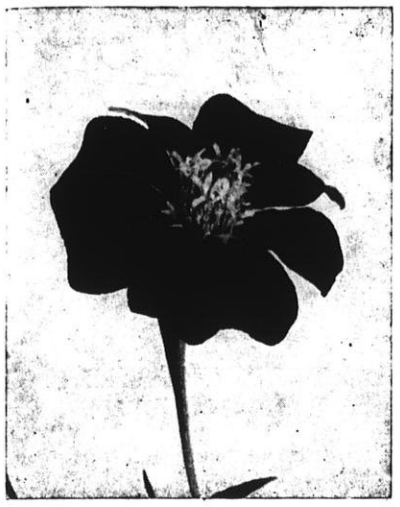
Annuals recommended by the committee included the marigold Golden West, entered by the W. Atlee Burpee Company; the petunia Blue Gem, entered by T. Sakata & Co.; the wilt-resistant aster Enchantress, entered by Bodgers Seeds, Ltd., of El Monte, Calif.; the wilt-resistant aster Giant Comet Illusion, entered by Bodgers Seeds, Ltd.; and the marigold American Beauty, entered by Waller-Franklin Seed Company.

In addition to the new snapdragon mentioned in the All-America list, there are several others from the west coast, including Maiden's Blush, which has a delightful two-toned effect; Red Rocket, bright red, and Rose Sensation, which is likely to prove a particularly good garden variety, the flowers being solid in color.

It is said that twelve years of work have gone into the production of a new annual scabiosa called Salmon Beauty with unusually large flowers. Although bred especially for florists, it is said to be a good variety for the amateur, too.

The tall-growing annual Tithonia speciosa has come to the front rapidly, garden makers liking it for the backgrounds of their borders. Now comes an improved form called Fireball in vibrant shades of scarlet-orange, in striking contrast to a clear yellow center. The flowers are up to five inches in diameter and

Fireball, an improved form of Tithonia speciosa



The new marigold Flaming Fire

keep a long time when cut. It is said that the plants do not have the ragged look which characterizes the original tithonia.

The new cosmos known as Sensation has proved very satisfactory this year. The white form has now been supplemented by a rose-pink variety called Pinkie, and a variety very close to Sensation but larger has been named Purity.

A distinct novelty is found in the cuphea Firefly, dwarf in habit, and producing great numbers of delicately formed flowers, cerise-red in color on plants about a foot high. This plant is being recommended for rockeries, window boxes and edgings. It blooms in ten to 14 weeks from seed and keeps on flowering throughout the summer.

Flaming Fire is a tall, single, French marigold with very curious habits. At times the flowers are flaming red and at other times, red and yellow. The plants are much branched and start to bloom in twelve weeks.

A charming new larkspur which has been named Royalty differs from any other variety in its clear rosy mauve color. It belongs to the hyacinth-flowered type and has a long blooming season, with unusually long spikes.

Much attention has been given to columbines, and the catalogues of 1938 will have novelty aquilegias in variety.

Perennials

Turning to perennials, one finds the new anthemis Moonlight among the most interesting. It is a good pale yellow in color and does not sprawl over the ground, growing more like an annual chrysanthemum than like the conventional anthemis. It flowers all summer and the flowers are good for cutting.

A New Phlox

The new phlox Augusta is a newcomer in the red class. The red is not as deep as that of Beacon but is more intense. Perhaps it is best described as an American Beauty Red. The variety is said to have the advantage of not bleaching when exposed to hot sunlight. Another new phlox, which has been named Camliensis, is reported to be a cross between Phlox subulata rosa and P. amoena. It is dwarf, of course, but the flowers are large and cover the plant. It should be a desirable acquisition for the rock garden.

In the past, Verbena venosa has often been called hardy but has not proved so in many sections. Now comes another verbena which is offered as hardy and which garden makers doubtless will be interested to experiment with. It is called Brilliant. It has a trailing and spreading habit and may need to be watched, but its promise of a continuous supply of brilliant cerise flowers throughout the summer will recommend it to rock-garden enthusiasts. It is said to like hot, dry places.

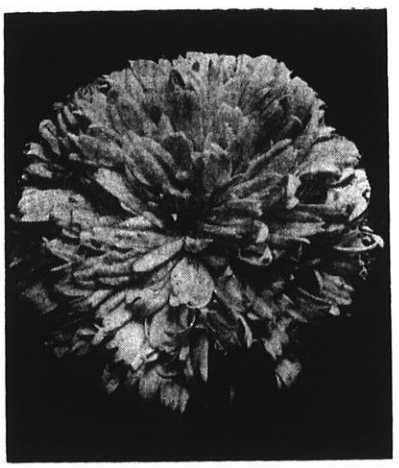
The gaillardia Sun God has made a sensation wherever it has been grown in spite of the fact that it does not seem to be persistent. Next year, an improved form of this gaillardia will be offered, the color being chamois yellow, paler than that of Sun God. Tests the past summer found plants flowering continuously from late June until the coming of frost.

White flowers are back in high favor, and improved forms of the shasta daisy will be offered this year. Major N. F. Vanderbilt of the Jackson & Perkins Company of San Jose, Calif., is working with the original Luther Burbank introductions. An English variety called Esther Read, which may be the forerunner of a new race, is being disseminated by some of the eastern nurseries. This perennial, which is properly a chrysanthemum, is fully double and pure white, showing no center. It grows 18 inches high and flowers continuously throughout the summer. The new shasta daisy called Silver Star is white with small pale yellow centers. This variety grows only two and one-half feet high and blooms from July until October. It is a good companion for the new gaillardia.

Oriental Poppies

Several new Oriental poppies will be announced the coming season, among them Cavalier, deep scarlet-red and crinkled; Jeanne Mawson, tall growing with geranium-pink flowers; Mrs. Ballego, salmon-pink with black spots at the base, a European introduction; Orange Perfection, another variety from

(Continued on page 131)



Esther Read is a promising new shasta daisy from California

EDITORIALS

A HAPPY NEW YEAR

THE officers of the Wisconsin Horticultural Society wish to extend to all our members sincere wishes for a Happy and Prosperous New Year. We hope that weather conditions during 1938 will be favorable for the production of all kinds of fruits, flowers and vegetables. We hope that the drought which has been with us for several years will ease up and that Wisconsin may have an excellent honey crop next year after one of the poorest seasons in years.

The coming year will be the "off year" in apple production all over the United States. Those who can grow a good crop this coming year should receive good prices.

May our flowers during 1938 be the most beautiful you have even seen, and may the interest in home and civic beautification increase by leaps and bounds.

WISCONSIN NURSERYMEN MEET FEBRUARY 10

A LETTER from Mr. M. C. Hepler, Pardeeville, Secretary-Treasurer of the Wisconsin Nurserymen's Association, states that the annual convention of the Wisconsin Nurserymen's Association will be held in Milwaukee on February 10, being the second Thursday in February.

All nurserymen should attend the afternoon program at this convention.

WHO'S DISCOURAGED?

When Abraham Lincoln was a young man, he ran for the legislature in Illinois and was badly swamped.

He next entered business, failed, and spent seventeen years of his life paying up the debts of a worthless partner.

He was in love with a beautiful woman to whom he became engaged. Then she died.

Entering politics again, he ran for Congress and was badly defeated.

He then tried to get an appointment to the United States Land Office but failed.

He became a candidate for the United States Senate and was badly defeated.

In 1856, he became a candidate for the Vice-Presidency and was again defeated.

One failure after another—bad failures—great setbacks.

In the face of all this, he eventually became one of the country's greatest men, if not the greatest.

—From Wisconsin-Upper Michigan Florists' Bulletin.

SUCCESS WITH THE ENGLISH WALNUTS

WE have received many letters from purchasers of English walnut seed. Most of the letters tell of success. A few state that none of the seeds grew.

Mr. E. M. Davis of Coolville, Ohio, writes. I planted the ten walnut seeds you sent and nine of them grew. However, I have ten sprouts because one nut sent up two shoots. A friend of mine received nine nuts and eight of them are growing.

The six year old tree growing in the editor's backyard grew from three to four feet this year and is now about ten feet tall.

Rev. P. C. Crath of Toronto writes that when the English walnut trees first begin to bloom they do not produce any staminate flowers. He writes: "When the growth of the branches becomes shorter they start to produce catkins also and yield a crop."

In shipping walnut seeds last spring, we sorted out all nuts which were partly cracked open, or looked somewhat dried out because we thought they might not germinate. Having several hundred of these seeds, we decided to plant them and find that about 50% of them are growing nicely. This shows that even the poorest appearing seeds germinated satisfactorily. We are therefore at a loss to know why a few growers failed entirely.

A new shipment of walnut seeds has just arrived from the Carpathians.

FARM AND HOME WEEK

WISCONSIN COLLEGE OF AGRICULTURE

Madison—Jan. 31 - Feb. 4

HORTICULTURAL PROGRAM

Room 116—Horticultural Hall

Tuesday—February 1

HOME GROUNDS

9:00—Shrubs for the house border. L. G. Holmes.

10:00—Shrubs for winter effects. F. A. Aust.

2:30—Successful planting practices. James G. Moore.

3:15—Pruning and care of shrubs. G. Wm. Longenecker.

Wednesday—February 2

HOME FRUIT GROWERS PROGRAM

9:00—Home orchard spraying. C. L. Kuehner.

10:00—Mulching your strawberries. R. H. Roberts.

2:30—Pruning the small fruits. James G. Moore.

3:15—Know your fruit buds. R. H. Roberts.

Thursday—February 3

TOBACCO GROWERS PROGRAM

2:30—Tobacco insects and their control. James Johnson and W. B. Ogden.

Write for detailed program to Wisconsin College of Agriculture, Five full days of meetings and discussion on timely, practical Farm and Home subjects.

THERE MAY BE MONEY IN THEM HILLS

EIGHT hundred walnut trees sold recently from the Watkins farm near Lawson, Mo., brought $13,153. The trees had their brace roots cut, were pulled over by tractor (with cable fastened high up the trunk), so as to get grained wood of the stumps.

Jim James, Albany, Mo., recently shipped a hedge log, eight feet long and 28 inches around, to New York. James expects this hedge, one of the choicest of bow woods, to make from $600 to $800 worth of bows.

—From Farm Journal, Dec. 1937.

WILD ANIMALS IN THE APIARY

SEVERAL beekeepers have written in recently complaining about damage by bear in their apiaries. In northern Wisconsin this is quite a problem.

Our attention is called to the use of the electric fence as an inexpensive method of keeping wild animals out of an enclosure. At the annual convention we were told that one beekeeper at least had tried it and found it successful, although it was thought that two wires rather than one wire would be necessary to keep out bear.

Anyone interested in the electric fence might write to the Prime Manufacturing Company, 1669 South First Street, Milwaukee, Wisconsin, for a copy of a catalog describing this type of fence.

PILGRIMAGE AT NATCHEZ, MISS.

THE Pilgrimage Garden Club of Natchez, Mississippi, will again hold their annual pilgrimage on March 11th through March 24th, 1938.

This Pilgrimage has become an important event. Many beautiful gardens as well as homes are visited during this time. The Azaleas are expected to be at their best on the dates selected.

SECOND PRIZE RECIPE—HONEY ICE BOX COOKIE

½ cup honey. 1 egg.
½ cup brown sugar.
½ cup shortening.
2½ cups flour.
½ cup nut meats.
1 tsp. baking powder.
¼ tsp. soda. ½ tsp. salt.

Cream honey, sugar, shortening, and egg together. Add dry ingredients, which have been sifted together, then nuts. Shape in loaf and wrap in waxed paper. Chill one or two days to allow sufficient ripening of dough. Slice and bake in hot oven (400 deg.) for 10 to 12 minutes.

By Mrs. Chester Keister, Clarno.

OUR COVER PICTURE

OUR cover picture this month —tulips and primrose arranged in the Japanese manner —was loaned us by the American Horticultural Society and appeared in the July issue of the National Horticultural Magazine.

In an article entitled "Ideas Behind Japanese Flower Arrangement" the author, Ikko Gregor, writes, "My teacher once told me of the reasons why men in prominent positions of Japanese public life are usually interested and accomplished in poetry, painting, flower arrangement or tea ceremony. They value such arts as happy chances to escape for a short time from the unsolved problems of life, to return to them with that detached and composed attitude which alone makes their solution possible."

We will appreciate comments from our members on this arrangement. Any one interested in joining the American Horticultural Society and receiving their excellent magazine should write to the society's office, Room 281, Washington Loan and Trust Building, Washington, D. C. Mr. B. Y. Morrison is editor. Annual dues are $3 per year.

About the Home and Garden

Mrs. C. E. Strong, West Allis

THE WINTER GARDEN

TWENTY sturdy seedling Gloxinia plants were given me to help pass away the time when the out-door garden is tucked away under ice and snow, by Miss Emma Goelzer of Oakwood, who is a wizard at growing rather unusual plants from seed. She raised fifty Gloxinia plants from one package. If you have not tried raising Gloxinias from seed, you have missed a real thrill, for the tiny plants soon form bulbs and usually bloom in about eight or nine months. You will get all colors —from pure white to deep purple, from pale pink to crimson. Once you have had fifteen or twenty pots of well grown Gloxinia plants in full bloom, you will never be satisfied with one or two bulbs.

Preparing the Window

If you have a wide north window, try removing all draperies and put glass or metal shelves across. Add a few brackets at the sides for trailing ivy plants, use a few small ferns to fill out ends of shelves, and then set in place the blooming Gloxinia plants, closely but not crowded. Keep them well watered, being careful not to spot the leaves. This window will be a beauty spot for weeks. A well grown and cared for plant should be in bloom at least six or eight weeks.

Before the Gloxinias bloom, all sorts of plants may be used—Begonias, small plants of Geraniums, Cactus, Narcissus, Tulips, and Hyacinths. Just look at a florist display and decide.

Light for House Plants

The reason for the north window is that blooming plants last longer if given plenty of light without the direct sunshine. If some of the buds are not developing properly, change to a sunny window for a few days—not forgetting that all plants need more water when in direct rays of sun.

Holly ferns and Poinsettia plants make charming holiday decorations. Cactus and succulents also make a nice showing in this type of window, and need but little attention. By the way, do you know that the Christmas cactus as well as many of the other cacti will not drop their buds if grown in a cool room until the buds are ready to open? Don't you remember how our grandmothers used to have a big cactus in the parlor—which was used only on state occasions—and kept just above the freezing point. We have living rooms now instead of parlors, so perhaps the spare bedroom will do instead.

THE FEDERATION NEEDS MORE MONEY

THE fifteen cents paid by every member of the State Garden Club Federation really does not add up to a very large sum, considering that 5c of it goes to the National Council. Yet we want and should have good speakers. We should send at least one of the officers to the National meeting, and expenses should be paid by the Federation.

This subject should be talked over **very thoroughly** by every Garden Club. How much are you willing to give to a speakers fund? How much more than that ten cents are you willing to give to the general expense fund? What does the magazine mean to you? How much are you willing to give towards making it a better and more helpful organ?

A Good Plan

One club has an Emergency Barrel at every meeting. This barrel is placed in plain sight of the members. They drop into it whatever they feel like giving—from one cent up. Some of the members give "thank" offerings, if they are especially fortunate or happy, or, if they have sold some plants, they divide with the Barrel. This club also has a Sunshine Fund. A tiny basket is passed at every meeting. From this fund, flowers or fruits are

sent to the sick, and a nice plant is given to each of the retiring officers. At the end of the year, all the money remaining is added to the barrel and to any money in the treasury. There is enough—with only 20 members—to give ten dollars to a speakers fund, pay a delegate's expenses if necessary, do some civic work, and still have some left.

No one feels that they have made any sacrifices, no one feels burdened. I **know** this club will be one of the first to say, "We should pay more dues." I am quite sure it will come out of the Barrel.

There is always a way to do things if we really want to do them.

RAPID IMPROVEMENT IN IRIS

"MORE improvement has been made in iris quality and color during the past four or five years than in all the times preceding," was the statement in substance made by Mrs. Douglas Pattison, of Freeport, Illinois, well-known iris expert, to the editor last summer. Now comes David F. Hall, writing in the October Bulletin of the American Iris Society, saying, "I believe the best iris we have today will be second rate and headed for the alley in a very few years to make room for lovelier and better introductions."

He describes a new variety just named by Mr. Hans Sass, of Omaha, well-known iris breeder, called Prairie Sunset. A new break in color, a brilliant apricot blended with deep rose and gold, it is glowing, and has a smooth, silken finish. It is not yet available, but will be in a year or two.

The wonderful improvement being made in the iris by the many breeders working on it, is bound to make this flower one of our most popular garden varieties.

WINTER PROTECTION OF ROSES

By The Master Gardener

THE injury to roses in cold weather is of two kinds: first, the loss of moisture from the twigs by evaporation; and second, the alternate freezing and thawing of the twigs and roots during the winter and spring.

The need for winter protection of roses varies with locality. Hybrid teas particularly must be protected in most localities.

A satisfactory means of protection is to heap soil over the plants.

After the plants become dormant, clear away all fallen leaves and spray bushes and surrounding soil with a dormant oil spray or a lime-sulphur spray.

Next, mound the soil up around the plants to a height of about 10 inches; in extremely cold climate, 12 inches.

This will keep water from collecting about the base and keep out field mice, as well as protecting from the type of winter injury described above.

As soon as the ground has frozen slightly, mulch with some loose material such as straw, cornstalks, or evergreen boughs. Do not use for mulching any material that will pack down.

Lay climbing roses flat on the ground and cover them with 3 to 6 inches of soil.

Examine roses frequently during cold weather, especially when there is no protective covering of snow, to make sure that no protected wood has become exposed.

BLUE HYDRANGEAS

ALUM is used in the soil to obtain blue Hydrangeas. At the Michigan Florist Convention Prof. C. E. Wildon stated that it has been learned that alum is better than iron sulphate for this purpose. Work done in France recently indicates that chromium sulphate and uranium can also be used.

1938 GARDEN NOVELTIES

(Continued from page 127)

Europe, strong growing and orange in color tinted with pink.

The Anemone japonica called Marie Manchard will be offered as an early-flowering variety. It seems to be an improved Whirlwind, growing about three feet high. Its early-flowering habit is much in its favor.

New Shrub

There is one new shrub that commands attention. It is the lovely hardy Fuchsia magellanica, which has been attracting attention on the grounds of the New York Botanical Garden and is now coming into the trade. This is an interesting and valuable shrub and has gone through several winters in New York without damage. It blooms all summer long, carrying hundreds of ruby-red pendulous flowers. It has the advantage of thriving in shady locations and seems to be perfectly at home in a rock garden.

—From November 1 Horticulture.

A friend is a person who knows all about you—and still likes you.—Hubbard.

Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

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Chester Harrison, Waldo
Clarence Kunde, Oshkosh

Gladiolus Growing Experiences

Virgil Fieldhouse, Dodgeville

SEPTEMBER 15 probably marks the closing of the gladiolus blooming season for many who do not irrigate. For us this year, it meant the successful ending of a struggle to keep pests down and to develop normal flower buds in our late plantings. At times it had seemed as if the effort required was too great for the possible reward.

Insect Control

Commercial fertilizer had been applied and brushed off with a broom. Black beetles were very numerous. After picking them off for a few days, we got rid of them with Dutox, a fluorine insecticide. As thrips had finally reached us, the young shoots were sprayed with sugar and paris green. We used a fine spray and the sugar was scarcely noticeable in a few days.

Irrigation Important

During the middle of the day, the budding spikes would often curve downward because of the hot winds. We found that keeping the ground well soaked helped a lot; but sometimes we had to turn the irrigation lines onto the plants in the hot part of the day. Soon we noticed that a row which had not received water for several days stood up straighter in the heat than the well-watered rows. This raised a question in our minds as to the value of so much watering, but not for long. When the two patches started blooming, the well-watered spikes were several inches taller, much larger, and showed much better, darker coloring. In fact, the other row did not seem worth picking.

The complete failure of asters to bloom in the open last fall created such a retail market for glads, that although we had thousands of late plants, we were often forced to use artificial light on the cooler days to get enough open flowers to supply the demand.

Although our ten-acre place is fairly level, we find that glads planted on the higher ground escape the frost about two weeks longer than those on the lower land.

Probably due to a liberal use of our overhead irrigation, our glad sales were much larger in September and early October than any other time. Betty Nuthall played a major part in these sales.

Likes Betty Nuthall

A reading of the lists of favorite glads in Wisconsin Horticulture shows that Betty Nuthall is not receiving much consideration. Possibly, those submitting these lists are thinking of the varieties which are blooming during the glad shows. The above named variety is not seen much before September first. From then on, with its fall shades and its ability to resist frost while in the bud, it is an ideal glad for late fall blooming.

From a florist's standpoint, Betty Nuthall has substance so that it can stand shipping and handling.

We have many customers who keep bouquets of this variety in their homes from the time it starts to bloom until frost. It is chosen in preference to Picardy and many later introductions.

MICHIGAN GLADIOLUS SOCIETY PREPARES MOTION PICTURE FILM

THE Michigan Gladiolus Society held their annual meeting at East Lansing, December 11, with a large attendance in spite of slippery roads. A bulb show was held, which proved very interesting. There was also a contest on the naming of varieties from the bulbs.

Prof. Paul Krone, of Michigan State College, showed a moving picture film he had taken during the past fall of Michigan gladiolus, produced at the expense of the Michigan Gladiolus Society. The film will be completed during the coming season, and after being shown to gladiolus growers, will be made available to garden clubs and other organizations to give publicity to Michigan-grown gladiolus.

GLADIOLUS TRIAL GARDEN REPORT

MR. E. A. LINS, Spring Green, has sent out a report on new gladiolus which will be of interest to those growers wishing information on the many new varieties and seedlings which have been tried in the Lins garden. Records are given of plant-

ing dates, blooming dates, length of stem, number of buds opened, etc.

Mr. Lins states, "On our travels this season, we were told by grower after grower that napthalene had injured their bulbs to a considerable extent. We have always shaken out the napthalene flakes quite early in storage, but this season we are packing a gallon of bulbous in flakes to check their performance."

To be on the safe side, it probably will be well to shake out the loose napthalene flakes after they have been with the bulbs for about two months, or at least before warm spring weather comes to prevent injury.

THE 1938 WISCONSIN GLADIOLUS SHOW

SHEBOYGAN gladiolus growers have extended an invitation to the Wisconsin Gladiolus Society to hold the next state show in the Eagles Club ballroom in Sheboygan.

The cooperation of the Chamber of Commerce and the Sheboygan Press has been assured. In fact, present plans by the Board of Directors will mean greatly increased crowds at this show.

One problem has arisen—that of the dates for holding the show. Sheboygan growers are emphatic in stating that the show should be one week later than the dates for the past few years and are requesting a three-day show. They state that since a majority of the flowers might come from along the lake shore, our old dates of August 13-14 would be too early, and suggest August 19-20-21. These dates coincide with the opening of the Wisconsin State Fair and would present a problem.

Mr. E. L. Chambers, Superintendent of the State Fair, on being informed of this fact, stated that unless he received the assurance of the active cooperation of the Wisconsin Gladiolus Society, premiums on gladiolus spike classes would not be given this year. Some of our leading exhibitors also show at the State Fair and sell bulbs. Several men taking part in the staging of past shows work at the State Fair during the opening days.

Members of the Society should express their opinion as to the dates and the wishes of the majority should prevail.

GLASS WOOL FOR MULCHING THE GARDEN

GLASS wool has been called "artificial snow," and is reported as being a very desirable material for mulching garden plants. Experiments have been conducted at Cornell University, Ithaca, New York, by R. C. Allen, who has written a bulletin outlining the various results of the test made.

Glass wool is the material used for insulating purposes in the building of houses.

In comparative tests in the Cornell test gardens of various mulching materials such as straw, leaves and excelsior, glass wool was also used. It showed a decided advantage over the other materials in the protection of the plants.

Its chief advantage may be in the fact that it does not hold water, is free from diseases and weed seeds, and is indestructible. Being a good insulation material, it will protect the soil from severe freezing and from alternate freezing and thawing. Its disadvantages at present are its high cost and the fact that something like coarse chicken wire must be spread over it to keep it from blowing away.

It was found in the test that rare Alpine plants which were very hard to carry through the winter came through well when protected with glass wool. Good results were also obtained in mulching primroses, fox gloves, canterbury bells, and other semi-hardy plants.

The material may be of special value in cold frames if placed under the sash.

CHEMICALS FOR CUT FLOWERS

TESTS have been made at Ohio State University for prolonging the life of cut flowers. A new chemical, hydrozene sulphate, has been found effective in lengthening the keeping qualities of cut flowers, and is said to keep flowers from 12 to 36 hours longer than they would last under ordinary conditions. To use it, one ounce of the chemical is first added to a quart of water. This in turn must be diluted to the extent of one-quarter cup to 12 quarts of water, or a few drops of the chemical to a vase of average size.

It is also reported that they found that aspirin lengthened the keeping quality of gerberas, and it is the belief that it will make dahlias last longer than usual. Immersing the stems of poinsettias in hot water when the flowers were cut was found to be desirable and almost necessary.

There has been so much controversy as to the value or effectiveness of methods of treating cut flowers for making them keep longer, that we are surprised that some very careful experiments have not been conducted long before this to clear up the situation. Even now there are contradictory opinions as to the value of various chemicals and treating methods.

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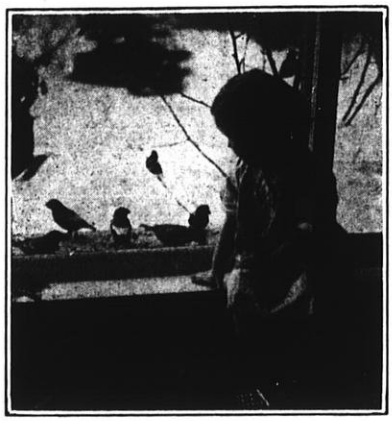
Feeding Birds In Winter

FEEDING BIRDS IN WINTER

BIRDS of all kinds need extra food during periods of severe weather, particularly under conditions of extreme cold when ice and snow cover much of their natural winter food supply. Cold weather will kill birds only if they are undernourished. Birds must be fed not only to prevent their starving and freezing, but also to bring them through the winter in good physical condition, in preparation for a successful laying and rearing season. Supplying grit is just as important as supplying food. A bird may starve to death with a full crop, unless it has grit with which to make that food available.

Shelters are useful in protecting grain from being covered by snowfall or being blown away by wind. They may be constructed by tying together the tips of small trees to form a tepee shelter. If straw is readily available, it can be hung over low branches or fence corners to form a windbreak and shelter. More elaborate shelters may be built in the form of a lean-to, using for the construction whatever material may be at hand. In all cases the shelters should be so constructed as to provide an easy exit for the birds in all directions, in case they should be attacked from the entrance by any of their enemies.

Inexpensive grain is entirely suitable for this purpose. Most grain stores, wholesale or retail, will be glad to donate sweepings or screenings. Screenings from hay lofts contain many small seeds suitable for quail or other small birds. The ordinary scratch grain mixture for poultry will be most suitable for pheasants and many other birds. Ten per cent of commercial grit should be added to all grain mixtures. A



half and half mixture of small and medium size poultry grit will be suitable for small and large birds, including pheasants. Coarse sand and fine gravel will serve the purpose if commercial grit is not available, but in that case should be supplied separately and in much larger quantity. For feeding song and insectiverous birds, pieces of suet attached to trees are effective.

Those who establish definite feeding stations should realize that as grain attracts the birds, so the birds attract their natural enemies. In such cases the natural enemies must be controlled, else your feeding station will be for the benefit of predators at the expense of less hardy and more desirable birds.

H. E. Johnson, of the New Britain, Conn., Fish and Game Association, recommends the following device for winter feeding. Cut burlap into 20 inch squares, lay flat and place grain in center. Gather corners together and tie securely. Cut roofing paper or heavy cardboard into half circles of 18 to 24 inch radius, so that when the two sides are brought together and pinned or stapled, the paper forms a weather-protecting cone over the bag of grain. Tie long cord to bag; run through center of cone, and suspend the feeder from brush, or low branch of tree in thick protected cover, with the bottom of the bag 15 to 18 inches above the ground. Near the bottom of the bag make a slit of 1½ inches long for cracked corn and other small grains, or 2 inches for whole corn. Allow some grain to drop on the ground. The birds soon find out where the grain comes from and learn to strike at the bag, which forces the grain through the slit. The advantages of this simple homemade feeder are that the grain is always kept dry and above the ground, so that none is wasted. As snow builds up, the suspending cord may be shortened to keep the bag always 15 to 18 inches above the surface.

—Connecticut Woodlands.

NEW GOURD SOCIETY FORMED

THE interest in gourd growing and exhibiting is one of the new developments in horticulture. The New England Gourd Society was recently organized in Boston as an outgrowth of the New York Gourd Festival held in October.

The organization will hold meetings from time to time and stage a gourd festival next autumn. They will affiliate with the International Gourd Society, which has headquarters in Los Angeles, California.

It is interesting to note that Dr. Liberty Hyde Bailey exhibited named specimens and drawings of gourds at the New York show and is an ardent devotee of gourd culture.

The man who watches the clock usually remains one of the hands.

My Garden Favorites

Deanette M. Small, Indiana

INDIANA gardens are not so distant that the problems are not similar to those in Wisconsin; in such case, so then should be the delights. For at least the length of this article let's forget the problems: instead, deal with the delights.

Roses

First, there are roses . . . We sent, with some apprehension, for fourteen of the newest last spring, wondering if it paid to be as up-to-date as Gloaming, Carillon, Eclipse, Rocket, Signora and others, when Talisman, Briarcliff, Pres. Hoover, the Radiances and Pernets, wholly dependable, could be purchased for less. The summer was not over before all our apprehensions were cast into discard; in every way these newer roses were an improvement over the old. Longer and stronger stems, frequency and perfection of bloom, less fading, greater resistance to black spot: this, after a season of growing, was our verdict . . . Of course we gave scrupulous attention to such matters as spraying, feeding, mulching and watering; incidentally, winter protection. Naturally, I hope that none of you Wisconsin gardeners will take my word for it . . . but will find out for yourself . . . Let's see—there's Alice Harding, Rome Glory, R. M. S. Queen Mary, Elegance, Break o'Day—Well, read your own catalog.

Dwarf Asters

Second . . . dwarf asters. I am indebted to a Wisconsin grower (incidentally a Wisconsin Horticulture advertiser) for my first major adventure in these. After seeing his spring display at the National Show at Milwaukee, I wrote: "I want some rock plants, but not sedums, soapwort, catnip, linum, and all the rest that bloom in spring. I want something spectacular for fall!" His answer was: "I'm sending you dwarf hardy asters . . . Ronald, Nancy, Marjorie, Victor, Snowsprite. . . "

The dwarf asters ran away with the fall garden. In mid-August they formed mounds of color, surpassing the pink cheeks of the azaleamums. Unchecked, they kept on blooming until mid-October. Indications are that enough new plants formed to set out a whole border. Yes, indeed, we're quite sold on dwarf asters. We think they will work in well with the tall hardy (Novae Anglae) and with the various chrysanthemums. At least we are going to try this plan of planting in 1938.

Geums and Trollius

Third . . . Geums and trollius. I don't know about geums in Wisconsin, but I do know that Fire Opal and Mrs. Bradshaw in Indiana, with their flaming blooms up against an overhanging rock caused many a visitor to "oh and ah" in our garden. And I do know that the mat of leaves is highly decorative even when the geums are not in bloom, which in the case of Mrs. Bradshaw, is not very often. The trollius or globe flower, Golden Queen, came from one of your Wisconsin growers, so shame on you if you don't grow them. Ten out of ten plants lived, and they were like livid sunshine down the garden path. They bloomed in less than thirty days after planting—and in garden language that's sumthin'.

Come on over and visit the Indiana garden club shows this spring, Wisconsin; we'll return the compliment!

BUDDLEIA POPULAR

APPARENTLY, the buddleia, commonly called the butterfly bush, will soon be found in a wide range of varieties, as at least one new kind appears each year. Ile de France seems to have become established as among the best. Fortune was tested in many gardens the past year and found satisfactory. Now comes a new variety called Charming, which will be distributed in the spring of 1938 and seems likely to win favor because of its color as well as for its strong growth. It is called a pink buddleia, and the color is a pronounced pink under artificial light. In daylight, the color is a distinct lavender.

This buddleia has been given a silver medal by The Pennsylvania Horticultural Society. It is, of course, at its best in the Autumn but will start to bloom in July if left to itself. It is desirable to pinch off the first flower spikes in order to have an unusually fine display of blooms in September and October. This pinching causes the development of side branches, all of which will bloom in the course of the Autumn months.—Horticulture.

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STATE GARDEN CLUB FEDERATION NEWS

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Mrs. Chester Thomas, Hon. President
Route 2, Thiensville

H. J. Rahmlow, Cor. Secretary
Madison
Mrs. Sam Post, Rec. Secretary
Shorewood Hills, Madison

Mrs. E. A. St. Clair, 1st V. President
2418 N. 65th St., Wauwatosa
Mrs. Charles Schuele, 2nd V. President
Oconomowoc

NEW YEAR'S GREETINGS

AS president of the Wisconsin Garden Club Federation, I wish to extend to all garden club officers and members my best wishes for a Successful and Happy New Year.

Your federation officers met at Milwaukee on December 15, and made plans for a great deal of work during 1938. I was delighted with the enthusiasm shown by the officers. It was a most happy meeting.

I feel that our plan of holding meetings of the board in three sections of the state, to which all presidents, district and committee chairman will be invited, will have happy results.

During 1938, we would like to have several constructive flower judging and arranging schools, and district meetings with good programs that will bring out all the garden club members. We hope to be able to help you with your garden club programs and with suggestions for your flower shows.

Most important of all, we hope that many new clubs will be organized during 1938 in some of the hundreds of cities and villages in which there are now no garden clubs.

Muriel M. Johnson

THE EXECUTIVE BOARD MEETING

THE Executive Board of the Wisconsin Garden Club Federation met in Milwaukee, December 15. In addition to matters published elsewhere in this issue on increasing dues, regional meetings and appointment of committees, the following matters were taken up.

The Board voted to take part in and promote National Wild Life Preservation Week, March 20-26.

Voted to accept the invitation of the Sheboygan Garden Club to hold the next convention at Sheboygan, providing suitable accommodations can be obtained, and invite the Kohler Garden Club to participate.

The amount of $3 annually was allowed for clipping bureau service for the publicity chairman.

New stationery and membership cards were ordered printed.

Voted to ask the National Council for information as to the proper method for accrediting judges for flower shows.

There was considerable discussion on methods of holding district flower arrangement and judging schools, but no definite decision was made.

NATIONAL COUNCIL MEETING DATES

May 17, 18, 19, 1938 — Annual Meeting, New York City, Headquarters, Roosevelt Hotel.

May 20th — Post Trip to Bermuda.

HOT SPRINGS NATIONAL PARK, ARKANSAS

October 12, 13, 14, 1938 — Semi-Annual Meeting, Headquarters, The Arlington Hotel.

NO STATE FLOWER SHOW

A LARGE majority of the garden clubs, voting on the question as to whether we should have a state flower show this coming year, voted in the negative. Therefore, the Executive Committee, at its meeting in December, decided that for the time being the matter of holding a state flower show would be dropped.

Many club members feel that it would be very difficult for the federation to stage a show which would in any way compare with the international show held in Milwaukee last spring. If a state show were held, visitors would expect to see something almost equal to this great show and might be disappointed, because certainly it would be impossible to anywhere near approach the International in either size or quality. We understand that the Milwaukee show cost in the neighborhood of $75,000 to stage, possibly more. It could only be put on by an organization having a backing of thousands of dollars, in case of a deficit.

There are two other possibilities. One is to hold a small show the first part of June at which the more inexpensive classes would be exhibited, such as flower arrangements, shadow boxes, dinner tables, specimen bloom, and smaller types of gardens. Such a show would have value from an educational standpoint. The other possibility is to hold a three-day show in connection with the state fair. At such a show there would be cash premiums offered by the fair. We will appreciate suggestions.

INCREASE IN GARDEN CLUB DUES TO BE VOLUNTARY

LESS than half of the garden clubs affiliated with the Wisconsin Garden Club Federation had responded to the request that a vote be taken on the matter of raising Federation dues, by December 15.

As a result, the Federation Executive Committee was unable to decide whether the dues should be raised or not, even though only four clubs voted against it.

It was therefore decided that for 1938 there will be three types of membership as follows: 1. Regular members. 2. Contributing members. 3. Honorary members.

Regular-member clubs will pay the regular membership fee of 50c per member, as in the past, which is divided as follows: Federation general fund, 10c; National Council dues, 5c; Wisconsin Horticultural Society membership and magazine, 35c.

Contributing members. All clubs paying 60c per member will be designated as contributing-member clubs. The additional 10c will go into the Federation general fund.

Honorary-member clubs. All clubs paying 75c per member will be be designated as honorary-member clubs. The additional 25c will go to the Federation general fund.

As was seen by the financial report in the December issue, there was already a deficit in the general fund—with no money to pay the expenses of board members to the meeting in Milwaukee on December 15. Because of icy roads, board members found it necessary to take the train to this meeting. It has been felt, in this state, that if the board members give their time to the work of the federation they should have the actual expenses of necessary trips paid.

The board should have more meetings, and more are being planned, as stated in the article under Committee Appointments. This cannot be done, nor can the board carry on increased activities unless they have more money to work with. We hope that most clubs will become contributing or honorary members.

The honor roll of clubs will be published in the April issue.

FEDERATION COMMITTEES APPOINTED

AT a meeting of the Executive Committee of the Wisconsin Garden Club Federation held in Milwaukee, December 15, committee chairmen for 1938 were appointed.

The method of appointing committees this year will be completely changed. The Board felt that garden club presidents should be given an opportunity to suggest committee members and talk over the work of the committees.

The Executive Board will hold meetings in three sections of the state during January, February and March. To these meetings will be invited garden club and district officers, together with committee chairmen. Committee members will be appointed, and the work of the federation, districts and clubs will be thoroughly discussed. It is hoped that in this way a great deal of progress will be made.

The first meeting is planned for Tuesday, January 25, to be held in Milwaukee and to include all clubs in the southeastern section of Wisconsin.

Committee Chairmen

Conservation Committee—Mrs. Frank Quimby, 1422 Blaine Blvd., Racine, Chairman. This committee will be subdivided into the following divisions: 1. Wild life preservation; 2. Fire prevention; 3. Bird life.

Junior Garden Clubs—Miss Mary Lowerre, Delafield, Chairman.

Roadside Development and Beautification — Mrs. Edward Corrigan, 2178 N. 71st St., Wauwatosa, Chairman.

Visiting Gardens—Mrs. E. J. Wells, Oakfield, Chairman.

Garden Club Program Committee—Mrs. E. L. Sevringhaus, 2914 Cherokee Drive, Madison, Chairman.

Historian—Mrs. C. E. Strong, 2157 S. 87th St., West Allis, Chairman.

National Council Contact Chairman—Mrs. Charles Jahr, Elkhorn.

Publicity Committee—Mrs. E. A. St. Clair, 3418 N. 65th St., Wauwatosa, Chm.

Horticultural Committee—MissMerle Rasmussen, R. 4, Oshkosh, Chm.

Mrs. Chester Thomas, Thiensville, honorary president, was appointed in charge of flower shows for Federation conventions and meetings.

CHICAGO FLOWER SHOW APRIL 2-10, 1938

THE Garden Club of Illinois, Inc., announces its twelfth annual flower show to be held for the seventh consecutive year at the Navy Pier, Chicago, April 2-10.

The attendance at the last spring show is reported at 234,000. The announcement of the show contains this statement: "Navy Pier is now a perfect exhibition hall with modern heating facilities throughout."

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ELKHORN CHRISTMAS SHOW OUTSTANDING SUCCESS

IN a letter from our past president, Mrs. John Jahr, of Elkhorn, she states:

"Our Christmas show was a huge success, both as to beauty and finances. The show cleared around $60, and no admission was charged. The Junior Garden Club members along cleared $17. They sold boutonnieres, bulbs, apples, and had a grab bag. We had real reflections in two of our niches or shadow boxes. I'm still thrilled about the whole thing, and not one member fell down."

Here's a suggestion for other garden clubs. We might add, don't make your dues too high. Rather, if you need more funds to carry on garden club work, raise them in some way such as the above, if possible.

ADDITIONAL CONTRIBUTIONS TO SPEAKERS FUND

IN addition to contributions listed in our last magazine to the Wisconsin Garden Club Federation speakers fund, the following were sent in during the past month:

Countryside Garden Club (Thiensville), $5; Fort Atkinson Garden Club, $2; Hawthorne Garden Club (Hales Corners), $1; West Allis Garden Club, $3.

The Federation officers are much encouraged over response from garden club members this year, and a substantial balance now in the speakers fund will enable them to plan constructive meetings during the coming year.

Absent-Minded Professor: "Waiter, half an hour ago I ordered some lamb chops. Have you forgotten them, or have I had them?"—Santa Fe Magazine.

FOR YOUR GARDEN CLUB PROGRAM

THE following motion pictures and slides are available for free distribution by the Wisconsin Conservation Department, State Capitol, Madison. The only charge will be the cost of the express both ways. Reservations should be made some time in advance, and return shipment must be made the day following the showing.

16 MM. MOTION PICTURES

Animals

Amik—The Beaver.

Bear acts.

The Houn' Dawg and the 'Coon.

Wisconsin Whitetail Deer.

Wisconsin's Experimental Fur Farm (3 reels).

Birds

Wild Geese.

Game Birds of many nations (colored).

Fish

Improving Wisconsin's Trout Fishing.

Pike Propagation.

Collecting Lake Trout Spawn.

Removing Detrimental Fish from Wisconsin Waters (3 reels).

Muskie Fishing in Wisconsin.

Forestry

New Forests on Idle Acres (2 reels).

Wisconsin's Sheltered Acres.

Firemen of the Forest (3 reels).

Plants

Mushrooms of Wisconsin (2 reels, colored).

Spring Wild Flowers of Wisconsin (colored).

Summer Wild Flowers of Wisconsin (colored).

Fall Wild Flowers of Wisconsin (colored).

Scenery

Three Rivers of Wisconsin.

Autumn in Wisconsin (colored).

Colored Lantern Slides

A booklet describing each of the slides is included with the sets. The description can be read as the slides are being shown.

Wisconsin Spring Wild Flowers.

Wisconsin Early Summer Flowers.

Wisconsin Mid-summer Flowers.

Wisconsin Autumn Wild Flowers.

Identification of Forest Trees in Wisconsin.

Old and New Forests in Northern Wisconsin.

Wisconsin's Future Forests.

Wisconsin State Parks.

THANK YOU

A SPECIAL thanks to those Garden Club members who went right home from the convention and got in touch with their city and county school superintendents in regard to the Wisconsin School Children's Forest. It is very gratifying to know that so many of you were impressed with the importance of this educational project. Splendid letters have come from these educators showing their eagerness to cooperate, all of which proves that a little personal enthusiasm on the part of Garden Club members will go a long way toward carrying the project through to a successful conclusion.

Don't forget about the contest which is to be held in regard to the School Forest this year. Look for the details in the February issue of this magazine.

—Wilda Grim Quimby, Director of the Wisconsin School Children's Forest.

GIVE PRIZES FOR CHRISTMAS DECORATIONS

THE Ledgeview (Fond du Lac) Garden Club played Santa Pals to needy families for Christmas, and voted the sum of $5 for premiums to filling stations having the most attractive Christmas decorations. The December meeting included talks

on interior Christmas decorations by H. J. Sonn of Oakfield.

Writes Mrs. Thomas Mullen, "After spending considerable money for park improvement, playing Santa Pals, and the Christmas Contest, we still have money in the bank."

COSMOS SENSATION

THE Cosmos Sensation is making a name for itself. This variety originated in Minnesota and will bloom in from eight to ten weeks from seed. The flowers are very large, often four inches across, and the plants grow from four to six feet tall.

For the coming year, seed dealers will offer Sensation Cosmos in two separate colors, one a glistening white, called Purity, and the other, a pink, will be called Pinkie.

THE HAWK MOTH

SEVERAL questions have been asked as to the larvae of the Sphinx moth, sometimes called the hawk moth, which was so numerous this past season.

The larvae of this insect resembles the large tobacco worm and feeds upon Portulaca and Purslane. It is harmless to other crops. Although it closely resembles the tobacco worm it does not feed upon tobacco or tomatoes. Since purslane is a weed the larvae cannot really be called harmful except as it might feed upon Portulaca beds.

NATURE PROJECTS

(Continued from page 125)

one-half dozen children, two or three small dogs, a pinch of brook, and some pebbles. Mix the children and the dogs well together and put them in the field, stirring constantly. Pour the brook over the pebbles, sprinkle the field with flowers, spread over all a deep blue sky line, and bake in a hot sun. When brown, remove and cool in a bath tub."

Line and Design In Flower Arrangement

Mary Cokely Wood, Ann Arbor, Michigan

Reported by Mrs. B. W. Wells, Madison

ONE of the highlights at the October meeting of the State Garden Club Federation held at Oshkosh was a talk and demonstration by Mary Cokely Wood of Ann Arbor, Michigan, on Line and Design in Flower Arrangement.

Mrs. Wood spent many years in Japan where she studied under some of the best floral artists of both the modern and classical schools. In recent years she has been lecturing and teaching in this country. Last spring she taught an enthusiastic group of Madison garden club members. At present she is completing a book on flower arrangement.

In her lecture, Mrs. Wood emphasized the importance of line in giving variety to an arrangement as against the massed effect of flower stems where lines were lost or confused. She demonstrated by means of simple leafy stems how vitality can be expressed and hold the attention of the observer. In these she showed how such stems could be properly secured in a suitable container by means of forked twigs and short pegs.

"Line in floral design is secured through the use of curved stems as a straight line is static and there must be relationship between the parts of the composition," said Mrs. Wood. "It is best," she said, "to use dark containers so as not to detract from the bouquet and to give it a feeling of strength and stability."

Charts were shown to demonstrate how varied and many are the types of line arrangements. Arrangements of Juniper and chrysanthemums were brought to the lecture hall to speak for themselves. Mrs. Wood showed slides taken from rare old Japanese books. In these she pointed out some of the essential qualities of the art and something of its development. In her brief history she emphasized the perfection to which the Japanese have brought this art through ten centuries of practice. "They have an etiquette for arranging flowers just as there are certain social procedures in this country. Each home always has two bouquets over which hours of careful consideration have been spent," said Mrs. Wood.

Through her personality as well as by what she said, Mrs. Wood gave us a glimpse of artistic perfection in this art in which we are hopeful beginners.

CAN YOU ANSWER THESE QUESTIONS?

1. What are lilies? (See Webster's Unabridged Dictionary.)

2. Is a lemon lily a true lily? Why?

3. Is a day lily a true lily? Why?

4. What determines the depth that lilies should be planted?

5. What precautions should be taken in planting most lilies?

6. Look up the following—Are they true lilies? Blackberry lily, Trout lily, Plaintain lily, Amazon lily, Peruvian lily, Ginger lily, Spider lily, Tiger lily, Madonna lily, Turks-cap lily, Easter lily, St. Bruno's lily.

Compiled by Victor H. Ries, Extension Floriculturist, Ohio.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

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Apiary Inspection Plans For 1938

C. D. Adams, Chief Apiary Inspector

WHEN the $31,000 appropriation for bee disease control became available in July 1937, all our trained bee inspectors were immediately put to work and we began breaking in a number of new men. It was necessary to adopt a policy regarding the counties that were to be inspected first. It was decided to make three classifications. (1) The 23 counties that had appropriated money for the area clean-up in 1937. The inspection was to be completed in these counties regardless of the appropriation. (2) The counties that had at one time carried on an area clean-up campaign but dropped it for some reason. As much inspection work as possible was to be carried on in these counties. (3) The counties partially surrounded by area clean-up counties. A start was to be made in these counties.

This policy will be continued in 1938, adding as many new counties as possible with the understanding that only counties having organized county beekeepers' associations will be added. Those counties not having an association should get busy and organize if they want inspection work done.

A few more new inspectors will be trained. The principal qualifications for apiary inspectors are proficiency in handling bees, good eyesight to distinguish the principal diseases, and ability to meet and get along with beekeepers. In other words the inspector must be a real diplomat and this is where many first class beekeepers fall down.

During the early spring there will be held about four sectional schools for experienced and inexperienced apiary inspectors. The dates and locations of these schools will be announced later.

APIARY INSPECTORS OF AMERICA MEET

THE Apiary Inspectors met in Washington, Oct. 25-27. This group was organized in 1930 and is a division of the American Honey Producers' League.

The first problem it tackled was the eradication of American foul brood by fire rather than treatment. Up to this time the two leading bee journals and many of those in official positions were opposed to the destruction of diseased colonies. Without a dissenting voice this organization went on record in this matter and all important opponents were either converted to the policy or found it very unpopular to oppose it.

At the same time other reforms and uniform practices were taken up with a fair amount of success. At the Washington meeting the problem of more uniform laws regarding the movement of bees and bee material in interstate shipments were taken up and assigned to committees. There was not the uniformity of opinions in this that one might expect. Some sections of the country appear to want as few restrictions as possible on such shipments, while those like Wisconsin that are spending large sums of money for the eradication of disease, are in favor of more drastic restrictions than are now in force but feel they should be fairly uniform.

With this in view, the Wisconsin representative at this meeting presented a paper setting forth 11 definite suggestions for bringing about this uniformity. This was referred to a committee and a movement started to interest the federal authorities in the proposition.

The next meeting will be at New Orleans.

INSTITUTE DUES

THIS being the first month of the year, it is a good time to send in our membership dues to the American Honey Institute, Madison, Wisconsin, to help them in their important work for 1938.

THE HONEY FLOW IN SOUTH AFRICA

IN the October issue of the **South African Bee Journal,** we find an interesting article by Mr. F. Taylor, government apiarist, giving the results of experiments conducted on the time and effect of temperature on the honey flow. We find that in South Africa the principal honey flow comes in January. Sixty-five per cent of all honey gathered is during January.

High temperature increases yield, is the opinion of Mr. Taylor, and he gives the maximum temperature and the amount of gain to verify it as follows:

Date	Max. Temp.	Gain
Jan. 20	88	3 lbs. 14 ozs.
Jan. 22	68	0 lbs. 3 ozs.
Jan. 24	90	2 lbs. 8 ozs.
Jan. 25	98	3 lbs. 5 ozs.
Jan. 27	102	4 lbs. 3 ozs.
Jan. 29	72	1 lbs. 0 ozs.
Jan. 30	70	1 lbs. 3 ozs.

He also states that the years 1933 and 1935, in which the honey crop was very good, were preceded by rainy seasons. June and July, 1932 and 1934, being the winter season in South Africa, were wet months.

The **South African Bee Journal,** published by the Beekeepers Association, is published at 23 George Street, Rosettenville, Johannesburg, South Africa.

PAINT FEEDING PAILS

NOW is a good time to take care of the ten-pound pails used for feeding bees. Such pails rust very quickly if not properly cared for, but may be prevented from doing so without much trouble. We paint our pails white on the outside with common house paint, and either shellac or varnish them on the inside. If done now so that they will be thoroughly dry before being used again, they will last for years.

HONEY COOKIES

Winner of 3rd Premium at Annual Convention Wisconsin Beekeepers Ass'n

1 cup honey
1 cup sugar
½ tsp. salt
½ tsp. cloves
1 tsp. cinnamon
2 tsp. baking powder
½ tsp. soda
2 eggs
1 cup Spry (shortening)
5 to 6 c'ps flour
1 cup nuts
1 cup cherries

Cream fat, sugar, honey. Add eggs beaten. Sift flour, salt, baking powder, spices and add to above mixture.

Add cherries and nuts. Shape in loaf, wrap in wax paper. Chill one or two days to allow sufficient ripening of dough. Slice off and bake in hot oven 400 degrees.

By Mrs. Cornelius Meyer, Appleton, Wis.

A. F. B. CANNOT BE CONTROLLED BY COMB TREATMENT

CAREFUL experiments were conducted at the Brandon Experiment Station, Canada, on the use of various disinfecting solutions for treating combs for A. F. B. It was found that the disease redeveloped within about 12 days when the combs were replaced in healthy colonies.

This simply verifies work allready done in the United States, and is what led inspectors to agree that the burning method was the only successful one to control this disease.

Mother: "Now, Bobby, suppose you were to hand Jimmy a plate with a large and a small piece of cake on it, wouldn't you tell him to take the larger piece?"

Bobby: "No."

Mother: "Why not?"

Bobby: "Because it wouldn't be necessary."

HONEY FOR SALE

Comb and extracted honey; any kind, any quantity. Fulfill the requirements of your local trade during an off year. Write for prices. C. W. Aeppler Company, Oconomowoc, Wisconsin.

DIRTY DIG

Tramp: "Could you give a poor fellow a bite?'

Housewife: "I don't bite, myself, but I'll call the dog."—Awgwan.

CONTAINERS

Write us for prices on friction top pails—60 pound cans and glass jars.

Comb and extracted honey wanted. Send samples and quote price delivered Milwaukee.

WALTER GEIGER
325 W. Vine St. Milwaukee, Wis.

1938

is your biggest year because it is before you!

What Are You Going To Do With It?

Let's make it a Comb Honey Year! The market was short again in 1937, and prices advanced. Doesn't this spell PROFIT to you?

We are ready to co-operate with you by supplying you with the best quality Bee Supplies at low prices consistent with that Quality.

And, remember that—there are no better COMB HONEY SECTIONS than LOTZ makes. A trial will convince you.

If you are not on the mailing list to receive our new 1938 catalog, write today! Write for prices on quantities.

August Lotz Company
Boyd, Wisconsin

Financial Statement for 1937
WISCONSIN BEEKEEPERS ASSOCIATION

GENERAL FUND

Received from Mrs. M. Francis, resigned rec. sec.-treas. on June 1, 1937. (Am't after paying outstanding bills)	$174.62	
Placed in label account—value of label stock sold past three years	100.00	
Balance in general fund		74.62
RECEIPTS SINCE JUNE 1, 1937		
90 membership dues at 75c each	67.50	
59 membership dues at $1 each	59.00	
2 membership dues at 35c each	.70	
1 membership due at 40c each	.40	
Total	127.60	
Paid Horticultural Society 170 membership dues at 40c	68.00	
Balance of dues in general fund		59.60
PROFIT ON LABELS SOLD BY HONEY ACRES		
Received for labels sold	92.53	
Cost of labels	60.40	
Profit on labels		32.13
Profit on sale of stationery		2.40
PROFIT ON PAILS SOLD BY HONEY ACRES		
7% commission given the Association by Honey Acres on pails sold		39.45
21 honey dispensers sold at $1 (old stock on hand)		21.00
Total net receipts		$226.80
EXPENDITURES		
Miscellaneous expenses		
Paid for refreshments, summer meetings		
Fox River Valley meeting	4.00	
Western State meeting	4.00	
Cost of treasurer's bond	1.57	
Total		9.57
Annual contribution to American Honey Institute		60.00
ANNUAL CONVENTION EXPENSES		
Premiums in honey cooky contest	2.75	
Banquet tickets for speakers	3.25	
Ribbons for badges	.60	
Board of managers dinner	9.00	
E. R. Peterson traveling expenses (speaker)	13.35	
E. R. Root traveling expenses (speaker)	10.00	
Prof. V. Milum traveling expenses (speaker)	17.50	
Mrs. M. Jensen traveling expenses (speaker)	3.55	
Executive committee expenses: S. P. Elliot, $7.50; A. Schultz, $1.50; Mrs. E. Voight, 75c; W. Diehnelt, 75c. Total	10.50	
Total convention expenses		70.50
Office supplies		18.05
Salary for rec. secretary-treas.		10.42
Total Expenditures		168.54
SUMMARY		
Balance on June 1, 1937	74.62	
Net receipts since June 1	154.58	
Total		229.20
Expenditures as listed		168.54
Balance		60.66
INVENTORY AND ASSETS		
Merchandise inventory—labels, etc., on hand	233.64	
Office supplies inventory	15.40	
Cash in label account	100.00	
Total assets in addition to general fund		$349.04

MRS. ERNESTINE VOIGHT, *Rec. Sec.-Treasurer*

NOTICE: New 5 pound pail labels costing $31.60 have recently been printed and the value of label stock sold this year has not been added to the label fund. This will be reported later.

OUR FINANCIAL STATEMENT

IN this issue we publish the financial report of the Wisconsin Beekeepers Association, as was voted at the annual meeting. Publication of the reports each year will be of value to inform the members as to how the money is spent and the amount of the receipts from various sources.

Unfortunately, due to changing secretaries in May, a full year's report in detail could not be given. There is no detailed account of the dues taken in between November, 1936, and May, 1937, or of the profits on pails or labels.

It was the suggestion of the editor that this report be published in January and should include the cost of the annual convention. Since the convention is the high-light of the year, and costs more money than any other activity, it should be included in the budget. The Board of Directors should determine a month or so before the convention the amount of money available for out-of-state speakers, etc., and should spend it accordingly. Such convention expenses should then be deducted from the receipts for that calendar year.

The financial report presented at the Annual Convention, therefore, should be the one used by the Board in determining convention costs. If this is not done, then convention expenses must be included in the following year's report and cannot be budgeted. **Expenditures should be determined following income,** and income cannot be forecast successfully in this case, as illustrated in this year of a small honey crop and low pail profits.

A system of keeping the receipts and expenditures for labels in a separate fund is being adopted. A new statement will appear in the next issue.

THOSE HIVES FULL OF HOLES

Ivan Whiting

I WAS very much interested in Mr. E. R. Root's telling at our convention how his father replaced bees that died in protected hives with bees that had wintered out of doors in hives full of holes. This statement was full of meaning, and confirms some of my observations on wintering. The bees in the dilapidated hives were probably "let alone" bees, had a young queen, plenty of young bees, and plenty of stores above the cluster. They will winter, if given half a chance. This is only another way of saying that what is inside the hive is much more important than what is on the outside.

Cold is not nearly so injurious to bees, unless it is so intense and prolonged as to cause starvation, as when accompanied by moisture condensation within the hives. Without the moisture the hive warms up when the weather warms, with moisture, it becomes a refrigerator. When we eliminate moisture, we almost insure successful wintering of a good colony, whether it be by using unpainted hives, through holes and cracks in the hives, through absorbent cushions, or through top entrances.

I believe in protection to conserve stores and the bees' vitality, and would not consider leaving colonies to withstand the winter unprotected. I already know how to winter bees, but am trying new methods to discover a system, inexpensive in methods and labor, which provides sufficient warmth in cold weather, allows the escape of moisture, and permits the hive to be readily warmed by the sun.

Would-be Employer: "Have you any references?"

Would-be Employee: "Sure, here's the letter: 'To whom it may concern, John Jones worked for us one week, and we're satisfied.'"

News From The Apiary

WE understand that there are two strains of short corolla red clover being bred in this country. Mr. Frank Pellett in the American Bee Journal describes the new strain raised by Dr. Zofka and named by him, and we understand that Conrad Kruse, of Loganville, Wisconsin, has been growing such a strain for several years. If we ever get weather again suitable for growing red clover, perhaps these strains will be of value.

As far as we can find out, almost all beekeepers in Wisconsin are pretty well sold out of honey. That is all right for those who sell it wholesale to packers, but for beekeepers who wish to maintain a local market it is not so good. Such beekeepers should have a supply on hand whenever the customer wants it in order to keep the trade. Supposing a groceryman was out of sugar about half the year. We would soon find one that had it whenever we wanted it.

Considerable work has been done recently on the effect of large-cell foundation on the size of the honey bee. The use of large cells will not permanently increase the size of a race of bees. That can only be done by breeding. However, it might be well to look into the matter of the proper size of cells for the race we are using. Obviously large Italian bees should use cells large than those used by smaller bees, like the Blacks. Then, too, why not allow a little for the decrease in size of the cells which comes about after several generations of brood have been raised in them. That would be like buying a suit of woolen underwear a size larger than we need because it will shrink.

Even in foreign countries starvation is the principal cause for winter losses in bees. Mr. K. Bohm, a bee disease inspector in Czechoslovakia, kept notes of the causes of winter losses of colonies and reported (Deutsche Imker, November) that 39.5% died from starvation.

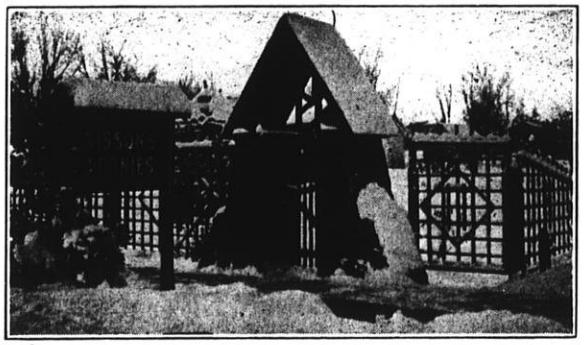
THE HONEY MARKET

DEMAND for honey in wholesale lots has sagged during recent weeks, with both bakers and bottlers purchasing in lighter volume than last year at this time. The cold weather has stimulated local demand for extracted honey. Market prices have a weaker tendency and in some cases slight price declines have taken place as buyers feel that honey should follow the lower prices of many other agricultural commodities in spite of the short crop. Stocks of honey are light almost everywhere, however, except in California and in the Buckwheat Region of New York where substantial stocks are still on hand. Comb honey is everywhere scarce with few quotations available. Beeswax is in good demand with the market tendency firm to slightly stronger in many areas.

Exports to the United Kingdom have recently been of increasing volume, totalling 483,000 pounds during September and October. Total exports of honey from January through October, of 1,901,000 pounds are nearly double those of the same 10 months last year, of 985,000 pounds. Total imports of beeswax for the 10-month period, of 4,850,000 pounds, compare with beeswax imports of 3,548,000 pounds from January through October, 1936.

Chicago, Extracted honey: Midwestern, Mixed Clovers, White, few sales 7-7½, Light Amber 6-6½c.

From the Report of the U. S. Bureau of Agric. Econ., Dec. 15.



Seasons Greetings To All

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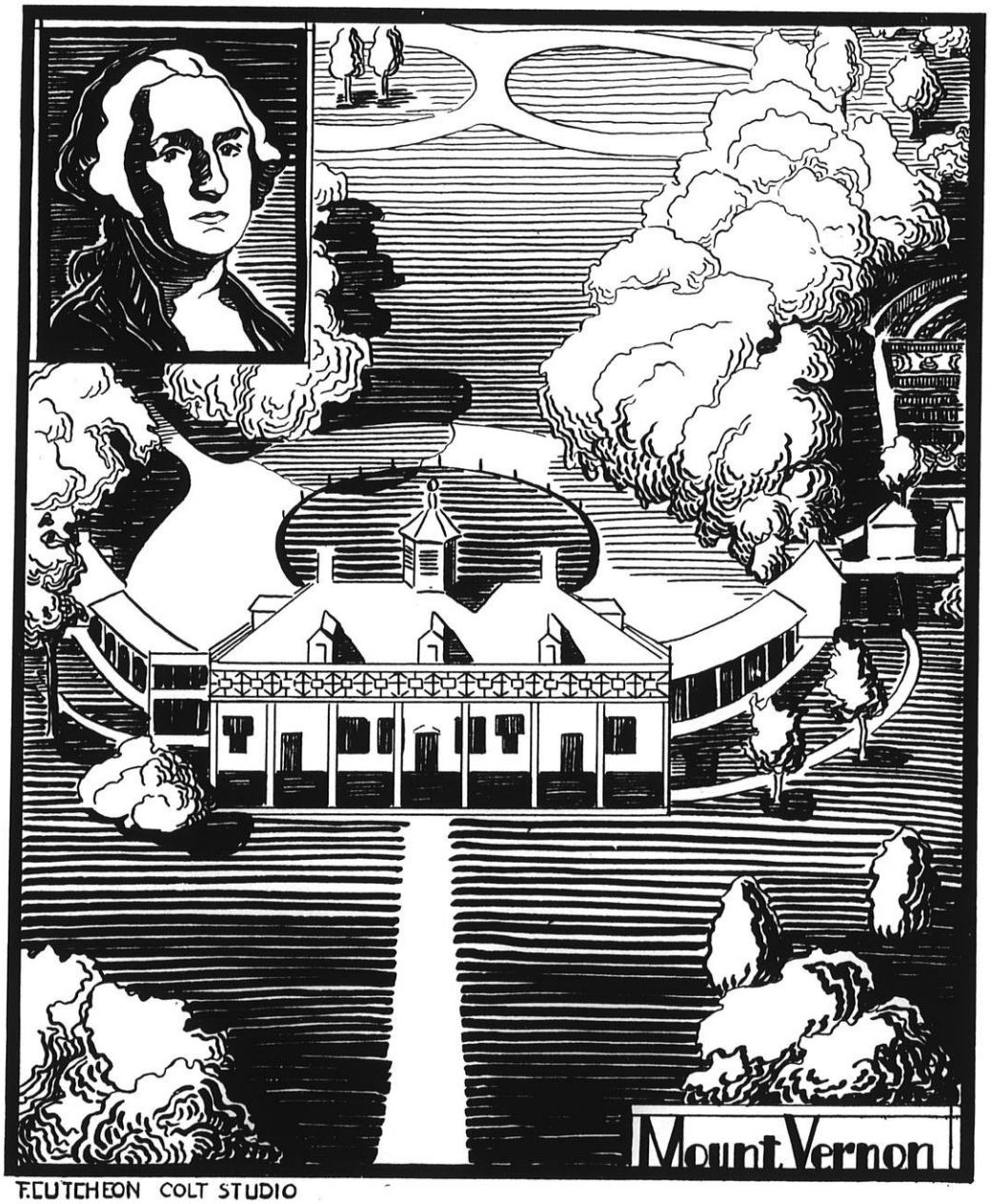
The A. I. Root Company, Medina, O.

WISCONSIN HORTICULTURE



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FEBRUARY, 1938

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"Buy your gift books now so you may finish them before mailing."

Big Apple—A form of dance, supposed to be modern, although Negroes have been doing it for thirty years. It is their interpretation of the quadrille, it is claimed.

Fig. 1 Fig. 2 Fig 3

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Crates, Bushel Boxes and Climax Baskets

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

Established 1910

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

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
1532 University Ave.
Madison, Wisconsin

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

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

Volume XXVIII FEBRUARY, 1938 No. 6

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Term Ending December, 1938

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Term Ending December, 1939

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Term Ending December, 1940

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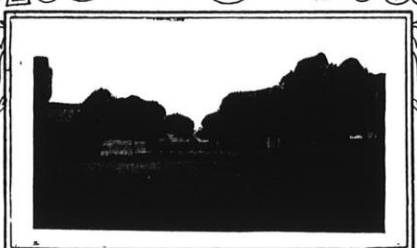
Subscription to Wisconsin Horticulture is obtained by membership in the Wisconsin State Horticultural Society for which the annual dues are $1 per year or $1.50 for two years. Garden Clubs, Horticultural Societies, and other Horticultural Organizations are affiliated at a reduced membership rate. Fifty-cents of the annual dues paid by each member is for a year's subscription to Wisconsin Horticulture.

PLEASE DO NOT SEND STAMPS

Wisconsin Horticulture

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



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

New Ideas In Codling Moth Control

J. A. Callenbach and J. H. Lilly

THE writers recently attended the American Association for the Advancement of Science meetings at Indianapolis, Indiana. In the entomological sec tion the afternoon of December 27 was devoted to the annual codling moth conference. In addition to the round-table discussion at this conference, several technical papers on the codling moth were presented at other meetings during the period. This article attempts to discuss briefly the highlights of these meetings as they apply to Wisconsin conditions.

Importance of First Brood Control

Prof. T. J. Headlee of New Jersey, a pioneer investigator in codling moth control, emphasized the importance of first brood control. The importance of first brood control has been emphasized repeatedly at meetings of fruit growers and in these columns. It is the first brood of moths that deposits the eggs from which the worms develop in the early part of the season. It is from these worms that the second brood moths arise. They in turn produce eggs which develop into the late season worms and cause the wormy and stung fruit at harvest. Furthermore, it is a certain percentage of the

first brood of worms that remain in hibernation over the following winter and give rise to the infestation the next year. Hence, control of the first brood checks early injury, late season (harvest) injury, and reduces the infestation that will occur the following year.

Prof. Headlee also listed the essentials of good codling moth spray practice. These are: (1) accurate timing, (2) thorough coverage, and (3) maintenance of coverage. In other words, the grower's aim should be to apply his first brood cover sprays at the time the eggs begin to hatch, apply the sprays so as to protect all exposed fruit surfaces, and to maintain a sufficient coverage throughout the critical periods of worm activity.

The "Top-Off" Spray

An Indiana investigator called attention to the value of a "top-off" spray application in one of the later treatments. He has found that ordinary spraying often permits excessive codling moth injury in the tops of the trees. A "top-off" spray is one that is applied only to the tops of the trees from the spray tank or a special tower, or by use of a boom where a stationary system is used. In some sections where the trees are large, such applications greatly improve the control without materially increasing the average residue load. This procedure may not be advisable in Wisconsin but the suggestion serves to emphasize the importance of thorough coverage of the upper parts of the trees.

Supplementary control measures such as traps, banding and orchard sanitation still merit special consideration. They help keep the population down to a level which can be controlled by spray treatments and natural enemies, and do this without injuring the trees or building up excessive poison residues on the fruit. The most important of these in Wisconsin are probably prompt collection and disposal of culls and tight screening of packing sheds. Scraping of trees and the application of treated bands

seems warranted under some conditions when infestations are extremely heavy. Light and bait traps continue to show promise and improvements are still being made in this field.

Lead Substitutes

Substitutes for arsenate of lead continue to receive a great deal of attention. Some of them show considerable promise and are now playing important roles in the later codling moth treatments in various regions. For the present, however, arsenate of lead is still the preferred material for first brood control in Wisconsin. Two materials which probably have a place in second brood sprays applied after August first are the recently developed "safe" calcium arsenates and the fixed nicotine compounds. Further investigation is needed before they can be recommended for general use in Wisconsin.

Spreaders

The use of sticking and spreading agents with arsenate of lead to improve the coverage and increase the protection has been encouraged in recent years. Dried skim milk, lignin pitch (Goulac) and soybean flour have been among the materials used for this purpose. They add little to the cost of the spray and often materially increase the efficiency.

An Arkansas investigator has critically studied the effects of temperature upon egg laying by the codling moth. His results show a marked influence of weather conditions upon the amount and duration of oviposition. Therefore, weather conditions of any given year alter the details of a satisfactory control program.

Some new ideas for better timing of codling moth sprays were discussed. These will be tested under Wisconsin conditions this year and reported later if they are found satisfactory.

3-GALACTOSIDYLCYANIDIN PUTS RED IN APPLE SKIN

IF AN apple has 3-galactosidylcyanidin it blushes. If it merely has 3-galactosidylquercetin it is usually yellow. Chemical tests by United States Department of Agriculture workers indicate that 3-galactosidylquercetin is present in yellow apples such as Grimes Golden variety, but this particular substance is not identical with or responsible for the yellow color that we see. In red varieties the unseen coloring matter is acted upon chemically and changed to red idaein, which is a simpler name for 3-galactosidylcyanidin. They have not yet identified the conditions that cause this change from yellow to red.

Color in apples is important to growers and to consumers. For the grower there is the practical advantage that well-colored apples are not nearly so subject to injury by storage scald as are apples in which the color is imperfectly developed. Buyers have a decided preference for well-colored apples, whether they are yellow or red, and are willing to pay higher prices for them. There is good reason behind the preference. For the consumer, good color is a practical and easy guide to selection of good ripe fruit.

The chemical changes that are essential to the formation of good color are the changes that are also required to bring fruit to maturity and to develop flavor, aroma, and palatability. This research does not compare the merits of yellow apples and red apples. It does bear out the popular idea that to be good, red varieties ought to be red and yellow varieties yellow.

From Better Crops with Plant Food.

Ozaukee County Fruit Growers will meet in the Rivoli Theatre Friday, Feb. 11, at 1:30 p. m.

FERTILIZERS FOR ORCHARDS

THAT each grower must study his own orchard soils and their fertilizer requirements is further emphasized in a paper by Prof. M. A. Blake, Chief of the New Jersey Department of Horticulture. Experiments at this station have proven that apple trees require complete fertilizers on most New Jersey orchard soils, which are notably low in fertility. In a paper presented before the Society of Horticultural Science, he stated that calcium in the form of lime is needed on New Jersey soil and cited a case where Delicious apples were very small in an orchard where the trees were growing on a soil low in lime. After lime was added and the trees were able to obtain sufficient calcium, the trouble was overcome. It was his opinion that sulphur sprays used over a period of years may create a sour condition in the soil and cause smaller fruits.

Wisconsin orchard soils seem to be benefited most by the application of nitrogen fertilizers, and on our more fertile soils at least, the application of lime, phosphorous and potash has not given any benefit. There may, however, be orchards in the state on the poorer soils which are deficient in lime and which may be benefited by the application of complete fertilizers as well as lime. It has been frequently noticed on the poorer soils that cover crops do not grow well and do not provide the mulch which is of so much benefit in providing a protective covering for the soil and preventing drying by wind and sun.

Anyone interested in the work in New Jersey should write to the New Jersey Experiment Station, New Brunswick, New Jersey, for Bulletin 626 entitled "Nutrition of Apple Trees."

Apple "Measles" Possibly A Boron-Deficiency Disease

H. W. Anderson, Department of Horticulture, Illinois

A RECENT article by H. C. Young and H. F. Winter, of the Ohio Agricultural Experiment Station (Bi-Monthly Bulletin September-October, 1937) reports a series of experiments in which Delicious apple trees were grown in a "complete" nutrient solution in quartz sand as contrasted to the same nutrient solution to which small quantities of boron, manganese and zinc were added.

A few typical "pimples" were observed on all the trees when growth started in the spring following the first year (1936). Those in the nutrient solution without boron continued to develop more pimples as the 1937 season advanced and were dwarfed as in typical measles trees. Those which received 1 or 2 parts per million of boron made a normal, healthy growth, and not only did no new pimples appear, but the old ones cleared up so that the bark took on a normal, smooth appearance. Those treated with manganese and zinc showed no improvement over those grown in the pure nutrient solution.

Results with orchard trees having measles have not yet been obtained, but it should be of interest to growers that there is a good chance of solving the cause of this mysterious disease and of obtaining control by a simple and inexpensive treatment. It is probable that older trees, which are decidedly dwarfed from measles, will not show immediate improvement, but two or three-year-old trees should give some response within a year or so, if the boron treatment is effective. For this reason, if growers wish to try out this treatment, it would be well to use younger trees, if possible. Dr. Young suggests that it would be best to try about one-eighth of a pound of borax per year of tree growth. One-fourth or one-half pound per year of tree growth might be tried on a few trees but **excessive amounts will cause injury.** A spring application would probably give the best results. Since it has been in excess will cause injury, it is advisable for growers to make only one application to a few trees until more definite information is available. For treating a few trees, borax or boric acid may be purchased from local stores.—Illinois Horticulture.

No Humus or Erosion Problem In This Orchard

LAST year at the Ohio Experiment Station a yield of 1575 pounds of air-dried hay was secured where no fertilizer had been applied between the trees, *but* where 200 pounds of 'Aero' Cyanamid per acre had been broadcast, the yield was 4000 pounds.

400 pounds of Cyanamid per acre brought the yield of dried hay up to 5000 pounds.

Broadcast Granular 'Aero' Cyanamid In Your Orchard

Then Watch The Cover Crop Grow!!

Write for Leaflet F-142

CYANAMID PRODUCTS

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

New Apple Varieties For Wisconsin

AT several of our county fruit growers association meetings held during January, this question came up: "If an orchardist has all of the Wealthy, McIntosh, Snow, and Delicious apples in his orchard that he cares to plant, what other varieties would he select for planting?"

In the discussion which developed on this question, the concensus of opinion of the growers seemed to be that they would plant some of the newer varieties which have been tested by members of the Wisconsin Horticultural Society in different parts of the state.

The following varieties are mentioned by the Plant Testing Committee.

Cortland Popular

Several of our leading orchardists are planting Cortland as a variety coming later than McIntosh. Said Mr. Earl Johnson of the Martin Orchard Company, Sturgeon Bay, "We planted 500 Cortland trees last year and will plant some more. I think it is an excellent apple for our county." It has now fruited in so many orchards that it is past the "testing" stage.

A cross between McIntosh and Ben Davis by the New York Experiment Station, Cortland matures about 10 days after McIntosh, is of good red color and flavor, and hangs to the tree very well. It is both an eating and a cooking apple. The tree characteristics seem to be very good according to all reports.

While Cortland may not be the ideal apple we are looking for, it seems to be taking the place of most of the older late varieties in popularity.

Melba Best Early Variety

For those who wish to grow an early apple maturing with Yellow Transparent, Melba seems to be the most popular. It is a McIntosh cross from Canada and has the McIntosh color and flavor. The tree is annual in bearing and quite hardy. It promises to replace all of the early varieties in Wisconsin. Early apples of course do not keep well and commercial orchardists do not plant many.

Beacon

Beacon is the new all-red apple from Minnesota which the Minnesota Station claims may replace Duchess. It is of the same season as Duchess but keeps much longer. It has a beautiful red color, produces well, and is good in quality. On the market, because of its attractive appearance it will outsell Duchess and other varieties of this season.

Kendall

There is considerable interest in the Kendall, a McIntosh cross originated by the New York Experiment Station. It matures two weeks later than McIntosh or about two or three days later than Cortland. It is a beautiful red color, somewhat similar to McIntosh and is of excellent flavor, many considering it equal to McIntosh. It is annual bearing and as hardy as McIntosh.

Trees of Kendall have been planted in Wisconsin for several years and the reports are that they grow very well indeed. None have borne fruit as yet so we do not know what the fruit will be like in this state. However, apples obtained from New York make this variety look promising. It is recommended for wide trial in small lots but is not recommended for extensive planting until more is known about it.

Secor

Secor has fruited in several orchards in the state during the past year and reports are very favorable. It is a cross between Jonathan and Salome by the Iowa experiment station. A red apple, of very good quality and tree characteristics, it does not have the Jonathan spot so troublesome to Jonathan. It may be late in maturing for all but the southern half of the state.

Orleans

Trees of Orleans have fruited in Wisconsin for the past year or two and while the fruit is very much like Delicious in shape, color and quality, we do not yet know if the tree will be hardier than Delicious. This, of course, will not be known until the trees are more than twelve years old as Delicious trees suffer their greatest mortality between 12 and 20 years of age.

Orleans is a cross of Delicious by the New York Experiment Station originated in the hope that it will grow to a larger size and have a better color in a season such as ours. Delicious is strictly a southern apple.

Haralson

Haralson is a very hardy variety from Minnesota, early in bearing, red in color, but of "cooking quality." It is recommended for northern Wisconsin because of its hardiness. Because the fruit is red it may replace such varieties as Northwestern Greening. In southern Wisconsin, better varieties such as Cortland, McIntosh, and others can be grown so Haralson cannot be recommended.

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The Cherry Situation

Murray H. Bingham, Sturgeon Bay

THE cherry industry of Door County is now in its 43rd year. Hatch and Bingham sold the first few cases of fresh cherries in 1895.

A lot has happened in these 43 years. The earliest orchards were of small acreage, cultural methods were of a type now outmoded. No drought conditions existed such as we've been having, and the trees were young and vigorous.

The Road to Fortune

Some of these orchards made phenomenal returns and it appeared to many that the road to fortune was an avenue lined with cherry trees. About 1910 or thereabouts a boom started up that resulted in greatly increased acreage and in individual plantings of large size. Outsiders and people primarily interested in other businesses invested in cherry orchards and I suppose, simultaneously with the expansion in Door County, similar increases in sour cherry plantings occurred in other regions, so that the picture soon began to change. However, good times held out in Door County for a year or so after the depression hit the rest of the country. Since then, in the last five or six years, cherry growers have suffered some pretty hard jolts.

Serious Setbacks

From a fair price one year, cherries dropped to one and two cents per pound the next year and stayed there for three or four fairly normal crop years. This is just about harvesting cost. During the past five or six years there have been drought periods that have taken a toll in tree growth and vigor, although crops did not suffer so much directly in any one year. In 1935 a bumper crop went onto a glutted market at a far from munificent figure. In 1936 there was a total crop failure due to bud injury by record cold of preceding winter. In 1937 a windstorm destroyed some of the Richmond crop which had not yet been harvested and took a 50% toll of the almost untouched Montmorency crop. All this, I think, constitutes what could be called a serious set-back.

When cherries sell for $1 per case—that's just about what the growers received in the early days. With all our machinery and modern methods, I doubt if we grow fruit at any less cost than was done then, so that we've been faced with the necessity of reducing cost of operations, and the question of how, though reducing cost to a minimum, to maintain the orchards in good vigor.

Possibly the owner of a small orchard, usually operated by himself, would seem to be in a better position to meet these problems than the operators of the large plantings who face the difficulty of financing large scale operations on greatly reduced returns. For one thing, the small grower has succeeded to a greater extent in maintaining, at reduced cost, the vigor and productivity of his cherry orchard.

Replacements

About the time of the depression quite extensive new plantings had just been made, the greater part of them in the northern end of Door County. This acreage has, on the whole, been taken care of well and is now in bearing. There has been, in these recent years, quite some neglect in the matter of replacement of trees in the older orchards. One of the first reductions to be made in a yearly budget is the elimination of the cost of replacement planting, which is, of course, a saving in any one year but not an economical long term practice. It has now been done over a period of years. This, and the new planting just mentioned, seem to have about balanced, so that the bearing acreage at the present time is estimated to be about the same as at the time of the new planting. This observation appears to apply to the whole country, according to a short article quoting the United States Bureau of Agricultural Economics in the January Wisconsin Horticulture which I received today.

I would think, however, that the non-bearing acreage in Door County is much decreased, so that one might expect at least some decrease in total acreage in the next few years unless old orchards are rigorously maintained by replacement or some new planting occurs. The curtailment of planting has not as yet produced any appreciable effect on bearing acreage nor on the size of the potential cherry crop in Door County. There has been surprisingly little abandonment of orchards here and while there are many old orchards that are going down fast I would not expect many to be abandoned in the near future.

Orchard Management

Operation of any orchard consists of pruning, fertilization, cultivation, spraying, and harvesting. The performance of these has varied considerably in recent years from that of the more prosperous years before. Not much saving can be effected in the cost of any well organized

(Continued on page 153)

In The Orchard

THE HUMUS PROBLEM

A CIRCULAR entitled "The Humus Problem Solved" has been issued by the American Cyanamid Company, 30 Rockefeller Plaza, New York City. It may be obtained free and will be of value to those who grow cash crops. The following is a summary of the information in the bulletin:

Humus decomposes rapidly under cultivation, so some plan for its constant and regular replenishment must be adopted.

In cash-crop farming, the supply of barnyard manure is not sufficient to maintain the humus content of the soil.

Green-manure crops and the waste parts of cash crops are the only possible alternatives.

Because of their low cost, the fullest use should be made of crop wastes, and the quick-growing green-manure crops such as rye.

Use of non-legume green-manure crops and crop wastes, alone, often results in depression of yields of immediately following crops.

Granular A E R O Cyanamid plowed down with non-legume green-manure crops and crop wastes overcomes their tendency to depress yields, and makes them as valuable sources of humus as the clovers or well-rotted manure.

NEW MONEY-MAKING FRUITS

BEACON—New all-red Early Apple! Brings $2.00 bushel when Duchess brings 75c.
MINN. No. 1007—Apple—New! Highest quality, long keeper.
MINN. No. 790—Apple—New! Destined to take the Rome Beauty Market.

Fee Catalog—Big Discounts for Early Orders

ANDREWS NURSERY
Faribault, Minn.

WASHINGTON ADVERTISES APPLES

NEW information concerning health properties of Washington apple varieties which establishes this fruit as a necessary ally in fighting off winter colds, "intestinal flu," and diarrhoea will from the theme of Washington apple advertising in an extensive drive through newspapers, magazines and radio programs to be launched in January, according to schedules reported approved by the Washington State Apple Commission.

Newspaper advertising in approximately 30 cities will exploit the new nutritional and health knowledge on Washington apple varieties developed by Dr. Ira A. Manville of the University of Oregon Medical School.

From January issue of Better Fruit.

ORCHARD DESTROYED BY GRAZING

A BULLETIN has just been issued by the Vermont Experiment Station, Burlington, Vermont, entitled "The Grazing of Maple Sugar Orchards." A summary of the bulletin states as follows:

"Examination of typical orchards indicated that in a very high percentage of them, maple reproduction has been destroyed by grazing, and that as the present maples mature and are harvested, there will be none on the same site to take their place."

Friend: "You'll soon forget her and be happy again."

Jilted Suitor: "Oh, no, I shan't! I've bought too much for her on the installment plan!"

NEW INSECTICIDES FOR CODLING MOTH CONTROL

A PROMISING new insecticide, phenothiazine, has been tested for codling month control and has been found very promising. It has been prominently mentioned in national magazines. In the Annual Report of the Chief of the Bureau of Entomology and Plant Quarantine, we find this item:

"In the Pacific Northwest phenothiazine has continued to give outstanding control of the codling moth, but the difficulties formerly pointed out have not yet been overcome. The chief disadvantages is the serious skin irritation suffered by some of the men doing the spraying, and by the men who later work in the trees thinning or harvesting. A minor disadvantage is a more or less unfavorable effect on the coloring of the fruit. In the East and Middle West the results with this material are still irregular but have offered sufficient encouragement to justify further work.

Nicotine Combinations

Certain nicotine combinations, particularly nicotine - bentonite, have continued to give encouraging results in field and laboratory. If found practical, this material will be especially useful on early varieties such as the Yellow Transparent, which does not lend itself very readily to the washing process for residue removal. The high cost of nicotine-bentonite is, in part at least, offset by additional benefits in the control of other insects and by the more favorable effect on the tree than results from the use of lead arsenate.

SUCCESSFUL WAYS OF SELLING CHERRIES

MR. Bradley DeWitt, of East Troy, has an orchard of 3,500 cherry trees. During the past three years, he has marketed them very profitably by advertising for folks to come to the orchard and pick their own cherries.

He reports that last year 12,000 people from ten different states came to the orchard and picked the crop, paying him a very profitable price.

Mr. DeWitt states that he advertises in the classified columns of some of the state's leading newspapers, which brings these results, and furthermore that customers come back each year. City families appreciate the novelty of going out to an orchard and picking their own fruit.

This plan has been tried by raspberry growers quite successfully. Of course, it works best in a section where there are not many commercial orchards.

THORNLESS BRAMBLES MAY BE POOR PRODUCERS

SEVERAL of the thornless brambles recently introduced are poor producers, due in part to sterility of their blossoms, according to Dr. A. S. Colby of the Illinois Horticulture Department.

These brambles, notably the thornless Youngberry and Nectarberry, have received poor reports from several eastern states. Possibly the thick "bark" which prevents formation of spines also prevents the development of fruit buds.

Dr. Colby emphasizes that to grow good bramble crops it is necessary to:

1. Maintain an abundant humus supply.
2. Use up to 300 lbs. nitrate per acre early in spring.
3. Use manure and good mulch.

NEW BULLETIN ON CELERY GROWING

"CELERY Production in Michigan" is the title of a new bulletin just issued by Michigan State College, East Lansing, Michigan.

This is one of the finest bulletins on the subject of celery growing which has yet been published. It contains forty-three pages covering information on all questions regarding growing of celery, such as soil treatment, cultural methods, diseases, insects, and how to control diseases and insects.

SPOTTED WILT OF TOMATO

THE spotted Wilt of Tomato has recently been found to be identical with the streak disease of Sweet Pea in California. It has been found to be transmittable by thrips.

Control measures are control of thrips; grow Sweet Peas isolated from tomatoes or other crops attacked by spotted wilt.

From Oct., 1937, Bulletin of the Michigan State Florists Association.

NEW APPLE VARIETIES FOR WISCONSIN

(Continued from page 150)

Minnesota No. 1007

Last year we recommended for trial a new variety from Minnesota, No. 1007. It is a red apple, of good quality with a nut flavor which is different from any other apple. The tree is very hardy and annual bearing. It is recommended for trial only.

If you are unable to purchase any of the new varieties listed above from your local nurseryman, write the Horticultural Society and we will try to help you obtain them.

STRAWBERRY PLANTS

Strawberry plants for spring planting. Warfields, Dunlaps, Beavers, Premiers, Fairfax, and Dorsett. Prices moderate. Discount on large orders. Mrs. John Jensen, Warrens, Wis.

CIDER MILL WANTED

Wanted—Large cider mill and press. Haas Bros., Route 1, Box 67, South Milwaukee.

THE CHERRY SITUATION

(Continued from page 151)

harvesting operation, so this has gone on about as always. Spraying is probably the one thing which has not been scrimped, or at any rate, scrimped the least. Failure to spray results in early defoliation and death to the trees, so no orchards have been neglected in this respect except those few abandoned.

Saving On Fertilization

Fertilization and cultivation should not be neglected for long in any Door County orchard and they are the two things which have been curtailed the most in the attempt to save—or rather, to reduce cost. The way one saves on fertilizer is simply not to apply it. Of course, it might be a question whether the omission constituted a saving or not, but some years there has been no choice. Cultivation is no small item in operating costs—it can be eliminated too, and here quackgrass quickly establishes itself as the alternative. I doubt if anyone would recommend sod culture for a cherry orchard, particularly with reduced fertilizer applications. And too, along with sod or haphazard cultivation, there has been inadequate rainfall, a bad combination.

Strawberry Varieties

H. H. Harris, Warrens

FOR over fifty years I have set out or helped set a new strawberry "patch."

In 1891 I bought the **Warfield.** It has a pistilate or imperfect blossom and must have some staminate or perfect blossom variety every third or fourth row to fertilize its blossoms. We tried a number of varieties to find one which would yield and more particularly match well with the Warfield in the boxes and crates. We didn't succeed until the beginning of this century when the Dunlap was first introduced. In this way I got interested in trying out new varieties.

We were clearing and breaking a new field each year and after growing a crop of winter wheat followed by potatoes, the land was in ideal condition to plant strawberries.

Premier

I think it was 1910 that I first bought Premier which has nearly always been as productive as any berry I have grown and is of good quality. It does not make as many plants as Warfield or Dunlap and occasionally is rather soft if the weather is muggy or excessively hot, during picking seasons. If moisture is lacking when first the runners start, they are apt to be rather short so we always set them closer together in the row than either Warfield or Dunlap.

If I were selling directly to the consumer I would feel as confident that I could have a supply and a choice that would attract and please the customer as I would any other trio among the nearly 200 named varieties I have tested. Warfield occasionally was cut short if moisture was lacking during the picking season. Care is necessary in not allowing too many plants to set with either Warfield or Dunlap.

Beaver

Most berries at Warrens are now sold through The Warrens' Fruit Growers Association — sometimes as many as 30 car loads a season and a uniform variety sells better than a mixture. Growers are encouraged to all grow the same variety. Since the Beaver was introduced, it has continued to grow in favor as a berry for shipment and now there are more Beavers and Premiers grown around Warrens than any other variety.

Beaver like Dunlap on the more fertile soils are inclined to set plants too close together in the rows. Foliage is as bright and healthy as Premier.

New Varieties

Quite a number of the growers are testing **Dorsett, Fairfax** and **Catskill.** All three grow extra large, strong and healthy plants with bright clean foliage.

We have had Dorsett and Fairfax through four years of pickings and Catskill for three. The Catskill has grown a good crop all three seasons of large, round, handsome berries. I think the quality would compare well with Premier. It is a little hard to pick but as they were so large, the pickers filled their boxes very quickly.

The Dorsett and Fairfax both seem to be tender in the blossom and have borne a light crop each year we have had them. The appearance is excellent, and flavor of the fruit would be called delicious by anyone.

We had a small patch for trial the past year of the following varieties and kept a record to compare yields, which stood in the following order:

1. Catskill
2. Grand Champion
3. Fairfax
4. Dorsett
5. Dunlap
6. Redheart
7. Ambrosia

Grand Champion and Ambrosia were both **altogether too soft for market and the flavor was poor.** Redheart is an uncertain plant maker and yielder but makes the darkest colored, richest and best-flavored jam of any other strawberry. It is a very sweet berry.

STRAWBERRY PLANTS MAY BE STORED OVER WINTER

RESEARCH work carried on at Minnesota has shown that strawberry plants may be stored successfully indoors over winter. The work began in 1930, when 10,000 fall-dug plants were stored. Some were in bunches of twenty-five or fifty, others were laid on the ground of the cellar floor. The roots of some were mudded; others were covered with layers of straw and shingle tow at depths varying from three to twelve inches.

It was found that temperatures above 30 degrees were too high and there was danger of growth.

In the spring it was found that ninety-five per cent of the plants were in good condition, while the outdoor plants treated in the usual manner showed a loss of forty-five per cent due to winter injury.

This work is of value to nurserymen who can store plants and have them available for early spring shipment.

Spring-dug plants, however, may have a better appearance because they have had an extra period of root development in the fall. However, the condition of the crown and roots are the important features.

Junior Rotary Sprinkler Irrigation System Developed

A SMALL rotary sprinkler system of irrigation, intended for economical use on small acreages, has now been devised by F. W. Duffee and H. D. Bruhn of the Agricultural Engineering Department, Wisconsin College of Agriculture.

The portable rotary sprinkler method has certain advantages over other irrigation systems, and consequently has come into rather common use among Wisconsin potato and truck farmers. It can be used on any type of soil, and works on either flat or rolling fields. It brings about a reasonably even distribution of water with little danger of erosion or "puddled" soil at any point.

The greatest disadvantage of these systems has been their rather high cost when used on small acreages. They are economical enough on 50 or 100 acreages, but out of reach for the farmer who wants to irrigate only a small field.

Uses Cheaper Pipe

Studies at this station have indicated the greatest need in making these systems economical is low operating pressure. This makes it possible to use cheaper pipe; a smaller, less expensive pump; and considerably less power. Such a set-up is ideal for small installations.

The new junior system developed by Duffee and Bruhn uses 15 to 20 lbs. pressure, which is about half the usual amount. This low pressure can be maintained with a centrifugal pump operated by small electric motors, usually less than two horsepower.

Naturally the sprinklers will not distribute water over as wide an area at a time under the lower pressure. The sprinklers must be placed 20 feet apart on the pipe instead of the usual 40. The line may be 200 feet long or slightly more. It waters a strip 45 to 50 feet wide at one time, consequently it may be moved 40 feet and still make a good lap. Each nozzle discharges about 4 1/3 gallons per minute.

This system will put an inch of water on six acres per week, assuming that it is operated 12½ hours a day for six days. It works out like this:

Moved By One Man

A 200-foot line waters about one-fifth acre at a time. It will apply an inch of "rain" in two hours. One man can move it in less than half an hour. Since it takes 2½ hours to water one-fifth acre, one acre a day can be watered in five "runs" requiring 12½ hours.

That one man can move a 200-foot line in half an hour is accounted for by the fact that quick-detachable couplings are used to permit taking it apart without tools, just as is done with the larger systems. One manufacturer is now producing quick couplings and light weight 2-inch tubing, which should serve the purpose well and inexpensively where the junior system is used.

Use of irrigation is a matter worth considering for farmers who grow crops that are capable of yielding a high return, notably truck and small fruit crops as well as potatoes. Naturally irrigation increases the cost of growing a crop on the acre basis, but experience has shown that often it increases the yield enough to cut the cost per bushel or other unit by which the crop is sold, and improves the quality as well.

Potato growers make a heavy investment in seed, fertilizer, spraying materials, and labor, and yet in spite of all their expenditures they often get a poor crop because of drought. It is a serious question whether many of them could not grow larger, better quality crops on half the acreage of irrigated potato land, without increasing their production expenses.

From "What's New in Farm Science."

Note: A list of firms selling parts and pumps for this sprayer may be obtained from the Wis. Horticultural Society.

Horticultural News

A. F. Yeager

THE Agate variety of soy bean introduced as one satisfactory for table use seems to have possibilities in the northern part of this state. According to the Agricultural Chemist at the College, the percentage of oil in this soy bean ranks up fairly well with other varieties; hence, it might be useful as an oil crop as well as for a table variety.

* * *

A correspondent asks whether, if the fruit of raspberries is pollinated by loganberries, the plants coming as suckers around the cross-pollinated plant will be affected by the crossing. The answer is no. The only way to get the effect of such a cross would be to plant the crossed seed. In connection with this same misunderstanding as to the possibility of crossing, a recent caller in the office stated that he had a variety of potatoes which resulted from planting Triumph and Cobbler near each other. The new variety of potatoes was supposed to have crossed in the ground and no real true seed was planted. Of course such a thing as this is an impossibility. The only way to get a potato cross of this kind is by pollination of the blooms and planting of the seeds from the seed ball thus produced.

* * *

We are in receipt of a reprint from Scientific Agriculture of an article entitled, "Early Spring Budding by the Plate Method" by W. L. Kerr of Morden, Manitoba. This article shows very clearly this method of budding which may be done almost any time during the summer even though the bark does not slip. Perhaps those who are especially interested might be able to get a copy from Mr. Kerr if you were to send him a dime for the cost of the reprint.

A correspondent mentions that her tomato plants, where the branches were covered this last year, took root. It would be very possible to propagate tomatoes by soft wood cuttings the same as house plants if one cared to do so. In fact, the tomato, as it grows in the tropics, is not an annual plant, but a perennial.

From North and South Dakota Horticulture.

Editor's Note: Prof. A. F. Yeager has accepted a position with Michigan State College, East Lansing, Michigan. His work there will be with vegetables. He left North Dakota State College and assumed his work at Michigan on January 1. We wish Professor Yeager the greatest success in his new field.

"KITCHENETTE SAUERKRAUT" PRESERVES VITAMIN C

From What's New in Farm Science

RAW cabbage ranks with orange and lemon juice as a source of vitamin C. When cabbage is cooked or made into sauerkraut, it loses some of its vitamin C potency. Nevertheless sauerkraut, along with tomato juice, is one of our best "home made" sources of this factor in the winter time.

In recent years the so-called "kitchenette" sauerkraut has come into vogue. This type is convenient for small families or where there is little storage space, since it is made in fruit jars.

The coming of the new method has raised the question of how effective it is in conserving vitamin C. Consequently an effort has been made to get information on this point by Helen Parsons, Beatrice Fuller, and Ann Noble (Home Economics).

The results show that good kitchenette sauerkraut compares very favorably with commercial brands. In fact, kitchenette kraut packed in two-quart jars and stored for two months proved more potent in vitamin C than any of the commercial brands tested, and that put up in half-pint jars was exceeded by only one of the purchased krauts.

It appears that sauerkraut is at least 1/3 as rich in vitamin C as raw cabbage. What is more, sauerkraut juice is even more potent than the solid portion.

Considerable variation in vitamin C potency has been found between individual jars of kraut put up by the kitchenette method. Discoloration of the kraut at the top of the jar seems to be associated with destruction of the vitamin. Such discoloration, as well as formation of mold, often occurs at the top. An attempt is now being made at this station to learn how the top layer can be prevented from spoiling.

From the Annual Report, Director Wisconsin Experimental Station.

TO PRESERVE LEATHER BOOKBINDING

TO prevent leather bookbindings and other leather goods from cracking and disintegrating, wipe the leather surface lightly with a clean cloth dampened with glycerine. Let it soak in for a few minutes and then wipe off with a dry cloth.

ORCHARD TAXATION

In Ohio, according to a recent law, "trees are not to be valued when land is appraised and assessed for taxation."

Bulletin, Ohio State Horticultural Society, July, 1937.

What's New in Horticulture?

Snow is an excellent insulator where it is possible to keep it on the plots throughout the winter.

The value of mulches for perennials depends upon their influence on temperature, moisture and light conditions.

This report was given at the Horticultural Science Convention.

Other experiments have indicated that the temperature under a heavy mulch of good material never drops very low. In an experiment at Madison the temperature under a heavy covering of marsh hay, with two inches of snow on top of it, never dropped below 28 degrees above zero even though the outside temperature was below zero.

TEMPERATURE AND HUMIDITY REQUIREMENTS FOR THE STORAGE OF DAHLIA ROOTS

EXPERIMENTS by R. C. Allen, of Cornell University, indicate that temperatures of 35 to 50 degrees Fahrenheit and a relative humidity of eighty to eighty-five per cent are most satisfactory for the storage of dahlia roots.

If the roots are coated with paraffin or stored in peat moss with a moisture content of fifty per cent, drying out is greatly reduced.

FACTORS AFFECTING THE GROWTH OF TULIPS AND NARCISSI

EARLY planting by October 15 of tulip and narcissus bulbs is advisable, according to experiments conducted at Cornell University by R. C. Allen. Narcissi are more tolerant of late planting than are tulips.

The most favorable planting depth seems to be to have the upper tip of the bulb four inches below the surface of the soil.

Narcissus bulbs should not be dug before July 15 in this latitude for best results. The size and quality of earlier dug bulbs was inferior to those dug at later dates.

The addition of a 5-10-5 fertilizer gave the greatest increase of bulbs. Gardeners, however, who wish to leave their bulbs in the same location year after year, should not add fertilizer because its use would increase the splitting up of the bulbs.

A SUBSTITUTE FOR LIQUID MANURE

Question: I note in many books and magazine articles that liquid manure is recommended for house plants and many other plants. Being a city dweller, it is extremely difficult for me to obtain this material. Is there something else which I may use that would be just as efficient?

Answer: This is an example of the fact that the authors of garden articles are not always up-to-date. In our grandparents' day, liquid manure was the thing to use. Today there is absolutely no excuse for going to the bother and the mess of making it. The modern equivalent is much easier to make, less objectionable to use and almost identical in chemical composition. It is one ounce of ammonium sulphate dissolved in two gallons of water.

From Jan. 15, 1938, Horticulture.

GROWTH-PROMOTING SUBSTANCES

GROWTH-PROMOTING substances or chemicals to make plants root quicker are now on the market and there is considerable interest in them. Florists and nurserymen are beginning to use them. However, the work is still in the experimental stage. Growth-promoting substances will not take the place of a good propagator. They do, however, make plants root quicker and make a larger root system They will not stop dampening-off.

The small grower will do best to purchase and use one of the commercial preparations on the market, but the larger propagater may save money by purchasing the crystals, such as indolebutyric acid and make up his own solution, which is used at the rate of ½ to 1 milligrams per 100 centimeters of water for 24 hours for the majority of soft-wood cuttings.

Directions for the use of growth-promoting substances on sale, such as hermodin, are furnished by the manufacturer.

YOUR NECK

Dear Mr. Palmolive:

I bought a tube of your shaving cream. It says no mug required. What shall I shave?

Yours truly,
Oscar Zilch.
—Analyst.

Plow, Harrow, Disc, Seed, Cultivate, Spray, Mow. Sizes up to 4HP. BOLENS Power Hoe @ $88.50 for Gardening, Cultivating and Lawn Mowing. Easy operation. Many patented features. It's fun to run a **BOLENS.** Write **Gilson-BOLENS Co. 2821 Part St., Port Washington, Wis.**

Try These New Ornamentals

Plant Testing Committee Recommendations

HARDY APRICOTS

THESE apricots were introduced by Prof. N. E. Hansen, of the South Dakota Experiment Station. They are very hardy, withstanding temperatures as low as 50 below zero in their native country. Planting a large number from seeds, Professor Hansen selected the best-quality varieties, which he has propagated and is offering for sale. Trees may be obtained from the Horticultural Department, South Dakota College of Agriculture, Brookings, South Dakota. Price, $1 each. Send for a list of varieties and description.

THORNLESS HONEYLOCUST

Gleditsia triancanthos inermis

THE Thornless Honeylocust is like the Honeylocust except it has no thorns making it a more desirable tree for lawn planting. It is fast growing and often gets to be seventy-five feet in height. Its leaves are light, airy, and refined. The tree will grow in many kinds of soil and is little bothered by insects and disease. The Thornless Honeylocust should be used and is being used more and more in place of American Elm because of the many insect pests and diseases which trouble the elm.

SARGENT CRAB

Malus sargenti

A SMALL tree or shrub to six or seven feet in height. It was discovered by Professor Sargent growing on the salt marshes near Muroran in northern Japan. The plant has rigid spreading branches, the lower ones being flat on the ground. The saucer-shaped flowers are of purest white and are borne in umbel-like clusters. The fruit which is wine-colored and covered with a slight bloom stays on the plant until spring unless eaten by the birds.

ORNAMENTALS FOR TESTING IN 1938

Recommended by the Plant Testing Committee

TREES

Hardy Apricots (Hansen's)
Thornless Honeylocust, Gleditsia triacanthos inermis
Sargent Crab, Malus sargenti

SHRUBS

Truehedge columberry, Berberis thunbergi pluriflora erecta
Mint shrub, Elsholtzia stauntoni
Dwarf winged burning bush, Euonymus alatus compacta
American highbush cranberry, Viburnum americanum

VINES

Monkshood vine, Ampelopsis aconitifolia
Hydrangea petiolaris (climbing)

ROSES

Springtime (Apple blossom)
Symphony (Pink Druski)

PERENNIALS

Hardy Asters: Alderman Volkes; Charles Wilson; Skylands Queen; Frikarti
Hardy Chrysanthemums: Emmet (bronze Amelia); Nacola — yellow; Panola — pink; Rozika—deep rose.
Cimicifuga racemosa
Gaillardia Burgundy
Helenium, Crimson Beauty—(crimson red); Moerheim—(crimson)
Iris dichotoma
Eupatorium coelestinum—Mistflower
Strawberry Baron Solemacher
Lilium formosanum

AMERICAN CRANBERRYBUSH

Viburnum americanum

THE American Cranberrybush or American Highbush Cranberry is bound to come into greater prominence than it is at the present time. As an ornamental shrub, it stands at the top of the ladder. In the spring it is covered with showy white cymes of flowers; then in the fall and long into the winter the shrub makes itself known by its scarlet, translucent fruit. The beauty of the fruit is shown to best advantage if the shrub is so planted that the sun is allowed to shine through it, thus giving the translucent properties a chance to act. Besides being beautiful, the fruit of the American Cranberrybush is edible. It makes very excellent jelly alone or with other less tart fruits such as apples or peaches. It also makes a very good addition in preserves. In time it will be one of our popular small fruits, and instead of being grown down in the back lot or garden it can be grown right up around the house.

The shrub is tall, growing to twelve feet so it will have to be used as accent at the corners of the house or at the back of the shrub border. It is very cosmopolitan, growing in all types of soils and will do well in either sun or in partial shade.

When ordering Highbush Cranberry be sure you get Viburnum americanum, instead of Viburnum opulus which is the European variety. The fruit of the latter is not edible, having a bitter quinine taste, and the leaves of opulus are very subject to attacks by plant lice.

DWARF WINGED EUONYMUS

Euonymus alatus compacta

THE Dwarf Winged Euonymus is a very excellent compact form of the popular Winged Euonymus. It has the good qual-

ities, the excellent green foliage in summer, the bright scarlet fall color, and the attractive corky winged twigs which show to such good advantage during the winter. The dwarf Winged Euonymus is a smaller growing shrub, however, growing to but six feet in height. This plant should be particularly valuable for foundation plantings.

COHOSH BUGBANE
Cimicifuga racemosa

A HANDSOME refined perennial sending up spikes of pure white flowers four to six feet tall in July and August. It makes a good plant for the back of the border and brings interest at a time of the year when good perennial flowers are scarce. Does best in semi-shade. Has been one of the most striking plants in the Horticultural garden at the University for the past two years.

TRUEHEDGE COLUMNBERRY
Berberis thunbergi pluriflora erecta

A MOST remarkable new Barberry worthy of place among the better low edgings. Being pyramidal in shape "immediate effect" hedges become a reality with its use. In growth it is close and compact and its early-leafing, box-like foliage is large, thick and glossy rich green. Foliage changes to brilliant autumn tints; plants fruit abundantly; hardy; immune to rust. The Morton Arboretum reports it may be clipped as low as 10 inches with perfect results, although it is normally taller.

ELSHOLTZIA FARQUHARI

THE Mint Shrub is an especially appropriate shrub for the large herbaceous border in the garden or for planting in front of taller growing shrubs. It is somewhat shrubby in growth and offers a splendid mass of pinkish-lavender bloom from early September until hard frost. The rather long, sharply toothed leaves are aromatic; the flowers appear in spikes from 4 to 6 inches long; the plant growing 2 to 3 feet tall. Sunshine is wanted for good flowering; protect plants a little for winter by a light mulch.

AMPELOPSIS ACONITIFOLIA

THE Monkshood Vine or Cutleaf Vitis is a medium growing vine that is adaptable to many uses where heavier growth is not desirable. The stems are woody, growing to about 20 feet; climbing by tendrils with discs at the tips to hold fast to supporting surface areas. The leaves are five-parted, each lobe of which is also divided so that a very attractive leaf pattern results; some of the leaves appearing finely cut in shape. The fruits are yellow turning to blue. The planting area should be prepared and enriched.

HYDRANGEA PETIOLARIS

SELDOM met with in cultivation among vines which will cling to stone are the Climbing Hydrangeas. The older heavy canes are quite woody in growth; the leaves are almost smooth, broadly ovate, heart-shaped to elliptical, dark green in color. The white flowers are borne in nearly circular clusters and appear in July. This variety is the most prolific of the specie and its flowers the showiest. Plants are somewhat slow growing when young but rapid after they once get a good start, growing to 40 feet and covering much space. The plants will grow best on north or east sides of a building where they do not get too much sun in early spring. The planting area should be properly prepared and enriched.

ROSE SPRINGTIME

THE Appleblossom Rose introduced in 1935 by Howard and Smith. If ever there was a rose that deserved the name "Springtime" this charming variety is certainly it. A hybrid polyantha rose with the exquisite pink shade of appleblossoms and in true fashion the color is lighter in the center. The well-branched bushes with rich green leaves are covered with elegant sprays of semi-double cup-shaped pink blooms with rich golden yellow stamens. The simplicity of the blooms give them exceptional value as cut flowers and they lend themselves to arrangements of the highest artistic merit.

ROSE SYMPHONY

A MARVELOUS everblooming Hybrid-perpetual rose introduced in 1934 by Weigand. A "Pink Frau Karl Druschki" with handsome blooms of large size. The blush-pink buds open to pale rose blooms with deep pink centers. Beautifully formed, symmetrical flowers carried on stout, straight stems. The plant is of good form; healthy foliage of excellent color, substance and growth.

Other varieties on the list will be described in the March issue.

We urge our members to try some of these varieties.

A party of tourists came upon an Indian brave riding a pony. A heavily burdened squaw walked beside him.

"Why doesn't the squaw ride?" asked the tourist.

"Ugh," said the Indian, "she's got no pony."

EDITORIALS

CONSTITUTIONALITY OF OUR STATE APPROPRIATION TO BE TESTED

MOST of our members have no doubt read in the press that the Supreme Court declared unconstitutional the Wisconsin Development Authority, holding that undue powers were given to a corporation—such powers being vested in the duly elected officers of the people.

Following this decision, the Secretary of State questioned the constitutionality of appropriations to sixteen other groups, including the Wisconsin Horticultural Society, as well as appropriations to county fairs.

As we go to press, plans are under way to test the constitutionality of these appropriations before the courts. The outcome is uncertain.

One editor ventured the opinion that inasmuch as several men who sat in on the framing of the constitution were members of the legislature some eighty years ago when the Wisconsin Historical Society was created and given an appropriation, that it would be strange if now, after eighty years, the act would be unconstitutional.

The value of the organizations receiving state aid to the development of the state is not questioned. The outcome will not be known for some months. In the meantime, because we were given our appropriation at the beginning of the fiscal year, July 1, we will be able to continue as usual until next July, at least.

CARPATHIAN ENGLISH WALNUT SEEDS AVAILABLE

OUR first shipment of 150 lbs. of Crath Carpathian English walnuts from the Carpathian Mountains of the Ukraine, has arrived. Another shipment is expected later.

These seeds were imported under the direction of Rev. P. C. Crath, of Toronto, Canada, and are from trees on the higher elevations of the Carpathian Mountains where the temperature has been as low as 40° below zero F. during the winter months.

This is the third year that the Wisconsin Horticultural Society has sent out these walnut seeds for trial in Wisconsin and other northern states. Approximately 3,000 persons are now cooperating in the work. So far, we have had no complaints or information to the effect that the project is anything but desirable so we are continuing the trial. Almost every day letters and cards come in from cooperators stating that the seedlings are growing well. Some report as high as 90% germination, others, only 60%. Now and then one writes in and states that none of the seeds grew, which is difficult to understand.

Members of the Wisconsin Horticultural Society may purchase these seeds at the following prices:

10 walnut seeds—at least 3 different varieties _____$1.00
1 lb. of seeds—assorted varieties _____ 4.00

Prices are postpaid and delivery is made just before the planting season in the spring. Last spring, almost 200 orders had to be returned because our supply was sold out as early as March.

Few Trees Available

We have a few two-year old trees left over, which will be sold only to members of the Wisconsin Horticultural Society at the price of $1 per tree postpaid. Only two trees per member. The supply of trees is very limited this year.

FRUIT GROWERS MEETINGS

THE members of the Waukesha Fruit Growers Association met in Waukesha January 14, and the Milwaukee County Fruit Growers Association members met in the Greenfield Town Hall on January 21. Interesting and practical topics were discussed.

All officers of the two organizations were re-elected for the coming year. The names of all officers of all organizations will be published in the March and April issues.

The Ozaukee County Fruit Growers Association will meet in Cedarburg February 11.

KENDALL SCIONS AVAILABLE FREE

SCIONS of the Kendall apple will be sent free of charge to members of the Wisconsin Horticultural Society this coming spring on request.

Kendall is a McIntosh cross by the New York Experimental Station and is considered one of the very promising new varieties now on trial in this state. It matures about two weeks later than McIntosh and about four or five days later than Cortland. The tree is annual bearing, quite as hardy as McIntosh, and the fruit is red in color, of medium size, and has much the appearance of McIntosh. The quality is very good. Many consider it equal to McIntosh. Inasmuch as Wisconsin growers want an apple coming later than McIntosh, Cortland and Kendall seem to be the most promising at the present time.

The Plant Testing Committee of the Wisconsin Horticultural Society is anxious to see as early as possible what the fruit will do in Wisconsin and suggests grafting scions on older trees in order to have fruit available within a few years.

The supply of scions is limited. Send in your order early. Only from 5 to 10 scions can be sent to one person.

AN EXCELLENT NEW BULLETIN: WHAT'S NEW IN FARM SCIENCE

EACH year the director of the Wisconsin Agricultural Experiment Station presents his annual report. During the past few years it has been presented in the form of a bulletin entitled "What's New in Farm Science." This year the bulletin is published in two parts. Part I is now available and should be in the hands of every one of our members because of its excellent discussion of the findings in nutrition, feeding and clothing the family, farm income and welfare, engineering, game management, and animal diseases.

Part II will be ready in the near future and will contain the new findings in horticulture, insects, pests, diseases, and soil. Send in your name to the Wisconsin College of Agriculture, Madison, Wisconsin, and ask for these two bulletins. Several articles taken from Part I are published in this issue.

HOW TO ORGANIZE A GARDEN CLUB

A NEW bulletin, "How to Organize a Garden Club—Programs, Garden Books, Constitution, and By-Laws" has been mimeographed and is available from the Wisconsin Horticultural Society, 1532 University Ave nue, Madison. The bulletin gives suggestions for the organization of garden clubs of two different types: the city wide, or open-membership, and the community or limited-membership types of clubs. The bulletin will be sent free on request.

PILGRIMAGE TO HOLLAND FOR GARDEN LOVERS

THE Horticultural Society of New York is again sponsoring a trip to Holland in April, 1938.

"We are eager to share our good fortune with other garden lovers," writes Mr. Leonard Barron, Chairman of the Pilgrimage Committee. "We are very happy to invite your members to join our group on this pilgrimage."

The party will sail from New York on April 26 on the luxurious SS Statendam. A brief visit to Brussels will be followed by a week in Paris and another in London. Full details are described in the booklet mailed on request. Address The Horticultural Society of New York, 598 Madison Avenue, New York City.

THE PRESIDING OFFICER

MOST everyone has the ambition to be the president or presiding officer of some organization of which he is a member.

What are the duties of the presiding officer?

It would seem that the first duty of anyone who has been elected to preside would be to become informed as to how to do it well. It certainly isn't difficult, and yet, is it always done well?

The best job of presiding we saw during the past year was done by a farmer, a man without any previous experience, yet one who was willing to ask questions and make a study of how it should be done.

What did he do that made his work outstanding? First of all, he knew before he rose to his feet who the next speaker was to be and the title of his subject. He didn't have to adjust his glasses and laboriously read the title of the talk and the name of the speaker. Anyone should be able to memorize that much. He also said a few kind words in regard to the speaker in order to create a more friendly spirit.

Another thing he did, which is seldom done, was to thank the speaker as soon as he was through and mentioned a few of the outstanding points brought out, calling attention to their importance. If the audience was in a rather sober mood, then as soon as the speaker had concluded he stood up and led the applause, which always breaks the tension.

NATCHEZ PILGRIMAGE

THE Pilgrimage Garden Club, of Natchez, Miss., is sponsoring its seventh annual pilgrimage house on March 11-24, 1938. For a circular showing pictures of the houses which will be open at this time, write the Pilgrimage Garden Club, Natchez, Miss., Box 347.

About the Home and Garden

Mrs. C. E. Strong, West Allis

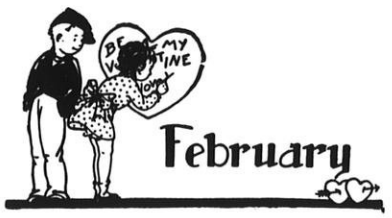
Winter Gardening

AN easy chair—a good light—and a stack of new catalogues; no matter how the wind and snow may blow, the gardener plants a garden over and over again. No trouble at all to pull out plants and rearrange to better advantage, trying first one color, then another. No matter how lovely the border or cutting garden was last year—this year it is to be more nearly perfect.

New Flowers

There are new annuals and perennials to try out—we want some of these of course—we perhaps are more eager than usual because some of the annuals we have been trying out for several seasons, have been unusually worth while. Marigolds for instance. Crown of Gold and Yellow Supreme are to me much more satisfactory—both as a cut flower and as a filler for the border than either the African or Guinea Gold. The flowers are not so stiff—while the foliage is good, without the strong odor. Crown of Gold will have many more flowers during the season, and because of its wide branching habit, makes a splendid filler plant in the perennial border.

The Chrysanthemum-flowered Marigolds coming in light and dark shades of orange and lemon, make good plants for edging, almost as good as the Tagetes we have so long admired. Their foliage is quite sweet scented and these marigolds make dainty table decorations, looking indeed like small Chrysanthemums. Because of their frost-resisting qualities, they keep the border edge gay and neat looking far into the fall.



Iberis

While we are on the subject of edging, am going to answer some questions as to "Why do you speak so highly of the Iberis or perennial Candytuft—and never recommend the annual Candytuft?" Annual Candytuft is indeed a good edging plant, but whenever I have grown it, or seen it grown, hordes of striped bugs descended on the plants and also on the rest of the plants near them. Result—I have given up growing these annuals. The perennial Candytuft seems never to be bothered with insects of any kind—is nearly evergreen—very hardy—and one of the earliest border plants to bloom. It can be propagated easily after blooming, nearly every cutting will root without trouble, making blooming plants for the next Spring.

Those 15-inch Imbricated Pompon Asters and the Dwarf Rock Hybrid Snapdragons are two more attractive near edging annuals. The Snapdragons start in blooming very early and if seed pods are kept cut—will bloom until freezing weather. Both Asters and Snapdragons are good for table decorations.

The new-old Browallias are excellent for edging—because like sweet-Alyssum they can be sheared, watered and given a bit of fertilizer and proceed to give you more and more of their attractive deep blue flowers.

Better Larkspurs

If you have been growing some of the older varieties of annual Larkspurs—try some of these new spire sorts—both for the border and the cutting garden. Do not be satisfied with one crop of blossoms. Keep them blooming by not allowing them to go to seed, and give them water and liquid fertilizer every two or three weeks. White Spire is particularly fine in the border if you need more white flowers. Royalty—a clear rosy lavender growing 4 feet tall (so they say) is the latest addition.

New Petunias

There are many new Petunias in the list of annuals out for trial this year. We should try some of them and give results of the trial to our garden friends.

Dianthus

We always have room for a few new plants in the rock garden and border. So if you are interested in Dianthus, you will no doubt like Dianthus Loveliness, a lavender with a grass green throat and petals deeply laciniated. Dianthus neglectus compacta glauca, or Dianthus Rose Dawn, a pure pink with no markings, blooms May and June. Dianthus Alpestris Knappi, small yellow flowers in clusters, blooms in June and likes a dry sunny spot. Aromatic Dianthus, Furst Bismark, blooms from June until fall, flowers brilliant crimson in close clusters; the scent—aromatic. Sounds differ-

ent, doesn't it; they are usually spicy or sweet.

Hardy Chrysanthemums

Now is the time to plan on having all those Chrysanthemums you were thinking about last fall when you were admiring the blooms. No matter how many varieties you want, just start with the Azaleamum family; two shades of pink, bronze, white, yellow and red. These Mums are really early and free blooming. One small plant will grow and spread to almost an unbelievable size with hundreds of exquisite flowers. Both for pot plants and for beds, they are tops. The red variety is the newest and does not bloom as early as the others. No one that I know has had it in bloom outside before hard freezing.

There are many other good early blooming varieties. We should try to get together a collection that will suit the whole state; even though in the very coldest parts of the state, they must be given cold frame protection. They are worth it.

TUBEROUS-ROOTED BEGONIAS

IT will soon be time to order our tuberous-rooted Begonia bulbs. If the bulbs are planted in pots or flats about March 1, they will be good-sized plants by the time danger of frost is over and may then be transplanted in the garden and will bloom continuously until frost in the fall.

The bulbs sprout slowly and it is sometimes two weeks before green leaves appear. Therefore, the pots may be placed in the basement until light is required.

Since the bulbs are not plentiful on the market, garden club members may save considerable money by pooling their orders and ordering quantity lots through local florists or nurserymen.

WHY GARDEN MAGAZINES ARE HIGH IN PRICE

WE have frequently been asked, "Why isn't it possible to make money on advertising in Wisconsin Horticulture?"

The question was answered very well in the January issue of The Flower Grower. A subscriber wrote to the circulation manager and stated that he thought $2 per year, or 25c per copy, was altogether too high.

The circulation manager answered that he realizes that national magazines on the newsstand can be purchased for 5 and 10c. In these, the "advertiser pays the freight." In a specialized field like horticulture and gardening, however, it is a different story. There are not enough large advertisers who will pay $1,000 and up for advertising 12 months in the year to carry the deficit incurred in giving you a "25c product for 10c."

The same is true of Wisconsin Horticulture. In Wisconsin we need a magazine giving horticultural information under Wisconsin conditions, which of course differ from those in other states. Large advertisers prefer to advertise in magazines with national circulation.

When the editor first took over the editing of Wisconsin Horticulture, he thought it would be possible to obtain enough advertising to make a profit on the magazine. Experience has taught that this is impossible. Our membership dues and advertising receipts are only sufficient to pay the cost of printing and paper.

At Mexico City, November 27, the National Syndicate of Beggars, claiming a membership of 1,500,000, applied to the labor department for registration.

GARDEN RADIO PROGRAMS

STATION WHA, Madison (940 K. C.), and WLBL, Stevens Point (900 K. C.) will continue their garden radio program every Tuesday from 10 to 10:45 A. M. during coming months. During March and April, a series of garden round tables are planned, with a number of gardeners taking part. During May and June, we hope to have garden clubs send representatives to Madison to appear on this program. We will appreciate hearing from any garden club interested in putting on a program over this hour.

The Program

Tues., Feb. 8. Looking Toward Spring—G. W. Longenecker.

Tues., Feb. 15. About Our 1938 Gardens—F. J. Barlow, L. G. Pottenger.

Tues., Feb. 22. In Mt. Vernon Gardens—Mary Farly.

Tues., March 1. Vegetables for the Family Garden—Round table by Prof. O. B. Combs and H. J. Rahmlow, Madison.

Tues., March 8. Annual Flowers for Our Gardens—Mrs. F. E. Ballard, Madison.

What a Party

A teacher was correcting a boy who had said: "I ain't going there."

"That's no way to talk. Listen: I am not going there; you are not going there; he is not going there; we are not going there; they are not going there. Do you get the idea?"

"Yes, ma'am. They ain't nobody going."

Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

B. A. Robinson, Kenosha, President
K. J. Timm, Markesan, Vice-President
H. J. Rahmlow, Madison, Cor. Sec.

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

Regional Vice-Presidents
Robt. Jantz, Eldorado

Frank Thomas, Kenosha
Chester Harrison, Waldo
Clarence Kunde, Oshkosh

Gladiolus In My Garden

Chester Harrison, Waldo

LOOKING back over the past season in which I saw the thrip and severe drought ravish my gladiolus, I wonder what the coming season has in store for the flower growers.

Should a manufacturer because he has had a loss stop manufacturing, or a farmer who has had a crop failure stop raising crops? Obviously not and neither should a person who likes flowers, who feels that his flowers have been a disappointment, stop growing them, but should look ahead with enthusiasm to what he is going to produce the coming season.

Experience With Thrips

I have learned a valuable lesson from this past year and that is—carelessness with bulbs doesn't pay. In the fall of 1936 I treated what I thought was all my gladiolus bulbs with napthalene flakes. However when I started to plant the following spring I found about three hundred bulbs in the furnace room that I had overlooked to clean and treat. As my flowers had never been damaged by thrip I neglected to clean these few bulbs but planted them with the rest. I suppose the warm furnace room made an ideal breeding place for the thrip because they multiplied fast in the garden.

So I urge everyone who is planning to grow glads to thoroughly treat every bulb they plant. This year I have treated all my bulbs with napthalene flakes and am keeping them in a room at a temperature of 40 to 44 degrees F. and may dip them before planting. I am taking no more chances.

Spraying

I used several kinds of dusts and sprays during the growing season. Then I went through the patch, cut off all infected spikes and burned them. After that I thoroughly dusted with a Derris dust and got fairly good results. Of course, cutting off the beautiful spikes before they bloom is a heart breaking job. It is better to remove them though as we would not get a nice bloom anyway and are removing millions of thrip from the patch. However, as a result of all of this work, I did have a number of good flowers, and in making out my list of favorites, these varieties did well even in my own garden. I have made a few changes from last year.

Favorite Varieties

In the white class I have moved **Star of Bethlehem** to the top with **Maid of Orleans** as second choice.

Golden Goddess, in my garden the past season, was the finest yellow that I have ever seen. It had ten open florets at once in a double row making the spike eight inches across and there were eight buds showing color. I prefer **Golden Cup** as my second choice in the yellows.

My best exhibition pink is still **Picardy** with **Mildred Louise** crowding close. My favorite decorative pink is **Debonair.** It has always been a stalwart for performance. Its only fault is that it sometimes flecks.

Commander Koehl, Wurtemberger, and **Aflame** are my strong red growers. **Minuet** is a lavender, hard to beat if you do not put **Beautiful Ohio** in the same class. Personally, I would put the latter in the rose pink class. **Beautiful Ohio** was one of the finest glads in my garden the past season with perfectly straight spikes and 22 to 26 buds on a spike. Except in color its spikes and habits are much like **Minuet.**

My choice of the best smokies are still **Mother Machree** and **Bagdad.** This coming season I expect to have several of the newer varieties as I have grown them from bulblets last summer. They include **Shirley Temple, Rewi Fallu, Alyne, The Beacon, Jalma** and a few others.

NOTICE TO GLADIOLUS GROWERS

THE classified ad in this magazine will cost only 2c per word to members of the Wisconsin Gladiolus Society. If you issue a catalogue, or have special stock for sale, why not run a little classified ad during the next few months? Just send the copy to the Horticultural Society by the 15th of the month. It will reach the 4,200 members of the Wisconsin Horticultural Society.

"QUARANTINE 37"

E. L. Chambers

SOME of our gladiolus growers have expressed alarm over recent reports originating in Washington to the effect that the bars were to be let down on the importation of gladiolus bulbs from abroad. A few facts concerning this report, we believe, are therefore in order.

We wish to assure you that Mr. Strong, Chief of the Bureau of Entomology and Plant Quarantine, who has announced that some drastic changes in Quarantine 37 are being considered, does not intend for a moment to let down the bars on insect pests and plant diseases liable to be introduced from other countries. He, however, like most other plant quarantine officials, does not believe that a **plant quarantine should ever be used as an embargo** to keep plants out of this country. If unfair competition exists because certain foreign countries can grow bulbs or other materials cheaper than can be done in this country, there **certainly should be something done about it through a protective tariff** of some kind but not under the guise of a plant quarantine.

Many American growers have built their businesses on the trade protection afforded by the policies followed in administering Quarantine 37. In justice to them the department has issued repeated statements pointing out that the plant quarantine act and quarantines promulgated thereunder should be administered for the sole purpose of preventing the entry into this country and the spread within the United States of injurious plant pests.

The original purpose of this quarantine, when it became effective in June of 1919, was the ultimate exclusion of all stock not absolutely essential to the horticultural needs of the country. More recently they have been looked upon as justified only as a means for reducing the total volume of imports to that which could be adequately inspected by the personnel and with the facilities available. They no longer serve even this purpose now.

In 1931 the limit for importation of gladiolus was increased from 1,000 to 5,000 bulbs per person. The question of demand, not pest risk was the determining factor. By having employees and members of the family and neighbors make application for importation by contract through one importer, it has been possible to get around the restrictions and bring in about as many bulbs as one desired. During recent years the public hearings in Washington on Quarantine 37 have been made pretty much of a farce by the larger importers. The sentiment of those in attendance had been pretty largely molded in advance and presented by what might be termed paid representatives of special groups. The fundamental principles, pest risk, of this quarantine were either discussed superficially or not touched at all. We believe Mr. Strong's logic on this matter of quarantine enforcement is sound and that if **any plants or plant material are dangerous because of pests or**

(Continued on page 166)

AGICIDE
Use Proven Safe Insecticides
for
Controlling Garden and Crop Pests
Derris—Rotonone Products
108 N. Water St., Milwaukee, Wis.
Agicide Laboratories

Exhibition Gladiolus
HEADED BY THESE WINNERS

Per 10	Large	Medium	Small	Bulblets
Betsy Bob-up	$ .80	$ .60	$ .50	100 for 70c
Big Lily	2.00	1.10	.75	10 for 15c
Bonita	2.50	1.50	1.00	10 for 25c
Chippewa	.80	.60	.40	50 for 25c
D. A. Hay	1.60	1.00	.60	10 for 25c
Del Ray	2.00	1.20	.60	10 for 25c
Johann S. Bach	2.00	1.50	1.00	10 for 15c
John Ramsey	.70	.50	.25	25 for 15c
Miss New Zealand	3.20	2.40	1.60	6 for 25c
Robert the First	2.00	1.20	.80	10 for 10c
Smiling Maestro	1.60	1.00	.80	10 for 10c
Sonatine	.90	.60	.40	15 for 10c
Star of Bethlehem	1.60	.80	.50	10 for 15c
Union Jack	1.20	.80	.40	10 for 15c
Vagabond Prince	4.00	2.40	1.60	5 for 20c

5 bulbs at 10 rate

BULBLET SPECIAL

Rewi Fallu — Oeganda — Bonnie Blue — Beautiful Ohio — New Era
Shirley Temple — Robert Burns — Da Capo — Purity — Blue Beauty
1 bulblet each of the aboxe 10 varieties for $2.25
2 bulblets each of the above 10 varieties for $4.00
3 bulblets each of the above 10 varieties for $5.50
4 bulblets each of the above 10 varieties for $6.50

BEAUTIFUL ILLUSTRATED 1938 CATALOG FREE

RIVERVIEW GARDENS
Riverview Station St. Paul, Minn.

House Plants That Will Grow Without Soil

"HOUSE plants that can be grown in water?" "Why, of course," you will say, "paper-white narcissi, the Chinese lily, hyacinths, crocuses and even the amaryllis, if one cares to take the trouble."

It is natural enough that these bulbous plants should be mentioned immediately, for they are the ones which are most commonly thought of when one speaks of house plants to be grown in water alone.

There is no reason, however, for confining the list to bulbs. There are several foliage plants which adapt themselves readily to water cultivation and they are growing in favor because they can be cared for with a minimum amount of effort. It has long been customary for housewives to slip a piece of English ivy into a bowl or a bottle at the coming of cold weather. They have found by experience that the ivy will keep green all winter and that it is likely to make some growth as well as throwing out small rootlets. The coleus is another plant which can be handled in much the same way. Although it is not likely to make much growth, it will keep alive and show good color for a long period.

The same practice can be followed to some extent with Japanese spurge, Pachysandra terminalis, especially if pieces with some of the roots attached are taken from the garden. Wandering Jew or tradescantia is another plant which can be grown in water and which looks particularly well in a hanging basket, being allowed to droop over the sides. One point to remember is that this plant thrives much better in a cool, light window than in one which is hot and sunny. No special effort is required to grow the so-called grape ivy in water. This is not a true ivy. In the trade it is called Vitis rhombifolia, but botanically it is Cissus rhombifolia. It has the appearance of ivy, which accounts for the common name which has been given it. As a matter of fact, most of the various ivies, those with large leaves as well as those which have very small leaves, can be given this method of cultivation.

None of these plants have to grow in water, as a matter of course. They are friendly to water cultivation, however, and are especially useful because of the fact that they require little systematic attention. This does not mean that they are to be neglected completely. It is important that the water be changed occasionally, although this is less necessary when the plants are standing in an aquarium which contains goldfish and snails than when in a smaller and simpler container. When the water is changed, it is most important that the roots should not be allowed to dry out.

Clear glass may be used with most of the plants mentioned, and it is advisable for kinds like the Chinese evergreens. The containers ought not be kept in hot, sunny windows or near radiators, where the water will become warm. Plants that tend to grow too spindling may be pinched back occasionally to make them bushier. Otherwise, they can be left pretty much alone, although it is wise to examine the containers frequently to make sure that the water level has not dropped too much. Additional water must be added frequently.

Condensed from Jan. 15, 1938, Horticulture.

FOR YOUR GARDEN CLUB PROGRAM

"BIRDS in Winter" would be a good short program topic for garden club meetings during the winter months. Several good bulletins are available which might be reviewed. We recommend the following:

From the U. S. Department of Agriculture, Washington, D. C., No. B. S. 8, Publication on Attracting Birds; No. 912F, How to Attract Birds in E. Central States—5c.

From the National Audubon Society, 1775 Broadway, New York, N. Y., Winter Birds as Guests — 5c; Bird Study for Schools—Part III, Winter Feeding—5c.

From the Supt. of Documents, U. S. Government Printing Office, Washington, D. C., the following: Bird Refuges, No. F1644 —5c; Policies of Bureau of Biological Survey relative to control of injurious birds—5c; Game Conservation—10c.

We suggest five-minute papers on migration. The fascinating subject of birds in flight, their formations, their strength and endurance, are interesting.

"QUARANTINE 37"

(Continued from page 165)

diseases, they should be kept out entirely. If plant materials however are not affected, they should be admitted freely without restriction other than inspection at the port of entry. Plants with soil should not be admitted at all.

New and very rare varieties of plants originating in countries where serious pests occur should be introduced under strict supervision by the federal experimental station and distributed by them to all on the same basis. Furthermore, it should be pointed out that Mr. Strong feels that there is no legal authority for some of the procedure used in enforcing these regulations and is anxious to have the law revised somewhat and the regulations made to comply.

The School Childrens' Forest

Mrs. F. Quimby, Racine
Conservation Chairman

THE CONTEST IS ON! GARDEN CLUB PRESIDENTS, how many schools in your community will plant trees in the Wisconsin School Children's Forest this year?

Nowhere else in the United States has such a project been undertaken. It is our privilege to have a part in this unusual conservation work which is attracting nation-wide attention. This project is in its third year under the sponsorship of the Wisconsin Garden Club Federation. Has your club done anything to interest the schools in your community in this outstanding educational project? More than 203,000 pine seedlings have been planted to date on the 1200 acre plantation set aside by the Forest Service for the children of Wisconsin to reforest.

One of the entrances to the School Children's Forest.

Contest Planned

This year we are to have a contest to see which Garden Club can send in the most names of schools which they have been able to interest in the project. The rules of the contest are simple. Organize a School Forest committee in your club. Send to the U. S. Forest Service, Milwaukee, Wisconsin, Attention R. H. Grabow, and ask for as many leaflets describing the forest project as you think you will need. These will be sent at no cost to your club. Have a member of your club make a personal call at each city and rural school which you can possibly contact. One of the forest leaflets can be used as a calling card. Leave one at each school.

A set of slides describing the forest can also be obtained from the Forest Service by paying transportation costs. Perhaps you would like to tell the school about them, or better still, take them with you and show them to the children yourself.

Your territory is not limited. First come first served. Your club will get one credit for each school you are able to bring into the project. The contest ends June 1, 1938. Send your list of schools to Mrs. Wilda Grim Quimby, 1422 Blaine Blvd., Racine, Wisconsin. Your list will be carefully checked with the Forest Service to make sure all schools you have listed have actually participated. Prizes will be presented at the next annual convention as follows: First prize—$5; second prize $3, and third prize, $2. The names of all clubs, the number of schools contacted and the number of credits earned will be published in the Wisconsin Horticulture Magazine. Your Director is very eager to convince the Forest Service that the Wisconsin Garden Club Federation is really back of this project 100%. Remember it is not how many trees you can get the children to plant but how many schools you can get to participate. Can we count on your enthusiastic cooperation?

PLANT TESTING

Try some of the new ornamentals recommended by the Plant Testing Committee and described on pages 158-159.

Surgery Bracing and Cabling Feeding Transplanting Pruning
Drainage Large Tree Moving Spraying Free Consultation

JOHN J. CONERY
TREE EXPERTS

RENDERING—A Complete Year-Round Service in Tree Care, by a Highly Trained, Efficient Body of Expert Tree Surgeons

Write or Wire

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1242 Moore Street BELOIT, WISCONSIN Phone 2314-M

STATE GARDEN CLUB FEDERATION NEWS

Mrs. J. Martin Johnson, President
529 Woodside Ave., Ripon
Mrs. Chester Thomas, Hon. President
Route 2, Thiensville

H. J. Rahmlow, Cor. Secretary
Madison
Mrs. Sam Post, Rec. Secretary
Shorewood Hills, Madison

Mrs. E. A. St. Clair, 1st V. President
2418 N. 65th St., Wauwatosa
Mrs. Charles Schuele, 2nd V. President
Oconomowoc

SUCCESSFUL REGIONAL MEETING HELD

THE first Regional Meeting attempted by the Wisconsin Garden Club Federation was a decided success. In spite of bad weather on January 25, a total of 35 garden club presidents, district officers, and committee chairmen met with the executive board in Milwaukee.

Committee chairmen led in the discussion. Each chairman told what her committee is planning for the coming year and asked for further suggestions, which were freely given.

Committee chairmen reporting were Miss Merle Rasmussen, Oshkosh, on Horticulture and Plant Testing; Mrs. Frank Quimby, Racine, on Conservation and Junior Forests; Mrs. E. L. Sevringhaus, Madison, on Garden Club Programs; Mrs. Charles Jahr, on National Council Contacts; Mrs. E. A. St. Clair, Wauwatosa, on Publicity; Mrs. Edward Corrigan, Wauwatosa, on Wild Life Preservation; Mrs. Clarence James, Fox Point, Fire Prevention; and Mrs. John Rock, Thiensville, on Roadside Development and Beautification.

Mrs. Chester Thomas, of Thiensville, honorary president, was appointed to represent the Garden Club Federation on the state fair flower show.

Two more similar meetings are being planned. The next will be held at Fort Atkinson on Tuesday, February 15, for the South-central section of the state. A third will be held at Oshkosh for the Northern section.

The suggestion was made that a state-wide meeting of all presidents and committee chairmen be held during June, the forenoon to be devoted to an inspection of some outstanding garden and the afternoon to a discussion of garden club plans.

Mrs. Frank Quimby, Conservation chairman, suggested that the Federation sponsor a movement to create sentiment throughout the state to use only tagged Christmas trees in order to prevent the destruction of our forests. It was voted that this be adopted as a project and the Conservation Committee was requested to develop plans.

COMMITTEE MEMBERS APPOINTED

THE following committee members and chairmen were appointed at the meeting of the executive board and garden club presidents at Milwaukee in January:

Fire Prevention: Mrs. Clarence James, Chairman, 1849 E. Fox Lane, Milwaukee.

Wild Life Preservation: Mrs. Edward Corrigan, Chairman, 2178 N. 71st St., Wauwatosa.

Roadside Development and Beautification: Mrs. John Rock, Chairman, Thiensville.

Committee members appointed were:

Conservation Committee: Mrs. Harry Berger, R. 1, Hales Corners.

Horticultural Committee: Mrs. Irving Lorentz, 1006 E. Manitoba St., Milwaukee.

Visiting Gardens Committee: Mrs. Fred Niedermeyer, 4162 W. 16th St., Milwaukee.

Program Committee: Mrs. Sidney Welch, Oconomowoc.

MEMBERSHIP DUES

THE plan of the Garden Club Federation to increase its revenue through the medium of a voluntary increase in dues, appears to be quite successful. A number of clubs have increased their dues by 25c and a larger number by 10c. Others have found it impossible to make any increase. It is because of this financial situation of some clubs making it impossible for them to increase their dues that this voluntary plan was set up. A number of clubs feel that they would have to drop out entirely if the dues were increased.

LIST OF GARDEN CLUB OFFICERS TO BE PUBLISHED IN MARCH

A COMPLETE list of officers of all garden clubs in the Federation will be published in the March issue. We had hoped to publish the list in this issue, but over twenty clubs had not yet sent in the names of their officers for 1938 at the time we went to press. It is quite important to publish the names of all the officers in one issue because that issue is used throughout the year as a directory by many members.

May we again suggest that all clubs hold their election of officers at the last meeting of the calendar year, new officers to take over their duties at some specified month in the next year, and that the names be immediately sent to the Wisconsin Horticultural Society. We hope to eventually publish the directory in either the January or February issues because there is considerable demand for the correct list.

Membership cards and enrollment blanks are being sent to each garden club secretary by Mrs. Sam Post, Shorewood Hills, Madison, recording secretary-treasurer of the Federation. In order that the secretary for 1938 receives this material, she is sending it out only upon receipt of the list of officers for this year.

FLOWER ARRANGEMENT AND JUDGING SCHOOL PLANNED

PLANS for flower arrangement and judging schools in two or three sections of the state were discussed by the Executive Board of the Federation at its January meeting. Proposed plans consist of lectures and demonstrations on flower arrangement and judging for both beginners and those who wish to become accredited judges. At the close of the meeting an examination will be held and those who pass will be given an accredited judge's card, deemed very important especially by those who wish to judge in other states.

Flower arrangement of various classes will be prepared by a special committee and will be used for judging in the examination. The schools will probably be held in May.

DUES ARE DUE

IT'S the month for paying dues. Practically all memberships in the Wisconsin Garden Club Federation expire January 1 and so the first two months of each year are the months for paying dues. We hope that there will be but a small turnover this year. During past years, we have had as high as 400 members of the Wisconsin Garden Club Federation who did not renew their membership. Of course, there were always more than that number of new members joining the various clubs.

It is the policy of the Federation and the Horticultural Society to continue memberships until March 20 in order to give each member ample time to pay. On March 20, however, the names of all who have not renewed are dropped from the mailing list of Wisconsin Horticulture, so they do not receive the April issue.

In order that the recording secretary-treasurer be not swamped with work the latter part of March, may we ask all club members to renew as early as possible.

The new recording secretary-treasurer is Mrs. Sam Post, Shorewood Hills, Madison, to whom all dues to the Federation must be sent.

WANTED—NEWS CLIPPINGS

OUR publicity chairman, Mrs. E. A. St. Clair, 2418 N. 65th St., Wauwatosa, has obtained some excellent publicity in some of the larger state papers for the Garden Club Federation. She makes the request that garden club members send in to her any newspaper clippings from their local newspapers relative to garden club activities, programs, conservation, and other items of importance in garden club work. A scrap book is being prepared from these clippings and the information they contain will be of value.

More publicity about garden club activities will create greater interest in garden club work and will result in the organization of more garden clubs.

SUPERIOR LEADS

"The Garden Club of Superior now has seven auxiliaries," writes Mrs. O. L. Loop, Secretary of the Superior Garden Club, on January 20. The seventh one is at Solon Springs, Wisconsin.

The officers of the Wisconsin Garden Club Federation want to congratulate the Superior Garden Club on its splendid work, especially in organizing auxiliaries.

ADDITIONAL CONTRIBUTIONS TO THE SPEAKERS' FUND

During January a contribution of $2 was received from the Hales Corners Garden Club for the Speakers' Fund.

The Milwaukee Post Office Employees' Garden Club also sent in $2 for the fund.

The Wisconsin Garden Club Federation appreciates these contributions.

SAVE
YOUR TREES
Pruning — Cavity Treatment
Spraying — Cabling
Fertilizing — Tree Moving
WISCONSIN TREE SERVICE
2333 N. Murray Ave. Milwaukee, Wis.
Lakeside 2907

PROGRAM PLANNING

Mrs. Elmer Sevringhaus, Program Chairman

LET'S make this new column a "Conservation of good ideas" column! Many successful program plans are worked out in garden clubs throughout the state, are enjoyed locally, but are not passed on. Perhaps members have thought, "I wonder whether other clubs have reported on this fine book or magazine article, or tried this idea so helpful to our flower exhibit."

We should salvage our best ideas and send them out into the world on who knows how long and useful a career! Just jot them down on a card and send to me at 3914 Cherokee Drive, Madison, or to the Horticultural office. Full credit will be given to the person or club submitting the suggestions. This is our program exchange column. Let's pack it with nuggets of wisdom, tried and proven. Let's both give and receive.

In a conversation with a program chairman recently we agreed that proper technique in program planning might run something like this:

1. List subjects which after thoughtful scanning of past programs and conversations with members seem to fill the greatest needs.

2. Seek members with practical experience who will report either singly or in the popular round table type of discussion. (Note to program chairmen—Don't take very seriously the first frightened "No" of those you invite to be on the program. Encourage them; help them overcome a feeling of inability.) Work with a group, timid, but wise in experience, and develop a round table, question and answer presentation. Thus we grow. A sure way to retard growth is to have only outside speakers.

3. Turn to outside speakers when necessary.

4. Use available slides and movies as listed occasionally in this magazine.

5. Print the year's program. Incidentally a 4″ by 5″ program fits the purse.

Ideas for attractive covers will be welcome in this column. Last year a club ordered 50 programs printed by the new photographic or "off-set" method, including the reproduction of a pen sketch on the cover made by a member, and the cost was less than $5.

Seeds

In February we have time to become awed and philosophical before the—mystery of a seed. One club is using in its February meeting a review of that fascinating, well-illustrated book by Vernon Quinn, "Seeds — Their place in life and legend." It is published by Frederick Stokes for $2, and it makes a perfect gift for gardeners.

When seed catalogues are falling like manna from the seed houses, have you had an exhibit of favorite seed catalogues with each member answering roll call with a word about his favorite?

BEAUTIFY SERVICE STATIONS AND REFRESHMENT STANDS

AN award of merit consisting of a circular metal sign hanging from a straight bar with National Council of State Garden Clubs in white lettering around the black border and AWARD in white letters on the black bar, is available from the National Council of State Garden Clubs.

It is to be awarded to service stations and refreshment stands for beautification of buildings and grounds. The use of this award by Garden Clubs will be a most important factor in our roadside development program. The awards will cost $1.50 unpainted—to be finished in state colors—or $2 painted.

Orders must be sent to the State Roadside Chairman who in turn may get the information from the National Council, 30 Rockefeller Plaza, New York City.

SLIDES AVAILABLE FROM THE NATIONAL COUNCIL

THE following lantern slides may be obtained by Wisconsin Garden Clubs from the National Council of State Garden Clubs, 30 Rockefeller Plaza, New York City.

1. The Smoky Mountains and Their Flora. 75 Slides. Rental $5.
2. Modern Phases of Seed Germination. Rental $5.
3. Gladiolus. 75 Slides. Rental $5.
4. Wild Flowers of New England. 70 Slides. Rental $5.
5. The Longfellow Garden With Its Wealth of Story, an historical lecture. A glimpse of that beloved poet, and his home and garden in Portland, Maine. Rental $5.
6. Flower Arrangement written by Mrs. William Cary. Rental $10.
7. A collection of 100 slides of Members' Gardens. Rental $2.
8. Look Out Mountain. 75 slides. Rental $2.
9. Making a Rock Garden, by Louise Beebe Wilder. Rental $10.
10. Garden Centers. Explains what a garden center is. Rental $5.
11. Roadsides of America. How our roadsides may be developed. Rental $5.
12. Design of the Small Place. 55 slides. Rental $5.
13. A collection of slides of the beautiful Bellingrath Gardens at Mobile, Ala., with accompanying description. Available for expressage.

The express must be paid, both ways, on all slides.

Garden Club Auxiliaries

Mrs. James M. Kennedy, Superior

THE advantages of having garden club auxiliaries in different sections of the city are threefold: They take care of members of small groups who are interested in gardening and glad to have a friendly group to work with. They spread garden enthusiasm through all parts of the city. They offer a friendly competitive spirit in any united effort.

The first auxiliary in Superior was organized in the same way the six succeeding have been. The central group had reached its limit of membership — 50 members—a small group desiring membership asked how they could be affiliated and steps were taken. Five members of the executive board of the central club were invited to meet a group of interested garden-minded women—not less than ten. The by-laws of the garden club were then read and adopted by them.

The set-up of the auxiliaries is a replica of the central club—only on a smaller scale. There is no restriction as to their size. They have the same officers—president, vice-president, secretary, a board of gardeners, and any standing committees deemed advisable. The president or her representative comes to all meetings of the central club to take back to her group any special information or plans for group activities.

Meetings

Two joint meetings are held each year, one in February after the election of officers and another in July. Both meetings are social with luncheons and short programs. At the February meeting, short annual reports of the work and accomplishments of each auxiliary are read by their previous presidents, who then introduce the new officers. The July meeting has time for a longer and more interesting program, the main feature of which for the past few years has been an interesting lecture by our corresponding secretary, Mr. Rahmlow, who has been able to be with us at that time of year.

Membership Dues

The auxiliary membership dues are $1 per year, 10c of which is paid to the central club and 50c for Federation and Horticultural Society membership and the magazine. The remaining 40c remains in the treasury of the auxiliary and it is surprising what has been accomplished with that small sum. Each auxiliary follows the central club's precedent in doing some planting or beautifying of some spot in the city each year.

There is no restriction on the activities of the auxiliaries. Upon joining they automatically expect to cooperate in the general activities of the central club, such as the annual flower show. They may hold flower shows of their own in which any member of any other group will help if asked. The success of this plan in Superior is due to the splendid cooperative spirit of the entire membership.

For the coming year we are interested in the contest of the National Council for beautifying filling stations. We also hope to start a garden center. I am happy to say that interest in garden club work is progressing out in the county. We now have a **Solon Spring's auxiliary** and hope to have at least two more in other towns during the coming year.

DELPHINIUM LANTERN SLIDES, BEAUTIFULLY COLORED

FOR loan to Garden Clubs when **Delphiniums** are to be featured.

The set numbers 60 artistic and exceptionally well executed subjects, mostly Delphiniums, with carefully prepared notes and a Delphinium talk. They are available to any accredited Garden Club, without charge, except payment of transportation one way.

In order to make sure of suitable dates application should be made as far in advance as possible.

The usefulness and appreciation of this set of Delphinium reproductions is attested by the fact that they are so often called on for repeat engagements.

Write Hoodacres Gardens, Charles F. Barber, Troutdale, Oregon.

Editor's note: The above item appears in Mr. Barber's excellent Delphinium Information Book, his catalog of new Delphiniums.

NATIONAL WILD LIFE RESTORATION WEEK

THE week of March 20-26 will be set aside as National Wild Life Restoration Week according to Mr. J. N. Darling, conservation advisor to the National Council of Garden Clubs.

Mr. Darling asked that club officers cooperate by holding special meetings, broadcasts, banquets, a public school forum, or other wild-life activities. Apply to Frank Jordan, 400 Madison Avenue, New York City, for program details.

Try some of the new ornamentals recommended on page 158 in your garden this year.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

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Diary of An Oldtimer

JANUARY 10. The editor asked me to send him something interesting about beekeeping. At first I thought that I wouldn't be able to think of anything that beekeepers didn't already know. Seems like I have been thinking and reading and talking about bees for so many years that there ain't anything left that's new or interesting. Still, when some beekeeper comes to visit me, we just talk bees until the wife chases us out of the house and into my workshop. Well, that's a mighty nice place to sit and talk at that. We can sit around the fire, put our feet up on a bench, and drop all the ashes on the floor that we want to—and talk about bees.

I read in the paper the other day that the Japs were using bees in place of carrier pigeons to carry messages from their supplies across the line. Well, even the reporters did not know if it was so or not, and I can hardly believe it. Still, it might be done if they used young, vigorous bees and the distance wasn't too far, probably not over three or four miles. Then the weather would have to be warm. I hope it ain't so, because I don't like the idea of using honey bees for that kind of work.

January 15. I've been busy nailing up hives and frames since the new year started. It's a mighty nice time of year to do it, especially if you can sit in a nice warm workshop and don't have to go out into the cold. I like to fix up my supplies during this cold weather and then do my outside work when it gets warm.

Foundation Not Fastened

I ordered some frames this year without the wedge in the top bar for nailing in the foundation. I asked the factory to just saw a groove in the top bar wide enough so that the foundation would slip in. Seems to me that the bees fasten the foundation to the top bar solid enough so that we don't have to nail it. Besides, if we nail it in and a lot of bees get onto it in warm weather, seems to me they are likely to stretch the cells next to the top bar. Then, too, I think the frame is stronger if the wedge is not cut out and it certainly takes a lot less time to put in the foundation. What do you beekeepers think about that? Write to the editor if you have tried it or if you have any ideas about it.

January 16. I see Brother Schultz's picture in the American Bee Journal as president of our state association. That's nice. He has made us a good president and did a mighty good job of presiding at the meeting. I like the way he thanked each speaker when they were through, and he introduced the next speaker so that we all felt good about it.

We shouldn't forget to thank Brother Diehnelt, our vice-president, for his help. He and his daughter are doing a lot of work for us by handling the pails and labels and keeping the records.

January 20. Looks like the price of honey is going to stay just about where it has been. Well, it isn't the price that is bothering us this year so much as the short crop. We've been getting 65c for a 5 lb. pail at retail and if I only had plenty of them to sell I guess we could make a little money, but the bees sure let us down this year.

Now I'm going to quit for this month. When the editor first asked me to write this diary, I told him no, that I didn't think that I would have anything to say. But he put up such a good argument that I finally told him that I would try it on one condition—that he didn't mention my name or let anyone know who I am. I told him in that way I would feel I could say anything I like and I wouldn't be afraid to write. So, if you want to ask any questions, you will have to send them to the editor and he will turn them over. Perhaps some of you old timers can send me your experiences and help make this diary interesting for next month.

Here's to a good crop in 1938.

—Oldtimer.

DISTRICT BEEKEEPERS MEETINGS PLANNED

DISTRICT beekeepers meetings have become very popular and well attended during the past few years. The officers of the various districts are planning meetings for this spring when many questions come up that beekeepers are anxious to have answered.

The Fox River Valley District will meet at Appleton on Tuesday, April 5. Mr. Edward Hassinger, Jr., Greenville, is Chairman. George Jacobson, Kaukaune, Vice-Chairman, and Leonard Otto, Forest Junction, Sec.-Treas.

The Western Wisconsin District will meet at Menomonie on Thursday, April 7. Mr. S. P. Elliott, Menomonie, is Chairman, H. O. Rodeske, Fountain City, Vice-Chmn., Frederick E. Nabor, Sec.-Treas.

As we go to press, arrangements for the other meetings have not been completed. Details will be given in the March issue. The program this year will consist of the answers to practical beekeeping questions by some of our leading beekeepers. Motion pictures of how Wisconsin beekeepers pack their bees for winter and how bees pollinate flowers will be shown.

SUBSCRIBE TO BEE JOURNALS AT REDUCED RATE

MEMBERS of the Wisconsin Beekeepers Association may subscribe to either the American Bee Journal or Gleanings in Bee Culture, the two leading bee journals in this country, at one-half of the regular subscription price by ordering through Mrs. Ernestine Voigt, Menomonee Falls, recording secretary-treasurer of the state beekeepers association. Send 50c for a year's subscription to either magazine, or $1 for both. That is one-half the regular price.

WHAT SHALL WE DO WITH WEAK COLONIES?

WE would like the opinion of beekeepers on this question: What is the best thing to do with weak colonies?

If a colony is weak because it has a poor queen, we would naturally recommend that the queen be killed and the bees united with a strong colony. But supposing the queen is not a poor one? Supposing the colony is weak because of poor winter stores or because of an unusually cold winter? It may also be weak because of lack of pollen in the spring.

It might be possible that our very best queens be in this condition in the late spring. Young queens lay vigorously in the fall and most of the pollen may be used up for fall brood rearing in some seasons. It has been shown that queens begin to lay in March or even earlier if they have plenty of pollen and food in the hives. Such colonies will be strong in the spring. However, if the pollen was used up in the fall, the result may be a weak colony, which will start to build up only after spring pollen becomes available.

Several beekeepers are suggesting making "two-queen colonies" by uniting a weak colony above a strong one in the spring. The new colony is given an entrance of its own, probably to the rear, for a time at least and finally when a super can be placed between so that the lower queen is confined to the lower body by a queen excluder the colonies can be united. Such colonies will build up very rapidly and since it has been proven that the amount of honey stored by a colony depends upon the number of bees, a double colony may produce more honey than two single colonies in a good year.

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APIARIES PROTECTED FROM BEAR BY ELECTRIC FENCE

AN electric fence charged from a battery has been devised that works successfully in keeping bears out of apiaries when a good ground was provided for the electric current, states the 1937 Report of the Chief of the U. S. Bureau of Entomology.

It looks as if the electric fence might be the solution of the beekeepers problem in keeping all animals away from an apiary.

The Agricultural Engineering Dept., Wis. College of Agriculture, Madison, will send information on the electric fence on request.

OBSERVATIONS ON NECTAR SECRETION

WHEN the nectar of flowers is too thin or has a low sugar concentration, the bees will ignore the blossoms. The Federal Bureau of Entomology, working with the Oregon Agricultural Experiment Station, found various vetches to have a lower sugar concentration than did nectar from these plants not in the flowers, in what are called extrafloral nectaries. For this reason the bees ignored the blossoms in favor of the extrafloral nectaries. Hairy vetch proved an exception, since the sugar concentration of nectar in the blossoms was higher than that of the extrafloral nectaries, so the bees worked on the flowers.

The sugar content of nectar from alsike and crimson clovers compared favorably with that of vetches in blossom at the same time. Nectar from red clover was scarce and of a low sugar concentration not attractive to bees.

Wanted: Questions you would like to have answered at the District meetings. Send to the editor as early as possible.

SMALL DOSES OF ARSENIC SERIOUS FOR BEES

STUDIES by the U. S. Bureau of Entomology indicate that extremely small doses of arsenicals used as insecticides will either kill or shorten the life of the honey bee. The statement made in the Annual Report of the Chief of the Bureau is: "A dose containing only 0.05 to 0.10 microgram of elemental pentavalent arsenic is sufficient to cause a significant shortening of life." The work also indicates that calcium arsenate is somewhat more toxic than lead arsenate.

SOME STRAINS OF BEES BETTER THAN OTHERS

BEEKEEPERS have long observed that one colony of bees having probably the same number of bees as another may yet produce much more honey.

Several northern workers have emphasized the desirability of northern beekeepers breeding strains of bees especially adapted to producing honey in our own locality.

Work by the Federal Bureau of Entomology given in the Report of the Chief of the Bureau, makes this statement: **"Studies on two different strains of Italian bees reared in this country showed one to be approximately twice as good as the other in honey-storing ability, and also to be definitely superior in amount of brood reared and in drawing out foundation."**

This piece of work seems very important. If one strain of bees will produce twice as much honey as another, certainly something should be done about it. Southern breeders especially should make use of this information and breed from the higher producing strain. Beekeepers themselves can improve their stock by breeding queens from such producing colonies.

A. F. B. SPORES KILLED AFTER BOILING SIX HOURS

UNLESS foulbrood infected equipment is boiled for six hours, some of the spores may not be killed.

Experiments conducted by the Federal Bureau of Entomology and Plant Quarantine found this to be the case. The following is a report of the work as given in the Annual Report of the director.

"Spores of Bacillus larvae failed to grow in culture after they were boiled in water for 6 hours and also after they were autoclaved at 15 pounds (steam) pressure for 30 minutes. With all shorter periods of heating growth was obtained in some of the cultures. Three hours of exposure to flowing steam failed to destroy all the spores.

"In concentration ranging from 1 pound in 5 gallons to 1 pound in 30 gallons of water, both potassium hydroxide and sodium hydroxide failed to destroy spores of B. larvae within 3 days.

"European foulbrood did not recur in colonies of Caucasian or Carniolan bees but did recur in all experimental colonies of common black bees."

HONEY FOR WHIPPING CREAM

ADD just a few drops of honey to cream and it will whip, is the advice of Iowa State College.

Whipping cream that doesn't whip has precipitated many a domestic crisis, but the housekeeper who has honey on hand is saved. Do not add enough honey to make the cream taste sweet. It works.

Add a little honey to coffee cream and it will whip, too.

BEES?

A SCHOOLMAM who became interested in bees from books called a beekeeper to take care of some bees located in a sewer. But he found them to be wasps.

A man living in a most aristocratic part of Rockford left a note in my mail box telling me I could have without cost some bees in his back step. But the bees were only little hornets.

A neighbor informed me the other day I could have some honey bees located in a crisscross pile of boards in an old chicken house. He had attempted twice to repile the boards and had had to quit on account of the bees. A few days later I went to investigate. Smoke blown into the pile brought no response. We piled the boards over, he at the safer end. We found neither bees, wasps, hornets, combs, honey, nor anything else pertaining to them.

Wot a life!

Ivan Whiting, Rockford, Ill.

GOOD DEMAND FOR HONEY

OUR honey is all sold and gone and I wish we had more. Orders are coming in almost every day for both comb and extracted and we are unable to fill them. Our 72 colonies are wintering O. K. They had a good flight January 22 and 23, the first flight since Thanksgiving. On January 25 we had a bad snow storm.

—H. O. Rodeske, Fountain City.

Why?

Medic: "The right leg of the patient is shorter than the left, which causes him to limp. Now what would you do in a case of this kind?"

Voice: "I'd limp, too."

JUST NEWS

A SERIES of meetings to organize County Beekeepers Associations and plan the work of cleaning up A. F. B. in Wisconsin are being planned by E. L. Chambers, State Entomologist, and C. D. Adams, Chief Apiary Inspector. Meetings will begin the week of February 14 and continue until all counties have been reached.

Wisconsin is facing a new era in beekeeping. The weather is bound to change soon and then we will again get good crops. If then, too, the disease problem has been solved, we can look forward with hope.

The real reason we obtained the large appropriation for disease control was because hundreds of beekeepers were first convinced that **a few people** couldn't do anything.

Were Crops Better Years Ago?

Have you heard the statement, "Years ago we had big honey crops, but of late years crops have been poor?"

We were surprised to read in that excellent book, ABC and XYZ of Beekeeping, a statement by the late A. I. Root, its first editor, **written in 1865.** "Farmers who have kept bees assure me that they once paid when the country was new but of late years they were no profit and everybody was abandoning the business."

Mr. Root didn't abandon the business and there have been plenty of good crops since 1865. There will be good crops in the future.

Big Colonies

Dr. C. L .Farrar writes in his excellent work on The Influence of Colony Population on Honey Production, "One colony with 60,000 bees will probably produce 1.54 times as much honey as 4 colonies each with 15,000 bees."

That's the big thing to remember this spring.

NEW RECIPES

Ham Mediterranean

10 to 12 lb. ham.
4 cups bread cubes (½ in.)
1 cup honey.
1 cup seedless raisins.
1 cup crushed pineapple.
1 cup chopped walnuts.

Have bone removed from ham. Heat pineapple and pour over bread cubes. Add fruits, nuts, and honey, and stuff cavity in ham. Sew or truss ham, wrap loosely in its glassine wrapper and place, fat side up, on an open pan. Bake at 300° F., 22 minutes to the pound. One hour before done, remove paper, score fat and rub with brown sugar* and cinnamon. Stud with cloves and finish baking. Garnish with fresh mint, pineapple and apricots filled with cooked raisins.

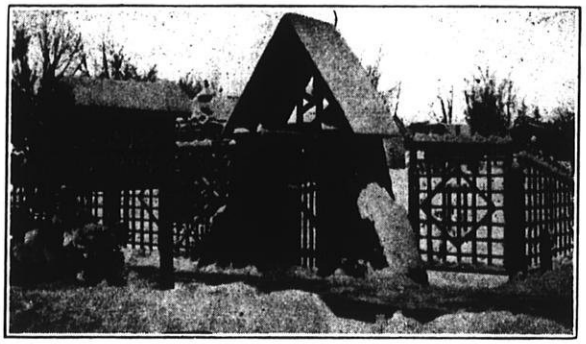
*At the Institute Testing Kitchen the golden glaze for the ham was secured through basting the ham during the last hour with diluted honey. A sprinkling of cinnamon may be added; stud with cloves and finish baking. Simmer the raisins in diluted honey and add a bit of lemon juice just before serving.

Glazed Parsnips

Slice cooked parsnips lengthwise making slices about ¼ inch thick. Arrange in shallow baking pan and pour over enough honey to not quite cover them. (Diluted honey may be used.) Add one tablespoon of butter for each half dozen slices of parsnips. Place in moderate oven (350 degrees) and let bake for twenty minutes, turning the slices after ten minutes. Before serving place under the broiler for a few minutes.

"We were slowly starving to death," said the great explorer, at the boarding house table, "but we cut up our boots and made soup of them."

"Sh-h! Not so loud," exclaimed a fellow boarder. "The landlady might hear you."



Unless you have patience and follow the simple directions furnished, do not buy peonies. It takes from 5 to 10 years for them to perfect themselves. Then they will outlive the owner.

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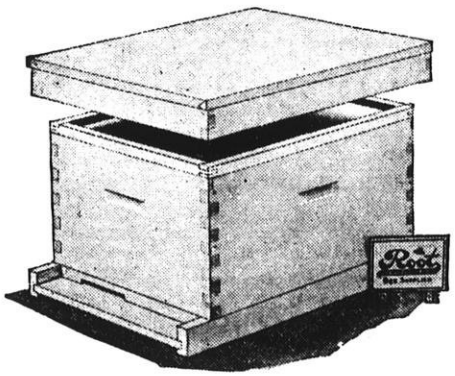

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

Established 1910

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

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
1532 University Ave.
Madison, Wisconsin

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

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

Volume XXVIII March, 1938 No. 7

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

My 1938 Vegetable Garden

Raymond E. Smith, Andover, Mass.

THIS year, I shall plant a very select vegetable garden and include only the novelties of the various crops. These should provide food fit for a king.

To start, I shall have a few rows of Commodore Bean, which is a bush form of the old Kentucky Wonder Pole Bean. It has the same long, round, stringless pod as the older variety and is a heavy producer. An Award of Merit was bestowed upon it in the All-American Trials.

For my cabbage, I shall plant some of the Chieftain—an early, solid-headed variety of the savoy type, which also received an Award of Merit. Since I am fond of cole slaw, I shall also plant Sauerkraut King because of its solid, round, baldhead character. And out of curiosity—to see if what they claim is true—I am going to include Odorless Savoy, which was originated by the United States Department of Agriculture and is mild and supposedly odorless in cooking.

It seems more difficult each year to wait for the first corn of the season, so I shall plant Puregold. This is said to ripen three weeks earlier than Golden Bantam, which it resembles in other ways.

To make sure that I shall have some green peas to go with my salmon on the Fourth of July, I

shall plant Giant Stride which will mature in eighty days. This variety is dwarf, has long, well-filled pods, and is resistant to the pea blight.

Salad

For my green salad, I shall try Golden Heart Summer Endive, whose crisp, creamy yellow leaves have an appetizing nutty flavor, and Spearhead Lettuce, a crisp-leaved, large-heading kind.

Tomatoes

To go with the lettuce, I must have some tomatoes. For the very earliest, I shall try Michigan State Forcing, which was originated by the Michigan Experiment Station and has been highly recommended as a medium-sized variety for the greenhouse or garden. For the sake of comparison, I shall put in a few plants of Harkness, which is recommended as being ideal for northern gardens. It is a vigorous Earliana type with smooth, rather small, rounded, red fruits. To follow these will be Cardinal, an early large-fruited kind of the stone type, which is very productive. To add just the right zest to my salad, I shall include some radishes, and Billiard Ball seems to be the best. This variety, a round form of the old Scarlet Globe, will stand a long time before becoming pithy. And cucumbers, too, help to create a tasty salad bowl. The new Bush Cucumber should fill the bill. The fruits, dark and to seven inches in length, are almost seedless; and their flesh is crisp, solid, white, and of a delicious flavor.

For Vitamines

To increase my vitamines, I must have some spinach, and, since Del Monte with its large, thick leaves is a long standing variety, I shall try that. And I shall want some celery, another source for vitamins. Supreme Golden appeals to me; it is a new strain of the Golden Self-Blanching type. The plant matures early, is compact and vigorous, and has a well-developed heart.

One of the trials of a vegetable gardener is raising good eggplants—if the shot-hole beetle does not get them, the blight

does. But now there appears a variety which is resistant to disease, so I shall take heart once more and try Black King, all the while keeping my duster and spray tank handy. This variety is earlier than most and, while it is only two-thirds as large as Black Beauty, is a very heavy yielder.

My fondness for summer squash prompts me to plant a few hills of Early Prolific Straightneck on the edge of the garden, where it will have plenty of room to run. This novelty received an Award of Merit in the All-American Trials because of its earliness, productivity, and good quality. It is earlier, smaller, more uniform, and smoother than the old Giant Straightneck introduced a few years ago.

Each year, my neighbors hold a friendly contest to see who will dig the first potatoes. I am going to try to beat them all this year with Chippewa, a new variety originated at the Maine Experiment Station. It is as early as the favorite Irish Cobblers, which most of my neighbors grow.

Naturally, my garden would not be complete without some root crops. For the beets, I shall use Perfect Model, which has a deep globe shape. Its flesh is tender, its skin smooth, and very dark crimson with only the faintest trace of zoning. My parsnip will be All-American because of its clear, white flesh and very small core.

From the Gardeners' Chronicle of America, February 1938.

An American staying in a London hotel was introduced to an Aberdonian, who asked him: "And what country do you belong tae?"

"The greatest country in the world!" replied the American.

"Man! So dae I," replied Sandy, "but you dinna speak like a Scotsman."

The Cherry Situation

Murray H. Bingham

(Continued from February)

Pruning

Pruning, which used to be attended to every year in a thorough manner, has degenerated into a cursory going-over of the orchards whereby only dead wood is removed or perhaps some small amount of real pruning done. This may result in pretty good pruning of a few older trees, but while cherries can stand some neglect of this kind, they do need more pruning than any have had.

How Cherries Fruit

Montmorency and Richmond sour cherries should not bear on new wood and should make sufficient annual growth to preclude the formation of blossom buds on first year wood. The leaf buds which should be formed on the new wood the first year make spurs (short branches) in the second year that in turn carry the blossom buds for fruiting in the third and successive years.

Old trees or weak trees that are not making good growth have fruit buds formed on one-year wood, bearing in the second year, which means that no spurs are formed and when the blossoms fall or the fruit is picked right off the side of the branch, that branch is left slick and bare with nothing on it. Successive years merely elongate the slender, willowy, down-drooping branch. What leaves and fruit there are, being borne only on the terminal growth. Degeneration into this bad bearing habit is hard enough to avoid in old trees with good care and the restricted cultural practices and drought of recent years have aggravated the condition badly in all our orchards. Cherry trees that have declined in vigor and succumbed to this bad habit are not so easily restored to the proper mode of life.

The Future

This seems to be the picture at present. Perhaps it presents only the discouraging aspects of the situation. I cannot foretell what is in store for the industry since I cannot foretell the weather. If we really thought the future was all dark I suppose there would now be more abandoned orchards — something I would hate to see. I've always thought that a fruit grower could be described as a calamity howler and a perennial optimist, which is rather a funny combination, something like a hippopotephant.

The encouraging part of it is that usually the trees can, in spite of poor condition, carry enough buds for a good bloom, as was the case this last year. As I've said, the potential crop of Door County is probably as great as it ever was. Of course, the older, partially neglected orchards, of which there are many, will not produce per acre what the owners of the younger orchards may expect. That was not the case when the orchards were maintained by replanting and were receiving better care.

Our winter has been mild to date with but little snowfall. Snowplows were out for the first time on January 12th. We have had no extreme variations of temperature and not more than 10 or 12 nights below zero, with the coldest only about 6 below. The trees are pretty well budded and of course there has been no injury to date.

All we need is a big crop and a good price.

Nora: "If you like his attentions, why don't you marry him?"

Flora: "Because I like his attentions."

BULLETIN ON CHERRY LEAF SPOT AVAILABLE

A NEW bulletin on cherry leaf spot has been issued by the Wisconsin Agricultural Experiment Station, Madison, and is entitled the "Epidemiology and Control of Cherry Leaf Spot" by Keitt, Blodgett, Wilson and Magie.

While the bulletin is somewhat scientific in its nature, nevertheless it contains much of value to the cherry grower.

ORCHARD SOILS VARY CONSIDERABLY IN DIFFERENT STATES

THE fact that orchard soils vary a great deal in different states and that fertilizer practices must be suited to the needs of the soil was emphasized at the meeting of the Association of Horticultural Science recently. Professor M. A. Blake, Chief of the New Jersey Experiment Station, for example, stated that in New Jersey lime is important. He saw Delicious trees in orchards on which the fruit was very small due to the lack of lime. It was his opinion that sulphur sprays might create a sour condition, increasing the trouble, and resulting in smaller fruit. New Jersey soils are notably low in lime and other plant food elements. Complete fertilizers are used in these orchards.

The New Hampshire Station, on the other hand, reports an experiment showing that the addition of potash fertilizer did not benefit the fruit trees either in yield of fruit, size or color.

In New York, investigations indicated that on heavy clay soils McIntosh trees did not yield as well as on the lighter soils. At the three- to four-foot level, there were no air spaces in heavy clay soils before July 15 because they were filled with water.

BEACON SCIONS AVAILABLE

WE have been able to secure a limited quantity of scions of the Beacon apple, originated by the Minnesota Fruit Breeding Farm. A few will be sent free on request to any member of the Society.

Beacon is a very red apple, of the Duchess season, and is said to be replacing Duchess in Minnesota. It keeps much longer than Duchess and is of a much more attractive appearance, so will outsell Duchess on the market. The tree is very hardy and a good producer.

HOW FRUIT SHRIVELS

IF ONE side of fruit, such as apples and tomatoes, is heated, moisture is driven from this side to the opposite or cooler side, with the result that often the heated side shrivels.

In work done at the Cornell Experiment Station, it was found that the warm side of fruits lose water which is driven to the cooler side as water vapor. This is the case in fruits having continuous air spaces such as apples and tomatoes. Since there are no air spaces in oranges or potatoes, there is no such movement.

Niagara's Non-Caustic Program For Fruit Disease Control

NIAGARA KOLOFOG

A sulphur fungicide in its purest form. Once dried on the leaf it never washes off.

Prevents scab and other diseases. Will not burn foliage during hot weather.

NIAGARA SUSPENSO LEAD ARSENATE

Stays In Suspension for a Long Period

Spreads smoothly and evenly. No black sludge with lime sulphur. Maximum killing power. Safety to fruit and foliage.

WHEN YOU BUY Niagara YOU BUY PROTECTION

Niagara Sprayer & Chemical Company

J. HENRY SMITH,
Sales Representative
Waupaca, Wisconsin

IN THE ORCHARD

POLLENIZERS FOR MINNESOTA PLUMS

W. H. Alderman

IN regard to pollenizers for the Minnesota hybrid plums, I can report that in regions far enough north so that the hybrids and the native varieties come into bloom together, there is usually little or no difficulty over pollination. Most of the native plums, including those in the wild, seem to be able to pollenize the hybrid plums quite successfully. As we go south, however, into the latitude of southern Minnesota and central Wisconsin, we find the native varieties blooming later than the hybrids. Under such conditions it is a little more difficult to find a good pollenizer. The best recommendation we have is the Kaga, which is in itself a hybrid and blooms about the time most of our other hybrids bloom. Toka is also a good pollenizer, and Hanska is fairly good. These are all similar hybrids from Dr. N. E. Hansen of South Dakota. Of the native varieties, Wisconsin No. 24, Surprise, and DeSota are very good.

Best Varieties

Of the newer plums, I would say that Superior and Ember seem to be giving very good satisfaction. I really think that these are two of the best of all our introductions. Of the older varieties, Underwood is still a favorite; Monitor is very productive and with many people very satisfactory. Fiebing plum, introduced by Charles Haralson after he left the Fruit Breeding Farm, is beginning to make a place for itself, particularly in the northern sections. It is large and splendidly colored, and of reasonably good quality. The greatest fault I find with it is that under our conditions it is somewhat subject to brown rot.

HIGH TEMPERATURES MAY AFFECT POLLEN

EXPERIMENT stations are studying the reasons why fruits, such as strawberries and apples, sometimes do not pollenate well. There is evidence now to lead to the conclusion that high temperatures may affect pollen, which may be one reason why strawberries sometimes do not set fruit well. If the temperature is too high during the blooming period, the pollen may be in poor condition and fail to fertilize the blossom. Work is being done along this line and definite results may be available in the near future.

JEFFERSON COUNTY FRUIT GROWERS WILL MEET

THE Jefferson County Fruit Growers Association will meet at the Armory in Lake Mills on Friday, March 25, beginning at 10:00 A. M.

An excellent program has been prepared. H. J. Rahmlow, Madison, will show and discuss the motion picture film, How Wisconsin Fruit Growers Spray Their Orchards. Mr. C. L. Kuehner, Madison, will talk on orchard problems.

A luncheon will be served by the ladies, which is always an attraction at these meetings, which are very well attended.

Present officers of the association are: President, Wm. R. Leonard, R. 1, Ft. Atkinson; Vice-President, Wm. Boese, R. 4, Ft. Atkinson; and Secretary-Treasurer, Carroll Krippner, R. 1, Ft. Atkinson.

Aunt Lizzie's Love Advice

Advice to Co-eds: If you are looking for a real thrill, try kissing a man with hiccoughs.—Skipper.

WANTED—GRAPE TESTERS

IMPROVED varieties of grapes should be more widely tested in Wisconsin in the opinion of our Fruit Testing Committee. Some of the early and high-quality varieties originated by the New York Experiment Station, at Geneva, look very promising. Inasmuch as grapes are usually covered for winter protection in Wisconsin, these grapes may be considered relatively hardy. At least their hardiness should be tested.

The Horticultural Society would like to hear from interested grape growers willing to test some of these new varieties. The Society will pay one-half the cost of the plants which will be obtained from the New York Fruit Testing Association. The varieties which should be tested include Brocton, Golden Muscat, Hector, Seneca, Westfield, and Yates. The varieties Fredonia, Ontario, and Portland originated by the New York Station have already proven themselves adapted to Wisconsin and superior to many of our old varieties.

Dr. F. E. Gladwin, grape specialist at the New York Station, asserts that the Concord grape is definitely on the way out due to its restricted adaption.

NEW MONEY-MAKING FRUITS

BEACON—New all-red Early Apple! Brings $2.00 bushel when Duchess brings 75c.
MINN. No. 1007—Apple—New! Highest quality, long keeper.
MINN. No. 790—Apple—New! Destined to take the Rome Beauty Market.

Fee Catalog—Big Discounts for Early Orders

ANDREWS NURSERY
Faribault, Minn.

The Low Cost Irrigation System

CONSIDERABLE interest has been aroused as the result of the article in our February issue on the low-cost irrigation system developed by Professors Duffee and Bruhn of the Engineering Department of the College of Agriculture.

Several companies have become interested in the manufacture of this low-cost system known as the Junior Rotary System.

It is estimated that the entire outfit, sufficient for irrigating up to eight acres, can be purchased for about $270, not including a motor or gasoline engine. This is at the rate of about $34 per acre.

For smaller acreages, the cost per acre will be higher, although less pipe for the main will be required. The cost for two acres will be about $200, if the water supply is in the field to be irrigated. A two H. P. electric motor or a 2 to 3 H. P. gas engine will furnish sufficient power for this system.

The new junior system uses only from 15 to 20 lbs. pressure and therefore cheaper pipe and a less expensive pump and smaller power can be used.

The rotary sprinklers must be placed 20 feet apart on the pipe line instead of 40 feet as in the older system. The line commonly is 200 feet long with 10 rotary sprinklers and irrigates a strip 45 feet wide. The line can therefore be moved 40 feet and still make a good lap.

Each nozzle will discharge about four and one-third gallons per minute. The 200 ft. line will put an inch of water on one-fifth acre in two hours. One man can move the system in a half hour and so about an acre can be watered in a 12½-hour day. Quick moving is accomplished by using light-weight two-inch tubing with quick-detachable couplings.

The water supply for any irrigation system should be cheap and plentiful. A city water main can be tapped for this system to advantage and no engine need be used. The ten sprinklers will discharge about 45 gallons per minute, or 27000 gallons per hour. Ordinary well water pumps furnish only about 250 to 500 gallons per hour.

A list of companies manufacturing parts for this system may be obtained by writing the Department of Agricultural Engineering, Wisconsin College of Agriculture, Madison.

TRY CHINESE CABBAGE

TO those who would like to grow Chinese Cabbage, I would suggest the variety listed as Chihili. There are two other varieties of Chinese Cabbage. Chihili is the one commonly seen in grocery stores—large, long, solid, and pointed at the tip. The variety known as **Wong Bok** is short, not so solid, and tends to bulge at the top. This variety reminds one somewhat of Cos Lettuce. The third variety, Petsai or improved Pekin, is very similar to Chihili except that the leaves curve outward at the tips instead of folding inward and closing the top. All three of these varieties are adapted to Wisconsin, but Chihili is earlier and generally forms a higher percentage of heads—especially under adverse weather conditions.

Our mid-summer temperatures are too high and the days are too long to permit Chinese cabbage to head if started in early spring like ordinary cabbage. The seed should be sown outside about July 15 in the southern part of the state and somewhat earlier in the north. About 85 days should be allowed from seeding to harvest. And incidentally, solid, healthy, uninjured heads of Chinese cabbage may be stored satisfactorily in a cool, moderately moist cellar for two months or more. — C. B. Combs, Department of Horticulture, Madison.

HEAD LETTUCE VARIETIES

A GOOD crisp head type of head lettuce is New York No. 515. Either start the seeds in late March and transplant the plants to the garden in late April or early May, or sow the seeds in the garden in late July or early August and thin them to 10 to 12 inches apart. This latter practice will enable the plants to form heads during the cool shortening days of early fall when moisture is likely to be plentiful. For those who prefer the butterhead type of head lettuce, I would suggest the White Boston.—C. B. Combs, Department of Horticulture, Madison.

TOMATO VARIETIES

AT least four new varieties of tomatoes are worthy of trial. Stokesdale, Nystate, Early Baltimore, and Supreme Marglobe have given excellent results in our trials during the past two seasons.

All of these are second early, red-fruited varieties which are adapted to both canning and fresh market. Another comparatively new variety is Pritchard, which is well adapted to Wisconsin conditions and particularly to soils which are high in fertility, especially nitrogen. In fact, Pritchard should not be grown on extremely light soils which are lacking in organic matter and are low in fertility. — C. B. Combs, Department of Horticulture, Madison.

SMALL FRUITS

REMOVE THE MULCH FROM THE STRAWBERRIES EARLY

TAKE the mulch off the strawberry bed relatively early in the spring, is the advice of Prof. R. H. Roberts, Horticulture Department, Wisconsin College of Agriculture.

Mulch early in the fall and take it off early in the spring, now seems to be the recommended practice.

If the mulch is left on too long, it may mean a weak type of blossom and the foliage is also affected.

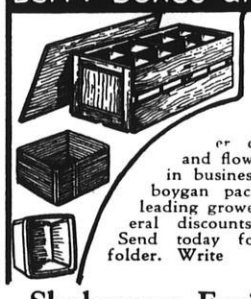
The strawberry bed should be uncovered soon after the ground thaws in the spring, or at about the time that growers start to dig plants for sale.

In experiments at the Wisconsin Station, it was found that a delay of a week in removing the mulch after the correct time, resulted in nearly a 50% reduction in yield during two seasons.

It has been found that the best time to uncover in the vicinity of Madison is between April 15 and 20.

There was some frost injury to blossoms when the mulch was removed early, but this proved much less damaging than the loss of vigor resulting from late uncovering.

Berry Boxes and Crates



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HOW DEEP SHALL WE SET STRAWBERRY PLANTS

THE March issue of Country Gentleman contains a short article stating that in Oregon strawberry growers set plants deep enough so the crowns are two inches below the surface. They claim that the plants develop a large root system in a short time and that they have very little replanting.

That might be an idea to try out in soils which do not bake. However, it certainly would not work for us on the heavier soils. The new leaves cannot force their way through the crust which forms after a rain.

I like to set the plants as deeply as possible, but where the crown has become completely covered by washing soil, I have often dug down with a table fork, and found blanched shoots curled under the crust.—Virgil Fieldhouse, Dodgeville.

PLANTING STRAWBERRIES

NEW ideas on planting are constantly springing up. The latest is the recommendation to plant strawberries with the crown well under the surface of the soil.

This practice is recommended in an article in the Country Gentlemen, written by a Pacific Coast nurseryman, who states that in Oregon, where four tons of berries per acre are sometimes grown, the strawberries are set deep enough to leave the crowns well below the surface of the ground.

They use long-handled shovels in planting, much the same as we do here. One worker pushes the shovel deeply into the soil, pushing it from him and then pulling it toward him. The other worker puts the plant in the hole, with the roots spread. The plant is left with the crown a couple of inches below the surface, with two or more leaves above ground. The soil is pressed firmly against the roots by the foot of the worker.

The object of deep planting it would seem, is that the plants are protected from drying out. As Mr. Fieldhouse mentions on this page however, conditions vary in different localities. It might be well for growers on light soils to try this idea on a small scale, at first, to see if it will work in Wisconsin. We are inclined to agree with Mr. Fieldhouse that it will not work on heavier soils which bake after rain.

WHY PLANT STRAWBERRIES EARLY

EXPERIENCE has taught that strawberries live better and grow better if they can become established early in the spring while the soil is still cool and moist. Late set plants are more likely to run into hot, dry conditions which make good results unlikely if not impossible. Furthermore, investigations have shown that runner plants made early are much more fruitful than those made in late summer or fall. Early spring plants, therefore, tend to promote a larger percentage of highly productive, early set runner plants. If ordering plants be sure to order early enough so that they can be at hand as soon as the ground is prepared.

Results of experimental studies on the growth and development of strawberry plants near Washington, D. C., published in 1930, showed high growth rates

for plants during days where average daylight temperatures were from 68 to 75 degrees F., while lower or higher temperatures slowed up the rate of growth greatly. This checks with the experience of growers who know that strawberry plants often start out in spring and make a very rapid growth until the first hot days of midsummer. Then the growth is checked until the cooler days and nights of late summer and early fall. This indicates one more reason for early setting to give the plants full advantage of the favorable growing temperatures of late spring and early summer.

Clipping the Roots

Some growers clip the roots of strawberry plants before setting. If not cut too short, it does no harm. However, it is not necessary nor helpful if you can get the root of the plant in the soil without being doubled up. It is better to clip the roots somewhat than to have them doubled up in the ground. Where a horse-drawn transplanter is used it is probably better to clip the roots anyway to expedite handling the plants unless they are very small.

SUDAN GRASS GOOD FOR MULCHING

SUDAN grass makes a very satisfactory type of mulch, according to Professor Roberts. When an old strawberry patch is plowed under and sudan grass sowed, enough material can usually be secured to mulch another patch of similar size. Manure or nitrogen fertilizer should usually be applied after a crop of sudan grass because this crop depletes the soil of readily available nitrogen.

What topics about fruit growing shall we discuss in our April issue. Write at once.

Try Taylor and Marcy Red Raspberry

THE Taylor and Marcy red raspberries from the New York Experiment Station have been quite highly recommended as being good raspberries in a number of states.

For this reason the Fruit Testing Committee of the Wisconsin Horticultural Society is recommending them for limited trial in different sections of Wisconsin.

The following are the descriptions of these two varieties as given by the New York Fruit Testing Association:

Marcy — this red raspberry was offered for the first time in 1936. The berries, the largest of any variety in the Station collection, are long-conic, firm, thick-fleshed, medium red, mild in flavor and of good quality. The plants are tall, vigorous, healthy and hardy at Geneva. The sturdy canes which should not need support, bear the fruit out in the open, thus facilitating picking. Marcy is worth trying for market and for home use, being especially noteworthy for the very large berries, vigor and productiveness of the plants.

Taylor—is the most promising red raspberry on the Station grounds at the present time, and is offered for trial for both market and home garden. The plants are usually vigorous, hardy, productive, tall growing, and increase rapidly. Taylor is more subject to mosaic than Newburg, and the necessary control measures for that disease should be followed. The sturdy canes hold the berries well off the ground. The berries ripen shortly before Latham, are large, long-conic, bright attractive red, thick-fleshed, firm, subacid and of excellent quality. They do not cling to the bush as tightly as Newburgh.

The Society will pay one-half of the cost of the plants, plus the postage, for any member who wishes to test these two varieties.

Prices

Send us your order for Marcy and Taylor at the following prices:

1 dozen raspberry plants—35c.
2 dozen raspberry plants—60c.

We will pay the balance and the postage. We will also keep your name on file and keep in touch with you as to results, which will be published in the magazine. The plants will be sent to you by mail by the New York Fruit Testing Association, Geneva, N. Y.

RASPBERRY AND STRAWBERRY PLANTS

Latham raspberry plants. Disease free. Dorsetts, Fairfax, Beaver, and Senator Dunlap strawberry plants. Mt. Vernon Nurseries, Viola, Wisconsin.

STRAWBERRY PLANTS

Strawberry plants: Strong, healthy Beaver and Premier plants covered before heavy freeze. Alfred Isaacson, Route 3, Menomonie, Wis.

STRAWBERRY PLANTS

Strawberry plants for spring planting, Warfields, Dunlaps, Beavers, Premiers, Fairfax, and Dorsett. Prices moderate. Discount on large orders. Mrs. John Jensen, Warrens, Wis.

Why National Forests in Wisconsin

Scott Leavitt, U. S. Forest Service

WHILE this is by no means a bedtime story, I am beginning it with a once upon a time. I do so because the present need of setting up and developing national forests in Wisconsin, along with those in 37 other states, stands out most vividly when painted against that contrasting background.

Once upon a time, then, Wisconsin had no peer as a lumber producing state. Because its natural resources were so largely those of the forest, the working and living basis of very many of its people was from the beginning the forest and the industries of the forest. Fur traders, loggers, lumbermen, millmen, paper makers, boatmen, railroads, tradesmen—all were nurtured by them. The bitter hardships which dog scores of north Wisconsin communities have tragically grown with the steady waning of these resources of the forest.

In some instances escape from this hounding adversity has come because lands cleared of timber have proved to be good for farming. Other industrial activities, sometimes related to closer utilization of wood products or newly developed uses of what formerly was waste of the woods and mills, have ameliorated the situation in still other places. But in the case of perhaps 17,000,000 acres of Wisconsin forest lands, these other hoped for values have not followed after the depletion of the forests in any degree sufficient to save the dependent people and communities from distress.

The task of protecting this enormous area from the further devastation of forest fires, and of restoring it so that it can again redeem its highest responsibility of usefulness to our people is a tremendous one. It is, indeed, so vast that it demands the attention of private owners, the counties, the state, and, upon invitation of the state, of the Federal Government.

Federal Aid

This invitation to the Federal Government came in the form of an enabling act passed by the Wisconsin legislature in 1925, and later amended. The U. S. Forest Service, acting as agent for the Government, is authorized to acquire by purchase and agreement with owners up to 2,000,000 acres of suitable forest lands, within the limits of national forest units.

Conserve for Use

Our thinking today encompasses a dozen needs which only the forest can supply. We recognize social and economic human values and make them paramount in all our conservation plans. It is a cardinal principle that human welfare, a fundamental objective of conservation, depends on wise use of natural resources. We cannot conserve merely by preserving, but we can so restore, protect, and use our forest resources that they will be permanent. Forests are growing things. Parts of them have highest value as producers of ever recurring crops of timber, thus giving regular employment to people, steadfastness to industries and stability to homes and communities. Some areas have predominant worth for recreation, and will be so dedicated, kept and administered. Other tracts are set aside as primitive areas, where even trail building is at a minimum and cutting for commercial purposes is taboo. In established practice the ethical values of trees along the roads are held to be above any other use.

Again, the wildlife of the forest is considered an essential part of it. No forest is complete without its furred, feathered and finny inhabitants. Their living problem, though less complex than that of human beings, involves the essentials of food and shelter, and the duty of the forester is to see that, in all the plans made for the multiplicity of human uses to which forests may be put, the creatures of the wild are provided for.

Progress

How all these things are planned for by trained foresters and experts and how CCC and other labor is applied to their accomplishment, is another story. It is a story interesting but impossible to tell within the limits of this brief article. Suffice it to say that within the limits of the Chequamegon National Forest 742,387 acres have been acquired by the Forest Service, and that 470,910 acres have been acquired on the Nicolet (there is still much land to purchase before the 2,000,000 acres authorized by the Wisconsin legislature are reached), and that in 1937 alone 20,759 of these acres were replanted to forest trees. Truly, the work of regeneration is under way.

These national forests are a vital part of the entire forest conservation plan. They are pulling in harness with the forest work of the state. With government ownership of these limited lands and with government resources back of a long time and well established national forest policy, they are not only areas where forests are being rebuilt

and scientifically administered, but they also are laboratories where experiments in policy and forest management may be carried through to conclusions, during necessary periods of years. They are establishments where correct answers may be found, and right ways agreed upon, toward ensuring that there will be forests with all their benefits for our children and our children's children. It is this which the Garden Clubs are helping to do through the Wisconsin School Children's Forest.

LILY FORMOSANUM

THIS lily was originally listed as L. Philippinense formosanum but has recently been accorded specific rank and the name changed to the Lily formosanum. The late variety, Wilsons, is a superior form of the trumpet lily which is fast becoming one of the most popular species. Of refined and graceful appearance the exquisitely shaped long, wide-mouthed trumpet flowers are of purest white, slightly colored externally with reddish-purple which fades as the flower matures. The throat is light green. The slender stem and grass-like foliage, with the long, drooping bud give a distinction possessed by no other white lily. One of the latest to bloom, from September to frost, it is one of the easiest grown; plant 5 to 8 inches deep in well drained soil; a warm, sunny situation suits it best; stem rooting. Bulbs when established will produce three to four or more spikes each carrying from four to eight blooms of pleasing fragrance.

Home is where you can scratch any place that itches.—Battalion.

PARK PLANTING

Phelps Wyman, Consulting Landscape Architect, Milwaukee

WHILE the principles involved are the same in both cases, park planting is very different from that of the ordinary yard. The size of the area is much greater so that material must be selected and arranged so that it is in good proportion with that size. Naturally, trees are the kinds the most used, planted in abundance and in large masses, just as large unbroken lawn areas are similarly planned to be in proportion. A single tree or small group is lost or is inconsequential. This is especially evident in the use of evergreens, which, in too small quantities, seem exotic or misplaced and to clutter up the area. Evergreens are rarely to be used singly and, for effectiveness, need the cumulative effect of many plants. Not that evergreens in park planting should be used in large quantities as are deciduous trees for that would be impracticable or deadly. It is better rather, if evergreens are employed, that they be in smaller masses or a part of a large tree mass that is partly evergreen, partly deciduous, not mixed, but divided into smaller related masses. Evergreens, however, give their best effect in winter when the parks are largely out of use and so are less needed. They occupy valuable space, which overhanging deciduous trees do not, and are much more liable to injury and loss. Evergreens as a material make so strong a mental impression that to be in proportion to deciduous trees, a much smaller quantity should be planted than the deciduous.

Use of Shrubbery

The opportunity to use shrubbery in park planting, except in close relation with buildings as foundation and similar planting, is less frequent than with the small private place. When employed for borders, good proportion says that the masses shall be heavy and the size generally large, although a desire to avoid monotony may dictate the use with them of some smaller kinds. Yet too great variety will spoil the appearance. Border plants and division plantings where portions of a park are subdivided to different uses or effects are their chief employment.

Flowers are difficult to use in parks on account of this matter of scale. Where employed, they require a heavy background of shrub planting or to be placed in an isolated garden. Large masses of one kind are appropriate here where impossible in a private place.—Condensed from article prepared for The Municipality, February, 1938.

"Why don't you go into politics?"

"I've been in politics," answered Farmer Corntassel. "I once got elected to the legislature. And I found the legislature was just as hard to improve as the farm."

Avoid Gladiolus Troubles

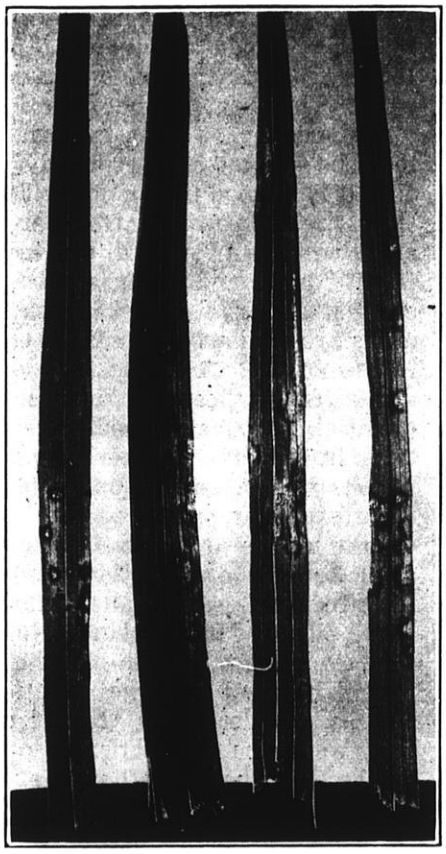
E. L. Chambers

GLADIOLUS thrips do not normally hibernate out-of-doors in Wisconsin, so it is important to avoid infesting the plantings from insects which may escape from winter storage. The husks which are discarded as the corms are worked off during the winter and spring months should be burned promptly, since they offer one certain source of infestation. There have been instances where large piles of these husks were thrown out beside the storage and the thrips apparently survived the winter temperature to become a menace to nearby plantings the following summer.

Treat Bulbs

Even though the corms have been fumigated in the fall or held at low temperatures for several weeks, it is good insurance to treat them in the spring before planting. Mercuric chloride (corrosive sublimate) because of its value in controlling fungous diseases, as well as thrips, is recommended for this purpose. The desired solution is made by dissolving an ounce of the chemical in 7½ gallons of water. Because of its corrosive effect on metals it should be handled in earthenware, wood or granite containers. The corms may be confined in burlap sacks and after soaking 2 hours they should be spread out to dry, unless they are to be immediately planted. In drying the corms after treatment, extreme care must be taken to avoid exposure to untreated corms or materials and thus allow them to be contaminated.

The solution used for treating corms can be used over and over again for additional lots, but it should be borne in mind that to maintain the proper strength, **one-third of an ounce of the mercuric chloride must be added each time,** together with sufficient water to bring it up to 7½ gallons or for large vats the water level maintained and one-third the initial dose of the chemical added. This treatment will destroy all stages of the thrips from egg to adult.



Leaves of gladiolus grown from bulblets showing typical hard rot disease lesions.

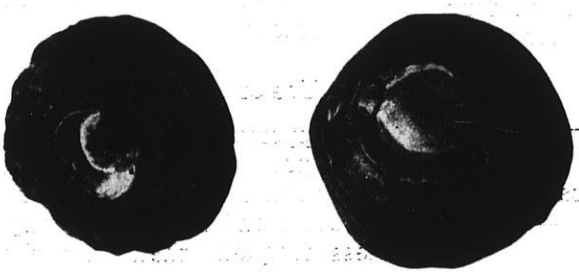
Recent studies made by federal investigators show that not only did gladiolus corms infested by gladiolus thrips lose weight during the storage period faster than non-infested ones, but that, after planting, the infested corms were retarded and made an uneven growth, also that the blooming of such corms was delayed and subsequent corm production reduced greatly as compared with non-infested corms.

Fungus Diseases

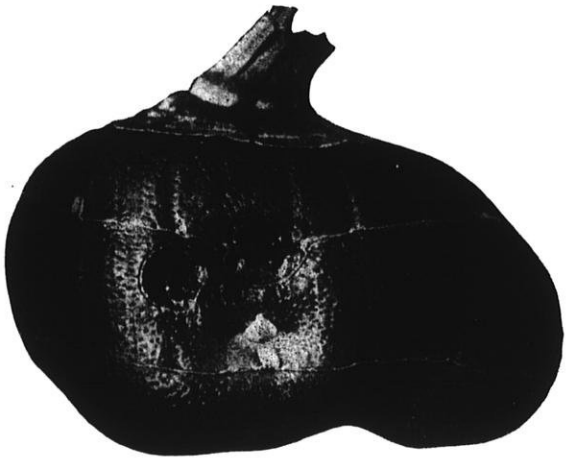
Among the fungus diseases which cause injury to gladiolus bulbs, scab and hard rot, shown in the accompanying cuts, are the most common and no doubt the most serious.

Scab (Bacterium marginatum McC) Scab is a bacterial disease which attacks the leaves and corms of the gladiolus. On the leaves the disease is usually located near the neck. Brown to black streaks develop and at the surface of the ground the leaves and stems may rot off. On the corm, portions of the husks are usually rotted out, leaving holes with black margins as though they had been burned. Within the husks on the corm circular, slightly sunken scabs develop. These may be one-fourth inch in diameter and are frequently shiny as though shellacked.

Hard rot (Septoria gladioli Pass.) Hard rot is due to a fungus which attacks the leaves of young gladiolus particularly those growing from cormels. On them small circular spots with grey centers develop. Later minute black specks may be seen



Two gladiolus corms with the husks removed. The corm on the left is infected with hard rot while the other is healthy.



A gladiolus corm with two scab spots.

in the grey centers, and from these spores are shed which, blown about by the wind, may attack other gladiolus leaves or they may be washed down and infect the corms. Leaves of mature gladiolus are seldom if ever attacked. Scab spots develop on the corm. These may be minute water soaked raised spots or larger, with a sunken center and slightly raised reddish margin. During storage these may increase in size to involve the entire corm.

Other diseases resulting in considerable injury to gladiolus are the following:

Dry rot (Sclerotium sp.) This is a corm rot that is so similar to hard rot that it cannot be distinguished without a laboratory study.

Fusarium rot (Fusarium sp.) This rot also attacks the corms, producing slightly sunken black areas, slightly spongy at first, but later becoming hard. Frequently concentric rings of slightly raised and depressed tissue can be noted, and in this way this disease may be distinguished from hard rot and dry rot.

Control

There is no really satisfactory cure known as yet for any of the above gladiolus diseases. Numerous chemical treatments have been tried with but slight success.. All of the organisms listed are said to be capable of living in the soil for several years, so gladiolus grown on soil that has been used previously for diseased gradiolus may become infected.

The following procedure will, however, lessen the amount of disease: 1st, when cleaning the corms in the fall discard all that show disease lesions. Repeat this culling in the spring before planting; 2nd, treat all corms with bichloride of mercury at a strength of 1 ounce to 7½ gallons of water for 2 hours; 3d, plant on clean ground.

While it is true that chemical treatments have failed to effect satisfactory cures of the corm diseases, a definite improvement has consistently followed the use of chemicals. It is also true that healthy corms will frequently develop from diseased ones without any treatment. In other words, the percentage of discarded corms is apt to decrease from year to year in a particular lot of corms whether they are treated or not. This indicates that most of the infection occurs during the year the corms are raised from cormels. Particular attention should, therefore, be paid to the cormel stock. It is probable that a spray program would aid in reducing the disease. Several applications, during the early part of the season, of a 4-4-50 Bordeaux spray combined with some good spreader might be worthwhile.

Caution—Mercuric chloride is a deadly poison and must be handled accordingly. It is not poisonous, however, unless taken internally. (Post office regulations prohibit sending bulbs treated with this chemical thru the mail.)

EVERGREENS TO PLANT IN SHADE

Question: I have had difficulty with my evergreens dying. The soil is apparently in good condition and I have watered and fertilized them according to instructions but they seem to die. They are planted along the front of the house, which faces north. Can you suggest anything I can do?

Answer: If you have not allowed your evergreens to dry out at any time, and if you did not put the fertilizer in the holes so that it is possibly burning the roots, we should say that the next possible solution of your trouble is the improper selection of evergreens. It is quite common to find not only amateurs but even nurserymen and landscape gardeners recommending the use of sun-demanding evergreens such as the junipers for planting in the shade. We suggest that you use some of the various forms of Japanese yew or hemlock, mahonia, Euonymus radicans, E. Radicans carrierei, E. radicans vegetus, or the inkberry, Ilex glabra. These are all plants that will withstand shade, but, like all evergreens, require plenty of moisture until they are thoroughly established.

From. Jan. 15, 1938, Horticulture.

Perhaps one of the best things that could be done to improve street tree plantings in most of our cities would be to provide enough space between the trees. Farmers' Bulletin 1209 suggests that 50 feet is close enough for most varieties, and in favorable locations with larger trees 60 to 70 feet would be better.

Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

B. A. Robinson, Kenosha, President
K. J. Timm, Markesan, Vice-President
H. J. Rahmlow, Madison, Cor. Sec.

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

Regional Vice-Presidents
Robt. Jantz, Eldorado
Frank Thomas, Kenosha
Chester Harrison, Waldo
Clarence Kunde, Oshkosh

ANNUAL SPRING MEETING

Wisconsin Gladiolus Society

Hartford—Municipal Bldg., Saturday, March 26

ALL members and friends of the Wisconsin Gladiolus Society are invited to attend the annual spring meeting to be held at the Hartford Municipal Building on Saturday, March 26. An excellent program has been arranged.

The Board of Directors of the Society will meet during the forenoon.

THE PROGRAM

1:30 P. M. Colored motion pictures showing winning varieties at the Gladiolus Show at Oshkosh, also other garden flowers. H. J. Rahmlow, Madison.

Colored film of gladiolus prepared by the Vaughan Seed Company of Chicago.

2:15 P. M. Colored slides of new gladiolus varieties. Edwin Ristow, Oshkosh.

Colored slides of new varieties, by the Vaughan Seed Company of Chicago.

2:45 P. M. How to treat our gladiolus bulbs to control various insects and diseases. Noel Thompson, Division of Entomology, State Department of Agriculture and Markets, Madison.

3:15 P. M. Report on the varieties in the Legion Trial Garden. E. A. Lins, Spring Green.

3:40 P. M. How I grow gladiolus. By a leading grower.

4:00 P. M. Discussion of bulbs shown in the bulb exhibit and how they were judged by the judges.

Be sure to enter some bulbs in the bulb show. Premiums listed elsewhere on this page.

GLADIOLUS BULB SHOW

Hartford—Municipal Building
Saturday, March 26
Classes

Class 1. Heaviest Corm — not over ½" stem, outer husk removed.
Class 2. 5 No. 1 corms.
Class 3. 5 No. 2 corms.
Class 4. 5 No. 3 corms.
Class 5. 5 No. 4 corms.
Class 6. 5 No. 5 corms.
Class 7. 5 No. 6 corms.
Class 8. 5 heaviest cormels.

Premiums on Each Class

1st Prize—50c; 2nd Prize—30c; 3rd Prize—20c.

Score Card for Judging

Uniformity—20 points.

Color of husk—20 points.

Freedom from disease or insect injury—30 points.

Conformity with size standards—30 points.

Judges to be selected by the president from non-competing members present. **Exhibits must be in place by 1 P. M., ready for judging.**

GLADIOLUS PROPOSED AS OUR NATIONAL FLOWER

A RESOLUTION to adopt the gladiolus as our national flower was recently adopted by the Sioux City, Iowa, Gladiolus Society. Copies of the resolution were sent to the President and members of Congress from Iowa, as well as gladiolus societies.

This is a matter which should be considered by all gladiolus societies, especially the national organizations. With united support from all over the country behind such a project, it might pass. If any one organization, however, proceeds with the desire to "get the credit" for putting it across it will probably fail.

SOME NEW INTRODUCTIONS FOR 1938

AT the turn of the century it was popular to conceal the background and parentage of seedlings, the originators evidently fearing that their work might be duplicated. Have no such fear. Just think of a few examples of this kind, where the parentage is identical, yet one would never guess this to be a fact. Take for example Picardy and Evensong, both from the same cross (Apricot Glow x Emile Auburn), the one an unequalled salmon pink and the other a beautiful smoky.

Carl Salbach is introducing four new varieties. All are of his giant strain. They are Candy Heart, Grand Opera, Miss American and Pink Princess. "Grand Opera is probably the most sen-

sational Salbach creation of all time. It is truly a whopper, yet it is in every respect refined and beautiful. Candy Heart is another mighty big, yet beautiful Gladiolus, and it is something definitely new for a color combination. Miss America is a dream of palest flesh pink, colored as exquisitely as one could imagine. Pink Princess, deeper flesh pink, almost salmon, is another beauty —tall, with many florets open at once, and substance unexcelled by any other gladiolus." Candy Heart is another Picardy seedling, being from the cross Picardy x Grand Opera.

Elmer E. Gove is introducing six new ones, four of which are Palmer's. One is by Suttle and the other by Zimmer. The beauty of color and form which dominates Dr. Palmer's new seedlings captivates our fancy. A short description of them will not be amiss. They are all of 1932 breeding, **and are all Picardy progeny!** I wonder if you folks appreciate as I do the giving of the parentage of new things? It takes six years to get new material placed on the market. Heading the list is **Aladdin**—huge waved grenadine pink with light cream blotch. One of his 1937 introductions was **Recado,** from the same cross as **Aladdin,** but it is a smoky. This cross is Picardy x Royal York. The latter is from this series of crosses: Stuttgardia x (Catherine Coleman x Pfitzer's Triumph). The next one is **Amulet**—very heavily ruffled capucine orange—(Picardy x Wasaga), which are half-sister seedlings. **Carillon**—tall, clear LaFrance pink with creamy blotch — (Rosemarie Pfitzer x Picardy). **King Lear**—heavily ruffled deep rhodamine purple—(Ramesses x Picardy).

By J. Elton Carter, Condensed from Iowa Gladiolus Winnowings.

Read the article on page 188 on gladiolus diseases.

GLADIOLUS THRIP

IT has been found that if gladioli corms are stored at a constant temperature of 36° F. for two months or at 40° F. for three months, gladiolus thrip will be completely eliminated. This explains why some of our commercial gladioli growers have never had trouble with this pest. We find that in every case where no serious infestation of thrip occurs during the summer, that the grower has stored his corms at low temperatures throughout the winter.

From Oct., 1937, Bulletin of the Michigan State Florists Association.

ARE GLADIOLUS BULBS HARDY?

THE Missouri Botanical Garden has carried on tests during the past few years to determine if gladiolus bulbs were hardy and have found them to come through the winter in good condition even though frost penetrated eighteen inches deep.

During the winter of 1935-36, for example, temperatures were 25 degrees below zero in the northern part of the state during the last part of January, and in St. Louis, where the test was carried on, the soil froze solid to a depth of eighteen inches. Gladiolus bulbs had been planted in the fall six inches deep in fairly heavy soil. One plot was mulched with six inches of dried leaves held in place by cornstalks, but the other plot was left entirely bare. In the spring, digging down they found the bulbs to be in good condition and about the middle of May the young shoots began to break through the soil. In the unmulched plot, however, there were a number of dead bulbs but those in the mulched plot grew well..

In summarizing the results of the experiment the following conclusions are given:

Growth from corms stored in the basement was in no respect superior to that from corms planted outdoors in the fall.

Plants from corms stored in the basement flowered about one week earlier than those left outdoors. The reason is probably high storage temperature.

One advantage claimed for leaving bulbs outdoors is that thrips are probably controlled well because they do not live over in cold ground.

GLADIOLUS ARISTOCRATS

Price-list of a selection of the best new varieties will be sent free on demand. A. S. Haugen, Stoughton, Wisconsin.

Grand New Gladiolus
OUR LIST TELLS
How to get them FREE on our DOUBLE VALUE OFFER for early orders
Westmoreland Gardens
7014 S. E. 20th Avenue
Portland, Oregon

Gladiolus Bulbs
EXHIBITORS COLLECTION
One bulb, 1 inch or over, of the following: Takin, The Bounty, Raquel, Toa, Miss New Zealand, Makenu, Ben Hur, Golden Fleece, Whero, Waikawa, Mrs. M. G. Wade, Mac and St. Lawrence.
Special for March only: A $6.00 value for $3.00, prepaid. Extra special: 1 dozen bulblets Beowulf for $1.00, prepaid.
My list will be gladly mailed upon request
HAROLD E. JANES
Whitewater, Wisconsin

AGICIDE
TRADE MARK
Use Proven Safe Insecticides for
Controlling Garden and Crop Pests
Derris—Rotonone Products
Agicide Laboratories
4668 N. Teutonia, Milwaukee, Wis.
Telephone—Hilltop 7050

EDITORIALS

HARDY APRICOTS AVAILABLE

THE Wisconsin State Horticultural Society will pay one-half the cost of one or two of the new hardy apricot trees introduced by Prof. N. E. Hansen, of South Dakota, from North China. They came from a region where 50 deg. F. below zero is quite common in the winter. They are called Manchu apricots. Careful selections have been made so that the fruit is of good quality, especially for preserves. The trees are quite ornamental because of their fine glossy leaves. We will pay one-half the cost of one or two trees per member with a limit of 50 trees, so send in your order early. Additional trees may be purchased at the full price of $1 each. For the trial trees send us 50c for one tree or $1 for two trees with $1 per tree for any additional trees you may want.

MINNESOTA FRUIT GROWERS SHORT COURSE

THE Horticultural Department of the Minnesota College of Agriculture will hold a short course for fruit growers and other horticulturists on March 23-25. Our members living in the western part of the state may be interested in this course and for more information should write to the Horticultural Department, College of Agriculture, University Farm, St. Paul.

THIN-SHELLED BLACK WALNUTS A POSSIBILITY

THE wild species from which the English walnut has developed bears small thick-shelled nuts that are no better than ordinary black walnuts now available. This statement was made by Prof. L. H. MacDaniels, of the Cornell University at the Horticultural Science conference.

It has taken many years of culture and selection to obtain the thin-shelled English walnuts of today. Plant breeders may be able to obtain black walnuts with shells no thicker than those of the English walnuts. The first step, of course, is to locate the best trees which are growing wild. This work has been carried on for a number of years by the Wisconsin Horticultural Society.

WALNUTS GERMINATE WELL

THE pound of Carpathian English Walnuts I purchased from you last spring contained 52 nuts which were planted as directed. Thirty-two (32) germinated and started trees. The stems measured from three inches to a foot high before frost. The young trees looked healthy. —Dr. H. M. Wynne, Minneapolis.

Remember—seeds of the hardy Carpathian English walnuts direct from the Carpathian Mountains are available from the Wisconsin Horticultural Society. Drop us a card for circular.

OUR COVER PICTURE

THE cut for our cover picture this month was loaned us through the courtesy of the American Horticultural Society, and was used in an issue of the National Horticultural Magazine. It shows Narcissus Thalia with white tulips and Ornithogalum thyrsoides in clear glass bowl. By Ikko Greger, Alexandria, Va. It was used in connection with an article by Mr. Greger entitled "Ideas Behind Japanese Flower Arrangement."

EFFECTIVE MULCHES FOR WINTER PROTECTION OF PERENNIALS

GLASS wool was found to be the best material for mulching perennial flowers as a winter protection in an experiment conducted at Cornell University by

R. C. Allen and S. E. Wadsworth. Oat straw, wheat or buckwheat straw were found about equal in value as a mulching material. Excelsior was not as effective, possibly because it is very porous and is not a good insulator. Fairly fresh strawy manure was about equal to excelsior. With most plants, leaves alone were found to be a very poor mulching material. Burlap was of little value. Granular peat moss was effective in preventing fluctuations in temperature.

WHAT I THINK OF THE HARALSON APPLE

I HAD always felt there was no late apple to substitute for North Western Greening as a cooking apple. Then when Haralson was tried out we found it was just as good for pie, sauce and other uses.

I think North Western Greenings are wonderful when they are mature, large and yellow—but there are always so many green ones which lack flavor, and small green apples which are useless. Haralson does not produce a lot of useless apples.—Mrs. Virgil Fieldhouse, Dodgeville.

FIRST NURSERY IN OHIO

"WRAPPED in beeswax to keep them alive, scions of 27 named varieties of apple trees were carried in saddlebags from Massachusetts to Marietta, Ohio, about 1790 and there were grafted on the seedling apple trees by William Putnam, grandson of Israel Putnam of Revolutionary fame. Thus was begun the first nursery in Ohio and from that humble beginning the nursery industry has grown until Ohio has become one of the leading states in production of nursery stock."

From The Minnesota Horticulturist.

HOME LANDSCAPE PLANNING

University Offers a Course of Instruction by Correspondence

FROM the drabness of an unadorned home site into a beauty and charm that elevate "just a house" to the pedestal of a "home" is one of many changes to be expected from home landscaping plans intelligently applied. This is a purpose of Wisconsin's new home-study course in landscape design, offered by the Extension Division, in cooperation with the Department of Horticulture, of the University of Wisconsin at Madison.

The 16-assignment correspondence course, prepared and directed by Professor F. A. Aust of the horticultural department, is available to students anywhere.

The instruction includes such topics as the survey plan, design plan, and planting plan. It deals with the construction of a beautiful lawn, the securing, planting, and caring for the plant materials, and the introduction of special features essential to the final enjoyment of the planting. The text material includes mimeographed assignments, illustrations and drawings.

The course may be taken by the novice, although some previous training in landscaping or botany will be found helpful.

A lecture course, limited to Wisconsin groups, also is planned. As time permits, members of the Horticulture faculty will be available for illustrated addresses for Garden clubs, Women's clubs, and other groups whose aims include the improvement of home and individual life through cultivation of the aesthetic by means of more attractive outdoor settings. For more information, write to the Extension Division, University of Wisconsin, Madison. The price for the 16-assignment course is $10.00, for Wisconsin residents.

Plow, Harrow, Disc, Seed, Cultivate, Spray, Mow. Sizes up to 4HP. BOLENS Power Hoe @ $88.50 for Gardening, Cultivating and Lawn Mowing. Easy operation. Many patented features. It's fun to run a BOLENS. Write Gilson-BOLENS Co., 3821 Park St., Port Washington, Wis.

THE NATIONAL CHERRY PIE CONTEST

MISS Edna Bauman, of Madison, the Wisconsin representative in the National Cherry Pie Contest, placed fifth this year. The winner was Mary Wine, of Indiana. The representative from Ohio placed second, Michigan, third, and Illinois, fourth.

Among those from Wisconsin attending the contest held in Chicago on Washington's Birthday, February 22, were Mr. and Mrs. Karl Reynolds, Don Reynolds, A. W. Lawrence, and Earl Johnson, of Sturgeon Bay.

NURSERYMEN MEET

THE Wisconsin Nurserymen's Association held its annual convention at Milwaukee, February 10. The following officers were elected: President, T. A. Singer, Milwaukee; vice-president, Willard Dustrude, White Elm Nursery, Hartland; secretary-treasurer, H. W. Riggert, Fort Atkinson.

Director for one year is N. A. Rasmussen, Oshkosh; for two years, H. W. Haskins, Pardeeville; for three years, Floyd B. Fancher, Sturtevant, and Karl Junginger, Madison. Mr. James Livingstone, Milwaukee, and Thomas S. Pinney, Sturgeon Bay, are hold-over directors.

M. C. Hepler, Pardeeville, secretary-treasurer for a number of years, has left the nursery business and was given a rising vote of thanks for his services.

The program was filled with items of particular value to nurserymen and held the interest of the group throughout the day.

About the Home and Garden

Mrs. C. E. Strong, West Allis

THOSE MORNING GLORIES

PLANT two or three seeds of Heavenly Blue Morning Glories in small pots anytime this month, if you want early blossoms. Soak the seed over night in warm water, fill the pots with a mixture of ordinary garden soil and sand, water well, then put in your seeds and cover lightly with some of the soil mixture. Then cover with glass or cloth. The seeds will germinate in from one to three days. Place them in a sunny window and keep well watered. They will start budding when only a foot high. When there is no danger of frost, set out in the garden in the pots—(they will bloom much better if not disturbed). Sink the pots several inches below the surface of the ground.

The newer varieties of Japanese Morning Glories may be treated in the same manner. You may grow them as plants instead of vines by pinching back when they are 12 to 14 inches high. If kept potted, they will give you immense blossoms.

Calystegia

There is a perennial Morning Glory that I had not seen for a number of years. It has double pink blossoms and good clean foliage. It will grow almost anywhere, even in dry, sandy spots where nothing else flourishes.

Calystegia Pubescens Fl. pl. is how it is catalogued. There seem to be several varieties—one of which will spread considerably. The kind that grew and shaded the east window in the kitchen never spread half enough to satisfy all the flower lovers who wanted a root. This Calystegia bloomed all summer. It should be an attractive wall plant.

Bobby likes to sit in his garden and enjoy the many flowers there. These pictures will tell you what some of them are. Answers in our next issue. How many can you solve?

Summer Bloom From Bulbs

When you are thinking of bulbs for the borders—summer bulbs we call them—Tuberous-rooted Begonias for the shady spots, Hyacinthus Candicans, Giant Ismene (the Peruvian Daffodil), Zephyranthus, etc., add that almost hardy variety Agapanthus Moorearcus. Its clusters of blue blossoms will prove to be very attractive. Just remember that it needs plenty of water and liquid fertilizer, if you want to see it at its best. I would also include some bulbs of the Speciosum Lilies. They can be planted in pots and sunk down from eight to ten inches in a spot that should contain plenty of leaf mold and peat. They also like plenty of moisture when in bud, but not so much fertilizer. One bulb of Speciosum Rubrum gave me a stem with 20 long stemmed lilies. Even if they only lived one year, they have repaid in full for cost and care.

Garden Notes

Have you tried using groups of white Delphiniums in your borders? Their frosty white blossoms add much to its beauty, especially in late afternoon and early evening. Tall-growing white Phlox will carry on the effect later in the season.

Wisteria

If you have been disappointed because your Wisteria vine has not bloomed, why not treat yourself and garden to one of those gorgeous Tree Wisterias. Every year it grows more beautiful and gives more bloom.

Hardy Fuchsia

We have had Begonias that were hardy with some protection; now comes the hardy Fuchsia that blooms all summer

and fall. Ruby-red pendant blossoms by the hundreds. We will surely have to try them. Fuchsias are so very graceful—both as a plant and as a cut flower. It should be good for table decoration.

Flower Arrangement

Speaking of flower arrangements, the latest idea—and a very sane one, it seems to me—is "personality" in flower arrangement. Do not copy, but arrange your flowers so that they tell everyone that you, yourself, are shown. Of course, we need balance and line. These are always necessary, but we also need more flower arrangements that show personality.

One flower lover—who, I regret to say, is not a garden club member—plans her table decorations to fit the guests. These may be just one or two intimate friends who enjoy flowers. Then the decorations are simply a few very choice, perhaps unusual, specimens. For the larger group the center piece should be sparkling, show life and color, so that every guest will be pleasantly conscious of it.

MRS. STRONG TO RETURN IN MARCH

MRS. C. E. STRONG, editor of this page, wrote on February 7, "I expect to be home again in West Allis the first week in March. We have had horrible weather here—snow, more snow, rain, ice, and zero weather. Wisconsin suits me fine."

We welcome Mrs. Strong back to Wisconsin after a winter in Michigan.

TUBEROUS BEGONIAS

An even better mixture of colors, chiefly in double types, than many of you bought last year. Price per dozen: under 1 inch, 75c; 1 to 1¼ inches, $1.00; 1¼ to 1½ inches, $1.50.

LESLIE WOODRIFF
205 S. Inglewood Avenue
Inglewood, California

IMPORTANT COMING EVENTS

March 11-26. Natchez, Miss. The annual showing of ante-bellum gardens and homes by the Pilgrimage Garden Club.

March 14-19. New York, N. Y. The Silver Jubilee International Flower Show of the Horticultural Society of New York and the New York Florists' Club in Grand Central Palace.

March 17-23. Boston, Mass. The 67th New England Spring Flower Show of the Massachusetts Horticultural Society in Mechanics Building.

March 17-23. New Orleans, La. Spring Fiesta sponsored by the Horticultural Society of New Orleans and the Orleans Foundation. including a flower show in the Municipal Auditorium, March 18-20.

March 19-27. Detroit, Mich. The annual Michigan Flower and Garden Exposition under the auspices of the Michigan Horticultural Society at the Convention Hall.

March 21-27. Philadelphia, Pa. The annual Philadelphia Spring Flower Show in the Commercial Museum.

March 24-April 3. Toronto, Canada. The National Flower and Garden Show of the Society of American Florists and Ornamental Horticulturists.

March 26-April 2. Natchez, Miss. The seventh annual pilgrimage to famous gardens and homes under the auspiees of the Natchez Garden Club.

March 26-April 3. St. Louis, Mo. The Greater St. Louis Flower and Garden Show conducted by the St. Louis Flower Show Association.

April 2-10. Chicago, Ill. Spring Flower Show of the Garden Club of Illinois at the Navy Pier.

April 29-May 7. Maryland. Annual Garden Pilgrimage of the Federated Garden Clubs of Maryland. 150 gardens and homes throughout the state will be open to visitors.

GARDEN CLUB CRUISE TO ALASKA

AFTER the Pacific coast convention of the National Council of Federated Garden Clubs, to be held in Seattle, July 27, 28 and 29, 1938, a post-convention cruise to Alaska will be enjoyed. Leaving Seattle Saturday morning, July 30, on the SS. "Dorothy Alexander," the party will be gone nine days, visiting the inland passage through the Straits of Georgia, and up the cost of British Columbia to Wrangell, Ketchikan, Petersburg, Juneau, Skagway, Haines, and Sitka.

SOCIABILITY AT GARDEN CLUB MEETINGS

"IT seems as if we have a great many more people turn out and a much more pleasant time at our garden club meetings if we have some type of social activity, such as a luncheon following the program," was the remark made recently by a prominent garden club worker.

We should try to make our garden club meetings more informal so that the members may become better acquainted. A social half-hour is an excellent way of doing this.

NURSERY FOR SALE; GO INTO BUSINESS FOR YOURSELF

$5,000 buys established Nursery Business, nursery stock and supplies (estimated value $10,000) clear of indebtedness; also equity in 90-acre farm and home. Particulars on request; immediate possession. Within 50 miles of the Twin cities and an ideal place to live. Geo. W. Strand, Taylors Falls, Minn.

QUALITY NURSERY STOCK

Chinese Elm. Heavy transplanted. 3-4 ft., 25c each; 5 @ $1. 2-3 ft., 15c each; 7 @ $1.

Everblooming Hybrid Tea Roses, 20c each; 6 @ $1.

Strawberry Plants. Beaver, Premier, Grand Champion, Dorsett, Fairfax, Blakemore, Gem Everbearing.

Mosaic-Free Raspberry Plants. Red—Chief, 100 @ $1.50; Black—Cumberland, Logan and Kansas, 50 @ $1. New Herbert, 12 @ 75c.

Hall Nursery, Elmwood, Wis.

Rhododendrons

Kalmia, Azalea, Hemlock, etc. Various sizes in any quantity. Write for low prices and state size.

DEEP GAP NURSERY
Deep Gap - North Carolina

Try These New Ornamentals

Plant Testing Committee Recommendations

(Continued from February)

Cimicifuga Racemosa (Bugbane; Bugwort; Virginia Snakeroot; Black Cohosh)

Cimicifuga is a denizen of woodsy places and is a very late tall blooming plant, growing from four to eight feet tall and blooming in June. The leaves are cut deeply and are large. The flowers are small, white, feathery and closely set, borne on long stalks. Often over 18 inches of the stem is in bloom at one time.

The Bugbanes are suited to moist and shaded places and will easily naturalize themselves along the edge of woodlands. They make good cut flowers. They will also endure the sun in the open border and should be more widely used. They like a rich soil.

Gaillardia Burgundy

Gaillardias are especially satisfactory on dry sandy soil. They bloom over a long period and are quite hardy. They will do better on a poor soil than on one which is fertile.

Burgundy is a new coloring in Gaillardias—a shining wine red of good size with long stiff stems. Its seeds are sown very early and the plants may bloom the same year.

Helenium (Sneezewort)

Heleniums are very satisfactory border perennials. They grow from two to three feet tall, are quite hardy and bloom profusely.

The two new varieties recommended, Crimson Beauty with crimson red flowers and Moerheim with crimson flowers, will add a new note to the garden.

ORNAMENTALS FOR TESTING IN 1938

Recommended by the Plant Testing Committee

TREES

Hardy Apricots (Hansen's)
Thornless Honeylocust, Gleditsia triacanthos inermis
Sargent Crab, Malus sargenti

SHRUBS

Truehedge columberry, Berberis thunbergi pluriflora erecta
Mint shrub, Elsholtzia stauntoni
Dwarf winged burning bush, Euonymus alatus compacta
American highbush cranberry, Viburnum americanum

VINES

Monkshood vine, Ampelopsis aconitifolia
Hydrangea petiolaris (climbing)

ROSES

Springtime (Apple blossom)
Symphony (Pink Druski)

PERENNIALS

Hardy Asters: Alderman Volkes; Charles Wilson; Skylands Queen; Frikarti
Hardy Chrysanthemums: Emmet (bronze Amelia); Nacola—yellow; Panola—pink; Rosika—deep rose
Cimicifuga racemosa
Gaillardia Burgundy
Helenium, Crimson Beauty—(crimson red); Moerheim—(crimson)
Iris dichotoma
Eupatorium Coelestinum—Mist flower
Strawberry Baron Solemacher
Lilium formosanum

Iris Dichotoma

The Dichotoma or Vesper Iris is recommended because of its dainty blue or lavender flowers, beautifully marked, which open at about four o'clock every afternoon. In fact the flowers "pop" open. While the blossoms last only a day there is continuous bloom because a new set of blossoms open up each day over a period of from two to three weeks, or almost the entire month of August.

Eupatorium Coelestinum (Mistflower; Hardy Ageratum)

The Mistflower does well in light shade. Coelestinum is one of the finest fall perennials, its pale lavender furnishing an excellent foil for autumn yellows.

This hardy Ageratum grows to two to three feet tall and blooms in September. The bushes are large with abundant lavender flower heads like ageratum. Excellent for cut flower.

Strawberry Baron Solemacher

This runnerless strawberry, Baron Solemacher, is a fine novelty for the garden or as a pot plant. May be grown from seed and will bloom within eight weeks after sowing and produces large quantities of fruit throughout the season.

While the fruit is smaller than the usual cultivated berries, they have a delicate wild flavor. These plants are especially good in the rock garden.

Hardy Asters

Varieties selected show improved plant growth, better flowers as to size and color, and earliness of bloom—all improvements over older varieties.

Frikarti—Wonder of Staefa. One of the finest of the new perennials. Bushy plants, wider than tall (30 inch height), bearing quantities of fragrant, single, blue flowers 2 to 3 inches across, on good stems. The flowers last a long time when cut. Sometimes slow in becoming established and gardeners will find

a bit of added care the first season is time well spent. Blooming from July until frost the plant is especially adapted to the border plantings.

Skylands Queen—A novel Aster with 2 inch blue flowers having distinct yellow centers; plant growing about 3 feet tall with dark green disease resistant foliage; flowering from late August to frost.

Charles Wilson—A deep cerise-red with no magenta, quite different from the other red varieties, and a shade that will please every lover of Michaelmas Daisies. Compact growing bushy plants about 3 feet tall; September flowering.

Alderman Volkes—An early September flowering variety with good size deep rose-pink blossoms; plants growing about 2 to 3 feet; bushy habit; profuse flowering.

Hardy Chrysanthemums

Selected for early flowering nature and colors, as well as good plant growth.

Emmet—A dwarf, early flowering variety similar to Amelia as to type. A warm rosy-bronze in color with single flowers of good form; very profuse blooming. The plant attains a height of 15 inches and a spread of 2 feet.

Nacola—An exceedingly bright yellow, double flowered variety. In habit of plant growth is like the other early flowering dwarf types; profuse blooming with flowers of good form.

Panola—A seedling of Amelia, it has the same dwarf habit of growth, is very profuse blooming, but the flowers are a dark rosy-pink, much deeper pink than Amelia.

Rozika—Fully double flowers of bright pink, excellent for cutting and long lasting. Plant grows about 18 inches tall; profuse blooming; very early flowering; and one of the hardiest Mums.

PEONIES AT ROSENDALE

WHILE there are not as many large peony growers in Wisconsin as there are dahlia and gladiolus growers, nevertheless wherever there is a good peony garden, that garden will draw sight-seers from many miles around. Wherever I go, the people I meet begin to talk about flowers and ask, "How are the peonies?"

So far, I can answer that the peonies are all right here at Rosendale. We have had a good deal of snow and some rainy weather. My best peony garden is covered with a pond of frozen ice and water, which has been the case for several years and was at first alarming. To protect them, I ridge up the rows high over the plants, leaving deep ditches between the rows. While the ground is frozen solid, all is well, and when it thaws the water is quickly absorbed or drains off the field. Cold weather is what the peony likes best even to being frozen up solidly for the whole winter. They also like a cool summer. Our location does fairly well. Northern Wisconsin and Michigan are better.

When the frost comes out, see to it that your grounds are well drained. That's all we can do now and in the April issue we will discuss spring planting.

—W. A. Sisson.

FLOWER ARRANGEMENT EXPERT'S VIEWS

MRS. Constance Spry, who is said to be the foremost exponent of floral decoration in England, is now visiting in this country and will lecture in several cities. It is interesting, writes the editor of **Horticulture**, published by the Massachusetts Horticultural Society, to find her views on the use of flowers in the home outlined to some extent in the 1937 year book of the Royal Horticultural Society of London.

Probably a number of flower arrangement experts are going to disagree with Mrs. Spry on the following point: "I know there is an idea that it is wrong that you should mix wild flowers with anything as exotic as a lily; hardly should you mix wild flowers with garden flowers, certainly not with orchids. I do not agree. What in Heaven's name does it matter whether it is wild, or exotic, fruit or vegetable, if it is beautiful and suitable; that is all one need consider."

WHERE VARIETIES FOR PLANT TESTING MAY BE OBTAINED

A NUMBER of Wisconsin nurserymen have some of the varieties listed on this page and also described in our last issue, recommended by the Plant Testing Committee.

The Rasmussen Fruit Farm and Nurseries, R. 4, Oshkosh, will again have all the varieties available. Send for their price list.

The Cedar Hedge Farm Nursery, Cedarburg, Mr. A. F. Boerner, Mgr., has hardy apricots, thornless honey locust, Sargents crab, truehedge columberry, dwarf winged burning bush, American highbush cranberry, the hardy asters, cimicifuga racemosa, and gaillardia burgundy.

PLANT TESTING VARIETIES

Try several of these excellent trees, flowers and shrubs this year. Send for our price list.

RASMUSSEN'S FRUIT FARM AND NURSERIES

Oshkosh, Wisconsin

STATE GARDEN CLUB FEDERATION NEWS

Mrs. J. Martin Johnson, President
529 Woodside Ave., Ripon
Mrs. Chester Thomas, Hon. President
1744 N. Cambridge Ave., Milwaukee

H. J. Rahmlow, Cor. Secretary
Madison
Mrs. Sam Post, Rec. Secretary
Shorewood Hills, Madison

Mrs. E. A. St. Clair, 1st V. President
2418 N. 65th St., Wauwatosa
Mrs. Charles Schuele, 2nd V. President
Oconomowoc

SUCCESSFUL REGIONAL MEETING HELD AT FORT ATKINSON

A TOTAL of 30 garden club presidents, state committee members, and district and state officers met at Fort Atkinson on February 15, in the second of a series of meetings planned by the Wisconsin Garden Club Federation Executive Board. The purpose of the meeting was to plan the work for the year and enable the officers and committee members to become better acquainted. Hostesses were the officers of the Fort Atkinson Garden Club, of which Mrs. A. J. Koenig is President. After an excellent luncheon, the group adjourned to the Municipal Building for the discussion.

Mrs. Frank Quimby, of Racine, Conservation Chairman, gave the first report. She stated, "Let us not be too sentimental but be 'sensimental' about conservation. We must conserve for use and stop abuse." She recommended the purchase of the beautiful colored stamps available from the Wisconsin Wildlife Federation, Court House, Madison. Garden club officers may send for a supply of the stamps which can be sold to club members. A portion of the money is available for county use to promote wildlife restoration.

Mrs. Quimby urged clubs to take hold of the project of promoting the Wisconsin School Childrens' Forest described in our last issue. Visit your schools and interest the children and teachers in this work. Material and information may be obtained

by writing Mrs. Frank Quimby, 1422 Blaine Boulevard, Racine.

A project is now under way to tag the Christmas trees sold in Wisconsin. This year we found tags on trees from Oregon which read, "This tree was cut so another tree might grow." This is the sort of thing we want in Wisconsin.

In the absence of Miss Merle Rasmussen, Horticulture Chairman, H. J. Rahmlow reported on plant testing work, urging all clubs to take part in this project and test at least some of the new varieties recommended for trial.

Miss Mary Lowerre, Chairman of Junior Work, said that gardening was a credit course in the country schools of Waukesha County. She stated, "In order to have gardens we must have gardeners. By teaching the growing of flowers to our children we are developing gardeners for the future. We had 39 flowers shows in Waukesha County last year, staged by junior garden clubs. They were judged by senior garden club members. One of the ways of interesting children in the growing of plants is to cut the tops off of rutabagas. The tops look like little hats which may be placed on moist ground. The children eagerly watch the green leaves come from the little hat. They also plant English walnuts in water and watch them sprout."

Miss Lowerre suggested that garden club members contact teachers and school principles and offer help in junior garden club work. Meetings may be held once each month, usually the last hour on Friday afternoon. An entire grade may be organized into a junior garden club. The garden club members furnish the lesson plans and programs, which should be interesting to the children. Lesson plans may be obtained from Miss Mary Lowerre, Delafield, Wisconsin.

Mrs. Samuel Post, Recording Secretary - Treasurer, reported that the majority of clubs are increasing the dues paid to the Federation on the voluntary plan. A more detailed report will be presented later.

Mrs. E. L. Sevringhaus, 3914 Cherokee Drive, Madison, Program Chairman, asked the club members to send to her or to the Magazine suggestions for programs, giving information on any excellent programs which your club may have had during the past.

Mrs. R. Hibbard, 7034 Aetna Court, Wauwatosa, Garden Club Organization Chairman, stated that she is planning to create a committee with membership in each district in order to contact new clubs throughout the state. Mrs. E. A. St. Clair, 2418 N. 65th Street, Wauwatosa, 1st Vice-President, asked all clubs to send to her clippings from local news-

papers about club activities for the Federation scrap book. Mrs. St. Clair is acting as publicity chairman.

Mrs. Robert Alder, Elkhorn, stated that their garden club program has been printed for the entire year, which they find very desirable. The Elkhorn Club will cooperate in staging the flower show at their county fair in September. This is a project which might be considered by other clubs.

NEW COMMITTEE MEMBERS APPOINTED

AT THE regional meeting held at Fort Atkinson, on February 15, the following committee members were appointed:

Mr. E. N. Miles, Ft. Atkinson, Chm., and Dr. W. T. Lindsay, Madison, member of Roadside Beautification under the Conservation Committee.

Mr. J. C. Ward, Fort Atkinson, was appointed a member of the Horticultural Committee.

Mrs. H. J. Torrence, Whitewater, was appointed a member of the Junior Garden Club Committee.

Mrs. John R. Johnson, Whitewater, was appointed a member of the Conservation Committee.

Mrs. Harry MacDonald, Lake Geneva, was appointed a member of the Visiting Garden Committee.

Mrs. Theodore Ward, Fort Atkinson, was appointed a member of the Program Committee.

A complete list of all committee members will be published in our April issue. Additional members will be appointed at a regional meeting in Oshkosh early in March.

GARDEN CLUB MEMBERSHIPS EXPIRE THIS MONTH

This is the last copy of Wisconsin Horticulture our garden club members will receive unless the dues are sent in to the Federation secretary-treasurer by March 20.

PROGRAM PLANNING

Mrs. Elmer Sevringhaus
Chairman, Program Committee

I AM so relieved! I'm **not** going to have to lie awake nights concocting ideas for this new program exchange column; your enthusiastic response even this first month assures me of that. (If you don't know what this is all about, please see the program column in the February issue.)

The Whitewater Garden Club, of which Miss Hannah Larson is president, has given me a copy of their interesting 1938 program. Among the clever ideas for roll call are, "Satisfactory seeds I planted last year," "Name a prominent horticulturist and his specialty," "Herbs and how to use them," and "Bring an evergreen specimen and tell the name." In April the members exchange seeds and in June, plants. An idea which deserves to be copied is their "May Breakfast" at 9 A. M. followed by a "Garden Stroll."

Thank you, Whitewater, for being the first club to send your program. Yes, I want copies of your 1938 programs, please, and notes about ideas most successful in your clubs, as I mentioned before.

Horticulture

Miss Merle Rasmussen in her talk before the regional meeting in Milwaukee recommended a five minute period at each meeting for learning horticultural facts, two or three different members preparing these facts each time, such as, "Did you know that the Wilson variety of formosanum lily is the best and why?" Thus our fund of horticultural knowledge would grow. She urged the use of the Morton Arboretum bulletin, $1 per year, saying that any one copy would make a program outline.

There is no law against interstate commerce in ideas, and Mrs. Walter Dakin, president of the Madison district, submits this real idea from the Elgin club in Illinois. Try a "Vegetable Meeting" with papers on the newer varieties, and on the color possibilities as you plant vegetables either in flower cutting gardens or separately. (Wouldn't red cabbage and egg-plant with a blue edging of lobelia look well?) The Elgin Club ended the meeting with a sale of a Vegetable Recipe Book, to which each member had contributed her very best vegetable recipe. Such a booklet would make an excellent home product to sell at our flower shows, I think.

I will be watching the mails for your offerings, Presidents and Program Chairmen. Address me in care of the Horticultural office or at 3914 Cherokee Drive, Madison.

PLANT TESTING

Be sure to read the list of varieties recommended by the Plant Testing Committee and published on page 196.

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National Wildlife Restoration Week

C. J. Ballam, State Chairman, Madison

THE National Wildlife Restoration Week to be held throughout the nation from March 20 to 27th under proclamations issued by both President Roosevelt and Governor La Follette is an outgrowth of the second North American Wildlife Conference held in St. Louis last year when the Federation was made a permanent organization and Mr. J. N. Darling was elected as its first president.

The first conference held the year before was upon call of Pres. Roosevelt and was held at Washington, while this year's meeting is to be held at Baltimore. The Federation today has forty-eight states affiliated and is composed of groups interested in conservation, such as: hunting and fishing clubs, Izaak Walton League chapters, Audubon Societies, Garden Clubs, Federation of Women's Clubs, Junior Chamber of Commerce, Future Farmers of America, 4-H Clubs, Boy and Girl Scouts and other lodges and civic groups.

The Federation is a coordinating and servicing organization concerning itself with the problem of wildlife restoration on the North American Continent. There are no dues on affiliated groups and any organization interested in conservation is eligible for affiliation with the state federation. Wisconsin's state federation is the Wisconsin Wildlife Federation at Madison, Wisconsin, and Mr. Cyril J. Ballam is President and state representative to the National group.

Where to Obtain Information

The first annual National Wildlife Restoration Week to be held this March 20 to 27th was voted the Federation's No. 1 project at the St. Louis Convention. Its purpose is to provide a permanent method for financing the national, state and local groups and to acquaint the public with facts regarding the wildlife crisis upon our continent by continuous publicity. Mr. Fred Jordan, 400 Madison Ave., New York City, is the National Director and will be glad to furnish any group or club with material by writing to him or the state chairman for the same.

Local groups or organizations are asked to hold various functions during the designated week, card parties, shows, trap shoots, lectures, dinners or any activity which will fit the particular locality. Fifty per cent of the proceeds will remain with the local organization while the remainder will be split up for national and state conservation education activity. The present crisis in our wildlife calls upon us all to marshal our forces in its support.

NATIONAL WILDLIFE RESTORATION WEEK

THE first annual Wildlife Restoration Week will be held starting March 20, 1938.

Write to the Wisconsin Wildlife Federation, Court House, Madison, Wis., for information and some of the beautiful wildlife stamps which may be sold to help this cause. They sell at $1.00 per hundred.

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NEW GARDEN BOOKS
Available From the Traveling Library

AMONG the books acquired during the past year which may be borrowed from the Traveling Library Department, State Office Building, Madison, either through your own Public Library or direct by mail if you live in a community without library service, are the following books on gardens and gardening:

Bates—The gardener's second year
Eberlein & Hubbard—Practical book of garden structure and design
Free—Gardening
Griffith—Gardening on nothing a year
Hill—Garden portraits
McFarland—Roses of the world in color
McKenny & Seymour—Your city garden
Matschat—Annuals and perennials
Matschat—Bulb and house plants
Matschat—Garden calendar
Matschat—How to make a garden
Matschat—Planning the home grounds
Matschat—Shrubs and trees
Meade—Adam's profession and its conquest by Eve

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Vice-Chm.—Mrs. Thomas Mullen, 311 E. Johnson St., Fond du Lac
Sec.-Treas.—Miss Merle Rasmussen, R. 4, Oshkosh

Madison District

Chairman—Mrs. Walter Dakin, 2519 Kendall Ave., Madison
Vice-Chm.—H. S. Bostock, 15 W. Main St., Madison
Sec.-Treas.—Mrs. George Carpenter, 233 Ninth St., Baraboo

Milwaukee District

Chairman—Mrs. W. F. Roecker, 3319 N. 14th St., Milwaukee
Vice-Chm.—Mrs. Fred Niedermeyer, 4162 N. 16th St., Milwaukee
Sec.-Treas.—Mrs. Roy H. Sewell, 957 N. 70th St., Milwaukee

South Central Disrtict

Chairman—Mrs. H. C. Smith, Lake Geneva
1st Vice-Chm.—Mrs. E. Sorenson, Winsor St., Elkhorn
2nd Vice-Chm.—Mrs. H. J. Torrence, 1116 Highland St., Whitewater
Sec.-Treas.—Mrs. George Sherman, Lake Geneva

GARDEN CLUB OFFICERS

Baraboo Garden Club

President—Mrs. H. J. Bohn, 215 Sixth St.
1st Vice-Pres.—Mrs. H. J. Steeps, 104 Seventh St.
2nd Vice-Pres.—Mrs. Charles True, 217 Second St.
Secretary—Miss Della Payne, 522 Second St.
Treasurer—Mrs. T. F. Risley, 115 Eleventh St.
Meeting—2nd Tuesday of each month at 2:30 P. M.

Brandon Community Garden Club

President—Mrs. J. G. Strodthoff
Vice-Pres.—Mrs. A. Rakow
Secretary—Mrs. W. Williams
Treasurer—Mrs. C. Tank
Meeting—3rd Friday of each month at 2:00 P. M.

Cambridge and Lake Ripley Garden Club

President—Miss Anna Duckert, London
Vice-Pres.—Mrs. P. C. Westphal, Cambridge
Sec.-Treas.—Mrs. B. A. Thronson, Cambridge
Meeting—3rd Tuesday of each month at 7:30 P. M.

Chippewa Falls Garden Club

President—Theo. A. Willenbockel, 811 Dover St.
Vice-Pres.—Miss Adeline Lee, R. 1
Sec.-Treas.—Miss Minne Enger, Box 237
Meeting—3rd Monday of each month at 7:30 P. M.

Cedarburg Garden Club

President—A. T. Boerner
Sec.-Treas.—Miss Elizabeth Kiefer
Meeting—3rd Friday of each month at 7:30 P. M.

Elkhorn Garden Club

President—Mrs. Harry F. Howe, 302 W. Walworth St.
Vice-Pres.—Mrs. Paul Keller, North Broad St.
Secretary—Miss Lillian Hand, 625 N. Broad St.
Treasurer—Mrs. Lee Welkos, North Lincoln St.
Meeting—1st Friday of each month

Elm Grove Garden Club

President—Mrs. James Johnson, 1532 Alice St., Wauwatosa
Vice-Pres.—Mrs. Geo. Schroeder, Box 69, Elm Grove
Sec.-Treas.—Walter A. Domann, R. 5, Box 329A, Waukesha
Meeting—1st Monday of month at 8:00 P. M. at Leland School

Fond du Lac Community Garden Club

President—Mrs. W. I. Cole, 203 Hoyt St.
1st Vice-Pres.—Miss L. Baker, 9 Seventh St.
2nd Vice-Pres.—Miss Frances Brugger, 212 Fourth St.
Sec.-Treas.—Mrs. J. O. Goranson, 41 E. Ninth St.
Meeting—4th Friday of each month at 2:30 P. M.

Ledgeview Garden Club (Fond du Lac)

President—Mrs. K. A. Boulay, 156 Cottage Ave.
1st Vice-Pres.—Mrs. Thomas Mullen, 311 E. Johnson St.
2nd Vice-Pres.—Mrs. H. C. Rucks, 333 Ledgeview Ave.
Sec.-Treas.—Mrs. E. J. MacIntyre, 300 Ledgeview Ave.
Meeting—2nd Tuesday of each month

Fort Atkinson Garden Club

President—Mrs. A. J. Koenig, 80 Jackson St.
Vice-Pres.—Mrs. E. S. Engan, 213 N. High St.
Secretary—Mrs. T. S. Ward, R. 1
Treasurer—Mrs. Wm. R. Leonard, R. 1

Green Bay Garden Club

President—Mrs. E. P. Barnard, R. 6
Vice-Pres.—Mrs. W. B. Vander Zanden, 923 Darby Lane
Secretary—Miss Emmeline Andruskevicz, 1803 Willow St.
Treasurer—Mrs Fred Schroeter, 1525 Doty St.
Meeting—Alternate Mondays, 7:30 P. M., at Y. W. C. A.

Hales Corners Garden Club

President—Mrs. Donald Rowe, R. 1
Vice-Pres.—Mrs. Earl Dewey
Sec.-Treas.—Mrs. J. B. Heil

Hawthorne Garden Club (Hales Corners)

President—Mrs. Oscar Conrad, R. 1, Box 29, Hales Corners
Sec.-Treas.—Mrs. Geo. A. Leverenz, 2190 S. 82nd St., West Allis
Meeting—3rd Tuesday of each month

Iola Garden Club

President—Mrs. E. A. Lutz
Vice-Pres.—Mrs. O. J. Aasen
Sec.-Treas.—Mrs. R. I. Anderson
Meeting—Last Friday of each month at 2:00 P. M.

Jefferson Garden Club

President—Mrs. Isabel Strohbusch
Vice-Pres.—Dr. O. C. Uttech, 607 Fourth St.
Cor.-Sec.—Frederick Bullwinkel, 1111 High St.
Sec.-Treas.—Mrs. Edna Moen
Meeting—1st Tuesday of each month in evening

Kenosha County Garden Club

President—Mrs. Helmuth Schaefer, 4312 Taft Road
Vice-Pres.—Mrs. E. E. Brenaman, 7017 Eighteenth Ave.
Sec.-Treas.—Mrs. Paul Vigansky, 6518—29th Ave.
Meeting—3rd Tuesday of each month in Court House

La Crosse Garden Club

President—Mrs. D. O. Coate, 410 S. Fourteenth St.
Vice-Pres.—Mrs. H. K. Holley, 230 N. Eighth St.
Sec.-Treas.—G. C. Ellis, 234 S. Twentieth St.
Meeting—3rd Tuesday of each month at 7:30 P. M.

Lake Geneva Town and Country Garden Club

President—Mrs. Lynn Bartlett
1st Vice-Pres.—Mrs. Charles Kaye
2nd Vice-Pres.—Miss Betty Blackwood
Rec.-Sec.—Mrs. Frank Ledger
Cor.-Sec.—Mrs. Sidney Kochel
Treasurer—Mrs. George Sherman
Meeting—2nd Monday of each month at 7:30 P. M. in Public Library

Lodi Garden Club

President—Mrs. Mayme Demynck
Vice-Pres.—Mrs. Orpha Azon
Sec-Treas.—Mrs. Tressa Haberman
Meeting—3rd Tuesday evening of each month.

Madison Garden Club

President—Mrs. F. C. Middleton, Shorewood Hills
Vice-Pres.—Mrs. Otto Niemann, R. 3
Secretary—Mrs. Floyd E. Ballard, Badger Park
Treasurer—Miss Frances Post, 43 N. Lathrop St.
Meeting—1st Tuesday evening of each month

West Side Garden Club
(Madison)

President—Mrs. Hans Reese, 3451 Circle Close, Shorewood Hills
1st Vice-Pres.—Mrs. C. A. Sakrison, Middleton
2nd Vice-Pres.—Mrs. E. R. McIntyre, 4218 Wanetah Trail
Secretary—Mrs. J. C. Wilson, 2637 Mason St.
Treasurer—Mrs. R. J. Colbert, 3901 Council Crest
Meeting—4th Tuesday of month from Feb. through Oct. at 2:00 P. M.

Marinette Garden Club

President—Mrs. M. E. Sibole, 2722 Hall Ave.
Vice-Pres.—C. J. Lindem, 2507 Taylor Ave.
Sec.-Treas.—Mrs. Geo. E. Pestrui, Hotel Marinette

Menasha Garden Club

President — Miss Edna Robertson, 515 Broad St.
Vice-Pres.—Mrs. Herbert Harwood, 329 Chute St.
Secretary—Mrs. G. A. Loescher, 429 First St.
Treasurer—Miss Henrietta Hall, R. 1
Meeting—Last Tuesday of each month at 7:30 P. M.

Menomonee Falls Garden Club

President—Mrs. Gerald Otto
Vice-Pres.—Mrs. A. J. Schloemer
Secretary—Mrs. Kenneth Eckhardt
Treasurer—John Schuldt
Meeting—4th Monday of each month

MILWAUKEE

Art Institute Garden Club

President — Miss Emma Schipper, 510 Homer St.
Vice-Pres.—Mrs. Fred Niedermeyer, 4162 N. 16th St.
Secretary—Mrs. Ray Lundahl, 3119 W. Wells St.
Cor.-Sec. — Mrs. Arthur Poenisch, 3056 W. Wells St.
Treasurer—Mrs. Arthur Winz, Station C, R. 6, Box 633
Meeting—3rd Friday of each month

Bay Shore Garden Club

President — Earl Gardner, 1712 E. Marion St.
Vice-Pres. — Mrs. Conrad Biebler, 3307 E. Olive St.
Sec.-Treas.—Mrs. B. Wilke, 4923 N. Oakland Ave.
Meeting—1st Tuesday of each month at 8:00 P. M.

Blue Beech Garden Club

President—Mrs. H. H. Thomas, Station C, R. 6
Sec.-Treas. — Mrs. John LeFeber, 3900 N. Lake Drive

City Garden Club

President—Dr. Carl M. Schwendener, 231 W. Wisconsin Ave.
Sec.-Treas. — Leo Tiefenthaler, 756 N. Milwaukee St.

Fox Point Garden Club

Presiden t— Mrs. Walter Fleischer, 7242 N. Beach Dr., Fox Point
Vice-Pres. — Miss Ivy Allman, 7032 N. Barnett Lane, Fox Point
Sec.-Treas. — Mrs. Donald R. Kirkland, 8260 Gray Log Lane, Fox Point
Meeting—3rd Friday of each month at 1:30 P. M.

Milwaukee County Horticultural Society

President—Mrs. Irving Lorentz, 1006 E. Manitoba St., Milwaukee
Vice-Pres.—Harry Parson, R. 4, Box 754, West Allis
Sec.-Treas.—Mrs. Erich Raisch, 3473 N. Frederick Ave., Milwaukee
Meeting—4th Tuesday of month at 7:30 P. M. Milwaukee Public Museum

Milwaukee Post Office Employees' Garden Club

President—W. P. Arbuckle, 4053 N. Prospect Ave.
Sec.-Treas. — Henry Konrad, 7917 Stickney Ave.

North Prairie Garden Study Club

President—Mrs. Kate Traedtr
Vice-Pres.—Mrs. L. Heintz
Sec.-Treas.—Miss Letha G. Sherman
Meeting—Last Wednesday of each month

Violet Garden Club
(North Prairie)

President—Mrs. Wesley Arenz
Vice-Pres.—Mrs. Kernel Olson
Sec.-Treas.—Mrs. C. E. Orth
Meeting — Last Saturday of each month at 2:00 P. M.

Oakfield Garden Club

President—Mrs. Erwin J. Wells
Vice-Pres.—Herman Sonn
Treasurer—Mrs. Frank Willard
Meeting—2nd Friday evening of each month

Oconomowoc
La Belle Garden Club

President—Mrs. J. C. Stevens, 513 W. Wisconsin Ave.
Vice-Pres. — Mrs. Harvey Stephans, 335 N. Woodland Lane
Secretary—Mrs. C. C. Pink, 425 S. Main St.
Treasurer — Mrs. Lyle Nash, 235 Woodland Lane
Meeting—First Friday of each month

Omro Garden Club

President—Mrs. H. B. Winslow
Vice-Pres.—Mrs. Madge S. Ford
Sec.-Treas.—Miss Grace Carter
Meeting—3rd Tuesday of each month at 2:30 P. M.

Oshkosh Garden Club

President—Mrs. Homer Pipkorn, 410 Merritt St.
Secretary—Mrs. Erwin Spoo

Oshkosh Horticultural Society

President—W. E. Mouck, 94½ Irving Street
Vice-Pres.—Otto Ruelke, R. 4
Sec.-Treas. — Miss Florence Winchester, R. 4, Box 39
Meeting—1st Monday of each month

Pewaukee Garden Club

President—Mrs. August Richter
Vice-Pres.—Mrs. G. Duckguschel
Sec.-Treas.—Mrs. Lloyd Bartlett
Meeting—1st Tuesday evening of each month

Plymouth Garden Club

President—Mrs. Louis Rohde, 350 Stafford St.
Vice-Pres.—Mrs. Henry Gritt, R. 1
Sec.-Treas.—Miss Mildred M. Schlenter, 332 Caroline St.
Meeting—2nd Wednesday of each month at 8:00 P. M.

Port Washington Garden Club

President—Miss Anna Ubbink, 214 Pier St.
Vice-Pres.—Mrs. Arnold Barr, Milwaukee St.
Sec.-Treas.—Mrs. John Bittner, R. 1
Meeting—2nd Wednesday of each month at 7:30 P. M.

Racine Garden Club

President—Mrs. H. F. Anderson, 317 W. Blvd.
Vice-Pres.—Mrs. Mark Heath, 1339 Wisconsin St.
Secretary—Mrs. E. C. Pfeifer, 3701 Kinzie Ave.
Treasurer — Miss Gertrude Peters, 3701 Kinzie Ave.
Treasurer—Miss Gertrude Peters. 1503 Thurston Ave.
Meeting—2nd Monday of month at 7:45 P. M.

Ripon

Ceresco Garden Club

President—Mrs. E. W. Sommers, 416 Washington St.
Vice-Pres. — Mrs. Herman Berndt, Union St.
Sec.-Treas.—Mrs. F. W. Schlueter, R. 2
Meeting—3rd Monday of each month at 7:30 P. M.

Ripon Garden Club

President—Mrs. Mildred Pedrick, 523 Watson St.
Vice-Pres.—Mrs. Myrtle Boody, 207 Thorne St.
Secretary — Mrs. Laura McDermott, 328 Scott St.
Treasurer—Mrs. Fannie Spratt, 119 Tygert St.
Meeting—3rd Monday of each month at 7:30 P. M.

Ripon Yard and Garden Club

President — Mrs. Walter Johnson, 121½ W. Fond du Lac St.
Vice-Pres.—Miss Maud Russell, 320 Thorn St.
Secretary—Mrs. Lawrence Skilbred, 613 S. Grove St.
Treasurer—Mrs. Fred Danielson, 750 S. Grove St.

Meeting—3rd Monday of each month at 2:30 P. M.

Sheboygan Garden Club

President—Rev. A. P. Curtiss, 630 Ontario Ave.
Vice-Pres. — Fred Hagedorn, 1127 Alabama Ave.
Secretary—Mrs. Wm. Luecke, 2547 Calumet Drive
Treasurer — Francis Schmidmeyer, 2220 N. 11th St.
Meeting — Summer — 2nd and 4th Thursdays of each month; Winter—2nd Tuesday of each month

Sum-Mer-Del Garden Club

President—Mrs. Richard Phillip, R. 1, Box 66, Waukesha
Vice-Pres.—Mrs. Earl Morgan, Nashotah, Wis.
Secretary — Mrs. O. W. Notbohm, Delafield
Treasurer—Mrs. M. O. Gruber, Delafield
Meeting—4th Friday of each month at 2:00 P. M.

Superior Garden Club

President—Mrs. Herbert A. Juneau, 810 E. Fourth St.
Vice-Pres.—Mrs. F. E. Walde, 806 E. Fourth St.
Secretary—Mrs. Omer L. Loop, 1151 College Ct.
Treasurer—Mrs. W. J. Bemrick, Billings Drive
Meeting—1st Thursday of month

Thiensville
Countryside Garden Club

President — Mrs. Charles Leidgen, R. 2
Sec.-Treas.—Mrs. Dale Schockley, R. 2
Program Chmn.—Mrs. Stuart Read, R. 2
Meeting—1st Monday of each month

Washington Island Garden Club

President—Mrs. Arthur Wickman__
Vice-Pres.—Mrs. George Cornell
Sec.-Treas.—Mrs. E. Boucsein
Meeting—4th Tuesday of each month except November and December

Waupaca Garden Club

President—Mrs. C. H. Braman, Box 147
Vice-Pres.—Mrs. O. F. Peterson
Rec.-Sec.—Mrs. O. E. Hanson
Cor.-Sec.—Mrs. R. G. Kirby, School St.
Treasurer—Mrs. F. R. Fisher ,209 E. Lake St.
Meeting—2nd Monday of each month at 3:00 P. M.

Waukesha Town Garden Club

President—Mrs. Margaret C. Peterson, 119 W. College Ave.
1st Vice-Pres. — Mrs. Charles Schuetze, 1202 E. Broadway Ave.
2nd Vice-Pres.—Miss Margaret Braden, 200 Maple Ave.
Rec.-Sec.—Mrs. F. W. Krahner
Cor.-Sec.—Mrs. James Christenson, 124 Fountain Ave.
Treasurer — Mrs. William Cristoph, 102 West Avenue, N.

Wausau Garden Club

President—Mrs. C. L. Barthels, 115 Eau Claire Blvd.
Vice-Pres.—Mrs. P. J. Partman, Forest Park
Sec.-Treas.—Mrs. W. H. Nablo, Forest Park
Meeting—2nd Tuesday of each month at 2:30 P. M.

Wauwatosa
Blue Mounds Garden Club

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Vice-Pres.—Mrs. O. E. Moe, 629 N. 65th St.
Secretary—Mrs. C. I. Longenecker, 6830 W. Wells St.
Treasurer—Mrs. H. E. Freudenberg, 1507 N. 68th St.
Meeting—2nd Tuesday of each month at 1:30 P. M.

Wauwatosa Garden Club

President—R. Ferge, 8036 Milwaukee Ave., Wauwatosa
Vice-Pres.—Mrs. E. C. Haasch, Box 124 Elm Grove
Sec.-Treas. — Ernest Lefeber, 7500 Hillcrest Dr., Wauwatosa
Meeting—3rd Tuesday evening of each month in old High School

West Allis
Hill Crest Garden Club

President—Mrs. R. Larsen, 2043 S. 86th St.
Vice-Pres.—Mrs. A. C. Bastian, 1712 S. 58th St.
Secretary—Mrs. H. C. Krueger, 1421 N. 67th St.
Treasurer—Mrs. C. Foster, 2136 S. 26th St.
Mteting—3rd Monday of each month at 1:30 P. M.

Juneau Heights Garden Club
(West Allis)

President — Charles Sternberger, 2180 S. Livingston Terrace, West Allis
Vice-Pres.—Gordon Chromasta, 6324 W. Oconto Place, West Allis
Secretary — F. G. Fisler, 2871 S. Mabbett Ave., Milwaukee
Treasurer — Alfred Flohr, 2412 S. 67th St., West Allis
Meeing—3rd Monday evtning of each month

West Allis Garden Club

President—Mrs. H. G. Gay, 1978 S. 82nd St.
Vice-Pres.—Mrs. Clara Harrington, R. 5, Box 83
Secretary—Miss Jennie Lindauer, 2141 S. 85th St.
Treasurer—Miss E. Birch, 1535 S. 80th St.
Meeting—3rd Wednesday of each month, at 2:00 P. M.

Whitewater Garden Club

President—Miss Hannah Larson, 111 S. Prairie St.
Vice-Pres.—Mrs. John Johnson, 204 S. Prairie St.
Sec.-Treas.—Miss Grace Armstrong, R. 2

Wild Rose
Dopp Community Garden Club

President—Mrs. Dan Davis
Vice-Pres.—Mrs. Anon Holt
Sec.-Treas.—Mrs. Albert Williams
Meeting—Friday nearest 20th of each

GARDEN PILGRIMAGE TO MEXICO

THE Third Annual Garden Pilgrimage to Mexico City, April 23—May 3, sponsored by the Texas Garden Clubs and the South Central Region Garden Clubs, includes this year a Texas wild-flower Pilgrimage. Texas wild-flowers, great fields of which may be seen in April, are glorious with the brilliant coloring of bluebonnets, Phlox Drummondi, and Indian Paint Brush. This may be enjoyed en route to Mexico City with a specially plannel itinerary.

Diplomatic and Presidential doors have opened in Mexico to the Garden Pilgrimage sponsored by the Texas Garden Clubs. Not alone do Texas members enjoy these courtesies, but they invite all states to participate. Nine states were represented last year. Already that many states have reserved space for the 1938 Pilgrimage.

Information may be had by writing Mrs. Ben G. Oneal, Pilgrimage Chairman, Baker Hotel, Dallas, Texas.

CLUB SPECIALIZES IN ART SIDE OF GARDENING

AUXILIARY No. 1 of the Superior Garden Club specializes in the art side of garden work. Last fall we had a flower picture project in which all the schools participated. The finished work was exhibited in the down town store windows and exceeded our highest hopes. All grades entered. We received much praise on the results.—Mrs. John E. Connell, Superior.

Waiter: "Mr. Brown left his umbrella again. I believe he'd leave his head if it were loose."

Manager: "I dare say you're right. I heard him say only yesterday that he was going to Switzerland for his lungs."—Scholar.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

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Walter Diehnelt, Menomonee Falls, Vice-president
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Diary of An Oldtimer

FEBRUARY 4. I have been reading a lot lately about beekeepers and farmers going down to Florida in a house trailer to spend the cold winter months down there. It sounds so interesting that a person really feels like trying it. I suppose it has its drawbacks, though. One farm woman wrote that last winter it rained for a solid week so that they couldn't stick their nose out of the trailer. Seems like a small place for two folks to be cooped up in for a solid week. Still, most of us would like to see more of this great country and the trailer is one way to do it.

The weather certainly has been changeable and so has the snow fall. The Fox River Valley is buried, but west of that there isn't very much, and in the southern part there is hardly any but lots of rain and ice. Well, deep snow is a lot better for the beekeepers than ice and we hope that the clover and alfalfa won't be killed out in some places again this year. So far the bees seem to be doing quite well, both in the cellar and those packed outdoors.

Feb. 10. It is easy to see why honey stays at the same price in spite of the short crop. There is a lot of unemployment in these United States. Economists down at Madison tell us that the price of the things we farmers have to sell goes up and down with the wages of the workers or the amount of money the workers have to spend. So, with unemployment, farm prices drop. Unless things improve and these men go back to work, we can probably expect still lower prices for butter, cheese, and other things we have to sell from the farm. Let's hope that things pick up this spring. I was glad to see that the supply dealers didn't raise their prices.

Feb. 16. Brother Ivan Whiting, of Rockford, wrote the editor that he thought it is all right not to fasten the foundation to the top bar. I was glad to read his letter and hope more of you will write. Years ago, I put in foundation without fastening it to the top bar, taking the entire wedge out. Those frames have always looked as good as any others to me. I don't believe in doing any more work than I have to. Remember that Dr. C. C. Miller didn't even paint his hives, because he said it didn't pay. Well, I like my hives painted just for the looks of it, but I agree with Doctor Miller on the idea.

Speaking of Doctor Miller, I think he wrote a wonderful book on beekeeping, telling of his own experience. If you do not have "Fifty Years Among the Bees," be sure to get it. Then every once in a while, when you get discouraged, read it and you will have faith. Do you know that he was about 47 years old when he quit a $2500 a year job to go into beekeeping? He said he was never sorry, although he was not in an extra good location.

Brother Whiting said in his letter that this "didn't sound like Mr. W., because **he** doesn't smoke, his wife wouldn't chase him out of the house, and I don't believe he puts his feet on the table." Well, those things are all part of life. The main thing in life is to be happy. Most beekeepers I know are happy. Maybe one reason is because they do like I do. Try this recipe: On the next cold, blizzardy day, go out into your workshop, fix up a good warm fire. When the room is comfortable, sit down in your chair, fill your pipe, put your feet up on the workbench, and listen to the wind howl outside. While you are blowing smoke into the air, dream about your next year's honey crop. Why, I can see the hives stacked up seven high, the bees making a roar as they come in loaded with honey. Then I can see those frames all capped over with nice white capping. I bring them in and extract them. When I figure up, I have over 200 lbs. per colony. Then I figure out how much it will bring me at about 8c per pound. That will mean enough to go to Florida for a few months next winter.

I do some of my best beekeeping right now in the winter time.

TO WISCONSIN BEE-KEEPERS

OUR state, today, ranks as a leader in bee-disease control. We should make every effort to maintain this leadership. It can only be accomplished through effective organization. With this in mind, meetings are being held throughout the state to strengthen existing associations and form new associations wherever possible.

Losses through bee-diseases cut heavily into the profits of honey production. Much of this may be avoided through effective area cleanup. The work of our inspectors has a direct bearing on our profits in honey production. I would, therefore, urge that each beekeeper attend his county meeting, and join the association nearest him affiliated with the State Association.

Yours, for bigger and better beekeeping in Wisconsin.

A. J. Schultz, President,
Wis. Beekeepers Ass'n.

LADIES AUXILIARY MEETING

THE Ladies Auxiliary of the Fox River Valley District of the Wisconsin Beekeeping Association will meet in connection with the beekeepers meeting in the City Hall, Appleton, on Tuesday, April 5. The meeting will begin at 1:30 P. M.

All ladies interested in beekeeping are invited to attend this session and to join the Auxiliary.

Mrs. Frank Ortlieb, Chilton, is chairman of the Auxiliary and Mrs. A. J. Schultz, Ripon, is secretary-treasurer.

NOTICE TO BEEKEEPERS

SEND us any items of honey, bee supplies, equipment or bees you may have for sale and it will be advertised as a classified ad in this magazine, free of charge, for one month only. This offer is good to members of the Wisconsin Beekeepers Association.

Fox River Valley District Meeting

WISCONSIN BEEKEEPERS ASSOCIATION

City Hall, Appleton, Tuesday, April 5

PROGRAM

10:30 A. M. How we plan to drive American foulbrood from Wisconsin. Mr. E. L. Chambers and Mr. C. D. Adams, Madison.

11:30 A. M. How to use the new uncapping plane—demonstration with new device which has been perfected. Mr. A. J. Schultz, Ripon, President of the State Association.

1:15 P. M. Moving pictures: How Leading Wisconsin Beekeepers Pack Their Bees for Winter. (Showing top entrance, middle entrance, roofing paper packing and winter case packing.) How Bees Pollinate Flowers. Pictures shown and lecture given by H. J. Rahmlow, Madison.

2:15 P. M. What's new in beekeeping. Prof. H. F. Wilson, Madison.

3:00 P. M. Suggestions for growing sweet clover in the Fox River Valley. R. C. Swanson, County Agent, Appleton.

3:20 P. M. Bookkeeping for beekeepers. What is the cost of producing a pound of honey? How much time do we spend with a normal colony? Mr. Edward Hassinger, Jr., Greenville.

3:35 P. M. Experiences in Beekeeping. Andrew Stevens, Stockbridge.

Western Wisconsin District Meeting

Menomonie, Legion Club Rooms over City Hall

Thursday, April 7

10:30 A. M. How we plan to drive American foulbrood from Wisconsin. Mr. E. L. Chambers and C. D. Adams, Madison.

11:30 A. M. Honey getting. What we can do for a better honey crop. S. P. Elliott, Menomonie.

12:00 noon. Luncheon.

1:15 P. M. Moving pictures. How Leading Wisconsin Beekeepers Pack Their Bees for Winter. (Showing top entrance, middle entrance, roofing paper packing and winter case packing.) How Bees Pollinate Flowers. Pictures shown and lecture given by H. J. Rahmlow, Madison.

2:00 P. M. How to grow sweet clover in this section. D. P. Hughes, County Agent, Menomonie.

2:30 P. M. Requeening of bees—when to requeen and how to do it. Henry Schaefer, Osseo.

How I requeen, Wm. Michaelson, Arkansaw.

Question box.

HONEY FOR SALE

Comb and extracted honey; any kind, any quantity. Fulfill the requirements of your local trade during an off year. Write for prices. C. W. Aeppler Company, Oconomowoc, Wisconsin.

My bees appear to be wintering well, although we have had much snow here at Kaukauna. All roads have been blocked and I shoveled two days to get a path to the road. I never had so much snow in my yard before. — George Jacobson, Kaukauna.

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SHALL WE CLIP QUEENS?

TO clip or not to clip queens has been a topic of discussion for many years. Dr. C. C. Miller found it so during his time.

Since he clipped queens for years, and was a careful observer, it is safe to say he did not find that queens suffered in any way by having their wings clipped. Here is what he says about it in his book Fifty Years Among the Bees:

"Although nowadays the practice of clipping has become quite general, there are a few who doubt its advisability. I would not like to dispense with clipping if I had only one apiary and were on hand all the time, and without apiaries and no one to watch them it seems a necessity. If a colony swarms with a clipped queen, it cannot go off. True, the queen may possibly be lost, but it is better to lose the queen than to lose both bees and queen."

"If there were no other reason for it, I should want my queens clipped for the sake of keeping a proper record of them. A colony, for example, distinguishes itself by storing more than any other colony. I want to breed next spring from the queen of that colony. But she may be superseded in the fall after that big harvest, and if she is not clipped there is no way for me to tell in the following season whether she has been superseded or not. Indeed I can hardly see how it is possible to keep proper track of a queen without having her clipped."

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BEEKEEPERS MEETINGS

C. D. Adams

THE response from beekeepers to meetings this spring has been beyond expectation. Twenty - eight meetings have been scheduled and more are being arranged.

To date (February 17th) we have had meetings in Clark, Taylor, and Marathon counties. Both Clark and Marathon counties had fair attendance, but the newly organized association in Taylor county surprised us. The officers got busy and the beekeepers responded in attendance and interest. Two state apiary inspectors, Messrs. Greeler and Vircks from Clark county, helped with the program and the response given them showed that every beekeeper present was cooperating one hundred per cent.

Speakers

At each meeting, two of the following speakers will be present: Prof. H. F. Wilson or Carl Schaefer, Entomology Department, University of Wisconsin; A. J. Schultz, President, Wisconsin Beekeepers Association; H. J. Rahmlow, Secretary, Wisconsin Horticultural Society; James Gwin, Wisconsin Department of Agriculture and Markets; E. L. Chambers, State Entomologist; and C. D. Adams, Chief Apiary Inspector. In addition, one or more of the apiary inspection force will be present to contribute to the program.

During the last part of February and first week in March, meetings were held in counties in Southeastern Wisconsin and in Washington, Ozaukee, Fond du Lac, Columbia and Dodge counties.

Attend One of These Meetings

March 8—Richland county meeting, at Richland Center
March 9—Vernon county meeting, at Viroqua
March 10—Monroe county meeting, at Sparta
March 11—La Crosse county meeting, at LaCrosse
March 12—Buffalo county meeting, at Alma
March 14—Brown county meeting, at Green Bay, Knights of Columbus Hall.
March 15 — Manitowoc county meeting, at 1:30 P. M., at Court house in Manitowoc
March 16 — Kewaunee and Door counties joint meeting at the Bank of Casco, 1:30 P. M.
March 18 — Dane County. 1:30 P. M. Post Farm, Madison
March 19—Rock county meeting at 2 P. M., Janesville, City Hall
March 23—Juneau county meeting at 2 P. M., Courthouse in Mauston
March 29—Shawano county meeting, Shawano
March 30—Waupaca county meeting, Waupaca
March 31—Wood county meeting, Wisconsin Rapids
April 5—Fox River Valley Assn. at Appleton (Outagamie county included)
April 6—Chippewa county meeting, Chippewa Falls
April 7—Western District Meeting, Menomonie, Legion Rooms, City Hall
April 11—Barron county meeting, Barron
April 12—Pierce county meeting, Ellsworth

NEWS AROUND THE STATE

BEES seem to be wintering well although there are a lot of dead bees in the cellars, due, I think, to late brood rearing on fall honey flows. Our mild winter, with but little snow which was crusted and icy, is going to be hard on our clover crop. The next two months will tell the story.—S. P. Elliott, Menomonie.

Our bees had a fine flight February 8-9. If they have plenty of feed, they are in no danger. All our colonies flew strongly. Our only concern now is clover. Unless we get protection in some way, the clover may be harmed before spring by freezing and thawing.

In answer to Old-Timer—It is all right to put the foundation in the frame groove, if it is securely melted onto the wires. It will not fall down and the bees will fasten it to the top bar.—Ivan Whiting, Rockford, Ill.

GRASSHOPPERS COMPETE WITH BEES

BEEKEEPERS may have to concern themselves about the campaign to rid the country of grasshoppers more than they have in the past.

Prof. J. A. Munro, beekeeping specialist of the North Dakota Station, writes in the February issue of North and South Dakota Horticulture as follows:

"Judging from the experiences as related by beekeepers during the past few years, grasshoppers if uncontrolled are most ruinous to prospects for a honey crop, over grasshopper-infested territory. A few years ago a beekeeper called my attention to the damage which the grasshoppers were causing to sweet clover bloom in the vicinity of his beeyard. An adjoining field, comprising about 80 acres, was so overrun with grasshoppers that all the bloom was stripped by the hungry insects, with the result that there was no nectar source left for the bees. Following the application of poisoned bran bait over the field it was only the matter of a few days time when the grasshoppers were killed off to the extent where the plant bloom returned to normal and the bees gathered nectar to advantage.

"Incidentally, poisoned bran bait continues to hold first place as an efficient and economical means of destroying grasshoppers."

BEES AND SWEET CLOVER

LAST summer I found a field of 25 acres of sweet clover east of Beloit being grown for seed. There were many large black flies and hermit bees on the clover, but only an occasional honey bee up to July 12. I then took 25 light colonies near the field. From then on it was alive with bees.

The 25 acres yielded a crop of 150 bushels of seed and the owner was very much satisfied with the crop, giving due credit to the pollination received from the honey bees. The bees produced enough honey to winter on from this field.—Ivan Whiting, Rockford.

WHEN IS THE BEST TIME TO RE-QUEEN?

WHY do our up-to-date bee books and colleges teach that the best time to re-queen is in the fall?

That may be true for small yards of from one to twenty-five colonies. Even then I doubt it because of the disadvantages of re-queening in the fall. The small operator can eliminate only one disadvantage of fall re-queening and that is he can remove the crop of honey from the hives before beginning re-queening operations, thereby saving much lifting.

Did you ever try to find the queen in a full colony after the main honey flow and the robber bees were about? It takes too much time and is too hard on the nerves. It is also much more difficult to get the queen accepted in the fall.

My contention is that it is much more important to have the young queen at the head of the colonies during the honey flow to prevent swarming than it is to have her produce a large number of bees for winter. She will do that anyway. Winter losses can now be made up easily by divisions or packages.

So the question is, when is the best time to re-queen? What is your experience?—H. A. Schaefer, Osseo, Wisconsin.

Editor's Note: We will be very glad to have beekeepers write their opinions on this question.

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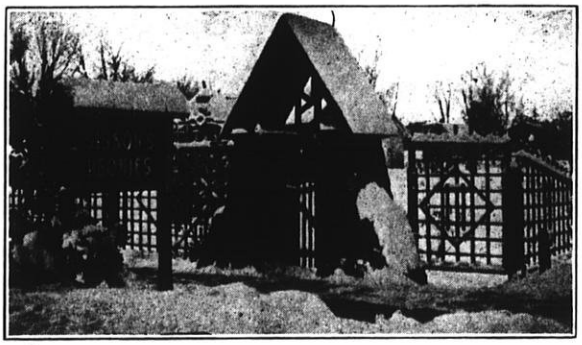

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Fig. 1 Fig. 2 Fig 3

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

Established 1910

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

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
1532 University Ave.
Madison, Wisconsin

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

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

Volume XXVIII April, 1938 No. 8

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PLEASE DO NOT SEND STAMPS

Wisconsin Horticulture

Planting and Pruning the Young Fruit Tree

R. L. Marken, Kenosha

IF I have my choice, I select a good size, root grafted, one- or two-year-old tree; that is, a tree large for its age. I know such a tree will grow vigorously but a small tree has yet to prove that. I have little choice between one- and two-year-old trees, but under all conditions I think a two-year-old tree would prove more satisfactory.

Planting

In planting such a tree, I dig a hole large enough to hold the roots without crowding and deep enough so the tree will be a little deeper than in the nursery row. If planting in sod, I carefully remove the sod, and put the top soil in one pile and the subsoil in another so that I can **use the top soil for filling in the bottom around the roots.**

And now for the tree. The only root pruning I do is to cut off broken or badly bruised roots and cut back very long roots that have escaped the digger. Then I puddle the roots by dipping them in mud about the consistency of thin cement. To plant the tree, I hold it firmly in position and carefully fill in first the fine top soil until the roots are covered. Then I tamp the soil firmly and thoroughly with both feet. Tamp two or three times before the hole is filled. I never

put sod or manure around the tree roots. Such loose material tends to heat and dry out, and the tree is apt to dry as a result.

Pruning

A tree is root-pruned when it is dug, so it should be top-pruned when it is set.

If it is a one-year-old whip, I cut to a bud about 32 inches above the ground. That's all! If it is a two-year-old tree, I would cut off all broken and very weak limbs. Then I would **remove all limbs making narrow or V-shaped crotches,** because such crotches are weak and will split or break down under heavy strain. This often means removing the most vigorous limbs on a tree. Cut them off when small and big accidents won't happen.

I leave not over four or possibly five limbs and distribute them fairly evenly around the tree, spacing them as far apart as possible and up and down the trunk. If I can't find that many limbs well distributed and well spaced, I choose two or three. Two, three, or four good limbs is usually what you find. Then I cut those limbs back to six or eight inches. I cut the central leader so as to be about four to six inches above the highest side branch. If I have only two or three branches on the tree, I can always get more by saving the branches that will develop on this central leader.

I cut all limbs to outside or side buds depending upon the direction I want the new shoot to grow.

If I find only one good limb on a tree, I cut it off too, and start out the same as with a one-year-old tree. This seems drastic, but trees so pruned develop a few limbs with strong forks and in a couple of years you cannot tell them from a tree pruned otherwise.

Cultivate the Young Orchard

I still like to cultivate young trees. Cultivate early and often and plant a cover crop in mid-

summer to mature the growth and act as a mulch for winter. I do not like to see a young tree go into winter on bare ground. Such ground usually freezes deeper than sodded or mulched ground and that does the young tree no good.

I have seen young trees, set two or three years, on bare exposed knolls killed outright during a severe winter, while trees nearby in sod or with a good weed cover came through O. K. That does not necessarily mean that bare ground was responsible, but I think a mulch would have saved the trees.

Mulching

I am going to reset several trees in my orchard this spring and since the orchard is in sod, cultivation will not be practical. So I will mulch with old strawstack bottoms, at least six feet around the tree and heavy enough to kill grass and weeds. But before I mulch I will put a one-fourth inch mesh wire screen around the trees to protect them from mice. Make a roll three or four inches in diameter and dig it well into the ground to keep mice from working under it. Corn stalks, shredded corn fodder, or what have you, would do as well for mulch.

Fertilize

And of course I am going to fertilize. A handful of ammonium sulphate per tree to start with, increasing the amount as the tree grows older. A vigorous tree withstands insect and disease attacks more successfully than a weak growing one. And above all, it reaches a profitable bearing size earlier.

HEAVY SNOWS MAKE HEAVY WORK

A LETTER was received from Mr. H. C. Reynolds of Sturgeon Bay, enclosing two photographs showing men working in a cherry orchard digging away the snow from the branches.

Mr. Reynolds wrote, "The pictures show what we have to do to a large part of our orchards. Due to the heavy winter snows, the snow has to be broken away from the lower branches, so that they do not break off during the spring thaws. These trees are 12 years old."

FACTORS INFLUENCING THE RIPENING SEASON OF SOUR CHERRIES

V. R. Gardner, Michigan

THE season of ripening of sour cherries was found to be influenced greatly by temperature and relative size of crop. Comparatively low growing season temperatures retarded and high temperatures accelerated ripening. Relatively heavy crops. especially when accompanied by a limited leaf area, tended to ripen early and evenly.

Pruning of a type which removes weak wood from the lower and interior portions of the tree and other cultural practices which aid in the development and maintenance of abundant foliage promote evenness and earliness of maturity. Contrary to general opinion, heavy fertilization with nitrogen-carrying fertilizers was found to contribute to earliness and evenness of maturity.

There are many bud sports in the cherry that mature earlier or later than the main crop, but they are of relatively minor importance.

From The Journal of Agricultural Research.

Planting Apple Trees on the Swartz Brothers Farm, Waukesha

Pre-Blossom Sprays for Apple Scab Control

G. W. Keitt

THE key to successful spraying against apple scab is efficient control early in the season. In Wisconsin the ascospores of the scab fungus are usually mature by the time the tips of the young leaves and blossom parts are exposed in the breaking buds (Fig. 1, A). The young leaves and blossom parts are very susceptible to infection, and if the scab fungus becomes well established in them it produces abundant summer spores, or conidia, to spread the disease.

Keep the Expanding Leaves and Buds Protected

The principle to be followed in pre-blossom spraying is to keep the young leaves and buds protected by spray, rather than to follow a fixed schedule for the time and number of treatments. This requires the use of judgment with reference to seasonal and local conditions. Usually in Wisconsin three thorough applications before bloom, timed at about the stages shown in figure 1, will give the necessary protection. In unusually warm, dry springs an additional closed cluster treatment is sometimes omitted. It should be recognized, however, that the omission of this treatment involves risk in case the weather should become cold and rainy.

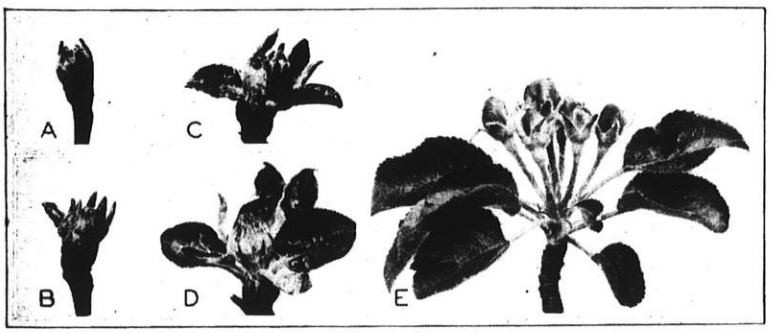
The Spray Treatments

When three pre-blossom treatments are made it is usually best to apply them about as follows, subject to modification to meet special conditions:

1. **Green tip or delayed dormant.** Apply at the stage shown in figure 1, A, B, using lime-sulphur one and one-fourth gallons, lead arsenate one pound, and water to make 50 gallons.

2. **Closed cluster or pre-pink.** Apply at about the stage shown in figure 1, C, D, using the same materials as for the green tip spray.

3. **Open cluster or pink.** Apply just before the blossoms of early flowering varieties are open and preferably after the blossoms have separated in the clusters (see figure 1, E), using the same materials as in the earlier sprays.



STAGES FOR APPLYING EARLY SUMMER SPRAYS
A B—Green tip. C D—Closed cluster or pre-pink. E—Open cluster or pink.

The dosage of these spray materials is subject to change to meet special conditions. Information relating to insect problems may be obtained from the Department of Economic Entomology and relating to disease problems from the Department of Plant Pathology of the University.

Thoroughness, as well as timeliness, of application is of prime

(Continued on page 215)

Niagara's Non-Caustic Program for
Fruit Disease Control

NIAGARA KOLOFOG

A sulphur fungicide in its purest form. Once dried on the leaf it never washes off.

Prevents scab and other diseases. Will not burn foliage during hot weather.

NIAGARA SUSPENSO LEAD ARSENATE

Stays In Suspension for a Long Period

Spreads smoothly and evenly. No black sludge with lime sulphur. Maximum killing power. Safety to fruit and foliage.

WHEN YOU BUY Niagara YOU BUY PROTECTION

Niagara Sprayer & Chemical Company
J. HENRY SMITH,
Sales Representative
Waupaca, Wisconsin

Grafting Is Easy

Peter C. Swartz, Waukesha

ONE day in 1922 when we had finished setting out 40 acres of apple trees, Prof. R. H. Roberts said, "Well, Mr. Swartz, the next thing for you to learn is how to graft." At once I said, "That's something we will never have time to do; we will be lucky to get all our work done with only 365 days in a year."

Two years later in haying time, the busiest time of the year, sheep ate the bark off 20 trees. We took time then to learn to graft. Mice and rabbits have killed more fruit trees in the home orchard than all other things put together. To every fruit tree owner I must say the same thing as Professor Roberts told me—learn how to graft. Really, it's easy. Get a sharp pocket knife, go to a brushy fence and practice cutting off limbs, shaping, slitting, splitting and sticking them together as shown in the pictures. When you have confidence you can do it, start on your fruit trees.

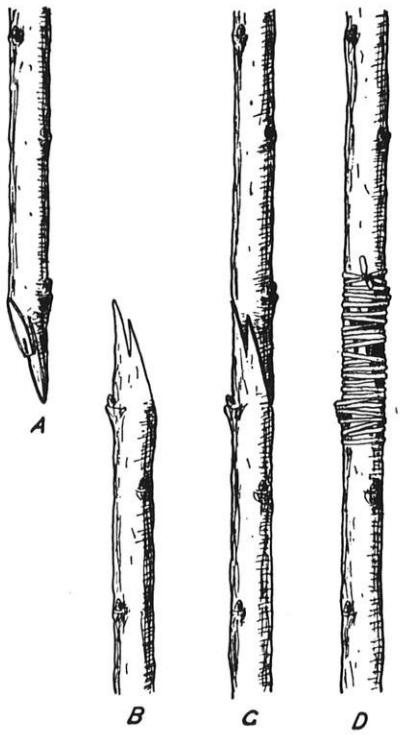


Fig. 1. Whip Grafting.

Stock and scion should be about the same diameter. Make cuts smooth, not "dished". At least one side must be in perfect contact as at C.

Learning to Graft

A lady in Waukesha asked me to do some grafting for her. She showed me several fruit trees damaged by mice and said she would like to grow several different kinds of apples on a Duchess tree. She asked, "How long will it take and what will you charge?" My answer was, "In 10 minutes I'll teach you how it's done and then you do the job." I showed her how and then had her cut, whittle and practice. I told her, "When you have confidence in your tree surgery, go over and do the job and in three days I'll be back." I never saw a neater or better job, and, better still, I never saw a happier woman.

Virginia Crab — A Hardy Stock

We like Starking apples, a sport of the Delicious, but the trees are none too hardy. They go to pieces in the trunk and on bad-angled limbs.

So we grow Virginia Crab trees that carry a large root sys-

1500 scions of good apple varieties were grafted on seedling roots. Ready for planting.

Swartz Brothers Farm
Waukesha

tem and have an excellent trunk with extra good angled limbs nicely distributed on the trunk. These Virginias are set in the permanent orchard and grown one year. The second year we graft Starking on the ends of about 5 limbs. This is done just before the buds start to break open. They must be still dormant. We go to the Starking tree, get the scion wood from new growth of limbs grown last year. We then go to the Virginia Crab trees, cut off the leader limb way above any of the other 4 or 5 side limbs we are going to graft. Proceed as shown in Figure 1.

How To Graft

We want 3 buds on each scion. The top bud is always on the bark side where we make the bark contact.

We then cut a piece of electrician's rubber tape and wrap tight the full length of the splice and return, thus doubling the tape on the splice. We then apply over the whole scion and rubber with a brush, hot melted common paraffin kept warm on an alcohol stove we carry along. We are careful not to get the paraffin on too thick. Tree seal wax is just as good as paraffin.

If we use grafting tape, it must be cut off when the scion has grown a bit, but with rubber tape we forget it. After the scion is growing nicely, in July, we cut off nearly all the other Virginia Crab limbs.

In starting new trees we take seedling apple tree roots 5 inches long and graft scions on them the same as above. We then use the grafting tape which rots in the ground. Only the top bud is left sticking out of the ground in planting them. We do not wax or paraffin these.

Everyone with fruit trees should have a sharp pocket knife handy this spring and learn the grafting game.

CONTROL OF PLUM CURCULIO

THERE has been a lot of complaint about plums being stung by the plum curculio in spite of giving one or two applications of arsenate of lead spray.

The curculio lays its eggs by stinging the small plum. The eggs hatch into tiny worms which ruin the plums for market. Early and thorough spraying is therefore necessary where there is severe infestation. The following sprays are recommended:

(1) In the pink stage, just before blossoming. (2) The calyx spray when three-fourths or more of the petals have fallen from the blossom. (3) Five days later. Another application should be made in another five days for best control.

Use arsenate of lead at the rate of 1½ lbs. per 50 gallons of water. For smaller amounts use 7 or 8 level teaspoonfulls to each gallon of water.

Another application from two to three weeks after blossoming will do no harm as the curculio may continue laying eggs for three or four weeks after blossoming. **Thorough application is very essential** as poor control will result unless all of the tree is thoroughly covered.

PRE-BLOSSOM SPRAYS

(Continued from page 213)

importance to successful spraying. It is, however, desirable to avoid excessively heavy spraying. A uniform moderate coverage is sufficient. Danger of spray injury will be lessened by avoiding unnecessarily violent application by driving spray at close range.

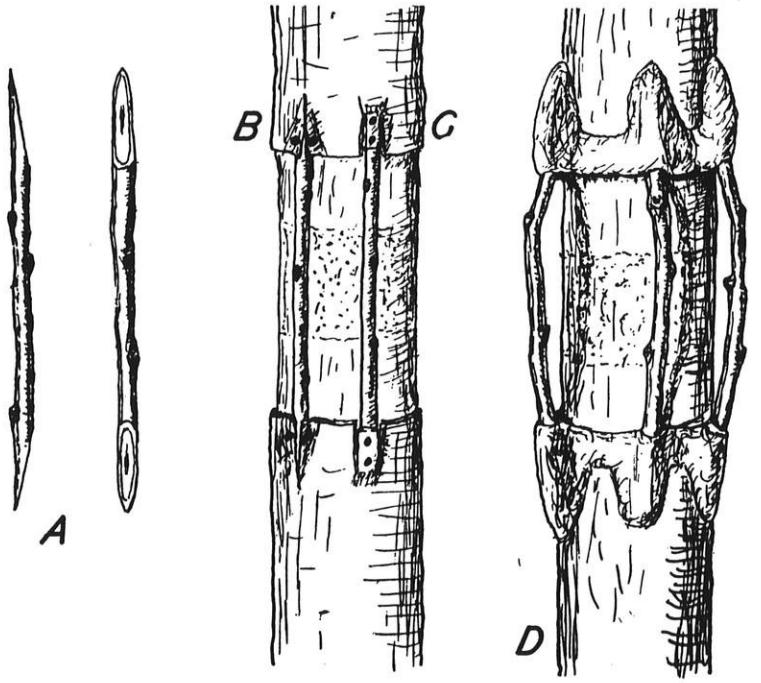


Fig. 2. Bridge Grafting will save trees and is easily done.
A. Scion properly cut. B. Cambiums united and held in place by small nail. D. Waxed to prevent drying.

NEW MONEY-MAKING FRUITS

BEACON—New all-red Early Apple! Brings $2.00 bushel when Duchess brings 75c.
MINN. No. 1007—Apple—New! Highest quality, long keeper.
MINN. No. 790—Apple—New! Destined to take the Rome Beauty Market.

Fee Catalog—Big Discounts for Early Orders

ANDREWS NURSERY
Faribault, Minn.

Dormant Sprays for Door County in 1938

John H. Lilly

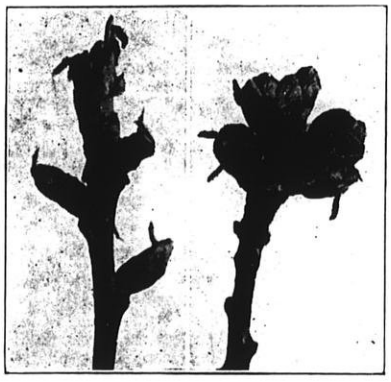
THE time when dormant sprays should be applied to Door County fruit trees is again at hand. We are fully aware that many growers must operate on a minimum budget in 1938. However, economizing on spray materials, when carried beyond a certain point, may result in a loss rather than a saving.

With these points in mind, we shall attempt to bring together a few facts that may help individual growers arrive at their own decisions regarding their early spring spraying programs.

In the case of leaf rollers, case bearers and bud moths, a rough forecast of what to expect can be made on the basis of their activities in the orchard during the previous season. For example, if leaf rollers caused excessive injury in a certain orchard in 1937, they will, in all probability, be a problem there in 1938, unless adequate control measures are used. The same holds for case bearers and bud moths. Unfortunately this crude method of forecasting is less applicable to many other orchard insects. It is not adequate for predicting codling moth injuries, since these depend in large part on the weather during the periods when eggs are being laid. It is of still less value for predicting outbreaks of common aphids or plant lice, since the reproduction of these forms is even more closely regulated by weather conditions.

Leaf Roller Control

The fruit tree leaf roller is now the most important apple insect in Door County which is logically controlled by dormant sprays. Undoubtedly there are quite a number of orchards in this area where leaf roller control measures are justified. Dormant oil sprays constitute the most feasible attack on this pest under Wisconsin conditions. The common recommendation for leaf roller control is a dormant petroleum oil emulsion containing about 6% of actual oil.



Left: Case bearer on leaves.
Right: Case bearer on blossom buds.
The case bearers penetrate and injure young unfolding leaves and blossoms. Flower ovaries are destroyed.

Dormant Oil Sprays

1. Light lubricating oils of the Diamond Paraffin type which are emulsified in the spray tank with a material like Goulac just before using.

2. Mayonnaise-type factory-made emulsions which contain about 83% or less of actual oil.

3. Miscible oils which readily form emulsions in water without the addition of emulsifiers but most of which contain considerably less than 90% of active oil.

4. "Soluble" or "ready-mix" oils which are a comparatively new type of miscible product containing from 96% to approximately 99% of actual oil.

It happens that the factory-made emulsions listed under group 2 have been quite popular in Door County in recent years. In general, they were effective, reasonable in cost and entirely safe. Their greatest shortcoming was that they sometimes deteriorated in storage or transport, a factor that made them unpopular with both manufacturers and dealers. The result is that this class of dormant oils is rapidly going off the market. There is a possibility that they will not be readily available even this season.

The alternative materials which most of the companies are now selling are of the soluble or ready-mix type listed as group 4. We have used two of these products under Door County conditions for two years. One of them was tested the first season it was commercially available and the other was first used when still in the development stage. So far the results with both have been satisfactory. They have not, however, given results significantly superior to those obtained with some of the other materials. Therefore, the choice of most growers will probably lie between the cold-mixed emulsions of group 1 and the soluble or ready-mix type of group 4. The latter are only slightly more costly and their added convenience and safety is perhaps worth this difference.

For some time we have been testing various experimental combinations of supplementary materials with low concentrations of oil. Some of the results have been distinctly encouraging and one or two of these combinations are being suggested to representative growers for limited commercal applications this year.

How To Spray

The materials listed above are just as effective against the cherry case bearer as they are against leaf rollers. There is, however, a decided difference in

the method of application for the control of these two pests. Most of the case bearers are located on the lower sides of the twigs and branches, while most leaf roller eggs are deposited on the upper sides of the smaller branches. This means that where the leaf roller is the more important the sprayman should spray from the top of the tank so as to hit the branches from above. On the other hand, where case bearers are the more important he should walk and try to hit even the lowest branches from the under sides. Special modifications in formulae are necessary where bud moth is a problem but they are probably not warranted in any Door County orchards this year.

Many growers are aware of the fact that our experiments have included various combinations of arsenate of lead as leaf roller control measures. Ordinarily they involve an increase in the amount of arsenical and the addition of a wetting agent in either the pre-pink or the pink spray. Unfortunately this procedure does not give very satisfactory control under Wisconsin conditions. Where the infestation is heavy it is recommended only as an emergency measure where adequate dormant treatments have not been used. It may also have a place where infestations are too light to warrant dormant applications.

The Cherry Aphid

In view of the outbreak of the black cherry aphid or louse in Door County in 1937, many growers are undoubtedly wondering what it will do this year. As was indicated above, this cannot be predicted with any degree of certainty. It is possible and perhaps probable that it will not be a problem in 1938. This situation will be watched closely as the season advances and information will be made available through the local press and the County Agent's office.

SCALE INSECT CONTROL

C. L. Fluke, Jr.

FOR many years, lime sulphur used at the rate of one gallon to seven or eight gallons of water has been the standard control for San Jose and Oyster Shell scales. In the past few years, however, lime sulphur has been displaced with oils, using some of the standard dormant spray oils at the rate of three or four gallons to each 100 gallons of water. The strength of oil used depends somewhat on the infestation. If it is moderate, 3% is sufficient; but for a severe infestation, 4% should be used.

Generally speaking, lime sulphur is effective in the cooler sections of the country and this, of course, would apply to the most northerly counties in Wisconsin; but we feel safe in recommending the oil in all sections of the state.

Oils should never be applied when the weather is cold, nor just before a drop in temperature. Whenever the prospects are good — temperatures above freezing for two to three days— it is safe to apply these sprays.

The grower should bear in mind when spraying that only those insects which are actually hit by the spray will be killed. This means that it is necessary to do a very thorough and careful job — all the twigs and branches of the trees must be covered with the spray.

APPLE POLLINATION

THE following varieties of apples are listed as being self-unfruitful by Prof. A. E. Murneek, of Missouri, writing in the American Fruit Grower.

Self-unfruitful varieties: Cortland, Delicious, King David, Northern Spy, Stark, Winter Banana.

Partly self-unfruitful varieties: Ben Davis, Duchess, Gano, Golden Delicious, Grimes, Jonathan, Maiden Blush, McIntosh, Wealthy, Yellow Transparent, York.

Winesap is listed as being especially unfruitful if pollinated with its own pollen.

Even the partly self-fruitful varieties will not yield well unless other varieties are interplanted.

The following are outstanding as producing large amounts of potent pollen: Delicious, Jonathan, Ben Davis, Golden Delicious, Grimes, York, **McIntosh,** Yellow Transparent. When interplanted with other varieties, they are especially effective as pollenizers.

The new red bud sports have the same pollinization characteristics as the parents. Gano and Black Ben are similar to Ben Davis, Starking and Richared, similar to Delicious.

It has been estimated that a single apple flower may produce from 70,000 to 100,000 pollen grains and that as many as 50,000 grains may be carried by a single bee on its body. About 10 pollen grains are necessary to bring about the fertilization of an apple flower, so one can readily see the great possibility of sufficient spread of pollen by the honeybee.

Wisconsin is fortunate in having plenty of bees so that as a rule they do not need to be brought into our orchards, excepting in the most congested sections. It is well to remember, however, that spraying with arsenate of lead during the blooming period will kill the bees. There is no known method which will put apples on the trees when the flowers are not properly pollinated.

HELP WANTED

Wanted—Man to operate power orchard sprayer, learn pruning and spraying. Write H., c/o Wisconsin State Horticultural Society, 1532 University Avenue,, Madison, Wisconsin.

CYANAMID AS AN ORCHARD FERTILIZER

F. N. Hewetson, Michigan State College

IN SUMMING up the work of three years in Michigan on the use of Cyanamid in orchard fertilization, we find that no injury developed on apple, pear, and plum trees receiving either fall or spring applications or cherries and peaches receiving fall applications of this material. Also, no injury developed on the heavier types of soils. When applied to cherries and peaches in the spring, however, Cyanamid produced leaf burning and sometimes defoliation of the tree, when the ground was too dry for proper absorption of this fertilizer. Trees which had been severely injured in 1934 showed no serious after effects when given proper subsequent care.

Fall Application Best

A detailed discussion of these results would lead us into too many technicalities. Suffice it to say that Cyanamid requires adequate moisture and sufficient organic matter in the soil in order to convert its nitrogen into a form which may be absorbed by the tree and will not prove toxic to it. Cherry and peach trees are generally considered to be more susceptible to adverse environmental conditions than are apple and pear trees. If sufficient time has not elapsed between the time of application and the beginning of growth in the spring, some of this Cyanamid will be absorbed in a toxic form and so produce typical Cyanamid injury. This change in the form of nitrogen is hastened by having adequate moisture, fall applications made in September or early October after growth has ceased and before the ground has frozen are to be advised.

Apply Early

If applied after the ground has frozen, Cyanamid will not become incorporated into the soil and may absorb carbon dioxide from the air, producing toxic substances. In the spring these will be absorbed by the soil and may prove harmful to the tree. A soil-building program will help provide some of the necessary organic matter and will insure optimum results from the use of Cyanamid in addition to the many other advantages to be derived from such a policy.

As well as time of application, even distribution of the material is necessary in order to avoid too great an absorption of the fertilizer in a limited root area. Too great a concentration in one spot is equivalent to a heavier application which, as has been pointed out, may lead to very undesirable results.

Has Value

With all these precautions necessary for success with Cyanamid, it may seem foolish to use it. However, Cyanamid has certain peculiar properties which are well worth this little extra care. First, it contains the equivalent of 70 per cent hydrated lime. Though this amount, on the basis of 250 pounds of Cyanamid per acre, is not large, it does help to counteract the acidifying action produced by previous applications of sulphate of ammonia or similar acid fertilizers used over a long period of time. In cases where such cover crops as alfalfa or sweet clover are being grown in the orchard, this lime content will help to sweeten the soil and so provide better growing conditions for these plants. Second, its physical properties make Cyanamid a very desirable fertilizer to handle and distribute. A regular seeder may be used with very good results, and an even distribution is assured. Third, the very features of Cyanamid which may cause trouble under adverse conditions are greatly in its favor if properly handled. Because the nitrogen in Cyanamid, though not so readily available to the plant as that in some fertilizers, is also not so readily leached away, it may be held in the soil for a considerable time and gradually changed into a form which may be taken up by the plant. Thus when the trees are fertilized in the fall, the nitrogen is gradually absorbed by the roots and held there until needed to produce new shoot growth in the following spring.

Conclusions

On the basis of this work, it may be concluded that Cyanamid when applied in the fall under adequate moisture conditions before the ground has frozen and distributed evenly at rates advised by the manufacturers, will produce results comparable with other standard fertilizers. It may be applied with apparent safety to apple and pear trees in the early spring 3 to 4 weeks before growth starts if adequate moisture conditions prevail.

It is **not** advisable to apply this fertilizer to cherries and peaches on sandy soils in the spring for reasons already discussed.

From The Quarterly Bulletin, Michigan Agricultural Experiment Station.

Good Varieties Will Determine Future of Apple Industry

IN the Rural New Yorker, Mr. E. S. Hubbard, a large apple grower in New York State, writes: "It is futile to grow and try to force into consumption varieties like Duchess, Northwestern Greening, Hubbardson, Ben Davis, and other low-quality apples. If we must grow any but the several commercial varieties for each season of the year, then let them be of such outstanding quality that their goodness is an aid to the efforts it will take to persuade people to buy them."

Mr. Hubbard goes on to state that many people are asking, "Are there too many apple trees? Will apples ever bring good prices again? What varieties shall I plant?" While the number of apple trees in the United States has decreased during past years, there is still nothing to indicate the need of more apple trees other than replacement. Competition from other fruits is cutting in on the popularity of the apple.

Wisconsin produces only one-half as many apples as we consume in this state, yet many growers have difficulty in selling apples. Why? Because we have a lot of poor varieties to sell and better varieties are being shipped in by other states. Furthermore, near-by states also ship in some of their poorer-quality cooking apples of which they, too, have plenty, and these sell at low prices on our market-Therefore, we cannot expect anything but low prices from poorer-quality cooking apples.

A program for the future, then, would include cutting down all the worthless varieties which never pay and planting only high-quality varieties which will bring good prices and for which there will be a demand.

At the present time, McIntosh and Cortland lead in popularity in new plantings with Wealthy and Snow as old standbys. The Red and Yellow Delicious are planted in small numbers in the southern part of the state, while Secor, Orleans, and Kendall are still under trial and look promising. Melba and Beacon are the most popular as early varieties, but not many of these are planted because they do not keep long.

BEES IN THE ORCHARD

WHILE bees are necessary for pollination of apples and other fruits, in Wisconsin there are usually plenty of bees in the neighborhood so that fruit growers need not go to the expense of having bees brought into the orchard, as is the case in some other states. There may, however, be exceptions to this in the larger fruit growing sections. Beekeepers have been moving away from concentrated fruit growing areas, and this may eventually result in a decrease of bee population.

In this connection, an article by W. H. Webb, of Missouri, in the February issue of Gleanings in Bee Culture, is of interest. Mr. Webb is a fruit grower and he gives his method of handling bees as follows:

Location of Varieties

"Probably no one part of orchard management is more important than the careful location of the varieties in the orchard. Few commercial varieties can be expected to properly pollinize themselves; in other words, they are self-sterile. Such being the case, we have limited our plantings to four or five rows of one variety in a block. Then in selecting the variety to place next to this we have used one that will come into full bloom at about the same time and that will be useful in cross pollinizing the other variety. Unless the grower is very certain of his knowledge of these factors, it is good insurance to consult his experiment station."

Hives Concentrated Rather Than Scattered

"Most authorities recommend that the bees be scattered over the orchard at blooming time, a hive or more to the acre. We followed this plan for some years until at last serious doubts arose in our minds if the aforesaid 'authorities' had ever undertaken the job in early spring of 'toting' a whole apiary of very mad bees all over the orchard. We decided to do a little experimenting on our own hook and moved our entire apiary to a new location at about the center of our orchards and left them there. Now after a trial of over ten years we have found that the bees get the job done just as well that way. It might be that in an orchard of over a hundred acres this method might not work as well as scattering them."

PLANTS GROW AT NIGHT

"TO move young trees and flowering shrubs, we are interested by the suggestion, quoted in November Jordbrukets Binaringar, that it is more important than is generally realized to protect the roots of trees from the influence of light—for example, by moving them at night. Recent research has also shown that growth takes place almost entirely between sunset and sunrise, and mainly after midnight. These considerations were applied in the case of tree-planting in Berlin in the Olympic Stadium, and the very good results obtained are attributed to this."

—From The Bee World, England.

How We Plant Strawberries

H. H. Harris, Warrens

WE dig our strawberry plants with a six-tined fork and shake them free from dirt by hand, keeping the plants even as we pick them up in clusters. We pack them close together in a shallow box or tub with the tops up and place a little fresh dirt in the bottom of the box to keep the roots from drying out.

If the sun shines or if there is a wind, we cover the box with a gunny sack. As each box is filled it is set in the truck to be carried to a building to be trimmed and tied in bunches.

In taking plants from the boxes to trim, we take out first those last put in so as not to pull and tangle the roots as is the case when they are picked up in gunny sack with tops and roots in every direction.

We use a knife to trim the plants and cut off all runners and leaves that do not stand up straight. As each plant is trimmed it is put in a pile with tops all in the same direction. They are then counted into bunches of 25 and packed in damp moss until we are ready to take them to the field to plant. After the bunch of plants is tied we clip off any extra long roots that might bother when planting—just enough to make them even so they will not get twisted.

Planting Distances

Varieties that make many long runners such as Beaver and Dunlap we plant 32 inches apart in the row. Premier we usually plant 24 inches apart as the first plant on a runner is apt to be quite close to the parent if weather is dry when the runners start to grow.

Marking

We mark the field with a light sled-like marker with runners four feet apart. The outside runners are hinged so they can be raised up over the middle sled in turning. It is drawn by hand. We usually mark the field in both directions with the same marker as it helps in spacing the plants and in estimating the number of plants needed.

Setting the Plants

We use a spade to set strawberry plants and a light pail with a little damp moss in the bottom to carry the plants. In setting plants we place the center of the spade right where we want the plant to stand, then shove the spade into the ground with the foot, at an angle so when raised forward to an upright position there will be an opening behind the spade large enough so the plant can be placed in the ground with roots spread and crowns even with the surface. Then we remove the spade and press the soil firmly against the roots with the foot.

There was a planter drawn by horses used in our section a few seasons. I heard one party who used it say, "No more machine setting for me."

We do not like to set strawberry plants when there is a cold wind blowing as the plants are more or less exposed to the air in planting.

N. O. L.

Junk man: "Any old beer bottles you'd like to sell, lady?"

Old maid: "Do I look as though I drink beer?"

Junk man: "Any vinegar bottles you'd like to sell?"

—Varieties.

FERTILIZER FOR STRAWBERRIES

CHEMICAL fertilizers are not always needed. Soils that are naturally fertile and have had frequent applications of stable manure may not need the addition of any chemical fertilizers. A rank healthy growth of plants with vigorous, dark green foliage is evidence that the fertilizer is not needed. Barnyard manure supplying both humus and nitrogen is the best fertilizer for strawberries. It should be applied broadcast and disced into the soil before plants are set. On very heavy soils it may be best to plow it under. Equally satisfactory results are usually had if a heavy application has been made to the previous crop.

Cultivation

Uncover the buds. The plants should be cultivated and hoed soon after they have started growth after being set out. It is very important at the first hoeing to uncover the buds of any plants which may have been planted too deep or have become covered after planting. If this is not done very early many of these plants will die.

Cultivate often enough to keep the surface of the ground from becoming crusted and to keep down the grass and weeds. It is not necessary to practice deep cultivation. A depth of one to one and one-half inches is deep enough for the hoe, or perhaps slightly deeper with the horse cultivator. Frequent cultivation should be given even though weed and grass growth is not a serious problem.

—From Allen's Book of Berries.

Rubbers are something which if your feet are dry you haven't walked in the snow without.

—The Owl.

BERRIES PRODUCT OF NEW CHEMICAL

TWO botanists have reported that they were successful in producing strawberries and holly berries by using a chemical pollenizing agent which replaced natural pollen.

Writing in the current issue of the **Botanical Gazette,** Dr. E. F. Gardner of the United States horticultural field station at Beltsville, Md., and Dr. Ezra J. Kraus, chairman of the University of Chicago's botany department, said by spraying the female blossoms with a .04 solution of a growth-promoting compound (indoleacetic acid) they had produced berries as plump and firm as those naturally pollenated.

The only difference between berries so produced, they said, was that the former had no life-producing seedling.

From **Better Fruit,** Portland, Oregon.

PEAT MOSS FOR PLANTING FRUIT TREES

THE use of peat moss in planting fruit trees has been tested in experiments at the New York Experiment Station, Geneva, with promising results.

A twelve-quart pail of moist granulated peat moss was mixed with the soil and used to fill the tree hole in planting each tree. Check rows were also planted without peat moss. In three years of tests, the peat moss was found to be of considerable value and produced a marked effect in seasons when there was some rainfall. In 1935, the peat-treated trees made an average terminal growth of 82 inches as compared to 14 inches for check trees, and continued their superiority during the next two years.

The value of the peat lies possibly more in the aeration of the soil than in its water-holding capacity and in greater root formation. If the soil is wet, peat prevents it from puddling.

HORTICULTURAL NEWS

A. F. Yeager, Michigan

MICHIGAN State College has developed a wax emulsion which may be sprayed on plants. It has possibilities in preventing drying. For example, a Christmas tree, sprayed before Christmas and kept standing in water in a warm room is still green and starting to grow. There is evidence that winter burning of evergreens may be prevented by fall spraying. Surely it offers many possibilities for experiments in preventing winter injury on raspberries on the great plains. A commercial preparation is Dowax, made by the Dow Chemical Co., Lansing, Michigan.

Dr. Muncie of the Botany department here, recommends as a soil treatment to prevent damping of seedlings, 1½ tablespoons of formaldehyde to 1 bushel of soil, well mixed. He says red copper oxide is a good general disinfectant but that Semesan Jr. is better for cabbage.

An experiment here last year comparing southern grown tomato plants with home grown ones, showed the southern ones deficient in that they were (1) not true to name, (2) the stand was poor, (3) much disease was brought in with them, (4) the yield was less than for home grown plants.

—From North and South Dakota Horticulture.

Wigwag

Teacher: "Johnnie, do you want to leave the room?"

Johnnie: "Say, teacher, you don't think I'm standing here hitch-hikin', do yuh?"

—Ram-Buller.

STRAWBERRY AND RASPBERRY PLANTS

Strong, healthy Beaver strawberry plants. Also Chief raspberry plants for sale.

J. L. Winn, Warrens, Wis.

RASPBERRY AND STRAWBERRY PLANTS

Latham raspberry plants. Disease free. Dorsetts, Fairfax, Beaver, and Senator Dunlap strawberry plants. Mt. Vernon Nurseries, Viola, Wisconsin.

Strawberry Plants. Beaver, Premier, Grand Champion, Dorsett, Fairfax, Blakemore, Gem everbearing.

Mosaic-Free Raspberry Plants. Cumberland, Logan, Kansas. 50 for $1.00.

Apple Trees. 3-4 ft. Haralson, McIntosh, Wealthy, Northwest Greening, Whitney, Dolgo Crab, 40c each; 30 or more, 30c each. Beacon, 65c each.

Plums. Ember, Superior, Fiebing, Kahinta. 45c each.

Oka Cherry. 45c each.

Hall Nursery, Elmwood, Wis.

STRAWBERRY PLANTS

Strawberry plants for spring planting, Warfields, Dunlaps, Beavers, Premiers, Fairfax, and Dorsett. Prices moderate. Discount on large orders. Mrs. John Jensen, Warrens, Wis.

STRAWBERRY PLANTS

Strawberry plants: Strong, healthy Beaver and Premier plants covered before heavy freeze. Alfred Isaacson, Route 3, Menomonie, Wis.

Berry Boxes and Crates

SAVE at Sheboygan on your box, basket and crate needs. The line is complete — everything for the grower of fruit, vegetables and flowers. Fifty-nine years in business. Dependable Sheboygan packages are used by leading growers everywhere. Liberal discounts on early orders. Send today for attractive FREE folder. Write

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Gladiolus Gleanings

By the WISCONSIN GLADIOLUS SOCIETY

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Frank Thomas, Kenosha
Chester Harrison, Waldo
Clarence Kunde, Oshkosh

How To Plant Gladiolus

Walter Krueger, Oconomowoc

MOST people who have planted glads for several years will have determined the best method to follow for their particular planting plot and will, therefore, not be in need of advice on planting. The beginner, however, usually is interested in more suggestions on this subject. This article is meant for such beginners.

Planting implies that thrip-free gladiolus bulbs are on hand, that the ground has been made fertile ready to receive the bulbs. If the planter is in doubt of thrip presence, the bulbs should be dipped prior to planting in a recognized dip solution. If the fertilizer has not been added in the fall, it should be cared for in part at planting time. The exact kind of commercial fertilizer varies with the soil need, but generally speaking a good potato fertilizer will serve.

Planting the Bulbs

In the relatively heavy soil of Wisconsin, the trench method of planting seems to serve to the best advantage. Take a spade and make a trench 8 inches wide and 8 inches deep. Stir the soil below this depth. Add leaf mold, peat moss, or some moisture-holding material one inch deep. Then rake in one inch of fine soil. The trench will now be 6 inches deep. Place the bulbs firmly in the middle of the trench. Cover with one inch of soil. (Moisten the trench if the soil is dry.) Add leaf mold or peat moss and fertilizer at each edge and away from the middle of the row and the bulb. Cover with more soil up to one and one-half inches from the ground level. Fill the trench completely full after the plants are through the ground.

The same rule that applies to seeds is applicable to bulbs of smaller size than No. 1's. Plant the bulb four times as deep as its diameter; e. g., a one-half inch bulb is planted so that the top of the bulb is two inches from garden level.

During these years of thrip threat, glads should be planted in a single row, or, if staggered in a row, each plant should be 10 or 12 inches apart in the row. Then if you need to spray you can reach both sides of every plant. Many a glad fan has attempted to control thrip in clustered plantings where his spray, etc., never reached certain plants that acted as breeding places for the pesky thrip.

The rows should be far enough apart to permit of cultivation and walking between the rows without packing the soil near the plants. This distance is usually 36 inches.

When to Plant

Betty Nuthall should be planted about May 1 for mid-August bloom; Picardy and Koehl, about May 15; Fulton, June 5. These dates are for No. 1 bulbs. No. 3 bulbs bloom 10 days later, as a rule, and should therefore be planted that much earlier.

BEGINNING WITH GLADS

BACK in 1925, Mr. W. A. Sisson of Rosendale suggested growing flowers. As a result, I purchased a few named varieties from a well-known grower which grew and bloomed well. From then on, I purchased a few more varieties each year so that by 1932 I had over 500 named varieties. Since then I have been reducing and now have 120 varieties.

My soil is very heavy and damp with blue clay subsoil.

Picardy is always a good grower and very large with me, but crooks some years. Betty Nuthall is the best late grower and stands up very straight. Mother Machree gives more color in my soil than I see at the shows. Maid of Orleans is a good white as is Star of Bethlehem. It has a touch of yellow and excellent placement.

Pelegrina grows with a very dark color but is hard to increase. Blue Admiral is good and gives good increase. Golden Cup and Zillah are always good yellows and stand up straight. Solveig I do not find very good but had three spikes that were sports this year which bloomed two weeks earlier. Commander Koehl I thought good a few years back but now it has poor color and makes poor bulbs. Robert the First gave wonderful spikes and I want more of them. Spirit of St. Louis and La Paloma are both find and always show up well with other glads. I have a few seedlings but it takes time to determine what they will be. I had thrips again last year

but find that they are checked by heavy rains or heavy dews which hold them back for a week or so.

SPRING CARE OF PEONIES

W. A. Sisson

AS soon as the frost is out of the ground there is a period of about two weeks in which one can plant or replant peonies with success. After this period new growth starts and nothing more should be done until fall.

If you desire to dig up and replant old plants not doing well, spade up the clump, knock off the dirt and wash thoroughly. Divide by running a long knife through the clump from the bottom. Each division should have a few eyes, no matter how many, but there must be one or two. Then make sharp cut all around and cut off the end of the roots to within 6 or 8 inches from the eyes. Where you give sharp smooth cuts, there new roots will grow out. Without this cutting back, there will be no proper new growth. Plant without any fertilizer whatever (3 feet apart) on good garden soil and keep the dirt stirred up the whole growing season. See that the eyes are always kept covered.

If you want to buy more varieties now is the time to do so. If you buy from a responsible dealer, you will find the roots cut back as described.

Once planted, peonies should not be disturbed unless they become sick, then they must be taken to a hospital for treatment in the way described. It takes from 5 to 10 years for a peony to perfect itself, under constant and intensive cultivation. Without this care you will have nothing worth while.

Next month we will tell you about the care growing plants need.

GLADIOLUS SOCIETY MEETS AT HARTFORD

About 40 members of the Wisconsin Gladiolus Society met at the Hartford Municipal Building, March 26, for the annual spring meeting. An interesting program was presented.

Bulb Show Winners

Mr. A. S. Haugen, of Stoughton, was the largest winner in the bulb show. He won first prize in Classes 2, 3, 4, 5, 6, 7; and third prize in Class 1.

Mr. E. A. Lins, of Spring Green, won first place in the Heaviest Bulb Class and second in Heaviest Bulblet Class.

Mr. Fred Hagedorn, of Sheboygan, won second in Class 1 for heaviest bulb.

Mr. F. P. Thomas, Kenosha, won second in Classes 2 and 4.

Mr. Frank Blood, of Stevens Point, won second in Classes 6 and 7.

Mr. Harold Janes, Whitewater, won first in Class 8, while Betty Lins, Spring Green, won second in Class 8.

Annual Show at Sheboygan August 19 - 21

At the business meeting, it was decided to hold the Annual Gladiolus Show in Sheboygan, August 19-21. This is the same as the opening of the State Fair, but there will be no glad premiums at the State Fair the first three days, so this will not interfere. Sheboygan growers felt that the later date would be better for them because of their later season. There was some objection to the high rental requested for the Eagles' Hall in Sheboygan and the local committee was instructed to consider this matter further with those in charge. Very little or no profits have been made during the past few years on the glad show, even if no rent was paid.

By a vote of 7 to 3, the Board of Directors decided not to affiliate with any national gladiolus society at the present time.

Treat Bulbs Before Planting

Mr. Noel F. Thompson, of the State Entomology Department, State Capitol, recommended that all bulbs be treated before planting in bichloride of mercury at the rate of one ounce to 7½ gallons of water, or a 1 to 100 solution. Bulbs may be left in the solution about 12 hours, or over night, to kill all thrips. It is best to use the solution only once because it loses strength rapidly.

He reported the following effects of low temperature during storage on control of thrips:

Storing two months at 36° F., or three months at 40° F., killed all stages of thrips.

Storing five months at 50° F. permitted some thrips to survive.

Storing one-half month at 30° F., killed all stages but ruined some bulbs.

H. J. Rahmlow showed the colored moving pictures on garden flowers, including gladiolus prize winners at the state show, and recommended that gladiolus growers try dusting frequently with derris dust, beginning early in the season, to control thrips, in view of the satisfactory results obtained with derris in the control of many insects.

Mr. Edwin Ristow, Oshkosh, showed excellent colored slides of gladiolus seedlings and new varieties.

E. A. Lins, Spring Green, gave a good report of the performance of a number of varieties.

GLADIOLUS ARISTOCRATS

Price-list of a selection of the best new varieties will be sent free on demand. A. S. Haugen, Stoughton, Wisconsin.

Double Value Offer

Our list tells how to get FREE
GRAND NEW GLADIOLUS
with standard varieties
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$5,000 buys established Nursery Business, nursery stock and supplies (estimated value $10,000) clear of indebtedness; also equity in 90-acre farm and home. Particulars on request; immediate possession. Within 50 miles of the Twin Cities and an ideal place to live. Geo. W. Strand Taylors Falls, Minn.

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Editorials

NEWS AROUND THE OFFICE

IT IS not often that we print news about what is going on in the offices of the Wisconsin Horticultural Society. Hoping that our members will be interested in such news, we are taking the liberty of using some space this month to tell you what is going on.

Many of our members already know that our efficient office assistant and stenographer, Mrs. Jean Steinmetz, has not been with us since December 1. A son, Paul, was born to Mr. and Mrs. Steinmetz on February 10. Paul, his mother and father are doing fine. Jean, as she is known to our members, hopes to be with us again in another month or two. In the meantime, her position has been very efficiently filled by Miss Rosemary Hopkins, of Madison. During the rush of work in March when so many new memberships come in and old ones have to be renewed (about 3,000 memberships must be handled during this time) Mrs. Samuel Post, Madison, who is the recording secretary-treasurer of the Wisconsin Garden Club Federation and a capable stenographer, has been employed part time.

During the month of March, the editor spoke at 22 meetings before a total of 27 of our affiliated organizations. March is always a busy month because that is the time when many clubs are looking for information to begin their season's gardening or fruit growing. At these lectures, motion picture films were shown. Three sets are used—the two reel film on "How to Spray Apples in Wisconsin" for fruit growers meetings; "New Varieties of Garden Flowers" and dirt gardening for garden clubs; and "How Wisconsin Beekeepers Pack Their Bees for Winter," with a talk on spring management, for the beekeepers.

Increase in the size of the magazine has made the work somewhat more difficult. Very few people realize the work connected with putting out a 32-page magazine when there are only two people regularly employed to do it. We must handle the advertising; the memberships, including changes of address; solicit and write articles; correcting; proof reading; making up the dummy, which consists of pasting galleys of type into page form, writing in headings, and placing pictures. We must then correct the page-proof and finally address and mail out the magazine. We sent out 4,500 copies of the March issue.

The magazine is usually mailed between the 6th and 8th of the month. For about a week we have a little breathing spell during which time we are writing to members in regard to articles. Then from the 15th to 22nd of the month there is a frantic scramble to get enough material, which must be valuable and interesting, for the various departments of the magazine. Each branch of horticulture — tree fruits, small fruits, gardening, gladiolus society, and beekeeping—must be considered.

Our correspondence is unusually heavy in the spring. We had as high as from 100 to 125 first-class letters in a single day. A majority of these were inquiries regarding the English walnuts and new varieties of fruits; requests for scions and other plant testing material. However, many of them were letters which had to be answered. Then, too, we are constantly working about two months ahead in planning future meetings.

English walnuts, scions and trees will be shipped out about the time this magazine is delivered. Scions will also be sent out and orders placed for new varieties.

Yes, we have been busy.

WAR

"A referendum by itself won't keep us out of the next war, but a vigorous neutrality policy may," writes the editor of the Wisconsin Agriculturist and Farmer in the January 15 issue.

CRATH ENGLISH WALNUT SCIONS AVAILABLE

TO the first ten members of the Wisconsin Horticultural Society, residing in Wisconsin, who will send in their requests, we will send several scions of the Crath English Walnut growing in the editor's yard. This tree is six years old and with the exception of one cold winter has never suffered winter injury. There will be a few scions available this spring because we will be doing some pruning. The scions will be mailed by the Wisconsin Horticultural society free of charge and should be grafted on black walnut or butternut stock. The grafting must be very carefully done as the hard woods are very difficult to unite.

ODORLESS MARIGOLD DISCOVERED BY SMELLING BEE

HOW a new Marigold, with odorless foliage, was produced by the Burpee staff after holding a smelling bee and sniffing 554,000 plants is very interestingly described in an article in the March 12 issue of the Saturday Evening Post.

We recommend the article to all interested gardeners. It is an excellent account of how new varieties of annuals are produced. The title of the article is "The Missionary and Mary's Gold," by David Burpee.

Another article that is promised for the March 26 issue is entitled "I Am Still Looking for a Yellow Sweet Pea."

The first article tells very graphically how the entire Burpee staff of 700 employees went through a large field of 554,000 Marigold plants smelling of each one until one of the workers discovered plants with odorless foliage. From these plants was developed Burpee Gold. The leaves of the new variety have oil glands but they do not function as they do in other types of Marigold.

GARDEN SHORT COURSE

By the Horticulture Department, College of Agriculture, Madison, Friday and Saturday, June 3-4

A SHORT course for gardeners and homeowners, designed to help those who wish information and instruction on varieties, care of the garden, and landscaping, is being planned by the Horticulture department of the Wisconsin College of Agriculture on Friday and Saturday, June 3-4. The registration fee is $2 for the two days, which includes a dinner on Friday evening. For information, write to Prof. L. G. Holmes, Horticulture Department, Wisconsin College of Agriculture, Madison. Registrations should be sent in early.

NEW CHIEF FOR THE DEPARTMENT OF AGRICULTURE AND MARKETS

MR. Ralph E. Ammon, for a number of years Manager of the Wisconsin State Fair, was recently appointed acting director of the State Department of Agriculture and Markets. Mr. Ammon is well qualified for the position and the Wisconsin Horticultural Society extends him best wishes for success in his work.

We are requested to ask our readers to change the address of the director from Charles L. Hill, Chairman, to Ralph E. Ammon, Director, when writing to the Department of Agriculture and Markets.

SEE HOW TO PLANT YOUR HOME GROUNDS

The above is the title of a new booklet written by Alfred C. Hottes, one of the editors of Better Homes and Gardens, Des Moines, Iowa.

The booklet is filled with pictures illustrating how to plant the home grounds. The price is only 25c. We recommend it highly to our members.

A HARDY BEGONIA

IT seems strange that a plant as old in cultivation, as attractive and satisfactory as the hardy begonia, Begonia evansiana, has been so generally overlooked. Few realize the extent of its hardiness.

Growing from a small tuber, it attains a height of two to three feet, producing a myriad of shell pink flowers during August and September. When seen in bloom, it is almost impossible to believe it is hardy. The rich green leaves with their reddish veins and stems make it an ideal companion for the Japanese anemones, ferns, and other plants standing or preferring shade. This is what the hardy begonia prefers, in Ohio at least. Planted on the north side of a building, in the shade of a shrub or a tree, it cannot be injured by the summer sun.

Planted in deep, loose soil, made up of at least one-quarter and even one-half rotted leaves or peat moss and allowing more leaves to fall on it in autumn, it should be permanent in temperatures as low as 15 or even 20 degrees below zero. Many came through 20 degrees below zero last winter.

Not only will they live through the winter, but if an adequate seed bed of leaf mold is available, will often self-sow, the young plants blooming when they are two years old.

And yet, despite its beauty and desirability, few nurseries or greenhouses list this plant. Most people obtain it from some neighbor or friend who has a successful planting of it. If you try it, be sure to give it ideal conditions of shade, and plenty of leaf mold in the soil.

—Victor H. Ries in Nature Magazine.

Enthusiasm

Nothing great was ever achieved without enthusiasm.

—Emerson.

Home and Garden

Mrs. C. E. Strong, West Allis

"All is alive with the joy of the Spring,
The babbling brook and the bird on the wing
Join in the song of the joy of just being—
Of living, of laughing, of singing, of seeing."

Some Interesting Shrubs, Bulbs and Plants from the 1938 Catalogs

Blueberries. Good both for beauty of shrub, as well as delicious fruit. In the Spring the new leaves have pinky bronze tones. Then come carmine tipped buds and waxy white flower bells, followed by the fruit, white flushed pink on the sunny side, ripening to a lovely soft blue. The berries will hang on for several months—if you or the birds do not eat them. Autumn brings to the leaves a brilliant crimson. When these drop, there remains all winter the bright red of the new twigs, knobby with fat buds enfolding next spring's flowers.

Blueberries require an acid soil containing an abundance of peat or other partially rotted vegetable matter; they also need good drainage, but like plenty of moisture during the growing season.

Laburnum (Golden Chain), a dwarf tree, or large shrub, with racemes of golden yellow flowers. Have grown this shrub from seed and the four year old plants seem to be perfectly hardy with no protection. Shall try to protect the buds from late frosts, for it is an early bloomer.

Magnolia Soulangeana. This really hardy Magnolia is so very beautiful it should be grown in more gardens. Very small plants will bloom the second year from planting.

Lagerstroemia Indica (Crepe Myrtle) is one of the loveliest shrubs of the South, but is quite hardy in the North if given a rather protected position, and some mulching. Even though it freezes to the ground, its roots will send up a new growth in the spring that will bloom, just as do the bush Clematis and Vitex. The flowers come in lavender, pink, purple and red, looking as though cut from silky crepe. It also makes a splendid tub plant, and can be wintered in a cool basement or root cellar.

Begonia Evansiana is a handsome tuberous rooted species of decided hardiness. It likes some mulching of course if planted in exposed positions. Should be planted outside in April, and will give a fine showing of large pink blossoms for several months.

Friends who have grown it are very enthusiastic about this hardy Begonia. A hardy Begonia and a hardy Fuchsia should be very interesting additions to the hardy border.

To the Iris fan, the **Delta Blend** from Louisiana, should prove interesting, both for its coloring and time of bloom. It is evidently a strong grower for the price is very small—10 for two dollars. A few years ago, one plant would have cost more than that.

Bill always helps with the garden. Guess some of the things they are growing this year.

ANSWERS TO PUZZLE IN OUR MARCH ISSUE

Iris, tulips, sweet-peas, pansies, bluebells, lilacs, bleeding hearts, ferns, hollyhocks.

Gloriosa Rothchildiana (Glory Lily), belongs to the tender bulb class—such as Hyacinthus Candicans and Giant Ismene. The big blossoms have crispate and undulate petals. The color varies from a vivid crimson to rich yellow with crimson stains. If the tubers are planted in May, they will bloom in July and August. The Glory Lily may also be planted in pots for the house. If planted outside the tubers must be taken up and placed in sand where there is no danger of freezing.

Many of the catalogs are offering small bulbs of a number of choice lilies at a very reasonable price. If you have not been able to have as many lilies as you would like, this is a good time to get some of the following varieties: Auratum, Candidum, Cordifolium, Japonicum, Maximowiczi, Madeploides—10 bulbs for one dollar; Concolor, Henryi, Philippinense F, Regal, Tenuifolium—10 for fifty cents.

Dolgo Crab

Have been having the most delicious tasting, delicately spiced Crabapples for lunch. They look good as well as taste good, are a clear red. The Dolgo Crabapple tree in the border is not alone ornamental both in flower and fruit, but makes a nice jelly, good sauce and delicious spiced apples. If you have room for but one crab—try a Dolgo.

The same catalog that lists the small lily bulbs—also lists two varieties of Eremuras, Pink and White, at thirty cents for one year old plants. These plants need plenty of room and a well drained spot, also some protection from late spring frosts. A well grown plant with its six to eight foot spire of bloom, is a sight to be long remembered.

Rhododendrons
Kalmia, Azalea, Hemlock, etc.
Various sizes in any quantity.
Write for low prices and state size.
DEEP GAP NURSERY
Deep Gap - North Carolina

IN MY OWN BACK YARD

On hot summer days when the sun is high
And the sirens shriek as they pass,
In my own back yard I dream and sigh
As I stretch my limbs on the grass.

The green leaves rustling on the trees o'er my head
And the birds and the flowers seem to say:
"Banish sorrow and care and be happy instead
In your own back yard for today."

And when twilight's soft shadows come creeping in line
Contentment and peace reign supreme.
The world is shut out of this kingdom of mine
As I sit in my back yard and dream.

—Mrs. George Jacobs.
Oshkosh Hort. Soc.

LAWN SEED

ALL sorts of mixtures are sold as lawn seed but the law requires the contents to be on the package, giving the percentage of each kind of seed. Look at the packages of lawn seed for sale, in your community, and copy the list of their contents. A good lawn mixture may contain only the following: Kentucky Blue Grass, Red Top, Colonial Bent Grass, Chewings Fescue, and White Clover.

It should never contain any Orchard Grass, Timothy, Domestic Rye, Canadian Blue Grass, Weed Seed.

A shady lawn mixture may contain: Chewings Fescue, Colonial Bent, Kentucky Blue Grass. It should not contain Orchard Grass, Timothy, or Domestic Rye.—Vistor Ries, Ohio.

AN ART AND GARDEN TOUR OF EUROPE

AN innovation for those who love flowers and art has been inaugurated by Mrs. Conrad Biebler and Mrs. Guy Lindow of Shorewood, Wisconsin, both members of the Milwaukee Art Institute Garden Club.

In June they will conduct a tour of ten countries in Europe, visiting many of the finest gardens and art galleries. Permission has been granted them to view typical gardens of each country as well as botanical gardens.

Mrs. Biebler has made gardening her hobby for many years and is qualified to give valuable information while viewing the gardens. Mrs. Lindow has been a teacher of Art Appreciation for several years and has compiled the chronological art chart used by librarians and art students throughout the U. S.

Those wishing more information regarding this tour may write Mrs. Biebler, 2027 East Olive St., Milwaukee.

New
VARIETIES . . .

We will have most of the varieties listed for plant testing, also plants of the new Russell Lupine; Giant Pacific Hybrid Delphinium, Lyondell Hybrid Delphinium; Gypsophila Boderi, Rosy Veil and Bristol Fairy; Budleis Charming, Hartwegi and Ille de France and other new perennials.

Complete Selection of

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Landscape Service

Visitors Always Welcome

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Phone 211 Hartland, Wis.

New Plants In My Garden

Mrs. A. Jaeger, Milwaukee

ONE of the first rock plants to bloom in my garden last spring was **Lewisia brachycalyx.** This is a rare native rock plant and is the only deciduous Lewisia which has bloomed for me. The small, dormant tuberous root was planted in the fall of 1936, and it certainly was a happy surprise to find its thick, succulent leaf rosettes in early spring. Many fine established rock plants were killed by the covering of ice last winter, but this Lewisia lived over. It had beautiful large white, almost stemless, flowers in early May.

Talinum Calycinum is another new rock plant in my garden. This is a deciduous succulent and the dormant tuber was also planted in the fall of 1936. It also came through the difficult winter. This bloomed all summer. The blossoms are cerise and are carried in sprays on very fine stems. Both of these rock plants like full sun and good drainage.

Iris for Dry Spots

If you have a very hot, well-drained spot in your garden which may be near a building where you do not sprinkle, by all means plant some of the **Regelio-Cyclus** iris. They bloom two weeks before the tall bearded iris and are very beautiful. They are sometimes listed as Palestine Iris. It was the 23rd of May when Hermione opened. This has deep mulberry veining on a lighter ground with a conspicuous dark beard. Stolonifera, which opened the same morning, is a Regalio iris of lovely coloring.

The catalog describes it as being blended brown and purple and shot with electric blue. It is one of those lovely flowers which are very difficult to describe. These iris become dormant in summer and then they do not want any water. In October they grow an inch or two, and this growth stays green all winter without covering. Chrysolora is a fine new intermediate yellow iris. It has large flowers.

A Fine Annual

The finest annual I ever saw in a rock garden bloomed in my rock garden last spring during May and June. That was Phacelia campanularia. It was seeded right in the rock garden in the fall of 1936. The interesting foliage appeared very early and the flowers were as lovely as any gentian, being bell shaped and gentian blue with conspicuous white anthers. It grew to the height of six inches.

Campanula macrostyla is one of the most unusual annuals I have ever grown. The plant grows to a height of 18 inches. The flowers are about the size of Campanula carpartica, but are lilac-purple veined with violet. A florist started the plants for me in the greenhouse. They were set out before Decoration Day and bloomed in August. This is one annual that does not object to drought. Parsonia lanceolata is another annual that was started at the florist's. It was in bloom when it was set out before Decoration Day and it bloomed continually until the middle of September. It was in a very dry part of the garden and was never watered. The flowers resemble a small snapdragon or linaria. The two upper petals are maroon and the four lower ones a brilliant crimson. It was about two feet high. Last April I planted a bulb of the Jacobean lily or sprekelia in the garden. In May an amaryllis-like flower of dark scarlet came from the ground without leaves. This unusual flower would attract attention in the garden at any time, but blooming so early it attracts even more. The bulb is being wintered in the house.

Lilies

Lilium Davmottiae is one of the new Canadian hybrids. A bulb of it was planted last spring and it had a fine spike of salmon-colored flowers during the summer. Most gardeners are keenly interested in the finer and newer Hemerocallis. After growing in my garden for several years, Hemerocallis Hyperican bloomed beautifully for me last year. The flowers look waxy and are a clear lemon yellow. It is not only the best Hemerocallis I know, but also one of the most satisfactory perennials.

New Yucca

The most exciting plant that I found in the new catalogues is the Red Yucca. It has been ordered and I hope it is just as exciting in the garden.

—Paper presented before the Milwaukee Horticultural Society.

QUALITY NURSERY STOCK

Chinese Elm. Heavy transplanted. 3-4 ft., 25c each; 5 for $1.00. 2-3 ft., 15c each; 7 for $1.00.

Everblooming Hybrid Tea Roses. Red, Yellow, or Pink. 20c each. 6 for $1.00.

Hall Nursery, Elmwood, Wis.

It's Easy To Control Garden Pests

WHAT we spray with to control insects and diseases in the garden is important, but it is far more important to spray or dust often.

During the past five or six years, we have had no trouble with such diseases as iris leaf spot, peony spot, phlox rust and mildew, just because we started dusting all the flowers in our garden with dusting sulphur early in the spring.

Controlling Diseases

Let us remember that it is impossible to cure a plant of any fungus leaf disease once the disease has become established. If iris leaf spot, for example, has become established, there is nothing we can do about it. It is too late to spray or dust after we see the disease. Fungus diseases, then, can be controlled but not cured.

We have been using an especially prepared fine sulphur-arsenate of lead dust in a small hand duster for a number of years simply because it is so easily handled and easily applied. The dust is reasonable in price and we therefore are not inclined to save on the materials as we would if they were very expensive.

When to Dust

We start dusting iris, peonies, phlox, delphiniums, and any other perennials we may have which are likely to be troubled with some type of leaf spot, just as soon as these plants are about three or four inches high, giving them a light dusting both on top and below the leaves once each week and before or after every rain. The work can be done any time, although we prefer the middle of the day when it is warm and sunny and when there is not much wind. We use the combined lime sulphur and arsenate of lead dust because it works efficiently and if there are any leaf-eating insects present they will be killed by the arsenate of lead. We continue this dusting program until hot dry weather starts, possibly the middle of June. During mid-summer, there is no further danger of diseases as a rule, if they have been controlled during the spring. We can then discontinue the spraying or dusting program with sulphur.

Derris Dust for Insects

Beginning in late spring, however, we may be troubled with various types of insects, both the chewing and the sucking kinds. We then turn to a different type of dust—derris dust. This new material is very effective for insect control. It is probably the best ever found for the control of aphids or plant lice, cabbage worms, cucumber beetles, and we have found it good for controlling ants on the lawn or garden.

Cube is another name for this material, which is the dried powdered root of a plant. It is very toxic to insects but not very harmful to warm-blooded animals.

For garden flowers and vegetables, we have found dusting to be the best way of applying these materials. Dusting has not been satisfactory for fruit trees, however.

Summary

For fungus diseases and early chewing insects, dust with sulphur-arsenate of lead. Use a dust made for this purpose. Dust at least once each week until mid-June.

For sucking insects such as aphids, red spiders, as well as many others, dust with derris or cube dust early or as soon as insects appear. Snowball and other trees or shrubs usually infested with aphids should be dusted when the leaves begin to come out to kill the first aphids which hatch from the over-wintering eggs. These eggs were laid in the fall on the twigs.

These materials may be purchased from the Niagara Company and the Agacide Company. Both companies have advertisements in this issue.

—By H. J. Rahmlow.

Protect Your FLOWERS and EVERGREENS

Dust your perennials early this season with Kolotex for disease and insect control.

Pomo-Green will control leaf spot, mildew, leaf-eating insects and aphids.

Our Kolodust will control red spider on evergreens or phlox.

Ask for our free booklet on how to use these dusts.

Niagara Sprayer and Chemical Co., Inc.

J. Henry Smith, Sales Rep.

Waupaca, Wisconsin

Wisconsin Garden Club Federation News

Mrs. J. Martin Johnson, President
529 Woodside Ave., Ripon
Mrs. Chester Thomas, Hon. President
1744 N. Cambridge Ave., Milwaukee
H. J. Rahmlow, Cor. Secretary
Madison

Mrs. Sam Post, Rec. Secretary
Shorewood Hills, Madison
Mrs. E. A. St. Clair, 1st V. President
2418 N. 65th St., Wauwatosa
Mrs. Charles Schuele, 2nd V. President
Oconomowoc

REGIONAL MEETING OF OFFICERS AND COMMITTEE CHAIRMEN IN FOX RIVER VALLEY DISTRICT

ANOTHER successful regional meeting of officers and committee chairmen was held at Steins, Oshkosh, on March 4. In spite of bad weather, 34 attended.

Mrs. J. Martin Johnson, President, outlined the plans of the Federation, announcing the state officers and committee meeting at Oconomowoc on Saturday, May 28, and the Federation convention at Sheboygan, September 30 - October 1.

H. J. Rahmlow presented the plans for accrediting judges as outlined elsewhere in this issue. Suggestions were asked for and a lively discussion ensued taking in suggestions for improving flower shows at the county fairs.

Miss Mary Lowerre, State Junior Chairman, outlined plans for junior garden club work. She announced a circular of instructions which will be sent to all garden club presidents. Miss Lowerre suggested holding junior flower shows, charging a small admission fee, the proceeds to be given toward planting the Children's Forest.

Mrs. C. H. Schuele, 2nd vice-president, outlined plans for a meeting of officers and committees at Oconomowoc.

Mrs. F. Quimby, Racine, General Conservation Chairman, stated that all industries are dependent upon our forests to some degree. In some countries a new tree must be planted for every

one removed. We need fire protections and encouragement to private owners. The School Children's Forest, on which 121,000 trees have already been planted, was started to interest children in conservation. If children have contributed pennies toward planting the trees, they have a greater interest in conservation, which our laws require be taught in our schools.

Mrs. Quimby passed out circulars describing the school Children's Forest project and stated that all clubs would receive copies. More may be obtained by writing the U. S. Forest Service, Federal Building, Milwaukee.

Mrs. E. Corrigan, Milwaukee, Wild Life Chairman, told about Wild Life Conservation Week and the stamps issued to promote the work.

Miss Merle Rasmussen, Oshkosh, Horticulture Chairman, recommended a series of little books (10c each at Kresge's) excellent for junior work and for amateurs. The following are the titles: Honey Bees; Your Garden; For Amateur and Garden Club Members; Wild Flowers at a Glance ;and Talking Leaves.

Lawn Care, published by O. M. Scott and Sons Company, Marysville, Ohio (25c), is also good.

The bulletin of the Morton Arboretum, Lisle, Illinois ($1.00 per year), is excellent for the advanced gardener.

Suggestions for increasing interest in plant testing were given, including asking each club member to test at least one variety and then visiting each others gardens to get acquainted with them. A special table at Flower Shows for new varieties was also suggested.

Mrs. S. Post, our Recording Secretary-Treasurer, stated we were "out of the red," and that dues are coming in very well.

Mrs. E. L. Sevringhaus, Madison, Program Chairman, asked all clubs to send in suggestions for programs and copies of club yearbooks or programs.

Mrs. R. R. Hibbard, Wauwatosa, Garden Club Organization Chairman, asked that if you know of any group in any city or village which might be interested in organizing a club, give the information to a member of the Organization Committee or help the group call a meeting.

Mrs. E. J. Wells, Oakfield, Visiting Garden Chairman, thinks that members are especially interested in seeing outstanding small gardens such as we ourselves may have, and wants members to send her names of owners of such gardens open for visit.

Presidents of clubs present were enthusiastic about the value of the Regional meetings.

Program Planning

Mrs. Elmer Sevringhaus

THANK you for the copies of 1938 programs already sent in —and how attractive they are, in side and out! I wish you all might see the artistic cover for the Brandon Community Garden Club program. It is the popular 'purse' size, the cover of black paper, which has been spatter-painted in white except where a lovely design of bleeding heart curves across the cover in plain black, and in a black area at the lower left the name of the club is written in white.

Inside the cover are the words of a beautiful club poem and song. One roll-call will be answered by "Suggestions for town beautifications." Their November meeting should be interesting with an exhibit of Thanksgiving decorations, and a study of the poinsettia, its legend and care.

The Jefferson Garden Club is having a conservation of wild life program with a report on "Wonders of Bird Migration." A new idea appears in their announcement of their September flower show, where all present are to act as judges. Please let us know how it works, Jefferson! An August picnic and a December party is listed, wisely, as some attention to the social interests seems helpful.

Refreshments

Incidentally, those clubs having tea after an afternoon meeting or light evening refreshments find that members increase the value of the meeting by the exchange of garden knowledge and experience as they linger in friendly chatter.

Waupaca Garden Club has a line drawing of garden tools on their program cover, and here is one of their ideas worth copying! Have at the first meeting of the year a book review of new garden books followed by a discussion of which books the club will buy. And have you tried a member's exchange of garden books and magazines so that the best of them really get passed around? Perhaps some hay-fever sufferer suggested that Waupaca discuss "Eradication of Ragweed" and a second paper on "Noxious Weeds". Let's join them in their effort toward eradication.

Why do we use so few dramatic skits and plays in garden clubs? Here is where Elkhorn Garden Club scores, for in their very good-looking program they announce for April, "Pa's and Ma's Seed Flat" with a cast of four women, and May again brings something unusual in "Silhouettes in the Making" by three members. They plan to review the two new books by Alfred Hottes, "Story Behind Our Flowers", and "1000 and One Christmas Facts and Fancies."

Please don't forget to send in your programs, even though spring gardens are calling.

New Flowers for 1938

In Vaughan's Gardening Illustrated, free on request, seven pages are devoted to flower seed novelties, annual and perennial. All the new varieties originated throughout the world are described.

All American Selections

AWARD OF MERIT	Pkt.
4023 **PETUNIA Salmon Supreme.** Salmon pink bedder	35c
3820 **PANSY Coronation Gold.** Large yellow self	50c
1220 **CALLIOPSIS Golden Crown.** Semi-double orange	25c
1204 **CALENDULA Orange Fantasy.** Dwarf, crested	25c
3944 **PETUNIA Orchid Beauty.** Dwarf all-double	50c

SPECIAL MENTION

3943 **PETUNIA GAIETY.** Dwarf double, red and white 50c

Catalogs are now being mailed to our customers. Copies free on request or at our stores.

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Requirements For Accredited Flower Show Judges

WISCONSIN has many excellent flower show judges. The problems of giving accredited judges' certificates or cards to our competent judges has been discussed considerably during the past few months. It was felt by most of the presidents meeting with the Federation Board at the regional meetings that to award accredited judges' certificates on the basis of a written examination following a flower arrangement school had little value.

Judging must be learned by experience. We must, of course, give more of our members who desire to become judges experience in judging by allowing them to work on committees consisting of at least one master judge or an assistant accredited judge.

The requirements listed below for accrediting master and assistant judges were adopted at the regional meeting held at Oshkosh.

How to Apply

Any member of the Wisconsin Garden Club Federation who wishes to become an accredited judge, either as master or assistant, should proceed as follows:

1. Write a letter stating the experience you have had according to the requirements given below, for either a master or assistant accredited judge. Follow the outline by number, stating the name of the flower shows in which exhibits were made and at which you judged. If possible, give the name of either the president of the garden club or the flower show manager in charge at the time the judging was done.

Under No. 3, state the locations of the flower arrangement or judging schools attended.

Under No. 4, write a paragraph on how to judge any two of the classes listed, giving the score card used.

2. Send the information described above to Mrs. Samuel Post, Recording Secretary-Treasurer, Wisconsin Garden Club Federation, Shorewood Hills, Madison. Mrs. Post will turn the requests over to the committee appointed by the Board of Directors for their approval.

Requirements for Master Accredited Judges

1.Five years or more of exhibiting experience at flower shows with winning exhibits in at least five shows.

2. Three years or more experience judging flower shows. Judging at least five shows.

3. Attendance at not less than three flower arrangement and judging schools or lectures.

4. Knowledge of judging in Perfection of Bloom classes for at least two of the following classes: a. Perennials; b. Annuals; c. Iris; d. Tulips; e. Peonies; f. Gladiolus; g. Dahlias; h. Roses.

Assistant Accredited Judges

1. Three years or more of exhibiting experience at flower shows with winning exhibits in at least three shows.

2. Two years or more experience judging flower shows. Judging at least three shows.

3. Attendance at not less than three flower arrangement and judging schools or lectures.

4. Knowledge of judging in Perfection of Bloom classes for at least two of the following classes: a. Perennials; b. Annuals; c. Iris; d. Tulips; e. Peonies; f. Gladiolus; g. Dahlias, h. Roses.

GARDEN CLUB OFFICERS AND COMMITTEE MEMBERS TO MEET AT OCONOMOWOC

AN entirely new type of meeting has been planned by the Wisconsin Garden Club Federation this year. All garden club officials and committee members will meet with the officers of the Federation, state committee members and district officers at Oconomowoc in May.

The forenoon will be spent in visiting several outstanding gardens in and near Oconomowoc. A noon luncheon will be served in the Oconomowoc High School, and in the afternoon there will be round table conferences of the officers and committees to study their specific problems.

This meeting is a follow-up of the three regional meetings for officers held during February and March. An excellent program is being prepared. Local arrangements are under the direction of Mrs. Charles Schuele, second vice-president of the Federation.

WANTED: FLOWER SHOW DATES

WE would like to publish the dates for all Wisconsin Flower Shows in the May issue of Wisconsin Horticulture.

Garden clubs should send in by April 20 the dates and locations, as well as the admission fee, for any flower shows which will be held between May 10 and June 10.

We will be glad to publish the dates of shows held after June 10 in the June issue, or will publish them in both May and June, if desired.

Set your dates early and send them in. It's good publicity. Be sure to give the hours during which the show will be open.

WISCONSIN TO BE REPRESENTED AT NATIONAL COUNCIL MEETING

OUR first vice-president, Mrs. E. A. St. Clair, of Wauwatosa, will represent the Wisconsin Garden Club Federation at the National Council annual meeting, New York City, May 17-19. She will also attend the post-convention trip to Bermuda beginning May 20, where the Garden Club of Bermuda will be the official host. The Federation Board of Directors has voted to pay the registration fee to the National Council annual meeting for Mrs. St. Clair.

Any other member of the Wisconsin Garden Club Federation who may desire to make this trip should write to the state president for credentials as soon as possible.

FLOWER ARRANGEMENT AT GARDEN CLUB MEETING

AN excellent way to stimulate interest in the use of flowers in the home and in flower arrangement is to have exhibits at garden club meetings.

Some unusually fine shadow boxes were exhibited at the March meetings of the Wauwatosa and Elm Grove (Wauwatosa) Garden Clubs. The merits of the exhibits were pointed out by the exhibitor as part of the program. Several other clubs have adopted the plan.

Exhibits of new varieties of flowers and house plants is another excellent way of creating interest in garden club meetings.

A NEW SHADOW BOX FOR FLOWER SHOWS

SHADOW boxes are becoming quite popular as a means of exhibiting artistic bouquets of flowers at flower shows and garden club meetings.

A new idea for making an inexpensive type of shadow box was shown at the March meeting of the Wauwatosa Garden Club. It consisted of three pieces of plywood fastened together with hinges in the form of a U. This formed a shadow box without top or bottom, and by decorating the sides with cloth of an appropriate color, it gave an attractive setting for the flower arrangements.

The boards can be folded together and stored compactly when not in use, and are quite inexpensive to make. In size they are suitable for whatever type of arrangement is to be shown: small size for miniatures and larger for bouquets in vases.

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STATE GARDEN CLUB COMMITTEES

Conservation Committee

Mrs. Frank Quimby, 1422 Blaine Blvd., Racine, Chm.; Mrs. Harry Berger, R. 1, Hales Corners; Mrs. J. R. Johnson, 204 S. Prairie St., Whitewater; Mrs. R. B. Locke, Omro; Mrs. G. E. Snell, 414 Erie Avenue, Sheboygan.

A. Fire Prevention—Mrs. Clarence James, 1849 E. Fox Lane, Milwaukee.

B. Wild Life Preservation—Mrs. Edward Corrigan, 2178 N. 71st St., Wauwatosa.

C. Roadside Beautification—E. H. Miles, Fort Atkinson, Chm.; Dr. W. T. Lindsay, 942 Lake Court, Madison.

Junior Garden Clubs Committee

Miss Mary Lowerre, Delafield, Chm.; Mrs. James Johnson, 1532 Alice St., Wauwatosa; Mrs. H. J. Torrence, 1116 Highland St., Whitewater; Mrs. Thomas Mullen, Fond du Lac.

Visiting Gardens Committee

Mrs. E. J. Wells, Oakfield, Chm.; Mrs. Frank Niedermeyer, 4162 N. 16th St., Milwaukee; Mrs. H. L. MacDonald, Lake Geneva; Mrs. C. H. Braman, Box 147, Waupaca; Mrs. H. E. Sperling, 1311 Maryland Ave., Sheboygan.

Program Committee

Mrs. E. L. Sevringhaus, 1914 Cherokee Drive, Madison, Chm.; Mrs. Sidney Welch, Oconomowoc; Mrs. T. S. Ward, R. 1, Fort Atkinson; Mrs. A. W. Hargrave, Ripon.

Publicity Committee

Mrs. E. A. St. Clair, 2418 N. 65th St., Wauwatosa, Chm.

National Council Contact Chairman

Mrs. Charles Jahr, Elkhorn.

Horticulture Committee

Miss Merle Rasmussen, R. 4, Oshkosh, Chm.; Mrs. I. P. Lorentz, 1006 E. Manitoba St., Milwaukee; J. C. Ward, Fort Atkinson, Miss Mary Martin, Fond du Lac.

Historian

Mrs. C. E. Strong, 2517 S. 87th St., West Allis, Chm.

Exhibition Committee

Mrs. Chester Thomas, Thiensville, Chm.

Organization Committee

Mrs. R. Hibbard, 7034 Aetna Court, Wauwatosa, Chm.; Mrs. Harman Hull, Brandon; Mrs. F. H. Taggert, Lake Geneva; Mrs. E. J. Kallevang, 4130 Iroquois Drive, Madison; Mrs. Peter Cooper, Mukwonago Road, West Allis.

The Garden Club Outlook

President, National Council of State Garden Clubs, Inc.

IT does not seem possible that only within the past twenty-five years have we had organized garden clubs.

The integral parts of this great garden club movement are the local garden club, the State Federation of Garden Clubs, and the National Council of State Federations. All these are encompassed by one word: **Horticulture.**

All these combined form a worth while influence for definite preservation of beauty and progressive improvement in landscape design.

We have in every club three unrecognized types of members:

1. The serious intellectual, ready to hold office, cooperate and perform assigned work.
2. The negatives, doubters, don't know why they joined.
3. The "joiners", just bunkums, joined because it was the thing to do.

We admire unselfish broad-minded citizens, and certainly these past few years have found us blessing these individuals. In looking at the garden club applicant for membership, we recognize the fact that **one good citizen** in a village block will unconsciously dress up that whole block. That person joins a club and knows **why.**

The garden club of a village or hamlet joins the Federation and **should know why.**

The State Federation joins the National Council of State Garden Clubs, and **should also know why.**

The answer may be found in the time worn phrase—"In union there is strength."

I wonder if we recognize how little we amount to taken individually!

The outlook for garden clubs is **ever** bright—because there is **such power in work well done,** and the work of efficient garden clubs comprises, protects and enhances the inheritance of the ages: Trees, Shrubs, Plants—old and new—without which mankind could not exist.

The garden club differs from all other clubs in that it may exist in the city or the country, and among people of diverse interests in life—but whatever the occupation, civic pride, love of beauty, and unselfish loyalty unite the membership for a common good.

—Condensed from Bulletin, National Council of State Garden Clubs, Inc.

GARDEN TALKS OVER THE HOMEMAKERS' HOUR
WHA (940 K.C.) and WLBL (900 K.C.)

EVERY morning from 10:00 A. M. to 10:45 A. M. the Homemakers' Hour is on over state stations WHA and WLBL. Each Tuesday morning there is a special garden program.

During April, the following talks will be given:

April 5. What Shall We Put in the Window Box—Mrs. B. H. Paul.

April 12. Phlox for Midsummer Bloom—Mrs. F. M. Long and Mrs. W. Dakin.

April 19. Keeping the Flowers Healthy—Prof. R. E. Vaughan.

April 26. Down the Woodland Path—Mr. and Mrs. W. A. Toole.

CONSERVATION AND TOLERANCE

TOLERANCE for the beauty about us, as well as for our neighbor's ideas, was the conservation note sounded in a talk by Mr. Jens Jensen at the Madison Woman's Club in March. He stressed the value of restoring our native landscape for the enjoyment of future generations, saying, "We can do much with a little tolerance and a little love."

We who feel we are doing things may sit up and take notice of the position we have been given by Mr. Jensen. "You in Wisconsin are not in the front ranks of those that cultivate conservation in this country. What are you doing? Selling your northern lakes, your treasures, for gold, thinking of your own selfish lives. Even in Wisconsin, which is so beautiful, there is so much to do. Societies talk about conservation; pour afternoon coffee and talk; and it's all gas, you know"—Mr. Jensen deploring the crowding of cottages on our lake shores, the cutting of our timber, the destruction of the protective plants along our streams.

He said we should know more about our state parks, "the place where one goes to get what he does not have at home." He pointed out that our wastefulness destroys adventure for all of us, a condition the state parks are remedying—"I go to the woods to walk along a trail, to sit on a log—to find myself. There is nothing to be afraid of in the woods."

The following are some of the pertinent remarks made by Mr. Jensen:

"You put rubbish in your state parks that belongs to the city."

"Haven't you plenty of abandoned farms in your state that would make recreation fields?"

"We have game refuges and not a single thing to protect."

Varieties For the Window Box

IN regard to the type of plants to use, the resources are almost unlimited. You may choose from over 300 species and varieties of annuals and potting plants. Do not limit your selections to the old stand-bys which have been common for years in window boxes. There is a vogue becoming increasingly popular which involves the use of what might be called a carpet window box. In such an arrangement only one kind of plant is used instead of mixing a half dozen different sorts of plants together in a box. The plant in this case should be one which tends to spread rather vigorously and to form a carpet growth.

Good Combinations

Can you imagine the refined and interesting effect which a box filled with Blue Lobelia would make against a house painted white? If Lobelia is used, the varieties which are creeping are preferable to the bunchy dense growing types. The Signet Marigold can be used in the same manner, and its yellowish-orange flowers are particularly attractive against a brick wall. The new species of Zinnia which is called Zinnia linearis can also be used in such a situation.

Verbenas are particularly happy in this type of box, and I would like to call your attention to the variety Apple Blossom which is a particularly beautiful shade of pink. The petunia provides a splendid mass of flowers through the year in a window box. The monstrous flowered giants are not as attractive in a window box as are the single flowered types. Some of the newer varieties of the single type are very beautiful . . . for instance, Celestial Rose, Setting Sun, Fascination, Dainty Lady, and Admiral. These varieties may be used where it is not desirable to have the height of growth more than 12 inches, while the balcony types will not only raise themselves 15 to 18 inches, but will also hang down about the sides of the box.

Combinations Featuring English Ivy or Geraniums

In combining several types of flowers I do not need to suggest to you the time-honored and always satisfactory geraniums with vinca vines or Fuchsia, Lantanna and others. I would like to suggest, however, that you try some of the potting types of ever-blooming begonias with a planting of lobelia or verbena. English Ivy may also be used with almost any of the annuals. In this case it is even possible to obtain sufficient growth on the English Ivy to partly cover your box during the winter months. If you plan to do this, try not to plant quite as closely as would otherwise be done, thus giving the ivy plants a better chance to establish themselves thoroughly.

One thing which must be remembered is that the window box is not the ideal receptacle for plants and that no matter what is placed in the box its attractiveness will eventually be destroyed. It is very necessary, therefore, that you have fine, strong plants to begin with in order that they may stay attractive through a large part of their lifetime. An unhealthy or unattractive plant will very seldom improve in condition during the growing season in a window box when its condition is due to anything but lack of size. Even in the latter case it is a fact that you will probably have better results if you use fairly good sized plants in your window boxes and not expect them to make too much growth during the summer.—Prof. R. B. Farnham, New Jersey State College.

NEW ANNUALS FOR TRIAL

BLUE has come to be associated with ageratums, but the hybridizers are gradually extending the range of color. There comes now an ageratum called Fairy Pink, the color of which is indicated by its name. It is, in truth, a soft rose pink. Ageratums are among the most useful annuals for edging purposes and Fairy Pink is no exception. It is dwarf, compact and never grows more than six inches high. It begins to bloom when very small.

Calendulas

New calendulas have not been developed as fast as new zinnias, but each year sees the addition of improved varieties. Orange Fantasy is a crested variety which, at least, suggests a new type. The color is bronze or coppery orange, often deepening to mahogany red at the edges. Blooms three and one-half inches in diameter are not unusual.

Not much attention has been given to the centaureas, apart from bachelor's buttons. The kind called basket flower, **Centaurea americana,** is appearing in some of the catalogues this year. It seems well worth including in any list of novelties. The flowers look much like sweet-sultans, often measuring five or six inches across. The color may be either rosy lilac or pure white. Inasmuch as the flowers are attractive both in the garden and in the house, they are worth getting acquainted with.

AN ATTENDANCE RECORD

CAN you equal this garden club attendance record? Our president, Mrs. J. M. Johnson, according to the records, has just finished five years' attendance at her garden club's meetings, not missing a single meeting during that time, and her daughter, Juniet, was born during that period.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

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Apiary Inspection in 1937

C. D. Adams

THE bee inspection work had a slow start in 1937 on account of a lack of state funds. The regular inspectors put in half time or less before July 10 when the new appropriation became available. From that time on every available experienced inspector was put to work and most of them were breaking in new men until cold weather made further work impractical.

The lack of a honey crop in most of the state facilitated rapid work in some instances but on the other hand robbing slowed it up. Twenty-three counties, mostly in the southern part of the state, had appropriated funds for the 1937 bee inspection work. Inspectors were kept busy in these counties steadily from July until the end of the season. Counties that had previously been included in the area clean-up campaign but had dropped it during the depression, were taken next in order and were given as much attention as possible considering the lack of experienced inspectors. Sixteen such counties were partially inspected late in the season. In almost every instance more disease was found than we anticipated. Work was also started in two or three counties that had never had inspection but were partially surrounded by almost clean counties.

Many Colonies Inspected

In the 23 appropriating counties there were 3,621 apiaries inspected, 370 of which were found infected. The total number of colonies inspected in these counties was 28,860, of which 1,103 were found diseased and destroyed. In the remaining counties of the state there were 1,419 apiaries inspected and 270 of these yards were found diseased. In these counties 16,112 colonies were inspected of which 1,589 were diseased. **Immovable frame hives continue to be a serious problem.** Altogether 1,176 such colonies were found, some of which were destroyed and notices given for the remainder to be transferred as soon as a honey flow makes it practical.

We have on file almost double the number of new applicants for inspection work as there will be positions to be filled, and for this reason the qualifications for the ones selected will be high.

COUNTY BEEKEEPERS MEETINGS VERY SUCCESSFUL

THE meetings of county beekeepers associations held during February and March were very successful indeed. Mr. E. L. Chambers and Mr. C. D. Adams are to be congratulated on their work in holding these meetings. Several new county associations were organized. The Columbia County Association, for example, held its first meeting in several years at Portage, March 3, with an attendance of over thirty. An association was formed and fifteen joined the county and state beekeepers associations.

Interest in these county meetings is keen because of the plans for foulbrood clean-up work in the various counties.

PROSPECTS NOT BRIGHT

THE section of Wisconsin between Madison and Milwaukee was probably hit the worst last year of any section of the state in regard to honey production and condition of bees.

Mr. Paul Cypher, West Bend, former treasurer of the state association, writes that most bees in his section of the state are in such poor condition that it is very discouraging. Some beekeepers lost all they had and many lost over half. Many reduced their colonies to about half last fall because they did not want to feed so much sugar. Every beekeeper in this section of the state had to feed last fall without getting any surplus, or if surplus was taken, more had to be fed.

The Washington County Association had an attendance of 43 at their March meeting.

LIKES HONEY ICE BOX COOKIES

MUST tell you that we used the recipe for "Honey Ice Box Cookies" by Mrs. A. E. Wolkow, Hartford, for our Christmas wreath bee—and were they good!—Mrs. John E. Connell, Superior Garden Club.

(Recipe published December issue, p. 97.)

POLLEN NEEDED IN APRIL

JUST about a year ago, several leading beekeepers in Wisconsin inspected their bees and found that there was very little brood rearing. They had looked at a few colonies in March and found small patches of brood, and looking again in April found that there was very little more. This continued throughout almost the entire month of April.

We asked these beekeepers to inspect their colonies for reserve pollen. Their answers were that there was very little pollen present, which possibly accounted for the slow brood rearing.

We would like to suggest that beekeepers observe again this spring the relation between the amount of pollen in the hive and the amount of brood being reared in strong colonies.

In case we have very little pollen present in the hive, what can we do about it? Unless we have extracted combs, heavy with pollen, in our storage houses, there seems little we can do at the present time. A number of experiment stations are working on the problem. They have recommended soy bean flour, skim milk powder, and other materials, but the problem of how to feed it correctly has not yet been solved. We tried several ways of feeding it last spring, but found most of it wasted. In Wisconsin, during most years, as soon as weather is suitable, pollen will come in from early-blooming plants.

Pollen or its substitutes, if fed at all, should be fed in the fall so as to be available throughout the winter. We need more work along this line. Perhaps some day we will know how to collect corn pollen and feed it.

BEES WANTED

We will buy full colonies of bees if in good condition and free from disease. A. J. Schultz, 835 Liberty Street, Ripon, Wis.

SPRING CARE OF BEES

A. J. Schultz, Ripon

AS the size of the honey crop depends to a certain extent on the care bees are given during April, one should see that each colony has plenty of stores. It is not often that any have more than needed. If any should be found that are light, and still have enough bees to be worth saving, sugar syrup made of granulated sugar and boiling water in the proportions of half and half, may be fed.

To feed we use the regular friction top honey pails, with a dozen or more small holes punched in the cover, not larger than a darning needle. The pail is placed over the escape hole in the inner cover with an empty super around the pail. Any other safe feeder may be used.

Either in the feeding operation, or otherwise in the handling of bees, great care should always be taken to prevent robbing. Often disease is spread through carelessness. If any colony should be found that is weak in bees the entrance should be reduced to prevent robbing. Colonies may be united by the newspaper method as follows: remove inner cover from one of the weak colonies to be united, placing a single sheet of newspaper on it —this paper to be punched with holes not larger than a nail or pencil. Place the second colony, without bottom board, on top of the newspaper. Place the better queen on top. It is best to unite all weak colonies. One good strong colony will produce more honey in a season than several weak ones.

SUGAR FOR SALE

Slightly off-color cane sugar, suitable for spring bee feeding at $4.00 per hundred, f.o.b. Portage. Write A. C. Allen, 1130 W. Pleasant Street, Portage, Wis.

WHY NOT

MOVING bees without making sure that they are healthy is an expensive proceeding in some countries. Recently, a beekeeper in Denmark was not only fined, but also had to pay compensation to two other beekeepers, because he had brought his bees (suffering from foulbrood) into the district and infected their apiaries. — Tidsskrift for Biavl, in the Bee World.

CONTAINERS

Write us for prices on friction top pails—60 pound cans and glass jars.

Comb and extracted honey wanted. Send samples and quote price delivered Milwaukee.

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A complete line of other bee supplies listed in our new 1938 catalog. Write for your free copy.

August Lotz Company
Boyd, Wisconsin

ALL IN A DAY

A WELL dressed woman drove up in a high-priced car. "The doctor said you had 'the pure honey.'" After making inquiries about sizes of containers and prices, she said, "I'll take a pound jar. I like to get it fresh."

Another lady drove up in a Ford A. She bought a 5 lb. pail of honey. I offered her a Kellogg leaflet which, I told her, contained ideas for using honey. She replied, "I don't need any ideas. I have five youngsters."

IN A NO CROP YEAR

Mr. M. Anderson, of Evansville, had four colonies last spring. He has mostly eight-frame hives and keeps his bees in one story. Early in the spring he stimulated his colonies. The result was he increased by swarming to 12 colonies and secured 16 supers of comb honey. One colony lost its queen. He sold the honey wholesale and sold the 7 colonies increase less the hives, with gross returns of about $70. (I'll bite, how did he do it? Editor).—Ivan Whiting, Rockford, Ill.

Forbearance

It is a noble and great thing to cover the blemishes, and to excuse the failings of a friend; to draw a curtain before his stains; and to display his perfections; to bury his weaknesses in silence, but to proclaim his virtues from the house-top.

—South.

HONEY FOR SALE

6,000 lbs. clover-basswood mixed. This honey will grade white. Has extra heavy body. New cans not cased, price 7½c per lb. here.

300 one-gallon empty, new maple syrup cans, a bargain at $8.00 per hundred, F. O. B. here.

ELLIOTT HONEY COMPANY
Menomonie, Wisconsin

BEEKEEPING IN APRIL

W. Diehnelt, Menomonee Falls

AS I winter all my hives outdoors, packed in winter cases, the following applies to outdoor wintering only. The first nice day in April I examine all hives to see if they have enough feed. I do not disturb the cluster. If I find several capped frames of honey, I figure it will be enough feed until warmer weather. If there is no capped honey, I place a 10-lb. feeder (feed of 50% sugar syrup at 120 degrees) directly above the cluster of bees, then cover feeder with a burlap bag and some of the winter packing. However, if the colonies are all light in weight, it is advisable to feed all colonies. This gives the bees an early start and eliminates all danger of starvation.

In about two weeks or in the middle of April, depending upon the weather, I unpack my hives. If the weather is warm and the bees are flying, I again look for feed and pollen, as pollen is very essential in spring for brood rearing. However, in our part of the state, the bees usually carry pollen from the elm and willow trees by April 10.

I have been visiting beekeepers in our locality; have visited two yards of bees within 25 miles of here, one yard of 130 hives and the other of 80 hives, and found all bees dead due to starvation. I therefore can not stress too strongly that the beekeeper see that his hives have enough feed.

This is also a good time of the year to see that we have plenty of supplies on hand as I expect a good and early season. It is poor business to be caught without supplies on hand when you need them.

Repose

When a man finds not repose in himself, it is in vain for him to seek it elsewhere.

—from the French.

COLONIES LACK POLLEN

VISITING for an hour with A. J. Schultz, of Ripon, on March 22, the editor discussed the relation of spring brood rearing to old pollen in the combs. It was a warm day and the bees were carrying in pollen freely. We decided to examine a number of hives to see how much sealed brood and old pollen was present.

The colonies were all strong and had plenty of stores left as Mr. Schultz feeds heavily in the fall.

The queens were laying as plenty of eggs were found. However we found **no sealed brood or old pollen** in a majority of the colonies. Where we found old pollen we found also sealed brood.

Of course, colonies having young bees hatching out early will build up much more rapidly than the others. We saw the same thing a year ago, so it looks as if we have a problem to solve.

Will we be able to harvest pollen from corn in the fall and feed it by mixing with sugar syrup? Here is work for our Experiment Stations.

BEES OR EQUIPMENT WANTED

Wanted to buy: Bees in ten-frame hive bodies or ten-frame extracting supers, covers or bottoms. Must be in good condition and free from disease. Write J. S. H., care of Wisconsin Horticulture, 1532 University Avenue, Madison, Wisconsin.

HIVE BODIES FOR SALE

Have 225 supers, mostly 10-frame, some shallow, some 11-frame; 200 with drawn combs. Bottoms, inner and outer covers. Three 30-lb. boxes of foundations for Hoffman frames, 7 sheets per pound. Inspected and free from disease last fall.

J. N. Roy, Three Lakes, Wis., Route 1

Diary of An Oldtimer

MARCH 13. What wonderful weather we had in March. The bees are flying today and if there was any honey they would probably show a surplus. Just to see what March is usually like, I went over my diary and found that this last year we had a heavy snow storm on March 24. One can never depend on the weather.

March 19. Yesterday the temperature went up to 69 degrees. That's almost like summer. I talked to a brother beekeeper who said that quite a few bees starved to death this last winter, that he had seen whole yards that were starved. That's too bad, but it is easy to see how a man will get discouraged if he hasn't any honey and has to buy sugar to feed. There are always better times ahead, though. No one part of the country has all the bad luck.

Another beekeeper said the other day that if he starts to feed in the spring he has to keep on feeding, otherwise the bees start brood rearing so strong that they soon use up the feed. It is hard to realize how much honey a strong colony of bees will use when they are building up fast. I guess it's between one and two pounds per day, which means from 30 to 60 pounds in a month. So it's easy to see why bees don't have any surplus from spring flowers, dandelions, and fruit bloom.

I certainly don't believe in feeding sugar syrup outdoors. I don't want my bees flying out on cold days, wearing themselves out. Then a lot of my colonies had plenty of feed and I only want those who are short to have more. I think the best way to feed is to save over some dark fall honey, right in the combs, if we haven't any A. F. B., and then put a nice comb or two right in the hives at this time of year. Sometimes fall honey granulates, though, and then the idea isn't so good.

I think the best thing for the bees to do during March and April is to stay at home and keep the brood nest warm.

If I were to advise beginners, I'd say leave the bees alone. If they have a queen and plenty of stores, don't touch 'em. And don't open the entrance too wide just because the weather turns warm in early April. It will turn cold again.

March 20. Went out to see the bees today and they were carrying pollen better than I've ever seen them before this early. The temperature is around 70 degrees. I went over my records and I didn't see anywhere a record of such good weather before. Guess we don't have to worry about pollen any more this spring.

HOW FOULBROOD SPREADS

HAS anyone ever been able to prevent all robbing in a yard of bees in the spring of the year? On warm days the bees are so eager to find honey and pollen that robbing is the first order of business. Weak colonies sometimes dwindle to such an extent in the spring without the beekeeper realizing it that they are easily robbed out. Sometimes robbers get in and steal honey in spite of a small entrance and a few guards of bees.

How then can foulbrood be prevented from spreading? Answer. It can't. Diseased colonies must be destroyed.

Knowledge

When you know a thing, to hold that you know it; and when you do not know a thing, to allow that you do not know it; this is knowledge. —Confucius.

The New
Dripless Honey Server

The only device made that pours honey without drip. In eight different style jars. Priced $1.00 and up.

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We allow a special discount on one half dozen and dozen lots. Increase your sales by offering your customers one of these servers. Write for catalog and prices.

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A successful beekeeper will use nothing but full sheets of foundation insuring perfect combs in every instance.

For 50 years Dittmer's foundation has given absolute satisfaction wherever used.

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Our thin super foundation is made from the whitest wax obtainable.

We carry a complete line of beekeeping equipment.

If you have not received our 1938 price list, please advise us and we will forward you a copy.

GUS DITTMER COMPANY

Augusta, Wisconsin

As soon as the frost is out of the ground, there is a period of about two weeks when planting and replanting of peonies can be undertaken. Note instructions elsewhere in this issue.

Sisson's Peonies
ROSENDALE, WISCONSIN
Highways 23-26 Intersection

TREES

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Raspberry and Strawberry Plants

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Sulphate of Ammonia — Aero Cyanamide

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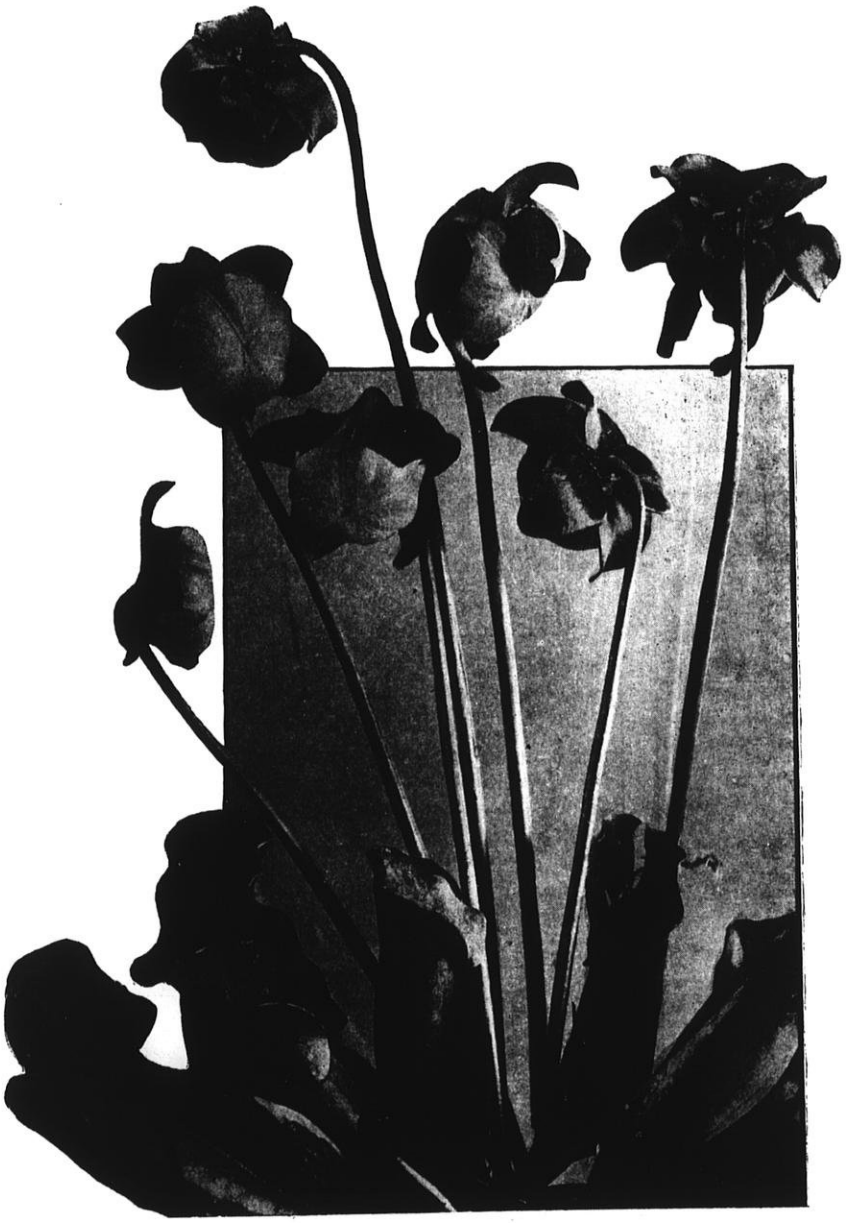

MAY, 1938

New . . .

Northern Grown Trees

with Wholeroot Grafts

APPLES — Anoka and Cortland; Minnesota No. 424 Russet Apple; Minnesota Beacon; Minnesota No. 1007; Minnesota No. 790; Minnesota Haralson.

New No. 3 Pear. Very hardy.
New Minnesota Ember Plum.
A full line of transplanted trees for the windbreak. Very low prices.

Send for complete list

SWEDBERG NURSERY
Battle Lake, Minnesota

A sailor, after placing some flowers on a grave in a cemetery, noticed an old Chinaman placing a bowl of rice on a nearby grave, and asked: "What time do you expect your friend to come up and eat the rice?"

The old Chinaman replied with a smile: "Same time your friend comes up to smell flowers."

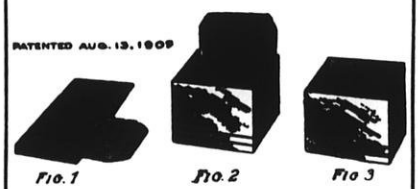

Fig. 1 Fig. 2 Fig 3

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Crates, Bushel Boxes and Climax Baskets

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We manufacture the Ewald Patent Folding Berry Boxes of wood veneer that give satisfaction. Berry box and crate materials in the K. D. in carload lots our specialty. We constantly carry in stock 16-quart crates all made up ready for use, either for strawberries or blueberries. No order too small or too large for us to handle. We can ship the folding boxes and crates in K. D. from Milwaukee. Promptness is essential in handling fruit, and we aim to do our part well. A large discount for early orders. A postal brings our price list.

Cumberland Fruit Package Company

Dept. D. Cumberland, Wis.

Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

Established 1910

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

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
424 University Farm Place
Madison, Wisconsin

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

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

Volume XXVIII May, 1938 No. 9

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Subscription to Wisconsin Horticulture is obtained by membership in the Wisconsin State Horticultural Society for which the annual dues are $1 per year or $1.50 for two years. Garden Clubs, Horticultural Societies, and other Horticultural Organizations are affiliated at a reduced membership rate. Fifty-cents of the annual dues paid by each member is for a year's subscription to Wisconsin Horticulture.

PLEASE DO NOT SEND STAMPS

Wisconsin Horticulture

News From Our Fruit Growers

SEVERAL of our leading fruit growers sent in reports on the condition of the apple crop and on their methods of spraying and fertilizing.

In general, conditions in Wisconsin look very promising. The letters from the growers were so interesting that we are publishing them.

From Baraboo

By A. K. Bassett, Ski-Hi Fruit Farm

We expect two-thirds of an apple crop this year. There will most likely be a fair crop of McIntosh again, but we will not have so many Wealthys.

We applied cyanamid fertilizer last fall instead of this spring. We have found it very successful.

Our spray program consists of lime sulphur and arsenate of lead used in a pre-pink, pink, calyx, and a spray three weeks after calyx. We have had no trouble with codling moth and so do not use a special spray for it.

Our most profitable variety is McIntosh. In planting new trees, we plant Virginia Crab and top work them with Red Delicious.

We think that the varieties which should not be planted any longer are McMahon, Duchess, and Wealthy.

From Door County

By N. C. Jacobs, Sawyer

While there has been no winter or frost injury to the apple crop here this year, it will likely be smaller than a year ago because of fewer blossom buds. McIntosh is somewhat biennial and we will not have a large crop. We expect a good crop of Wealthys this year because this is their bearing year.

Last year we applied sulphate of ammonia to our trees and mulched with five tons per acre of straw, hay, weeds, etc. This year we are applying 325 lbs. of raw rock phosphate per acre.

On April 16 we applied a dormant lime sulphur spray and will put on two or three more sprays before blossoming and three sprays after blossom. We use liquid lime sulphur plus 1 to 1½ pounds arsenate of lead to 50 gallons of spray, which controls our codling moth.

I find McIntosh the most profitable variety to grow. I would plant more McIntosh and also Cortland. I think Duchess, Dudley and Snow should no longer be planted.

From Southeastern Wisconsin

By R. L. Marken, Kenosha

We expect the biggest apple crop we have ever had. The trees wintered nicely, no damage from frost. Cherries were slightly damaged during the last cold spell.

Our McIntosh are slightly biennial, but this is the on year. Wealthys are repeating.

We use ammonium sulphate for fertilizer and try to apply it about three weeks before bloom. We will delay fertilizing McIntosh until after fruit has set to avoid, if possible, an excessive load this year and thus bring them into annual bearing.

We expect to apply three preblossom sprays and one about every ten days beginning with the calyx until about July 20. We will use lime sulphur and arsenate of lead. After August 1, we may use nicotine.

Our best varieties are still McIntosh and Snow. In planting more trees, I would plant Cortland.

I would not plant Wealthys, excepting as fillers, and no green or yellow apples.

From Eastern Wisconsin

By Joseph L. Morowetz, West Bend

Our fruit trees all have a good set with no winter injury. Our McIntosh have a full set and our Wealthys are repeating this year with a full crop. We applied some barnyard manure to our orchard in March.

We use a lime sulphur—lead arsenate 1-1-40 spray for the calyx, 16 days later, between July 15-20, and again August 15-20 for codling moth. For late sprays we use a 1-1½-70 mixture. We have had good control with these sprays for fourteen years in our rather small orchard.

My best varieties are as follows: early, Melba and Milton; mid-season, Wealthy, McIntosh and Snow; and late, Golden Russet.

I would no longer plant any of the old varieties excepting Wealthy, Spy, Stayman, or Turley Winesap. I would also plant Cortland, Haralson, and Red Delicious.

From the Fox River Valley

By N. A. Rasmussen, Oshkosh

The apple prospects are very promising. We had a favorable winter with little injury. Unless we have a hard frost, we will have a good crop.

Our McIntosh should bear very well and have been good annual bearers. We expect a good crop of Wealthys this year.

We seldom use any commercial fertilizer in our orchard because it was a heavily fertilized garden soil. We use a little nitrogen fertilizer on trees not making a good growth.

We spray so as to keep our foliage covered with liquid lime sulphur and arsenate of lead and spray according to weather conditions. This has kept the codling moth under control.

McIntosh and Wealthy have been our most profitable fall varieties. If we were planting new trees, we would plant McIntosh, Wealthy, Northwestern Greening and Snow, and also some of the newer varieties such as Milton, Cortland, etc.

We think that about 25 of the older varieties should be eliminated from the orchards.

From Northern Door County

By S. S. Telfer, Ellison Bay

The apple prospects in northern Door County are very promising, the best in several years. So far there has been no winter injury and there is a very good set of fruit buds.

The older McIntosh trees have not had a heavy crop of fruit for the past few seasons due to dry weather, I believe. Dry seasons in '34 and '35, followed by the severe winter in '35-'36 caused our crop to be light in 1936. Then in 1937 there was injury in this locality to the buds which killed our crop last year. It is difficult to determine what to expect from our McIntosh. The Wealthys did not bear last year and show prospects of a good crop.

Sulphate of ammonia was applied in the spring of 1937 but I think the trees did not get much benefit from it until quite late in the season due to the dry weather. The trees went into winter in excellent condition. Last fall cyanamid was applied to the entire apple orchard.

This spring we will apply a mulch of barnyard manure to all of our new plantings.

We have applied a dormant spray of standard emulsion oil for the control of leaf roller. It gave us good results last year. The balance of our program will be the regular lime sulphur sprays, but the latter sprays may contain an arsenical substitute for arsenate of lead to prevent a spray residue.

We still think that McIntosh is a good apple for this locality. Cortland is now considered very promising in Door County. Kendall is well worth a trial, although not proven. Delicious are reported as having suffered from either winter injury or dry weather with much dead wood in the older trees. Wealthys, properly handled, are still good.

Early varieties of apples do not mature here in time to be of any value. We will no longer plant Northwestern Greening.

We had much snow here last winter, resulting in some broken branches but this was offset by plenty of moisture for the trees. The orchards look a lot better than they have for several years past.

From Sturgeon Bay

By Don W. Reynolds, Sturgeon Bay

To date prospects for an apple crop look very good, there having been no injury that we can detect. We expect a good crop of McIntosh and Wealthys this year.

We are not using a commercial fertilizer this spring as we made a heavy application of ammonium sulphate on all of our blocks last fall.

We did not apply a dormant spray this spring and do not intend to use any oil, although several growers are following this practice. Our sprays will consist of the delayed dormant, one or two pre-pink, calyx, and the later sprays as recommended by the College. We use arsenate of lead and liquid lime sulphur.

Our most profitable varieties are McIntosh and Northwestern Greening. McIntosh brings a higher price, costs more to produce, and often does not come through with a crop. On the other hand, Northwestern Greening is easier to grow, produces plenty of large apples on the trees we have, and is easier to handle. However, I would not want too many of them.

I am sure that most of the growers here would be better off without most of the early varieties, such as Yellow Transparent, Duchess, etc.

Report From Cherry Growers

Prospects in Sawyer

By N. C. Jacobs, Sawyer

THE outlook for a crop of cherries here is very good at the present time—April 16. We have never seen the buds come through better than during the past winter.

Young trees planted here are mostly for replacement, as has been the case for the past several years.

Sulphate of ammonia is the usual fertilizer for cherry trees and is generally applied in the spring.

To control leaf spot and worms, I use Bordeaux Mixture, 3-5-50 plus ¾ lb. of arsenate of lead. The first spray is applied when most of the petals have fallen and the second spray when a few cherries are turning a very little red. By doing thorough work these two sprays almost always control the leaf spot in my orchard. Some years we put on a third spray after harvesting.

From Sturgeon Bay

By D. W. Reynolds

The cherry crop in this section will probably be pretty good this year. We did not have any of what is called "winter injury." However, we had a very warm spell in March which was followed by cold weather in April. This certainly had some effect on the crop. To date I have not found very much injury, but some of the growers are reporting heavy injury, especially on the Early Richmonds.

According to the number of trees that we are handling this spring, I do not believe that the cherry planting will be as heavy as usual. This is, no doubt, due to the fact that cherry trees are hard to get, and, when we are able to secure them, they must be sold at a high retail price. This, of course, makes the planting cost to the grower very high.

Several growers are using large quantities of commercial fertilizers this year. Practically without exception, they are using 20% ammonium sulphate.

It is our intention to again use Bordeaux mixture for the control of cherry leaf spot. We of course will try out some of the newer combinations, but only in a small way. We may be able to get by with two applications of Bordeaux on the older cherry trees, but we will not use less than three on the younger cherry trees. The number of applications necessarily is partly governed by the weather conditions.

About the only spray material other than that used for leaf spot on cherries is arsenate of lead.

From Northern Door County

By S. S. Telfer, Ellison Bay, Manager of Friedlund Orchards, Inc.

Cherries in the northern part of Door County have suffered no injury to buds during the past winter or spring. The trees are well budded and the prospects are for a large crop of fruit.

Sulphate of ammonia is being used almost wholly as a fertilizer in the larger commercial orchards. A few of the orchardists are using barnyard manure in the amounts that it is possible to procure same. Growers who have livestock on their places have made a practice of using manure in their cherry orchards in the past and are continuing with this practice. Some growers prefer to apply commercial fertilizer in the fall and others prefer the spring application. In the

(Continued on next page, column 3)

CONTROL APPLE SCAB

with

Niagara Kolofog

A Non-Caustic Sulphur spray designed to control fungus diseases without injury.

Kolofog plus Niagara Arsenate of lead is an ideal combination for scab and codling moth control because it sticks to the foliage.

See list of Niagara dealers on Page 261 of this magazine, or write to

WHEN YOU BUY Niagara YOU BUY PROTECTION

Niagara Sprayer & Chemical Company

J. HENRY SMITH,

Sales Representative

Waupaca, Wisconsin

Codling Moth Bait Pans and How to Use Them

John A. Callenbach

BAIT pans have become increasingly popular with apple growers as an aid to more accurate timing of their codling moth cover sprays. By the old method of applying sprays according to the period elapsed since the calyx spray the correct time for spraying might be missed entirely due to extreme weather conditions such as those experienced the past few years. By the use of bait pans, or "hootch pans" as they are frequently called, the orchardist can tell pretty accurately when the moths begin to fly and when the peak, or maximum, flight occurs. Knowing this he can intelligently plan his spray program so as to obtain the maximum protection for his fruit.

What Are Bait Pans?

The pan used at the Gays Mills Laboratory of the Department of Economic Entomology is simply an enamelled sauce pan with a rim diameter of about 9 inches and a depth of about 3 inches. Three holes are punched in the side of the pan about ½ inch below the rim and equally spaced around the pan, and a fairly heavy galvanized wire strung through to make a tripod-like handle about 15 inches high. The pan is then hung by rope and pulleys in the top of a tree, preferably where the tree is fairly open and the pan can hang free without hitting against branches. Another type of pan, somewhat simpler to make but about as effective to use is made of a No. 10 tin or gallon friction top pail which is provided with a handle similar to that described for the other pan. Either of these pans will give good service.

The Bait

A good bait for use in the pans is made of 5% honey, 5% black strap molasses and 90% water. About a pint is used in the flat sauce pan and about 3 quarts in the pail. The volume should be maintained by addition of water. About every 2 weeks the material should be changed as on souring it loses its effectiveness.

How To Use Bait Pans

A day or two after the calyx spray has been applied the pans are hung in the trees and are then examined daily for the presence of moths. The moths will be found floating on the surface and can be easily counted. The codling moths should not be confused with other moths that will be attracted to the traps. If the grower is not familiar with the appearance of the codling moth he should have become so or the traps will be of no value. When the first moths are found the grower can expect to find worms entering the fruit about 10 days later and a spray should be applied before that time. After the daily catch reaches a peak another spray should be applied within 10 days. Then if the flight is heavy and continues for some time, another application about 10 days after the preceding one should be applied. These three sprays represent the 10-day, 20-day, and 30-day sprays of the old calendar system of applying sprays.

These sprays are sufficient to protect the early varieties and in small orchards where spraying has been done properly no further applications will probably be needed for later varieties. In large orchards where there are many late varieties, such as McIntosh, Snows and Greenings, additional protection is needed against second brood worms. Second brood moths will begin to appear in the bait pans the later part of July or early August and the second brood spray should be applied 5-7 days after the bait pans indicate the peak of the summer flight.

REPORTS FROM CHERRY GROWERS

(Continued from page 245)

dry seasons, it appears that the trees have not secured benefit from spring application of sulphate of ammonia early enough to materially help the crop for that season.

Cover crops of some of the legumes are used to some extent for humus in the larger orchards but it is my opinion that in the smaller orchards buckwheat is the principal cover sown.

Bordeaux is the spray which has been used in most of the cherry orchards in this section. Two applications have been sufficient, in most instances, to control leaf spot in the past few seasons. This, however, does not mean that this practice may be advisable in the future, as weather conditions influence the development of the spores and in a wet season three and even four applications may be necessary. There are no other sprays being applied in this section this spring for pests other than cherry leaf spot.

From Green Bay

By C. J. Telfer, Manager, Larson Orchard

The cherry crop in this section looks very good up to this time. There has been no increase in planting.

We have the only cherries to speak of in this section. Amnonium sulphate applied the first week in April has been used for fertilizing. We apply three sprays of Bordeaux mixture on our cherries for leaf spot and we use arsenate of lead, 1½ to 2 lbs. per 100 gallons of water, in addition.

Effect of Sod, Cultivation and Straw Mulch Upon Orchard Soil Moisture Content

L. R. Langord

THE amount of moisture available in the soil is an important factor affecting the production of profitable orchard crops.

In order to determine soil moisture differences as influenced by cultural practices, soil moisture determinations were made on orchard soils under several cultural conditions at Sturgeon Bay, Wisconsin, the summers of 1936 and 1937. The soil moisture determinations were made at several depths beginning with the surface 6 inches and extending downward usually only 12 inches, each 6 inch level being kept separate. Comparable soil samples were taken in duplicate or triplicate at intervals of about every 10 to 15 days during July and August. The soil in the Sturgeon Bay fruit district consists almost entirely of Miami loam underlaid by limestone. The topography of the soil on which moisture comparisons were made varies from undulating to gently rolling. Much of the soil is so shallow a soil tube cannot be driven into the ground more than 15 inches without striking limestone fragments. Bedrock typically occurs within 3 feet of the surface.

Soil moisture comparisons made were under conditions as follows: (1) Sod, clean cultivation, and straw mulch; (2) where grasses had been cut as compared with grasses left standing; (3) a heavy growth of grass induced by a heavy application of a nitrogen fertilizer as compared with a lighter growth of grass where less or no fertilizer had been applied; (3) three different grasses serving as sod or cover crops.

Straw Mulch Conserves Moisture

A comparison of soil moisture under Kentucky blue grass sod, clean cultivation, and straw mulch, showed the greatest amount of moisture under straw mulch, less under clean cultivation, and least under sod.

Grass Should Be Cut

The cutting or average stands of grasses usually resulted in a greater amount of soil moisture than where grasses had not been cut. Quack grass and sweet clover showed definitely that a conservation of moisture resulted with cutting. Results of soil samples taken August 11, 1937, for the 6-12 inch soil level showed 7.9% soil moisture for soil under quack grass not cut as against 9.8% soil moisture under quack grass which had been cut. Soil on which sweet clover was growing showed 6.9% soil moisture where sweet clover was uncut, as compared to 9.2% where the sweet clover had been cut. In the case of Kentucky blue grass the difference between soil moisture under grass, which was standing and that cut, was slight and the results were not consistent. This probably resulted from the fact that the blue grass dried up during the summer when the soil moisture became very low.

Effect of Fertilizers

Soil moisture under a heavy growth of Kentucky blue grass induced by a heavy application of nitrogen fertilizer showed a tendency to be higher than under a lighter growth of blue grass where less or no nitrogen had been applied. This is thought to result from the insulating effect of the heavy mat of grass against wind and sun.

Grasses and Clover Compared

Comparisons of soil moisture on areas having sweet clover growing on them as compared to comparable areas in the same orchard having quack grass showed less moisture under the sweet clover than under the quack grass. Areas under blue grass in another orchard showed no consistent moisture differences as compared to similar areas having quack grass.

Records of relative transpiration rates taken by the cobalt chloride paper method during August showed sweet clover to have the greatest transpiration rate per unit of leaf surface, quack grass less, and blue grass, the least, of these three plants.

SOY BEAN FLOUR AS A SPREADER AND STICKER FOR SPRAYING APPLES

Question. Will you kindly send me information on the use of soy bean flour as a sticker and spreader for spraying apples.

Answer. This material forms a very good film on the fruit and causes the arsenate of lead to stick almost indefinitely. Naturally if it is used, a heavy residue will be built up and unless the grower plans to wash his fruit, he should not use it.

The only time we recommend a spreader in Wisconsin is when lead arsenate is used alone without any fungicide. Dried milk powder is also very good, although it is not as efficient as soybean flour. If this is used, add one pound of soybean flour to each 100 gallons of spray. The flour should be first mixed with a little water before adding to the spray tank.

C. L. Fluke, Professor of Entomology.

Soils Effect Productivity of Orchards

WHERE the soil is shallow, trees will be small, fruit often undersized in dry years, in contrast to adjacent trees in deeper soil, of large size and with excellent production.

Table 1 summarizes the effect on yield of different soil conditions in one of our orchard areas in western New York. The figures are for Baldwin orchards averaging about 50 years old. It is the older trees with their greater need for root penetration and expansion that are most susceptible to the soil environment.

A good fruit soil should be deep, that is it should be composed of sufficiently permeable soil material that water and tree roots can find their way through it to a depth of at least 4 feet. The best fruit soils afford a congenial medium for rooting to a depth of 8 feet or more. Such soils are relatively uniform in structure, texture and color throughout the profile. The color is usually some shade of brown and fairly uniform in the surface two feet or deeper. A slight amount of mottling or irregularity in color is characteristic of certain types of good fruit soils, but highly mottled soils are seldom satisfactory.

Some of our best fruit soils are considered infertile and droughty for farm crops, but the tree roots are able to occupy such a large mass of soil and contact such a moist substratum at lower depths, that excellent results are obtained.

By Joseph Oskamp, Department of Pomology, Cornell University, condensed from Hoosier Horticulture.

Table 1. Average Annual Yield of Old Baldwin Trees on Different Soils in Wayne County, New York.

Soils	Ave. Annual Yield, Bu.
Deep, sandy, gravelly loam, well drained	10.6
Deep silt loam, well drained	9.5
Silty clay loam, imperfectly drained	5.5
Sandy loam, imperfectly drained	4.9
Glacial till loam, no compaction	9.5
Glacial till loam, very compact subsoil	3.7
Glacial till loam, shale or bed rock at 3 feet	3.6

ARE RED APPLES MORE HEALTHFUL THAN GREEN ONES?

FOR some time it has been pointed out that **fruit should not** be peeled, but eaten with the skin. An English institute for testing food succeeded in proving the truth of this view by scientific methods. The investigations proved that the **apple skin contains a considerably larger quantity of vitamins than the apple flesh,** so that it is unwise to peel fruit. This holds particularly for the winter months when, owing to the shortage of fresh vegetables, we are in special need of easily digestible food containing vitamins. Further investigation led to the interesting result that it is by no means the same, whether we eat red or green apples.

Apples with **red skin** are stated to contain **twice as many vitamins as green apples.** This shows how important it is that these problems are tackled with scientific thoroughness.

From the circular of the XIIIth International Horticultural Congress.

A CORRECTION

WE are sorry that an error was made in the article entitled "Factors Influencing the Ripening Season of Sour Cherries" by V. R. Gardner, Michigan, in our March issue. The article read that heavy crops, when accompanied by a limited leaf area, tended to ripen early and evenly. The correct statement should have been as follows, "Relatively heavy crops, especially when accompanied by a limited leaf area, tended to ripen late and unevenly; light crops tended to ripen early and evenly."

NEW BULLETINS BY MICHIGAN STATION

"FRUITS for Year Around Use," Circular No. 164, has just been published by Michigan State College, Lansing, Michigan. It is a circular of recipes for blueberries, cherries, grapes, and peaches, etc.

"Celery Production in Michigan," Circular No. 165, is also available. It is a discussion of soils and their management, varieties, culture, insect and disease control.

Carefulness

For want of a nail the shoe was lost; for want of a shoe the horse was lost; and for want of a horse the rider was lost; being overtaken and slain by the enemy, all for want of care about a horseshoe nail.

—Benjamin Franklin.

THE HARDIEST PEAR VARIETIES

PATTEN, Tait No. 1, and Zachman pears were listed by Mr. F. M. Schwab, of Mankato, Minnesota, as the hardiest varieties of pears grown under his severe climate.

Writing in the April issue of The Minnesota Horticulturist, Mr. Schwab states that in 1935-1936 temperatures remained below zero for 30 out of 31 consecutive days and destroyed approximately one-half of most of the orchards in his territory. Under these severe conditions, the Mendel, Douglas, Parker, and Ming suffered severe injury. These are considered hardy pears and are probably hardy in most parts of Wisconsin.

The Hansen Hybrid pears suffered no injury at all but the fruit was smaller and of lower quality than the others mentioned. However, the trees are valuable as understock.

The three most hardy varieties, Patten, Tait No. 1, and Zachman, are considered of large size and good quality by Mr. Schwab. They are valuable for growing in the coldest sections of the state.

Hardy Apple Varieties

Under the severe weather conditions at Mankato, Delicious apples, both red and yellow, froze to the ground, while Folwell, Anisin, Perkins and Erickson sustained severe injury. Haralson was not damaged at all while Cortland and McIntosh suffered little ill effects.

Mr. Schwab remarks that Redwing and Minnehaha are of no value because they do not produce.

First Clerk: "Have you and your boss ever had any differences of opinion?"

Second Ditto: "Yes, but he doesn't know it."

Spacing and Fertilizers for Strawberries

R. A. Van Meter
Massachusetts State College

WHEN planting is done early enough to encourage early runner plants, and when the soil is in the high state of fertility which is desirable for strawberries, then the rows fill relatively early and for the rest of the season the runner plants formed are surplus plants and therefore weeds. Probably these late formed runner plants do more to reduce yields than any other factor ordinarily operative. Because of a general realization of this fact, more and more fruit growers are considering some means of thinning out the plants in the rows. The best method of accomplishing this seems to be to space the plants more or less roughly as they appear until the rows are filled and then remove all runners formed later. That entails considerable labor and expense and for that reason has not been generally adopted as yet, but the tendency is strongly in that direction. The growers who report yields of 10,000 or 12,000 quarts per acre usually use well rooted plants, set them just as soon as the ground will work freely, and space the plants. I should advise every strawberry grower who has not tried spacing plants to experiment a little with it just to see whether results under his conditions might not be worth the extra expense.

Fertilizers for Strawberries

Under heavy fertilization high yields may be secured from some crops on soils that can hardly be considered fertile, but we have **never found a way to secure high yields of strawberries unless the soil is well filled with organic matter.** The strawberry is a surface feeding plant with most of the root system in the upper 9 or 10 inches of soil during the first year, and there is no substitute for plenty of organic matter in securing high yields. Use heavy applications of manure or build up the organic content with soiling crops.

If the soil is well filled with organic matter the addition of commercial fertilizers should seldom be necessary. In fact the use of nitrogen, phosphorus, and potassium has sometimes reduced the yield. Results with nitrogen, especially, are very uncertain. Perhaps the solution lies in the fertilization of other crops in the rotation, depending upon residual phosphorus and potassium reaching the strawberries. Some growers, however, seem to have good results from a complete fertilizer broadcast and worked into the soil before the plants are set. It is worth experimenting with. A light application of readily available nitrogen made about September 1 has sometimes increased fruit bud formation. Often it has no appreciable effect. Likewise applications made in the spring of the bearing year have occasionally been helpful but often have had no noticeable effect or have done more harm than good. Again let me say that there is no substitute for a soil well filled with organic matter.

Portion of address before the New York Horticultural Society.

Berry Boxes and Crates

SAVE at Sheboygan on your box, basket and crate needs. The line is complete — everything for the grower of fruit, vegetables and flowers. Fifty-nine years in business. Dependable Sheboygan packages are used by leading growers everywhere. Liberal discounts on early orders. Send today for attractive FREE folder. Write

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Good Strawberry Prospects

Prospects at Warrens
By R. E. Harris

THERE was considerable anxiety in regard to winter injury to strawberries, but from late reports it looks as if they came through in rather better than average condition.

Reports indicate somewhat heavier planting this year than last year.

Beaver is probably the most popular variety, with Premier in second place. Of the new varieties, Catskill seems to be the most promising.

We have tried very little commercial fertilizer. We try to have the ground in a good state of fertility a year or two in advance of the planting by the use of barnyard manure and plowing under green manure—such as alfalfa or soy beans.

The strawberries were uncovered on April 16.

In Door County
By N. C. Jacobs, Sawyer

The set of strawberry plants in Door County is not as heavy as a year ago, but plants wintered much better on account of being covered with snow. Many were uncovering plants on April 14, but others thought it was a little early.

It looks as though there will be a slight increase in planting of new beds in this section this spring.

The Dunlap and Warfield varieties have been the most popular in the past, but growers are fast changing to better table berries. Beaver and Premier take the lead.

Among the newer varieties being tried are the Dorsett and Fairfax. We find them not hardy in both plant and blossom at our place. We are at the present time trying the Catskill.

I have found that the best fertilizer for strawberries on most soils is a heavy crop of green manure plowed under the year previous to setting the plants. On peat soil it is advisable also to apply about 200 lbs. per acre of a mixed fertilizer of phosphate and potash, which we apply on both sides of the rows early in the season after we are through planting.

From Oshkosh
By N. A. Rasmussen

Strawberries wintered well here, with good roots but a light stand in most places. They were uncovered in March, earlier than usual for this section. There are but few commercial plantings in this section so the newer varieties have not been tested to any extent.

Barnyard manure is the most commonly used fertilizer, but we use commercial fertilizer on new plantings.

Due to the drought, there is a light stand of strawberries in general. The weather has been very favorable this season thus far.

At Sturgeon Bay
By D. W. Reynolds

Strawberry fields in this section seem to be in good condition, especially new beds planted last year. Old beds do not seem to be as good.

There may be a slight increase in acreage this year. We will plant about the same as heretomore, namely, about 10 acres.

I believe that the most popular older varieties are Beaver and Premier, with a few still hanging on to the Warfield and Dunlap. It looks as though Beaver will lead the planting with Premier in second place.

As far as I can see, the Catskill looks the most promising of the newer varieties, although it has not been tested long enough to form a definite conclusion.

We added some 4-8-6 commercial fertilizer last season immediately after the plants were set. We plan on adding some Milorganite this spring to the fruiting beds but we have not made any definite conclusions as to the best fertilizer prices.

From Tomah
By Lynn Reynolds

Prospects for a strawberry crop are good. There is very little noticeable winter damage.

Beaver is the most commonly grown variety in this section, while Catskill and Dorsett are the new varieties being tested. We use manure largely for fertilizer for strawberries and some commercial fertilizer.

At Eau Claire
By C. H. Beaver

Strawberries came through the winter in fine shape. New plantings are about normal.

Beaver and Premier are the most popular varieties with us, with Beaver about 5 to 1 in the lead. Catskill is being tested but it is somewhat late and may interfere with raspberries.

Barnyard or green manure is our favorite fertilizer. Commercial fertilizer has not been successful because strawberries require large amounts of humus in the soil.

From Alma Center
By E. J. Randles

The strawberry beds are in fine condition this spring. We were uncovering our beds by April 15. There will be one of the largest plantings of straw-

berries this spring that we have ever had. They are planting about half Beaver and half Premier varieties this year.

We use mostly barnyard manure for fertilizer.

STRAWBERRY DAY FOR DOOR COUNTY

Sturgeon Bay — Wednesday, June 15

A STRAWBERRY Day will be held this year in Sturgeon Bay for growers in the eastern section of Wisconsin, and especially Door County.

The forenoon meeting will be held in the Court House, Sturgeon Bay, and an excellent program on strawberry growing methods, varieties, fertilizers, irrigation, and other subjects will be discussed by speakers.

Following the noon luncheon there will be a field tour to nearby strawberry fields where new varieties and cultural methods can be seen at first hand. Here the growers and speakers will point out successful growing practices. All strawberry growers are invited to attend.

FERTILIZING STRAWBERRIES

Apply Fertilizer In Summer or Fall to Strawberries for Best Crop

THE strawberry plant, like most perennials, stores organic food during the later part of the growing season or fall, and uses up these foods in spring and summer in producing leaves, flowers, fruits, and runners. Nitrogen fertilizer applied at any time of the year produces larger plants. But fertilizer added in the spring to plants that were in good condition the fall before does not increase the fruit crop. Only if the plants lacked nitrogen in the fall, will an application of fertilizer in the spring produce a larger crop of berries. So the best time to fertilize strawberry plants is in summer, after one fruiting season is over and the runners are growing to make new stands of plants.

Missouri Agr. Exp. Sta. Research Bulletin 252.

Wisconsin Strawberry Day

Warrens, Legion Hall, Monday, June 6

PROGRAM

9:30 A. M.—Motion pictures. Strawberry varieties and culture. H. J. Rahmlow, Secretary of Wisconsin Horticultural Society, Madison.

10:15 A. M.—Marketing Strawberries. Need for cooperation between marketing organizations in the north. Harold White, of the W. A. White Brokerage Company, Minneapolis.

10:45 A. M.—Strawberry Nutrition. What strawberry plants need for growth and production. Dr. A. N. Wilcox and J. D. Winter, Department of Horticulture, Minnesota College of Agriculture.

11:15 A. M.—Strawberry Pest Control. E. L. Chambers or Noel Thompson, Division of Entomology, State Department of Agriculture and Markets.

12:00 noon—Strawberry shortcake dinner, served by local church ladies. Adults, 35c; children, 20c.

1:30 P. M.—Strawberry Growers Tour. First Stop—shipping platform to inspect method of grading and shipping strawberries. Demonstration and talk by Mr. Rex Eberdt, president and manager of the Warrens Fruit Growers Association. Several fields will be inspected, including variety test plots of H. H. Harris and R. E. Harris, Warrens.

Discussions on problems found in the field will be given by Prof. W. H. Alderman, E. L. Chambers, and Prof. R. H. Roberts.

REMOVE FLOWERS FROM NEWLY SET STRAWBERRY PLANTS

Unless the flowers are removed from newly set strawberry plants, before the fruit has started to develop, the plants will fail to produce a desirable number of vigorous runners.

The earlier the blossoms are removed, the better, because it is the early runners we want for next year's crop.

A good time to mulch raspberries is in the spring when the soil still has plenty of moisture. Mulching with about three inches of old straw stack tops, marsh hay, and other rubbish, is a better and cheaper means of conserving moisture than even cultivation. Furthermore, it keeps down the weeds quite well.

Experiments in Illinois have shown that if raspberry roots are injured, crown gall is likely to enter near the cut ends and start root knots. Therefore, raspberries under a mulch are in much less danger of having their roots injured and forming galls than are those that are cultivated.

Prune Newly Set Raspberry Plants

In setting out raspberry and blackberry plants, prune them to about 4 or 6 inches high when set out. If the canes are left too long, they produce berries. As a result, they do not produce shoots for next year's crop.

"To what do you attribute your great age?" asked the city visitor of Grandpa Eben Hoskins.

"I can't say yit," answered Grandpa cautiously. "They's several o' them testimonial fellers a-dickerin' with me."

RASPBERRY AND STRAWBERRY PLANTS

Latham raspberry plants. Disease free. Dorsetts, Fairfax, Beaver, and Senator Dunlap strawberry plants. Mt. Vernon Nurseries, Viola, Wisconsin.

FIGHT GRASSHOPPERS NOW

E. L. Chambers

LAST summer and fall we received many inquiries as to how to combat grasshoppers after they had acquired their wings and had moved into orchards and gardens, so we thought it wise to repeat what we said then—that while some relief can be secured from arsenical sprays, the time to kill grasshoppers is a few days after they have hatched. At that time a little poison bait applied where the grasshoppers have hatched and soon after will do the trick where tons may fail later when they reach full growth and have spread all over the farm.

Most of the counties this year are planning to adopt a county-wide survey and control program, using the various school districts as a unit for carrying on the work and an effort is being made to cover all land where grasshoppers are hatching. Where the owner refuses to apply the control measures, and the adjoining property owners have, the statutes provide that the department can serve a notice on the farmer in question and require him to apply the poison. If he fails to do so himself, the department is authorized to spread the poison and charge the cost to the farmer in his taxes.

In Orchard and Garden

While spraying foliage of ornamental trees and shrubs and fruit trees with Paris green will poison the hoppers, the control measures should not be delayed until that time, but the grasshoppers destroyed before they have an opportunity to develop sufficiently to endanger the foliage of such trees. Where for some reason or another the control measures have not been applied in time, Paris green used at the rate of one half pound in 50 gallons of water with an equal amount of lime added will be effective without injury to foliage. Unless the lime is added, however, the Paris green would burn the foliage of most plants used at this rate. Arsenate of lead and calcium arsenate are very slow poisons and would not be effective in the control of grasshoppers.

How to Fight Grasshoppers

The use of poison bait material is the only satisfactory method of control. **This bait must be carefully prepared, must be applied at the right time and place, and must be used as directed.**

Plowing soil to a depth of five or six inches will prevent young hoppers from escaping from the eggs. If several deep furrows with sharp sides toward cultivated crops are plowed between these and sod land, the movement of very small hoppers can be checked. Burning over woodlots, fence rows, or fields to destroy eggs has no value and is illegal in certain fire protection areas and may be dangerous and destructive. After the hoppers have hatched and begun to migrate, they may be burned when they collect in straw or weeds at night or even in the day time in cool weather. This method, of course, cannot be depended upon in large-scale programs where the poison can be used so much more effectively and economically.

Hatching Period and Feeding Habits

The eggs start hatching during May and hatching may continue until late June. The newly-hatched hoppers are without wings, and as they feed and grow, pass through five stages before the wings are fully developed. Most of the feeding starts in the early morning and continues until the grasshoppers are no longer hungry. A second feeding period usually occurs during the afternoon. If the weather is extremely hot during the day, feeding may be done at night, but hoppers do not feed much when the temperature is below 65 degrees or above 100 degrees F.

After the small grain crops and hay meadows are cut, thus reducing the food supply, the grasshoppers migrate to greener fields. Often in a field of alfalfa, soybeans, or pasture, where no grasshoppers have been present, there may suddenly seem to be a new infestation, but this is simply due to grasshoppers moving in from the cut fields.

Preparing the Poison Bait

The use of poisoned bait is by far the most practical and effective of the various methods of fighting grasshoppers. Very satisfactory baits may be prepared according to either of these methods.

No. 1

Coarse-flaked wheat bran (free from shorts)*	lbs.	100
White arsenic (or Paris green)	lbs.	4
(or sodium arsenite)	qts.	2
Molasses (black strap)	gals.	2
Water	gals.	10

*50 pounds of bran and an equal volume of sawdust may be used instead of 100 pounds of pure bran.

No. 2

Sawdust	bu.	2
Whey	gals.	2
Sodium arsenite	qt.	1
Water	gals.	1

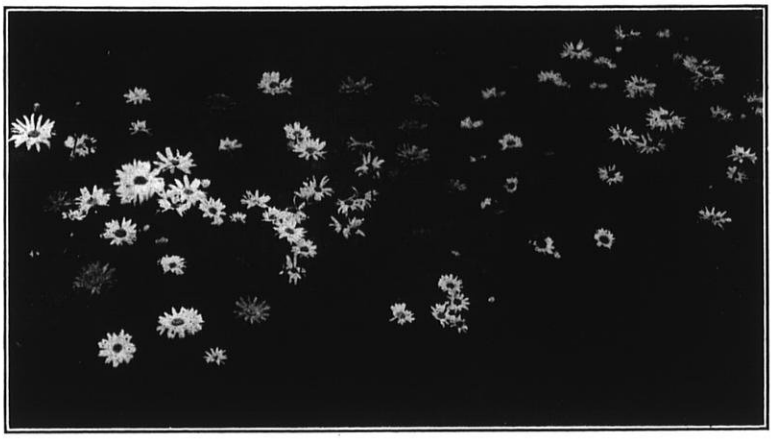
Rate: Use 20 pounds of either of the above baits per acre.

Method No. 1 is the most practical for general purposes around gardens and in tobacco fields. No. 2 is recommended where large fields are to be treated and both whey and sawdust are readily available.

Pyrethrum, An Agricultural Crop

By T. C. Allen
Department Economic Entomology

Due to the increasing number of reports regarding pyrethrum and its value as an agricultural crop, inquiries have been received by the University concerning the possibility of growing pyrethrum in Wisconsin. In some instances, word has been received from growers who have already planted acreage to pyrethrum. The following information, therefore, may be of general interest to certain growers at this time.



Pyrethrum Flowers Provide An Important Insect Powder

PYRETHRUM is the name given to an insect powder derived from a plant, known as **Pyrethrum cinerariaefolium.** It is the base of most household insecticides such as fly sprays, and more recently it has become important in the control of certain insects attacking agricultural crops. Pyrethrum kills sucking and chewing insects but is harmless to both animal and man.

The toxic ingredients of this insecticide is pyrethrins I and II which is obtained from the dried flower heads collected just in advance of the full blooming period. For insecticidal purposes, either extracts or the ground flowers are employed. Oil extracts are principally used in the preparation of domestic and cattle fly sprays. In the ground form, the powder is used in preparing fine dusting powders for household and agricultural uses.

The first pyrethrum flowers were imported to the U. S. about 1850 and we now import approximately 13,000,000 pounds annually, most of which is imported from Japan. In view of overproduction of crops and efforts to find new uses of farm products, the question arises as to why not grow and harvest pyrethrum flowers on our own lands and with our own labor? This in turn raises the question as to whether pyrethrum flowers can be grown on our lands, and if so, will the toxicity of the flowers be as high as those flowers which are now being imported? Fortunately, within the last ten years, experimentation in many of our states has served to give us the above information.

Can Be Grown Here

Pyrethrum can be grown successfully in the United States. It is reported that the plant behaves as an annual in the extreme South. A little North, it behaves as a biennial, and in the Northern States, as a perennial.

In growing pyrethrum, the most important factor affecting the pyrethrum content of the flowers is the weather. Pyrethrum content of flowers run high in a hot dry season with lots of sunshine. In rainy and cloudy seasons, the content is much lower. Such factors as geographical location of the area where grown, elevation, pH of soil, soil type and fertilizer treatment have little influence upon the pyrethrum content of flowers.

The pyrethrum content of the flowers is greatly influenced by time of harvest. Flowers should be cut when they are ¾ to fully open. The partly ripe or closed flowers are heavier in weight but contain less pyrethrins. The over ripe flowers are light in weight and at the same time lower in pyrethrins.

How to Grow Pyrethrum

It is of interest to know that pyrethrum will not become a noxious weed and is not harmful to livestock or bees. If desired, the stems may be used for hay. The cost for growing the plant varies from $30 to $60 per acre and the seed costs about $1.50 per acre. In growing pyrethrum, the plants are started from seed and handled very much the same as tobacco or celery. The seed is broadcast at the rate of 1 oz. to sixty square feet of bed, allowing 240 square feet per acre. After the bed is raked gently, burlap or straw is placed directly over the bed to aid germination. Tobacco cloth is then placed over the entire bed until the plants are 8 to 10 weeks old. Seeds may be sown late in April or May and the plants set out in August. Under Northern conditions, seeds may be sown in July or August and then transplanted the following April or May.

(To be continued in the May issue)

Gladiolus Gleanings

By the WISCONSIN GLADIOLUS SOCIETY

B. A. Robinson, Kenosha, President
K. J. Timm, Markesan, Vice-President
H. J. Rahmlow, Madison, Cor. Sec.
Otto Kapschitzke, Rec. Sec.-Treas. 1710 Illinois Ave., Sheboygan
Regional Vice-Presidents
Robt. Jantz, Eldorado
Frank Thomas, Kenosha
Chester Harrison, Waldo
Clarence Kunde, Oshkosh

How to Apply Commercial Fertilizers

C. J. Chapman
Professor of Soils

FOR glads, I recommend that the fertilizer be applied in the bottom of furrows to a depth of 6 inches. It is of great importance that the fertilizer be thoroughly mixed with the soils before setting or planting bulbs.

The mixing of the fertilizer can be accomplished by working the fertilizer into the soil with a hoe or a rake.

What Kind of Fertilizer for Gladioli?

I prefer a mixture relatively rich in potash for glads. A mixture such as 3-12-12 is ideal for most soils, although the regular garden fertilizers can be used with good results. This fertilizer should be applied in the bottom of the trenches at the rate of 1 pound to each 15 feet of row.

During the growing season (just before flowering spikes start to appear) I found it helpful to side-dress my glads with ammonium sulfate or nitrate of soda or any other nitrogen fertilizer. This nitrogen fertilizer can be used at the rate of 1 pound to each 100 feet of row. The use of this nitrogen fertilizer will give your glads added vigor and will produce larger and longer flowering spikes.

How Apply Fertilizer for Annuals?

For most annual flowers I would suggest that a fertilizer

applied broadcast at the rate of about 40 pounds to each 1,000 square feet. This fertilizer should be worked into the soil by raking before planting seeds. The fertilizer can be applied in rows in the same manner as described for glads, although there is greater danger of injury to the germination of seed or the tender sprouts where applied in this manner. If great care is exercised, however, fertilizer applied in the row will give perhaps better results than where applied broadcast. If applied in rows, I would suggest that furrows be made at least 6 inches deep. The fertilizer should then be thoroughly mixed with the soil and the furrow closed with some fresh soil on top. The shallow furrow can then be made and seeds planted without danger of injury to germination. Where applied in this manner, I suggest about 1 pound to each 20 feet of row of any good garden fertilizer mixture.

A Few Don'ts

Do not apply fertilizer in bands above the seed or bulbs. There is great danger of injury to the tender sprouts as they push through the soil. Always get your fertilizer down below the level of seed or bulbs where applied in rows. Don't, under any conditions, plant seed in direct contact with clear fertilizer. It is likely to kill the germination of your seed.

GLADIOLUS SHOW PLANS

THE 1938 Wisconsin Gladiolus Show should be the largest and best in the history of the Society.

Dr. George H. Scheer, Chairman of the local committee, states that the local committee plans to sell at least 3,000 tickets in advance and that an advance schedule, in booklet form, will be mailed to all members of the Society as well as to prominent growers.

Mr. Fred Hagedorn, 1127 Alabama Ave., Sheboygan, has been appointed show manager and has already started his work. Mr.

Harvey Kiel is publicity manager, to whom news should be sent. Growers who will exhibit should write Mr. Kiel, 1630 S. 17th St., Sheboygan, of their plans.

The Eagles' Hall is a large building—the largest in which the show has been held since it was held in the University Field House at Madison. The committee has made arrangements that the rent of the hall will be reduced to $75 in case of a deficit. The city park superintendent has agreed to furnish hall decorations.

Remember the dates, August 19-21.

GROWING DAHLIAS ILLUSTRATED IN MOTION PICTURES

A TWO-REEL film illustrating the growing of dahlias and varieties of dahlias, in color, has been prepared by the Bureau of Visual Instruction, University of Wisconsin, in cooperation with the Wisconsin Dahlia Society, and is available to organizations on a rental basis.

The two reels are 16 mm. silent films and rent separately.

Reel 1 shows spring planting, methods of propagation, field planting, treatment of the soil, staking and marking, dahlias from seed, propagation by leaf cuttings and grafting, cultivation and watering, pruning and disbudding, spraying and dusting, storage, feeding for exhibition bloom, and digging crops in the fall. Rental price of Reel 1 is $1.00.

Reel 2 is a colored film and shows the various types and leading varieties of dahlias in color. Price of Reel 2, $3.00. Requests should be sent to the Bureau of Visual Instruction, University of Wisconsin, Madison. Reservations should be made early.

NEW INSECTICIDE BEST FOR CONTROL OF CABBAGE WORMS

THE new rotenone dust has been found very effective in the control of cabbage worms. Dr. T. C. Allen, who for the past several years has been stationed in the Racine-Kenosha district working on the control of cabbage worms and cucumber beetles, obtained very good results by dusting cabbage with cube dust.

Rotenone is the toxic material found in the roots of several varieties of plants obtained from tropical countries. Three of these plants are derris, cube, and timbo. Frequently the material is simply referred to as "derris."

The table gives the result of Doctor Allen's work during 1937 on the control of cabbage worms with various insecticides.

Rotenone dust has also been found most effective for the control of cucumber beetles.

RESULTS WITH VARIOUS INSECTICIDES FOR CONTROL OF CABBAGE WORMS

Insecticide Used	Per Cent of Good Heads	Yield per Acre lbs.	Increase in Yield lbs.
Cube', (rotenone) 12 lbs. Talc, 88 lbs.	91	17,062	10,462
Pyrethrum, 16 lbs. Talc, 84 lbs.	77	12,540	5,940
Fluosilicate, 20 lbs. Talc, 88 lbs.	70	12,127	5,527
Calcium arsenate, 16 lbs. Hydrated lime, 84 lbs.	66	11,550	4,950
Calcium arsenate, 3 lbs. Flour, 1 lb. Water, 50 gal.	60	9,600	300
Unsprayed	50	6,600	

CONTROL DAMPING OFF

DAMPING off may be controlled by the use of red copper oxide. Originally it was recommended that the seeds be dusted with this, but the latest recommendation, and a simple one to follow, is to thoroughly sprinkle the seed bed with it until it has soaked down to the seeds. Use 1½ ounces in 5 gallons of water. Repeat this as the seedlings come up and again when they are an inch high.

Still another treatment which, while not quite as effective but at least inexpensive, is to dust the surface of the seed bed with zinc oxide. This may be purchased in powder form at some paint stores as Zinc White for 15 or 25 cents a pound. Drug stores also sell it, but it is purer and consequently more expensive.

—Victor Ries, Ohio

Teacher: "Who was it said, 'Don't fire until you see the whites of their eyes'?"

Bright Pupil: "The man who owns our apartment, and he was talking to the janitor who looks after the furnace."

AGICIDE
TRADE MARK
Use Proven Safe Insecticides
for
Controlling Garden and Crop Pests
Derris—Rotonone Products
Agicide Laboratories
4668 N. Teutonia, Milwaukee, Wis.
Telephone—Hilltop 7050

Editorials

HORTICULTURAL SOCIETY ADDRESS CHANGED

AT the request of University authorities, the address of the Old Entomology Building, in which the offices of the Wisconsin Horticultural Society are located, has been changed from 1532 University Avenue to 424 University Farm Place.

The location has not been changed, just the address of the building. There was some confusion resulting from the old address because the building is not located on University Avenue but on a diagonal street leading from University Avenue to the Livestock Pavilion. The new address is much more specific.

INTERNATIONAL HORTICULTURAL CONGRESS

THE Twelfth International Horticultural Congress will be held in Berlin, Germany, from August 12 to 17 this year. About 2,000 delegates from forty different countries are expected to participate. The United States, Canada, and Great Britain have already accepted the invitation to attend. There will be twenty sections in which experts will define their respective attitudes on such problems as pomology, olericulture, and other phases of horticulture.

The Eleventh Congress was held in Rome in 1935.

When women kiss each other it reminds one of a Republican voting in Georgia—it doesn't count.

IMPORTANT WISCONSIN FLOWER SHOWS YOU ARE INVITED TO ATTEND

The Lake Geneva Town and Country Garden Club Flower Show and the South Central District Exhibit—Horticultural Hall, Lake Geneva, Saturday and Sunday, May 14 and 15.

Madison West Side Garden Club Flower Show—at the home and gardens of Mr. and Mrs. Walter Dakin, 4110 Mandan Crescent, Nakoma, (Madison), Saturday, May 21.

Baraboo Garden Club Flower Show—Parlors of the Methodist Church, Baraboo, June 9-10.

Kenosha Flower Show by the Kenosha County Garden Club—Historical and Art Museum, Kenosha, June 11-12. Admission free.

Wauwatosa Flower Show—Woman's Club Auditorium, Wauwatosa Avenue, June 16-17. Opens 2:00 P. M., June 16. Several garden clubs cooperating.

Notice to garden clubs: Send in dates for flower shows to be held during June and July for publication in the June issue by May 15-18. Give location of show, admission if any, and special features.

BAYFIELD STAWBERRY FESTIVAL

Bayfield, July 2 - 3

THE annual Bayfield Strawberry Festival will be held this year in the city of Bayfield on July 2-3.

A Strawberry King Contest is being planned as well as a Strawberry Shortcake Queen Contest. There will be a strawberry show and a pageant, including a parade and other events. The Bayfield Strawberry Day has become an important event. Bayfield County is one of the leading strawberry and raspberry producing sections of the state.

WISCONSIN IRIS SHOW

Milwaukee Public Service Building Auditorium
June 11 - 12

THE Wisconsin Iris Society will hold its Fourth Annual Iris Show in the Milwaukee Public Service Building Auditorium, Milwaukee, on June 11-12. This has become Wisconsin's greatest iris show. It will be an opportunity to see the world's best iris.

Officers of the Iris Society are: President, Mrs. W. F. Roecker, 3319 N. 14th St., Milwaukee; vice-president, Mrs. R. Sewell, 957 N. 70th St., Wauwatosa; secretary-treasurer, Mrs. Lee Wandell, Pine Acres, Cedarburg; corresponding secretary, Dr. G. Alan Kriz, Lone Tree Road, Elm Grove.

Regional vice-presidents: L. G. Egleberg, 142 S. 6th St., La Crosse; E. L. White, R. 2, Jefferson; Arthur Strobel, Hartford.

Two-Day Landscape Short Course

MADISON — JUNE 3 - 4

The Horticultural Department of the University announces a two-day landscape demonstrational and lecture program to be held Friday and Saturday, June 3 and 4, at the University. The enrollment fee is $1.00, payable by May 15. On Friday evening there will be a dinner meeting for which the charge will be $1.00. It is planned to arrange luncheon meetings for those who make reservations at the beginning of the session. The tentative program is:

Friday, June 3, Room 116, Horticultural Building

9:00 A. M. Welcome and Announcements.
9:15 A. M. "Tulips and Other Bulbs for Garden Borders"--James G. Moore
10:00 A. M. "The Annual Situation"----------G. Wm. Longenecker
11:00 A. M. "The Perennial Problems"----------Franz A. Aust
12:15 P. M. Noon luncheon at the Union for those making special luncheon reservations. Luncheon speaker----------H. J. Rahmlow
1:30 P. M. Assembly for Garden Tours.
1:45-4:00 P. M. Visits to Madison Gardens (A study of plants and their arrangement).
6:30 P. M. Special dinner at the Union. Professor P. H. Elwood, Head of the Dept. of Landscape Architecture, Iowa State College, Ames, will give an illustrated lecture on "European Gardens, Their Merits and Adaptations."

Saturday, June 4, Room 116, Horticultural Building

9:00 A. M. "Designing a Garden"----------G. Wm. Longenecker
10:00 A. M. "Color in the Garden"----------Franz A. Aust
11:00 A. M. "Planning a Garden for Continuous Bloom"------L. G. Holmes
12:15 P. M. Noon luncheon at the Union for those making special reservations.
1:30 P. M. Assembly for Garden Tours.
1:45-4:00 P. M. Visits to Madison Gardens (a study of their design).

The studies in the gardens will be under the direction of Professors Elwood, Aust, Longenecker, and Holmes.

Answers to Puzzle on Page 226, April Issue

Carrots, pumpkins, cauliflower, beets, potatoes, radishes, eggplant, tomatoes, beans, cabbages.

REPORT ON NEW FRUIT VARIETIES

H. B. Blackman, Richland Center

THE new boysenberry seems to be hardy if given plenty of winter protection. However, the season was so dry last year that it is difficult to give a report of what it will do. It has most wonderful berries but had only a few flowers. If it does not produce more fruit here it will not be worth while. The Newburg red raspberry is proving a most profitable variety with us and we are planting more of them. We have discarded the Chief as we find the Latham so much better. We are thinking also of discarding the Viking although we prefer it to the Chief as it does very well some seasons.

Likes Catskill

We are planting more Catskill strawberries which do splendidly here.

We like the new Wayzata ever-bearing strawberry the best of all the everbearings.

CODLING MOTH WARNING

THE codling moth has overwintered in great numbers and observations in southwestern Wisconsin indicate 70-95% survival. A fact of considerable importance this year is the great number of second brood larvae overwintering. Generally, only a very small percentage of these larvae are capable of surviving the winter but observations indicate survival of about 85% this year. With a favorable spring, the codling moth may be expected in great numbers this year and growers are urged to apply their codling moth sprays at the proper time and to use care in covering all exposed surfaces.

By John Callenbach.

LEONARD BARRON

MR. Leonard Barron, editor of The Flower Grower magazine, died April 9 of pneumonia. Mr. Barron was born in England 69 years ago. His father was superintendent of the Royal Horticultural Society garden at Chiswick, where Mr. Barron received his early training. He served as editor of Garden Magazine and the garden department of The American Home.

LANDSCAPING THE FARMSTEAD

A BULLETIN entitled Landscaping the Farmstead has just been issued by the U. S. Department of the Interior and is for sale at 15c by the Superintendent of Documents, Washington, D. C.

The bulletin takes up the subjects of mapping the farm grounds, developing a landscape plan, making a lawn, trees, shrubs, flowers, vines, hedges, rock gardens, and planting materials for the farm home grounds. It will be a valuable bulletin for those interested in this subject.

EUROPEAN FRUIT CROPS SUFFER FROST DAMAGE

CONSIDERABLE frost damage to fruit crops in England and on the continent of Europe was reported by the Bureau of Agricultural Economics on April 19.

In England frost began April 10 and continued throughout the entire week. Plums were wiped out entirely; cherries killed to the extent of 75 per cent; apples and pears 50 per cent; and all bush fruit and strawberries practically wiped out. In Switzerland the frost was the worst in 80 years. The fruit crops were entirely wiped out.

This loss may increase the demand for imported supplies, according to the Bureau.

Home and Garden

Mrs. C. E. Strong, West Allis

THE PASQUE FLOWER
(Anemone Pulsatilla)

"Why have I come here?" the wind flower said.
"Why?" and she gracefully nodded her head.
"The storm rocked my cradle with lullaby wild,
"I am here with the wind, because I am his child."
—Lucy Larcom.

THERE is a legend which tells us that Anemone was the name of a very beautiful nymph whom Zephyr loved very dearly. Flora, becoming very jealous, exiled Anemone from the court, but when she pined away and died of a broken heart, Zephyr importuned Venus who changed her body into the flower which bears her name. Zephyr is said to fan her all day long with his wings.

Zephyr was certainly working his wings overtime the day a group of flower lovers walked over gravelly knolls near Palmyra, hunting for these early spring flowers. But the discomfort of those piercing cold winds was forgotten when we saw hundreds of frail delicate blossoms waving and nodding above their downy leaves. Once upon a time the hills near Palmyra were covered with the Pasque flowers, but now since sheep and goats are being pastured on these hills, one needs to search patiently, as we did on this cold early April day, in order to find them.

We were fortunate in meeting Mr. Fuller, curator of botany at the Milwaukee Public Museum, who was taking pictures of these rapidly disappearing flowers. He

shared with us the finding of several plants bearing double flowers. We hope this group may escape being pastured and that many lovers of wild flowers will be able to go there in years to come, taking home with them pleasing pictures in camera and memory. No member of our group picked a blossom or disturbed a plant. We hope the proposed State Park may become a reality before this group of plants disappears.

Although the Anemone is described as a classical flower and dedicated to Venus, it has also a place among the fairy plants. The painting of its delicate veins is ascribed to these little creatures. The botanists describe the flower as a natural barometer, because as the night approaches, or just before a shower, the dampness in the air causes the petals to curl over tent fashion, but fairy lore tells us that this is done by the fairies who cuddle down in the heart of the flowers and pull the petals over them like curtains.

The eastern magicians regarded the plant as a preventive of sickness and recommended every one to gather the first blossom that is seen in spring, repeating very solemnly the words, "I gather thee as a remedy against disease." Afterwards it must be wrapped in a red cloth and carefully kept in a dark place. If a person becomes ill, it is to be tied on the arm or around the neck.

The Egyptians regarded it as an emblem of sickness. England says the Anemones sprang up from the blood of Danes who where slain in battle. The Romans planted them at High Cross, near Leicester, as a charm against dropsy, but wherever they are found they do not bloom until the wind calls.

The Pasque flower makes a very attractive rock garden plant. It needs a gravelly, well-drained spot. Here it will bloom freely — though perhaps not quite so early as it does on the wind swept hills.

Chrysanthemums

Early May should see your Chrysanthemums divided and replanted if you want plenty of early bloom. Divide the tall varieties so there will be two or three stalks to each plant. The lower-growing kinds will do nicely with one stalk. Plant the divisions in well-enriched, deeply-spaded soil, and water well. I plant my divisions quite closely, about a foot apart, because after growing them for several months they are moved to the south and east of the house for the fall display. They are sheltered from the strong winds that

whip and spoil the blossoms, and massed closely, they are very effective at a season when we most appreciate bloom in the garden.

Do not forget to pinch back to induce branching in the tall varieties and then pinch back the branches. Keep pinching back until July. When buds begin to form, give liquid fertilizer once a week and keep well watered. Stake the taller plants to avoid breaking down during heavy rains. You will be well repaid for care given Chrysanthemums during the summer months when they begin to bloom in late August and continue until hard freezing. Be sure and grow some of all the Azaleamum family—pink, rose, white, bronze, yellow. No matter how many you have, you will wish you had just a few more.

Plant a few mums in five-inch pots and sink them about six inches into the ground. When the buds are ready to open, bring the plants inside to a porch or sunroom, keep well watered and you will have a fine display for many weeks.

For the Bare Spots

For some of those bare spots that are liable to be found in the best regulated garden border, work up the soil carefully, sow annual larkspur, salpiglossis and calliopsis. Water carefully so as not to wash out the seed and then cover with fine peat that has been thoroughly soaked. Pat it down lightly and keep moist until the seeds are nicely up.

If you have never tried the peat covering, you will be surprised how effective it is in helping seed germination, but, **remember** the peat must be wet when applied. If you sow larkspur, try some of the new hybrids.

A WEATHER-RESISTANT GARDEN TABLE

DO you like to eat outdoors in your own garden? Do you dislike to carry a table in and out every time you do it? If so, you will no doubt finally do as I did—make a table that can stay out the year around if necessary. Just as this table was copied from a photograph of another similar to it, just so can you design yours after the one I am showing.

The benches and table, except the top, are made of redwood so that they are light and easily handled if necessary. The table top of this one is made of three-inch strips of cypress simply because it was on hand from an old coldframe.

For comfort, the bench tops are in one piece ten inches wide, but for convenience and drainage the table top was made in narrow strips. The four-inch bracer strips of both table and benches are held in place with pins of one-half inch dowel rods so that they may all be easily taken apart and stored flat in a small place over winter if desired. A treatment of hot linseed oil might be applied to waterproof the wood, but either cypress or redwood will last for years out-of-doors without any treatment. These woods are remarkably weather-resistant.

By Victor H. Ries, Columbus, Ohio, from Horticulture.

The spinal column is a collection of bones running up and down your back, to keep you from being legs clean up to your neck. —Urchin.

A garden table and benches which can be left out-of-doors without suffering damage. Cut courtesy of Massachusetts Horticultural Society.

Spring Work in the Garden

EARLY this spring we gave the lawn an application of ammonium sulphate and to our surprise we had to mow it almost a week before our neighbors, who did not apply any fertilizer, mowed theirs. Ammonium sulphate contains about 18% nitrogen and dissolves in water as readily as salt, therefore the nitrogen becomes available to the roots of plants at once. Our lawn had a dark green color as a result of the nitrogen.

The benefits of this fertilizer will not last all summer and we will put on another application in July or August. It will have to be applied rather sparingly, the lumps crushed, and watered down with a hose or spread during a rain.

As this is written, April 23, we have already dusted our flowers twice with sulphur-arsenate of lead dust to control fungus diseases and chewing insects, especially fungus diseases. Sulphur kills the spores of these diseases when they fall upon the leaves. We cannot control these diseases after they appear—we must protect our plants from them, early in the season. During wet, rainy weather, we must dust oftener.

Why do magazines continue to publish article about **spraying** flowers and vegetables, when dusts are just as effective and so much more easily applied. Women gardeners, especially, object to mixing poisons in water and carrying around cumbersome sprayers. The only place we need to use a sprayer is for trees which we cannot reach well with a duster.

Iris are making an exceptionally fine growth this spring and we should have a great season of iris bloom. Make plans now to visit some iris gardens specializing in some of the newer varieties. And don't forget the Wisconsin Iris Show at the Milwaukee Public Service Building the second week-end in June.

The biggest job in our garden this spring was to loosen up the hard-packed soil among the perennials and dig in some wheat bran used for fertilizer. Then we moved many plants which had become large and needed more room.

Phlox should be divided about every third year. Iris clumps should be kept small and the rhizomes should not be allowed to get crowded. Peonies seem to do quite well for a good many years without being touched at all.

As an old **delphinium** clump begins to send up more than a half dozen stalks (sometimes we find 16 or more small shoots appearing) we must go in with a knife and take out the weaker shoots and leave only from four to six of the best. In that way we will have the strongest stalks and the best flowers. A few good stalks are better than a large number of poor ones.

The new dwarf hybrid asters should be divided every second or third year. We find that the seeds falling to the ground germinate and send up new plants which are usually not as good as the original variety. It is best to destroy these.

If you are troubled with **aphids, red spiders** or other insects in the garden this summer, try dusting with the new rotenone dust made from the roots of derris, cube, or timbo plants.

We have only one plum tree in our yard, the Minnesota variety **Underwood.** In order to provide a pollenizer, we grafted branches of a wild plum, also toka, and Kaga onto this tree to provide flowers for cross-pollination. Surprise and DeSota are also good.

Every gardener should learn to graft. As a rule we have only a very few fruit trees in the garden and it is nice to have several good varieties growing on one tree in addition to the value of more than one variety for cross-pollination.

What will we do with our **tulip and daffodil bulbs** after they are through blooming? Probably the easiest way is to leave them alone for the first two years. The bulbs, however, split up into several parts and the new divisions will send up small plants each year. If they become too crowded it is well to dig them up when the leaves begin to turn yellow in June, throw away the smallest bulbs, and replant those of good size where they can bloom in another year. In the meantime, annuals can be set in among the bulbs.

—H. J. Rahmlow.

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PEONIES

W. A. Sisson, Rosendale

JUNE is the month for peonies. Rosendale invites you to come and see the peonies in June. The Sundays falling on June 12 and 19 will probably see the largest number of blooms. For exact dates please write Lawrence T. Hoyt, Village Clerk. Rosendale is a village of three hundred people located at the intersection of Highways 23 and 26. We have a small park with band stand and some picnic facilities.

We especially invite those who wish to learn how to grow the perfect peony. I will gladly give my time to go over each step with you, and also to show you rows of peonies from first year plantings up to those of five and ten years. We do not solicit business, please understand. We want to help you and really love to do this when we can catch an attentive ear. Please come during the morning if possible.

We offer no hope to the party that wants results the first year. Only the patient in heart ever see the perfect peony.

As I write, our peonies are just beginning to push through the ground. As the stalks grow they send up a stem holding one center flower bud and surrounded by several smaller buds. Pinch off the small buds as soon as you can get hold of them. All the strength of the stem then goes into the large bud, giving you more perfection.

We will be looking for you. Different societies, including the Dahlia Society of Wisconsin, are planning to come for a day.

American Tourist (to Canadian Northwest Indian): "White man glad to see red man. White man hopes big chief is feeling tip top this morning."

Indian (calling): "Hey, Jake, come here and listen to this bozo; he's great!"

WHAT A GOOD LAWN NEEDS

NO problem in lawn culture is more universal than that of weed eradication. The most important reasons for this are the poor soils on which the establishment of many lawns is attempted, and the more or less unnatural condition of very short growth which is usually maintained on a lawn. Consequently the first requirements for keeping the weeds out of a lawn are proper mowing and fertilizing. No amount of fertilizer or other treatment will keep weeds out of a bluegrass lawn which is mowed too frequently and too closely. It is also useless to try to eradicate weeds where the grass is making so feeble a growth that it does not occupy the ground. Unless these two things are attended to, no special weed control treatment will be of much value.

Many people say, "I will get rid of the weeds first and then fertilize the grass." If there is grass enough in the lawn to be worth saving, the fertilizing and weed eradication must proceed together. Fertilize enough to make a good growth of grass possible, and at the same time take such steps as may be necessary to eliminate the weeds.

"Lawns," Bulletin 129, Agric. College Extension Service, The Ohio State University.

THE ANOCA APPLE

UNDUE publicity of the Anoca apple has led to a number of our members buying this variety with unsatisfactory results.

At several meetings of fruit growers associations the members remarked that they were led to buy the variety because of its early bearing and the publicity it received. As a result, they now have a tree which has fruit they do not care for and they are wondering what to do with the tree.

The Anoca apple is a very hardy variety, early bearing, and possibly well suited for extremely cold climates where good-quality varieties cannot be grown. That is not the case in Wisconsin, and so the variety has no value here.

Since it is a hardy tree, we would suggest that those who have the variety, top-work scions of good varieties on the branches rather than cut the tree down, as many have thought of doing.

The Wisconsin Horticultural Society has repeatedly warned its members not to purchase apple varieties of poor quality.

Happiness is like a kiss—you can't have it yourself without giving it to somebody else.

Protect Your

FLOWERS and EVERGREENS

Niagara Dust

for diseases and insect control may be obtained from the Wisconsin dealers listed below.

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J. Henry Smith, Sales Rep.

Waupaca, Wisconsin

Wisconsin Garden Club Federation News

Mrs. J. Martin Johnson, President
529 Woodside Ave., Ripon
Mrs. Chester Thomas, Hon. President
2579 Downer Ave., Milwaukee
H. J. Rahmlow, Cor. Secretary
Madison

Mrs. Sam Post, Rec. Secretary
Shorewood Hills, Madison
Mrs. E. A. St. Clair, 1st V. President
2418 N. 65th St., Wauwatosa
Mrs. Charles Schuele, 2nd V. President
Oconomowoc

FEDERATION BOARD OF DIRECTORS MEETS IN SHEBOYGAN

THE Board of Directors of the Wisconsin Garden Club Federation met in Sheboygan on April 12. The forenoon session was devoted to planning for the coming flower arrangement schools, the meeting of officers and committee chairmen at Oconomowoc on May 21, and the summer meeting to be held at Waupaca the latter part of July.

The Board agreed to support the Milwaukee District in conducting a flower arrangement school, to the extent of $25 in case of a deficit. The district is considering plans to hold a one-day arrangement school featuring Mr. William Moore of Hollywood, California, who has recently been doing some excellent work in Chicago and who is highly recommended by the Garden Club of Illinois.

At 2:00 P. M. the Board took under consideration the Annual Convention of the Federation to be held September 30-October 1 in Sheboygan. The local committee, composed of Mrs. Oscar Wolters, Mrs. Hugo Sperling, of Sheboygan; Mrs. A. L. Treick, Kohler, and Mr. Alvin Gillette, Secretary of the Sheboygan Chamber of Commerce, met with the Board and went over the plans.

Convention Plans

Convention plans as discussed by the Board and local committee promise a very interesting

program. Headquarters will be at the Foeste Hotel, in Sheboygan, where the Flower Show and the meetings of the Board of Managers and delegates will be held the first forenoon. There will be a noon luncheon at the hotel. In the afternoon, the meeting will be held in the large lecture room of the Chamber of Commerce in the Security Bank Building, only about two blocks from the hotel. The banquet will be held in the Old Heidelberg Inn, just one floor above the Chamber of Commerce room. This is a very nice place overlooking Lake Michigan and most of the city.

On Saturday, October 1, the forenoon session will probably be held in the Chamber of Commerce room, while arrangements are being made with the Kohler Garden Club to serve a luncheon in Kohler and entertain the visitors with a trip through the Kohler factories and beauty spots of Kohler during the afternoon.

GARDEN CLUBS TO EXHIBIT AT STATE FAIR

THE first three days of the Wisconsin State Fair's Horticultural Exhibit will feature exhibits by Wisconsin garden clubs this year.

A major portion of the Horticultural Exhibit Building will be turned over to the garden clubs. A special premium list has been prepared for these exhibits. They will feature dinner tables, shadow boxes, little gardens, flower arrangements on a table, and bouquets of one variety.

The entire premium list will be published in our June issue.

The Fair opens Saturday, August 20, and August 20-21-22 will be garden club days this year.

Mr. E. L. Chambers, State Capitol, Madison, is superintendent of the Horticultural Department, while Mrs. Chester Thomas, Milwaukee, represents the Board of Directors of the Federation on fair exhibits.

One of the troubles of this modern age is that too many people are spending money they have not yet earned for things they do not need, to impress people they don't like.

Flower Arrangement and Judging Schools

Fort Atkinson — Municipal Building
Wednesday, May 18
Menasha — Memorial Building — City Park
Thursday, May 19
Registration Fee—50c

Presiding

Mrs. H. C. Smith, Chairman, South Central District
Miss Edna Robertson, Chairman, Fox River Valley District

MORNING PROGRAM—10:00 A. M.

Some Fundamental Principles for Making Good Bouquets. (15 min.) Mrs. E. L. Sevringhaus, Madison, Chairman, Program Committee.
Questions and Discussion. (10 min.)
Consider Flower Quality. (30 min.) Miss Merle Rasmussen, Oshkosh, Chairman, Horticulture Committee.
Making Bouquets with Distinctive Features. (45 min.) Mrs. David Weart, Oconomowoc.

NOON LUNCHEON

1:00-1:30 P. M. Judging of prepared arrangements by everyone in attendance.

AFTERNOON PROGRAM—1:30 P. M.

Planning Shadow Boxes and Dinner Tables. (45 min.) Mrs. James Johnson, Wauwatosa.
How to Use the Non-Competitive Method of Judging. Report of survey of leading judges. Preparing Premium Lists. (30 min.) H. J. Rahmlow, Madison.
Suggestions for Organizing our 1938 Flower Show. (20 min.) Mrs. Samuel Post, Madison.
Questions and Discussion. (10 min.)
Discussion of Arrangements Judged. (30 min.) Committee of judges: Mrs. Chester Thomas, Milwaukee; Mrs. J. Martin Johnson, Ripon; Mrs. E. R. Durgin, Racine.
Discussion and Questions. (10 min.)

INVITE YOUR FRIENDS — OPEN TO ALL

Local arrangements committees: Fort Atkinson—Mrs. Theo. Ward, Miss Abbie Kyle and Mrs. A. J. Koenig. Menasha—Mrs. Ida Watkins, Mrs. G. A. Loescher and Mrs. Herbert Harwood.

CONFERENCE AND WORKSHOP for OFFICERS AND COMMITTEE MEMBERS OF WISCONSIN GARDEN CLUBS

Oconomowoc High School — Saturday, May 21, 1938

10:30 A. M.—Visit the rock garden and beautiful flowers in Rogers Memorial Sanitarium Gardens, Oconomowoc, located on County Trunk Highway B between Oconomowoc and Delafield.
12:00-1:00 P. M.—Buffet luncheon in High School. 50c.
1:30 P. M.—Mrs. J. Martin Johnson, president, presiding.
Plant Hunting. How many of our most beautiful flowers and shrubs were brought to this country. Mrs. R. B. Felten, Somers.
Demonstration. Making a year's budget. Mrs. Lyle Nash, Oconomowoc. **(15 min.)**
How to prepare a year's program for your garden club. Mrs. C. H. Schuele, Oconomowoc. (15 min.)
2:30 P. M.—Adjourn to forum rooms for discussion on specific problems:
Group 1. Conservation. Mrs. Frank K. Quimby, chmn., presiding.
Fire Prevention. Mrs. Clarence James, chmn., presiding.
Roadside Development and Beautification. Mr. E. H. Miles, Chmn. presiding.
Group 2. Junior Garden Clubs. Miss Mary Lowerre, chmn., presiding.
Group 3. Visiting Gardens Committee. Mrs. E. J. Wells, chmn., presiding.
Horticulture Committee. Miss Merle Rasmussen, chmn., presiding.
Group 4. Presidents and Organization Committees. Mrs. J. Martin Johnson, president, presiding.
Secretaries and Publicity Committees. Mrs. E. A. St. Clair, vice-president, presiding.
Group 5. Flower Shows. Discussion of state fair and convention flower shows. Garden club show management and premium list. Mrs. Chester Thomas, Milwaukee, presiding.
Send luncheon reservations to Mrs. Chas. Schuele, Oconomowoc, in charge of local arrangements.

NEW GARDEN CLUB JOINS FEDERATION

THE Board of Directors of the Wisconsin Garden Club Federation voted to accept the application of the Dental Auxiliary Garden Club of Milwaukee for membership in the Federation.

We extend a hearty welcome to this new club. Officers for 1938 are as follows:

President: Mrs. R. H. Johnson, 1552 S. 78th St., West Allis; Vice-President: Mrs. A. Horschak, 8153 W. Wisconsin Ave., Wauwatosa; Secretary: Mrs. C. R. Bodenbach, 628 Elm Spring Ave., Wauwatosa; Treasurer: Mrs. F. V. Mossey, 2167 N. Hi Mount Blvd., Milwaukee.

ADDITIONAL GARDEN CLUB OFFICERS

GARDEN club officers whose names were not published in our March issue are as follows:

West Bend Garden Club

President: Rev. A. H. Otto.
Vice-Pres.: Mrs. Ida Wiebe
Sec.-Treas.: Mrs. Golden Gill
Meeting: 7:30 P. M. on first Friday of month.

Sheboygan Garden Club

Pesident: Rev. A. P. Curtiss, 630 Ontario Avenue.
1st Vice-Pres.: Rudolph Grob, 926 Custer Avenue.
2nd Vice-Pres.: Mrs. Oscar Wolters, Greendale Road.
Treasurer: Fred Hagadorn, 1127 Alabama Avenue.
Secretary: Miss Nettie Schuchardt, 1830 N. Sixth Street.
Meeting: 8:00 P. M. on second Thursday of month.

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VISIT EXHIBIT AT THE MILWAUKEE PUBLIC MUSEUM

FOR our March 22 meeting, which occurred during Conservation Week, members of the Milwaukee Horticultural Society visited the botanical exhibit in the Milwaukee Public Museum. We called it "Springtime in Wisconsin—A Surprise Visit." The Pasque flower, the trailing arbutus, the bird's-eye primrose, the trillium group, Indian paintbrush, and the Sheboygan dune lands were shown. Our guide was Mr. Norbert Roeder of the Museum staff. Following the tour, he gave an illustrated talk on "The Ridges Sauctuary of Door County," and the beauty that is to be preserved there.

Arrangements may be made by other garden clubs with Mr. Albert Fuller, Curator of the Botany Department, Milwaukee Public Museum, for a similar tour.

Mrs. Irving Lorentz, President, Milwaukee Horticultural Society.

GARDEN BOOK FOR NORTHERN CLIMATES

THE first garden book to be written especially for the northern states has just been published by the University of Minnesota Press, University of Minnesota, Minneapolis. It sells for 75c.

The book contains directions for planning, planting, and care of the garden in sections of the country which have had hard winters and dry summers. It pays particular attention to those plants which will grow in our northern climate without too much care. It gives information as to what types of shrubbery and evergreens will survive the hard winters. According to the author, it "is written especially for the housewife who does her own gardening in odd moments."

For Your Garden Club Program

MANY garden clubs are adopting the method of creating greater interest by having members take part in the program. This can be done in several ways. Some of the smaller clubs have a report at roll call by each member on favorite garden flowers, a flower poem, favorite trees or evergreens, dirt gardening subjects, or other interesting information. Larger garden clubs may divide their group into sections, sections reporting on different topics at successive meetings.

In this way, the members are trained to take part and eventually this may constitute the best feature of the program.

One of the outstanding yearbooks sent in was that of the Oakfield Garden Club, designed by Mr. H. J. Sonn. Three pages of the program are devoted to each month. On the first page is a poem relating to the month. The second page is on garden work for the month, and on the third page is the program. Here are the first two pages for May.

MAY

"Down in the budding woods unseen,
Amid mosses green,
The fair hepatica wakes to meet
The hastening feet."—Machar.

Garden Work for May

A quiet cloudy day should be chosen if possible when setting out seedlings grown in a frame or in the house.

Allow a pair of leaves to remain on each tulip plant when the blossom is cut.

The sticky substance on peony buds is merely gathered by ants and no harm is being done.

Hardy vegetables like onions, beets, lettuce, and radishes can be planted now.

Begin to spray early with any one of the contact insecticides recommended for plant lice, as plant lice may be working earlier than anticipated.

Enough plants should be set out in the window boxes to fill them well. Allowance for drainage in the bottom of the box should be made and a rich soil should be used.

PLANS BEING MADE FOR FEDERATION SUMMER MEETING

WE are delighted that it has been decided to hold the summer meeting of the Wisconsin Garden Club Federation at Waupaca.

The dates July 30-31 suit us perfectly and we are already making plans for the event.

Mrs. C. H. Braman, Pres.
Waupaca Garden Club.

HEDGE PLANTS

Question: My nurseryman advised me to plant a flowering almond for a hedge along the side of my yard. What do you think of this plant?

Answer: I cannot recommend the flowering almond for two or three reasons, the main one being that it is very susceptible to a blight which, of course, is highly undesirable in any hedge. Another objection would be that if you get it on its own roots it is going to sucker rather badly, whereas if you get a grafted plant, usually grafted on wild plum, it is apt to be too leggy at the bottom to make a satisfactory hedge. You will also have the difficulty of the wild plum suckering rather badly. For a low hedge, I would suggest that you use Japanese barberry or its new upright form, called columnberry, the Regal privet, or the Alpine currant. There are many other shrubs that you might use which will also give satisfactory results.—Victor Ries, Ohio.

New Ideas For Flower Arrangements

Report From Chicago School

By Emma C. Schipper, Milwaukee

WITH much enthusiasm, a group of garden club members recently went to Chicago to hear Miss Clare Cronenwett lecture on flower arrangement.

Miss Cronenwett is an artist in the use of color. Her feeling for color and line dominate all her arrangements.

The following are some of the high lights from her lecture:

"We have three schools of flower arrangement today. The first to make it an art were the Japanese a thousand years ago. It is symbolic and built especially on line and natural growth. It is triangular in form and usually one and one-half to two and one-half times the height or width of the container.

"The second school is the Early American or Victorian mixed type of arrangement. The third school is the modern or composite type. It is a combination of the first two schools, built on modern line, form, space, texture, color and mood, and the application of the principles of good design. It is based on architectural forms with emphasis on line. The basic elements of architectural form are the circle, the square and the triangle.

"A lovely composition does not just happen. It is two-thirds thinking and one-third working."

As she explained the elements, **form** is first in importance. You build on form whether it be round, oval, triangular, perpendicular or horizontal. The more definite the form, the stronger the composition. The material you use or the mood you wish to express decides which one you use. Choose which you want, but stick to one! If you have good architecture, you have good line.

Line comes next in importance. It is more subtle and harder to handle. We have perpendicular, horizontal and diagonal lines. All these lines are expressed in nature. The perpendicular line is growth, the horizontal line is rest, and the diagonal line is action. To apply all these lines is composing.

Space is background. Suit your arrangement to your background.

Texture is surface and **mood** is what you yourself put into your arrangement. Mood is an essential ingredient of a satisfying composition. An airy, light arrangement gives one mood—that of delicacy. There should be a suggestion really of translucency. There is quite another mood, suggested in tight, compact arrangements. Here the mass gives a lovely brilliance of color or emphasizes beautiful form. The sophisticated type of arrangement, very stunning in the new modern containers, gives an entirely different mood. Then there should be the mood of the seasons. The spring mood —with branches of forsythia in bud and blossom; branches of weeping willows with the buds of green pearls on the branches; the pussy willows; the cherry blossoms; the crab apples and hawthornes. The autumn mood is effective when worked out in the roadside grasses, the brown cattails, the gorgeous tones of the sumac seed pods, which lend themselves so beautifully to all manner of arrangements in copper and other metal containers.

The principles were enumerated as follows: 1. Order—dominance and subordination. 2. Rhythm—repetition. 3. Radiation. 4. Transition. 5. Opposition. 6. Balance. 7. Harmony.

"Order comes first," says Miss Cronenwett. "We make order out of chaos. We must have dominance and subordination. It is having one idea and carrying it through with form, line, color and texture. In the use of color, one color must dominate, and in the use of line, either the perpendicular, horizontal, or diagonal should dominate."

Rhythm is achieved through the repetition of shapes, progression of sizes, and through an easily connected or a continuous line movement.

Radiation is movement growing out of a central point.

Opposition can be illustrated in the use of line. With the perpendicular or vertical line, you have the horizontal in opposition.

Balance is either symmetrical or asymmetrical. Symmetrical is balance equally the same. Asymmetrical is different on each side. An illustration of asymmetrical balance would be the use of longer lines on one side, balanced by mass or darker color on the other side.

Harmony produces an impression of unity through the selection and arrangement of material and ideas which are consistent.

Transition is the means of keying together your elements. In line you have the long, medium, and short lines. The medium line is the transition.

Definitely expressing mood and done in the "play spirit," as she calls it, were Miss Cronenwett's compositions combining figures with plant material. One illustration of this was the running figure of a boy among grasses, and another was a lovely deer with raised head reaching out in search of something.

The use of rubber plant leaves

(Continued on page 267)

Giant Morning Glories

By Susan Rosenstiel Popov
Condensed from Garden Glories

SEVERAL summers ago, when we began growing the glorious Giant Morning Glories in Northern Illinois, we earnestly followed, to the last painful intricacy, literal translations of rules from two Japanese horticulturists. The result, after two seasons, was to produce in our difficult dry climate, which is quite different from the island moisture of their home, blooms of seven inches. Not so large as their diameters of eight to ten inches, but still marvels of size and of such compelling loveliness that we knew we must go on growing them, whatever the effort.

Seed Grown in Garden

Now, after more years of experimenting, we still get seven inch flowers; but we have vastly simplified the procedure. Each season we advance a bit toward the conclusion that they can be treated successfully as ordinary garden subjects; and of late our finest flowers have been grown, not in pots, which is the orthodox way, but directly out in the open ground. We find they cost no more in time and trouble than growing many other annuals.

Seed

First, be sure you have good fresh seed. This has not always been simple nor possible, because much worthless seed has been imported into this country.

Second, realize that the outer coat of the seed is very thick and almost waterproof. The solution here is not soaking but scoring with a sharp knife on the convex larger surface. Three or four cuts, carefully exposing the whitish cotyledons beneath will make germination a matter of a few days instead of weeks, provided always you keep the seeds warm.

This brings us to a **third** essential, warmth. Remember, this morning glory chemistry is born of the sun and cannot proceed without heat, and that Oriental Morning Glories need more of it, at least for the start, than the Heavenly Blue (Ipomea rubra cocereulia). Unless you have a greenhouse or an electric hotbed, you must exercise full patience and delay sowing until soil and night air are thoroughly warmed up. We believe that just here is where more people fail with the seeds than at any other point. The ideal time, with us, is from May 15-25. If we must sow earlier in the open ground we keep little emergency frames made of old cellar windows to cover with, during cold spells. Often our later plantings with better warmth surpass those made earlier. Since plants come into bloom in around sixty days, there is ample time for a long blooming period in the fall, even with a late start.

Use Sand

Fourth, as the seed sprouts and the great cotyledons spread, the tiny seedling underneath its heavy load becomes clumsy, like Atlas with the world on his shoulders, and cannot push up and out through a soil that is heavy. Therefore use sharp sand as a seed bed, which will give no crust to embarass the little giant. Also set the seed in no deeper than half an inch.

Fifth, Heavenly Blue Morning Glories, often considered natives of Brazil and Mexico, require little moisture and fertility. The Oriental Morning Glory, on the contrary, loves water and rich food. If you are particular about large size flowers you can add to your water on alternate days a weak manure tea. Several friends have reported excellent results with solutions of artificial fertilizer.

FERTILIZERS FOR THE GARDEN

FOR foliage and leaf growth, a nitrogen fertilizer is best. For the lawn, therefore, a fertilizer such as ammonium sulphate applied sparingly is ideal. It is slightly acid-forming which will control weeds to some extent, whereas an alkaline fertilizer or the addition of lime may encourage weeds.

For the flower garden, however, a high nitrogen fertilizer might encourage too much top growth and poor blossoming. A complete garden vegetable fertilizer, therefore, such as is available from any fertilizer store, is excellent. Such a fertilizer should contain a small percentage of nitrogen, a high percentage of phosphate, and a slightly lower percentage of potash. A combination such as a 6-15-9 would be very good. Liquid manure should be relegated to the horse and buggy days as far as a city garden is concerned. While it contains a large percentage of nitrogen, very little phosphate and considerable potash in soluble form, and is no doubt excellent for use in the garden, what gardener is in position to make use of it, especially when a complete mineral fertilizer can be obtained at low cost.

Wheat bran can be used as it is a complete fertilizer and also supplies humus. In case a mineral fertilizer is used, then humus material such as peat moss, should be applied.

Milorganite or sewage disposal refuse contains a large percentage of nitrogen, a small percentage of phosphate, and no potash. It is therefore a good fertilizer for the lawn, but should be used sparingly in the flower garden as is might promote too much leaf growth.

A collegiate defines "parent" as "the kin you love to touch."

VISIT THESE FLOWER GARDENS

Report of Mrs. E. J. Wells, Oakfield, Visiting Garden Chairman

IN response to a letter to all garden club presidents asking for a list of the gardens open for visits by garden club members, the following have been received to date. The gardens listed this month are those open for visit in May and June. In the August 1 issue gardens open for visit during August and September will be listed.

Brandon Gardens. Mrs. Albert Rakow; Mrs Geo. Dunning; Miss Lulu Sherwin; Mrs. Herb Dallman; Miss Esther Braatz, Mrs. Bert Pinkerton; Mrs. Ray Wilkinson, Ladoga Store.

Cedarburg Gardens. George Wittenberg, 4 Sheboygan St.; Mrs. A. S. Horn, 65 Columbia Ave.; Mrs. A. R. Wehmel, 147 Highland Drive; A. F. Boerner, (Cedar Hedge Farm) Sheboygan St.; Mrs. U. S. Wirth, 16 Spring St.; Mr. and Mrs. Fred Armbruster, 43 Portland Ave.; Mrs. Alvin Rieck, 41 Third Ave. S.

Elkhorn Gardens. Clarence and Irene Norton, 204 N. Broad St.; Mr. and Mrs. C. A. Jahr, 312 N. Broad St.; Mr. and Mrs. Church Ieighton, 120 N. Washington St.; Mr. and Mrs. Geo. O'Brien, 108 N. Church St.; Mr. and Mrs. Den Kelliher, 233 Winsor St.; Miss Jessie Sprague, West Court St.

Fond du Lac Gardens. Community Garden Club Project, Lakeside Park; Mrs. A. A. Briggs, Hokopoekau Beach, R. 55; Mrs. George McIntosh, 103 Warner St.; Mrs. P. B. Haber, 47 Woodlawn Ave.; Mrs. K. K. Borsack, 329 Sheboygan St.; Mrs. Emery Martin, Lake De Neveu; Mrs. C. L. Gloyd, 43 N. Park Ave.; Mr. and Mrs. A. P. Ruh, Winnebago Park; Miss Frances Brugger, Lake Wood Beach, R. 55.

North Prairie Gardens. Mrs August Klatt.

Oakfield Gardens. Mr. and Mrs. Erwin J. Wells, Elm St.; Mr. and Mrs. Frank Willard, Main St.; Mr. Herman Sonn.

Plymouth Gardens. Mr. and Mrs. Henry Weim, 415 Fremont St.; Mrs. Frank Robb, 407 Western Ave.; Mr. and Mrs. A. C. Erbstoeszer, 15 Selma St.; Mrs. Louis Rohde, 350 Stafford St.; Mrs. Frances Kaestner, 31 Eastman St.

Racine Gardens. Mrs. H. J. Anderson, 317 West Blvd.; Mr. and Mrs. C. E. Austin, 938 Hayes Ave.; Mrs. Percy Borman, 1822 College Ave.; Mrs. W. E. Buckley, 1119 Park Ave.; Mrs. F. C. Christensen, 2021 Fairview; Mr. Jens Clemmensen, 1712 Maple St.; Mrs. E. R. Durgin, 1815 Park Ave.; Mrs. Arnold Fawcett, 205 Lakecrest Drive; Mr. F. A. Firks, 1614 St. Clair; Mrs. Clair Fancher, Highway 20; Mr. and Mrs. Martin Hueffner, 1527 Park Ave.; Mr. John Johnson, 1966 Linden Ave.; Mrs. Chas. Laing, R. 2, Box 46; Mrs. Gertrude Peters, 1503 Thurston Ave.; Mrs. Thos. Powers, 1744 Wisconsin St.; Mrs. E. C. Pfeiffer, 3701 Dinzie Ave.; Mrs. R. L. Pulford, 1619 College Ave.; Mr. Ed Schilling, 1515 Maple St.; Dr. and Mrs. I. F. Thompson, 1817 Park Ave.; Mrs. J. W. Trumbull, Jr., 1712 Park Ave.; Mrs. G. Veenstra, R. 2, Box 82; Mr. Wm. Voelzke, 818 English St.; Miss Margaret Williams, 1642 Park Ave.

Ripon Gardens. Mrs. J. M. Johnson, Mrs. R. E. Kurth, Mrs. H. P. Boody, Mrs. Fred Danielson, Mrs. Warren Smith, Mrs. G. F. Hamley.

Superior Gardens. F. A. Kemp, St. Albans Road; James M. Kennedy, 306 E. Fifth St.; P. G. Stratton, 305 E. Fifth St.; H. A. Juneau, 810 E .Fourth St.

Waukesha Gardens. Rogers Memorial Sanitarium, between Oconomowoc and Delafield; Mrs. Wm. Horn, Mrs. H. S. Nixon, Mrs. H. E. Delsich, and Mrs. E. F. Chapman, all of Hartland; Mrs. H. P. Hitz, Pine Lake, Nashotah; Mrs. Charles Smythe, St. Johns Military Academy, Delafield.

Waupaca Gardens. Christ Hyldgaard, R. 1; Ed Larkowski; Mrs. Wm. Ware, 747 Berlin St.; Mrs. Theo. Peterson, 319 Harrison; Mrs. C. H. Braman, Box 147, Miner Lake.

Wauwatosa Gardens. Mrs. E. A. St. Clair, 2418 N. 65th St.; Mrs. H. E. Freudenberg, 1507 N. 68th St.; Mrs. R. Ferge, 8036 Milwaukee Ave.; E. Lefeber, 7500 Hillcrest Drive; Mrs. H. F. Kuechle, 2457 N. 95th St.; Mrs. Ralph Hibbard, 7034 Aetna Court; Mrs. J. C. Hawker, 7027 Maple Terrace; Mrs. H. L. Freudenberg, 1507 N. 68th St.; Mrs. J. C. Miller, 6831 Cedar St.

West Allis Gardens. Mrs. C. E. Strong, 2157 S. 87th St.; Mrs. P. Cooper, R. 4, Mukwonago Road; Miss Martha Krienitz, 8214 W. National Avenue.

Whitewater Gardens. Mrs. John Johnson, 204 S. Prairie St.; Aunt Mattie's Cottage, 805 Main St.; Mrs. John Youngclaus, 1301 Main St.; Mrs. Willis Miller, 1016 Highland St.; Miss Hannah Larson, 111 S. Prairie St.

FLOWER ARRANGEMENT

(Continued from page 265)

radiating out of a somewhat tightly massed arrangement in a shallow bowl illustrated the principle of radiation. Miss Cronenwett prefers to form the design of her arrangement within the mouth of the bowl.

A small colored screen was placed back of each arrangement, which provided a suitable background. Her favorite flower holders are the Cassa and the Dazey.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

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N. E. France, Platteville
Edw. Hassinger, Jr., Greenville
F. J. Paepke, Burlington

DISTRICT MEETING SUCCESSFUL

THE district beekeepers meetings of the State Beekeepers Association held at Appleton and Menomonie the first week in April were very well attended and everyone was much pleased with the programs. A number of beekeepers expressed themselves as well pleased because the chairman called on leading beekeepers present to express their opinion on a number of matters of importance concerning beekeeping.

At the Appleton meeting, about 60 men and 20 members of the Ladies Auxiliary attended.

Crop Conditions

Beekeepers from various sections reported on crop conditions. Prospects appear to be better than last year, especially in the southeastern part of the state where there was a total crop failure last year. In some sections, however, conditions are not as favorable as last year. Mr. Lotz, of Boyd, reported considerable injury to plants from the ice.

District Officers Elected

All officers of the Fox River Valley District were re-elected at the meetings. The officers are: Mr. Edward Hassinger, Jr., Greenville, chairman; Mr. George Jacobson, Kaukauna, vice-chairman; Mr. Leonard Otto, Forest Junction, secretary-treasurer.

At the Western District meeting, Mr. S. P. Elliott, Menomonie, was re-elected chairman; Mr. H. O. Rodeske, Fountain City, re-elected vice-chairman and Mr. Frank P. Reith, Boyd, was elected secretary-treasurer. Each district chairman is a member of the board of directors of the State Association.

WHY SWEET CLOVER COMES UP IN GRAINS

AT the Fox River Valley District Beekeepers Meeting, the question arose as to why sweet clover came up in grain the year after it had been plowed under. Sweet clover is a biennial and so the old plants do not live over the second year. Hard seeds which remain in the ground ungerminated would not produce a plant four or five feet tall, bloom, and produce seed as is the case with the plants found so objectionable in grain by the farmer.

Prof. George Briggs of the Agronomy Dept. gives this explanation. Hard seeds which do not germinate the year planted may germinate the second year or while the sweet clover is being pastured. They form strong 1 year crowns and when plowed under they are not killed but will come up the following year in the grain. By plowing early in the fall or late in the spring this objection can be largely overcome.

One farmer reported that he cleaned the chaff from his threshing machine containing considerable sweet clover seed and produced at the rate of $6 worth of sweet clover seed per acre. This amount would easily pay for the shocking of the grain. It is the tall clover in the bundles that is objectionable to the shockers.

SUMMER MEETINGS FOR WISCONSIN BEEKEEPERS

SUMMER meetings for members of the Wisconsin Beekeepers Association were planned at the district meetings. The first will be held in the apiary of Mr. Leonard Otto, Forest Junction. The probable date, Friday, July 22.

Western beekeepers will meet in Chippewa Falls, possibly on Sunday, July 24.

The Southwestern District is considering a meeting at Prairie du Chien, cooperating with northeastern Iowa beekeepers. The probable date is July 25.

Full details will be given in our June issue.

LADIES AUXILIARIES HAVE GOOD MEETINGS

CONSIDERABLE enthusiasm was shown by the ladies at the auxiliary meeting at Appleton. Plans were discussed to stage an exhibit at the Wisconsin State Fair to advertise and increase interest in the use of honey. The Auxiliary is doing

good work and this will be a splendid project.

At the Western District Auxiliary meeting, Mrs. S. P. Elliott, of Menomonie, was re-elected chairman, and Mrs. William Mickelson, of Arkansaw, was elected secretary-treasurer.

COUNTY MEETINGS SUCCESSFUL

C. D. Adams, Chief Apiary Inspector

WISCONSIN beekeepers have recently had an outbreak of meetings as a result of the greatly increased state appropriation for bee disease control. The Division of Entomology decided that no new counties could be added to the area clean-up district this year that did not have an active county beekeepers association. A few counties that had held no meetings for ten or more years organized with new officers and promise to remain active, at least until their major problems are solved.

Sauk County has the record of attendance at the county meetings with over forty being present, while Manitowoc was a close contender. At the District meeting at Appleton, 80 were reported and over 40 at Menomonie. All counties voted for clean-up work, but Sauk County surprised itself by voting one hundred per cent for inspection.

If we can judge by the attendance and interest shown at these meetings, beekeeping in Wisconsin is making a comeback in spite of poor years and winter losses. An interesting sidelight was the realization of the beekeepers that the grasshopers may be a deciding factor in the honey crop this year.

Riddle: "Why is a crack in a chair bottom like a policeman?"

Answer: "Because it will pinch you if you don't park right."

NORTH CENTRAL STATES BEE LABORATORY ESTABLISHED AT MADISON

THE U. S. Bureau of Entomology and Plant Quarantine has established, in cooperation with the Wisconsin Experiment Station, a laboratory at Madison for work on bee culture to study problems especially on supersedure and package bees and other beekeeping practices peculiar to the middle west and the state. Dr. C. L. Farrar of the Intermountain Bee Culture laboratory at Laramie, Wyoming, has been transferred to Madison and will be in charge of the new laboratory. He will cooperate with the University in planning research in beekeeping and in teaching.

TO CONTROL ROBBING

IN cases of robbing I place a ventilated honey board with a Porter bee escape, round hole uppermost, underneath the robbed colony. I rest this on the bottom board of the hive. That is all. The job is complete.

The robbers will be able to get out of the hive through the escape board but none will be able to get in. The bees of the robbed colony will probably not want to fly in and out. Any that return to the hive will cluster beneath the honey board. The robbed hive is presumably weak and there is little danger of suffocation.

Just before dusk, on the same day, the honey board may be removed. Any bees on it should be shaken off and allowed to run into the hive. Then contract the entrance to about one bee space. This should not be done until the other colonies in the apiary have ceased flying for the day and the robbers have gone home. All is now well.

L. Illingworth, in Bee World.

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Standard 10-frame, shallow, and 11-frame supers. Bottoms, inner and outer covers. Foundations for Hoffman frames. Inpected and free from disease. J. N. Roy, Three Lakes, Wis.

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BEES FOR SALE

For Sale: 100 colonies of bees and equipment. Disease free. Certificate furnished. My object in selling is poor health. Gus Gust, Kaukauna, Wisconsin.

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New Recommendations For Installation of Package Bees, Using Spray and Direct-Release Method

A NEW circular by C. L. Farrar, with the title given in the heading, has just been released by the U. S. Department of Agriculture, Bureau of Entomology and Plant Quarantine.

The bulletin gives the results of observations on more than 800 packages installed in several states.

One conclusion reached is that a pressure sprayer is an excellent means of feeding sugar syrup to packaged bees. It makes possible more thorough feeding, requires less labor, and is a more effective means of preventing bees from flying while being installed than does the old method of brushing or sprinkling.

Value of Direct Release

Combining the spray method with direct release of the queen gave a reduction of about 50% in the number of queens lost during introduction. An approximate saving of 3½ days (from 4.1 days to less than 1 day) in egg-laying time for queens over the older method of the bees releasing the queens from the cages also resulted.

How It Is Done

The first step is to feed the bees in the package with sugar syrup, using a sprayer. There is no danger of overfeeding in the package. Feeding should be continued until the bees are gorged, then packages can be shaken without bees flying. The bees are then jarred down into one end of the package which is then opened at the opposite end by cutting the screen along three edges with a knife. The queen cage is removed.

Next the mass of bees is poured from the cage into the open hive from which 5-frames have been removed. The remaining bees are dislodged by a sharp blow.

The queen is sprayed with sugar syrup to prevent her from flying. After opening the cage, she is shaken among the bees, preferably near a side comb, so that she can crawl onto a frame as a precaution against injury.

Frames are reinserted, being careful not to crush any bees, and the hive is closed. The deep bottom board is preferred because fewer bees are mashed. The entrances should be reduced with a cleat and the small opening plugged loosely with green grass or thin paper.

The hive, of course, should contain combs of reserve honey and pollen, otherwise cans of feed must be provided and pollen must be obtainable from the field.

Queens Lay At Once

The average results with this method show that the queens will begin laying in less than one day, which is a reduction of approximately 3½ days from the average initial egg-laying time of queens introduced by the cage-release method.

When the cage-release method of introducing queens was used, the egg laying time required for 555 queens average 4.1 days; 7.4 per cent began laying in one day; 92.6 per cent required from 2 to 11 days.

A LEADER PASSES ON

BEEKEEPERS everywhere were saddened at the news of the death on February 26 of Mr. C. P. Dadant, for many years an outstanding figure and leader in the bee world. He was co-founder with his father of the firm of Dadant and Sons, Hamilton, Illinois; a famous beekeeper, author, and senior editor of the American Bee Journal. We extend our sympathy to the Dadant family.

CONDITIONS IN MARATHON COUNTY

CONDITIONS for beekeeping look good in Marathon County. At least in our section, the clover of last year's seeding looks good for a fair clover honey crop if weather conditions are right. We took our bees out of both cellars the night of March 18. The weather the following three days was ideal and they had a wonderful flight. They came through the winter the best in years. Our bees had a fair supply of pollen stored and brought in lots of new pollen this spring, the first of it coming from pussy willows the morning of March 28.

Joseph Garre, Aniwa.

WHY NEWLY INTRODUCED QUEENS MAY BE LOST

MR. A. E. Wolkow, of Hartford, discussed the loss of newly introduced and package queens at the district meeting at Appleton during March and also has an article published in The Beekeepers Item for April on the subject.

Mr. Wolkow maintains that when a newly introduced queen ventures outside of a small and recently installed cluster of bees, she is in danger of being attacked by one or more individuals to whom she is strange.

It is unnatural for bees to form a perpendicular brood nest having brood on only one side of the comb.

In introducing package bees Mr. Wolkow recommends that instead of hiving them on full sheets of foundation or drawn comb, to hive them on one-inch starters. They can then keep clustered in a round, ball-like form and start comb building in the center of the cluster. The queen will then remain in the center where comb is being built and in no danger of being lost.

Beekeeping Research to be Increased

ELSEWHERE in Wisconsin Horticulture a notice will be found to the effect that the United States Bee Culture Laboratory at Washington, D. C., has concluded a cooperative agreement with the Wisconsin Agricultural Experiment Station establishing a cooperative laboratory at Madison for research in beekeeping problems.

A new subregional laboratory for the North Central States has been established with Dr. C. L. Farrar in charge. Dr. Farrar has just recently been moved from the United States Bee Culture Laboratory at Laramie, Wyoming, to direct not only the federal research program, but also to take charge of the beekeeping work at Wisconsin. Wisconsin beekeepers are to be congratulated on this new arrangement, as the first problems to be undertaken will relate to queen supersedure and the value of pollen in building up the bee colony. Dr. Farrar is particularly fitted for this work since he has been making a study of the pollen requirements of the bee colony for several years in Wyoming and has found that this is a very important question in increasing the surplus honey crop.

Dr. Farrar has also been studying the problem of two-queen colonies and will be able to provide much of interest to our Wisconsin beekeepers. He has had a wide range of experience, having studied under Dr. J. H. Merrill at the Kansas State College from which institution he received his B. S. degree in 1926. In the fall of that year he went to Massachusetts where he taught some entomology and had charge of the beekeeping work from 1926 to 1931. He received his doctorate degree in June, 1931, and in December of that year went to Laramie as Associate Apiculturist with the Bureau of Entomology and Plant Quarantine. At the Wyoming Station he made an intensive study of colony populations between 1931 and 1938, and now he comes to Wisconsin with an intense interest in our problems, and we hope that Wisconsin beekeepers will afford him complete cooperation in his efforts to improve our beekeeping methods.

FIRST LESSONS IN BEEKEEPING

AN excellent book entitled "First Lessons in Beekeeping," by C. P. Dadant, has just been issued in a new revised edition by the American Bee Journal, Hamilton, Ill.

The work had been contemplated for some time and was done during the past year and a half by M. G. and J. C. Dadant. On account of failing health, C. P. Dadant was unable to undertake the work. It discusses very interestingly such topics as Beekeeping as an Occupation, Establishing the Colony, Spring in the Apiary, Summer in the Apiary, Fall and Winter Preparation, Queen Management, Diseases and Enemies, Honey Plants, Packing Honey for Market.

It is well illustrated. The price is $1.00 postpaid.

FIREWEED AS A HONEY PLANT

SEVERAL Wisconsin beekeepers have remarked that fireweed yields honey well for a year or two after it first becomes established following a fire. It seems that the ashes, containing both potash and lime from the burning of the forest cover, supply the elements necessary for the best growth of fireweed and a good yield of honey. After a few years the yield seems to stop.

An article in the Canadian Bee Journal of March by a beekeeper of Quebec, is interesting. "It is significant that after a northern fire (bush fire) almost invariably will spring up fireweed, which will, for a few years (until the potassium has been used up), be a good and sometimes a very good source of honey. I remember one beekeeper who made enormous crops of honey after a couple of extensive bush fires. One year his bees harvested over 300 pounds per hive of very fine white honey, but after the potassium had been used up (that takes five or six years), his bees could get only a very ordinary crop of honey, so much so that he had to reduce considerably the number of his hives."

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Wisconsin Horticulture

JUNE, 1938

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The old Chinaman replied with a smile: "Same time your friend comes up to smell flowers."

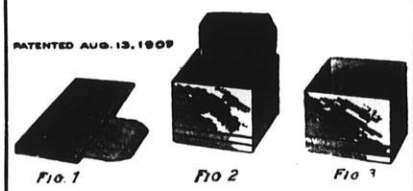

Fig. 1 Fig. 2 Fig. 3

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The Official Organ of the Wisconsin State Horticultural Society

Established 1910

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

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY
424 University Farm Place
Madison, Wisconsin

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

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

Volume XXVIII June, 1938 No. 10

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PLEASE DO NOT SEND STAMPS

Wisconsin Horticulture

Lead Arsenate or Substitutes For Codling Moth Control

W. P. Flint, Illinois

IN trying to decide whether we should use lead arsenate or substitutes, the real question is "Can we continue to use lead arsenate, or must we change to some other material for codling moth control?" Possibly the best way to answer this question is to consider briefly the points for each of the insecticides which have been used extensively in codling moth control; also the points against them, and then try to balance the result.

Consider Lead Arsenate

First let us consider **lead arsenate.** What are the points in favor of this material? (1) It is readily available and is produced by a large number of manufacturing chemists. (2) It is well standardized. A grower is sure of getting a good product if he buys from any of the well-established producing firms. (3) Its action is not easily affected by the weather. Once applied and dried on the leaves and fruit, it is not easily washed off. Exposure to sunlight, wind, dew, and rain does not quickly reduce its effectiveness. (4) It remains active over a long period and this permits a build-up or accumulation of the toxic material on the leaves and fruit, so that after several sprays a deposit is established which will remain as a protective coating over the fruit for a period of several weeks; in fact, it would remain for the active period of the codling moth injury except for the new surfaces exposed due to the growing of the apples. (5) It is cheap in price. (6) It can be combined with many other insecticides and fungicides. (7) When used at the proper dosage and when the applications are timed correctly it is very effective. It has given better control, season after season, than any other material.

Why Change?

Having a material with all these good points, why change? (1) Because under certain weather conditions it is injurious to plants, especially to apple, although some varieties are much more susceptible than others. This injury to fruit trees is probably more severe than has been generally realized, especially in those fruit-growing regions where rainfall during the active season is moderate to heavy. In some years little injury from lead arsenate is noticed. In others it is severe. Where all the orchards in an apple-growing area are sprayed with lead arsenate, we have been overlooking much of the injury. Practically all the trees in commercial orchards are sprayed in much the same way and they all have much the same appearance. This gives us no opportunity to pick out or judge what the foliage might have looked like if no lead arsenate had been applied.

In orchards where we have been running plots with other materials which are less toxic to foliage, we at once see a decided difference. If our other plots had been sprayed with different arsenicals, i.e., something other than lead arsenate, we might not have noticed any marked difference, since a good part of the injury, perhaps nearly all of it, is due to arsenical burn and not to lead burn. When we spray with non-arsenicals the improved condition of the foliage is nearly always very apparent. (2) Fruit sprayed with lead arsenate in sufficient amount to give satisfactory codling moth control will, in most sections, carry a residue which in compliance with the pure food and drug laws will have to be washed off before the fruit is marketed.

Calcium Arsenate

Next let us consider some of the other arsenicals that have been tested quite generally in a number of different areas in the country. Certainly the one which has been used to the greatest ex-

tent as a substitute for lead arsenate is **calcium arsenate.** The good points of this material are (1) It will produce a quicker kill under some conditions than lead arsenate. (2) It is cheap in price. (3) It contains only one toxic material, and this is not cumulative to any extent in the bodies of animals. (4) It contains about 10% more arsenic than does lead arsenate.

The points against this insecticide are (1) It has a marked tendency to burn foliage when used in sufficient amount to give commercial control of codling moth. (2) It has poor adhesive qualities and must be combined with some good sticker in order to give protection over any considerable length of time. (3) It contains arsenic in sufficient amounts so that fruit sprayed with it will in many cases require washing.

Tests for Codling Moth Control

For the past four years we have been running tests at Quincy, Illinois, on the western side of the state, with lead arsenate and nicotine combinations for codling moth control. The spraying was done by the grower using his regular equipment and crew. The table gives percentages for codling moth injured apples from 1934 to 1937, inclusive.

Certainly we can say from the figures presented that it is possible to control codling moth with nicotine in commercial orchards and obtain practically the same degree of worm-free fruit that we would with lead arsenate. The big drawback to the nicotine schedule is the cost. At the present prices of fixed nicotine, it will cost probably about twice as much per gallon of spray for nicotine as for lead arsenate. Against this additional cost of spray material, we have on the credit side in the nicotine schedule the additional control of insects other than codling moth; this additional kill is not obtained with lead arsenate. Also, fruit sprayed with nicotine does not require washing. From our four years of experience in western Illinois we would say that the foliage on the nicotine-sprayed trees would be decidedly better than the foliage on the lead-sprayed trees, and that prospects for a continued production of good crops would be increased on the nicotine-sprayed trees.

Condensed from paper presented at the Annual Convention, Wisconsin Horticultural Society, Nov., 1937.

TESTS FOR CODLING MOTH CONTROL

Spray and Amount	Per Cent Stung	Per Cent Entered
1934		
Lead arsente throughout season	2.6	4.1
Lead arsenate, first brood; 40% nicotine sulfate, 1-800, and summer oil, 4 qts., second brood	1.3	4.6
Fixed nicotine throughout season	4.3	17.8
1935		
Lead arsenate, 3 lbs.; hydrated lime, 3 lbs.; (with oil, 3 qts.)	5.	1.
Fixed nicotine throughout season, 6 lbs. to 100 gal.; 3 qts. summer oil	2.	1.
1936		
Lead arsenate, lime, and summer oil throughout season	2.2	2.4
Fixed nicotine throughout season, 8-100 (without oil)	1.8	2.6
1937		
Fixed nicotine, 8 lbs.	1.4	1.4
Fixed nicotine, 4 lbs.; summer oil, 2 qts.	2.3	2.7
Lead arsenate, 4 lbs., plus weak Bordeaux and summer oil in third and fourth covers	1.	.4
Tank mixed Bentonite, summer oil, nicotine oleate	.5	.4

NEW EGG PLANT FOR WISCONSIN

A NEW strain of egg plant will be tried in various locations in Wisconsin during 1938. If it lives up to present promise it will prove a valuable addition to our list of new vegetable varieties.

Very good results have been secured during the past two seasons with this variety developed by O. B. Combs at the University of Wisconsin.

Back in 1932, Combs made some crosses between Black Beauty, a popular variety with large, good quality fruits, and Black Bountiful, a very early type with small, pear-shaped fruits. The object sought was to get an extra early egg plant of the Black Beauty type to meet the needs of Wisconsin growers.

Selections were made among the hybrid offspring each year, but it was not until 1936 that a single plant was found which had all the desired characteristics. The plant was large, vigorous, and extremely productive, with rich purple fruits shaped like those of the Black Beauty parent and very nearly as large. It was almost three weeks earlier than Black Beauty.

Seeds from this highly desirable individual produced plants that were remarkably true to type in 1937. Virtually all were uniform as to plant and fruit characters, as well as maturity. And now the new strain is going out into the state.

WATCH THE MARKET

A prune buyer was told to watch the market and after a few days wired his company to this effect: "Some think it will go up, and some think it will go down. I do too. Whatever you do will be wrong. Act at once."

Reports From Our Fruit Growers

No Frost at Galesville

MR. Fred Sacia, large orchardist at Galesville writes on May 16, "We have had no frost injury to date. Some varieties are beginning to set. Indications are for a fair crop, excepting Duchess, Wealthy, and Snow. Our most important work right now is spraying and caring for our young trees. Excessive rains during blossom time may have their effect on the set of fruit and the appearance of scab later. Our apple crop may reach 75% of last year's, which was a bumper crop."

From Southeastern Wisconsin

By William Basse, Waukesha

There has been about 5 or 10% frost injury to strawberries in this section, but no damage to tree fruits. There is a heavy setting on small fruits and pears and rather a light setting of apples. We did not expect to see many trees in bloom after the heavy crop of last year. With favorable weather, we expect a fair crop of apples. The weather has been favorable for the control of scab during the early part of the season as it was cool and dry. The important work in June is the control of codling moth.

From West Bend

By W. H. Gruhle

Frost injury to fruit trees was slight, but it was a little more severe on strawberries.

The apple crop will be about normal this year. Cherries and plums are loaded heavily.

Conditions At Bayfield

By Dawson Hauser

The second week in May saw temperatures of as low as 29, and may have caught some strawberries, but there was no apparent harm to apples which were getting to the open cluster stage.

Prospects are for a one-half to a full crop. About half of our trees will be loaded with bloom.

Our spring has been very early and slow with plenty of moisture. Some of the early scab sprays have been omitted, which may be bad, as in this section it is our most important time for spraying.

From Sturgeon Bay

By Don Reynolds

Frost damage to the strawberry crop in this section was very slight—no real damage.

Cherries were hit by the frost in some places but the apples were uninjured.

There has been the usual planting of new strawberry beds. So far this spring the weather has been very favorable for all bearing beds.

There was continuous rain and mist for over 50 hours during the full bloom of the cherries, which is not very favorable.

No Frost Injury at Sturgeon Bay

By N. C. Jacobs

We had a light frost around Sturgeon Bay the mornings of May 11 and 12. There were a few early Richmond cherry blossoms open but there was no damage except in low places and very little there.

Spraying Cherries

In our orchard we apply two sprays of Bordeau Mixture on cherry trees. We have learned from experience to apply the first spray immediately after blossom when about three fourths of all the petals have fallen, and the second spray just before the

CONTROL APPLE SCAB

with

Niagara Kolofog

A Non-Caustic Sulphur spray designed to control fungus diseases without injury.

Kolofog plus Niagara Arsenate of lead is an ideal combination for scab and codling moth control because it sticks to the foliage.

See list of Niagara dealers on Page 261 of this magazine, or write to

Niagara Sprayer & Chemical Company

J. HENRY SMITH,

Sales Representative

Waupaca, Wisconsin

cherries begin to ripen, which is about four weeks before harvest. On young trees, I apply another spray after harvest.

The most important work in the orchard during the month of June is cultivation and thorough spraying. It is also a good plan to cut or break out the young suckers in the apple trees.

From Kenosha

By R. L. Marken

It looks as if the frost got about 50% of our strawberries in this section this year, but the rest got by nicely, which we think is quite lucky.

I am testing the Yakima plum from the New York Station and they came through the past winter nicely, as did also the new hardy apricots.

Report From Warrens

By H. H. Harris

There was a heavy freeze here while the early strawberry fields were white with blossoms. All of the blossoms were black and some of the larger buds as well. It even effected some of the new leaves. There seems to be a very good set of blossom buds this year, however. Some foliage is very heavy and protected the buds more or less. I think there is a larger set of fruit this year than usual, and so we may get a bigger crop than some expect. We have had so much rain that the clay ground is too wet to work most of the time.

Our apple blossoms did not seem to be seriously injured.

From Alma Center

By E. J. Randles

The frost did considerable damage here in some places. I would say that in some patches as high as 40% of the buds were frozen. However, some patches were not hit at all. I would say on the average that the loss will be about 15 to 20%. The cold weather and rain is blighting some of the blossoms.

I believe that there is at least a 150% increase in planting this year and they all look fine. I think we will get a fair crop yet this season.

CHERRY PROSPECTS

By the U. S. Bureau of Agricultural Economics

PROSPECTS in the Eastern commercial cherry states were reduced materially by the early April freezes. Low temperatures resulted in considerable damage to sweet cherries in New York, and indications point to a light crop. Sour cherries apparently were not injured seriously and a relatively good crop is in prospect.

In Michigan, sour cherry prospects were reduced materially during April in both the Grand Traverse region and in the southwestern counties. Injury to sweet cherries to May 1, however, apparently was not so extensive, but low temperatures since May 1 have caused severe damage to all cherries.

APPLE PROSPECTS

By the U. S. Bureau of Agricultural Economics

IN general, reports indicate little damage to apple trees or buds from winter temperatures or spring freezes, and prospects appear fairly good in nearly all important apple producing areas. In the New England States, buds developed rather rapidly during April and it now appears likely that full bloom will be reached somewhat earlier than usual. Present prospects indicate a good crop of apples in these States. Trees in New York, with the exception of Baldwin varieties, carried almost a full bloom and the weather has been quite favorable for pollination.

Prospects for apples are spotted in North Central States. The crop was reduced materially in Illinois by April freezes and cold, wet weather during most of the blossom period. In Michigan a fair crop is in prospect. Early varieties were injured more than late varieties. In Ohio, low temperatures the last week in April probably resulted in some injury, but it is too early to determine the extent of the damage. Freeze losses were rather heavy in Missouri, and a relatively light crop is in prospect. The outlook for apples is favorable in the other States of this group.

Indications point to good apple crops in most of the Southern States, although prospects were reduced somewhat in Tennessee, Alabama, and Oklahoma as a result of the low temperatures during April. Growing conditions during April were generally favorable in the Western States.

A CORRECTION

IN the article by L. R. Langord on the Effect of Sod Cultivation and Mulch on Orchard Soil Moisture Content in our May issue, there was an error. The correct statement should be:

"The cutting **of** average stands of grasses usually resulted in a greater amount of soil moisture than where grasses had not been cut."

Cutting Grasses Sometimes Not Advisable

In some cases cutting a heavy stand of grass may not be advisable. Heavy stands of grass may provide better protection against drying of the soil by sun and wind if standing than when cut. An example of this would be early-maturing grasses such as red top or Kentucky blue grass, which would be dry and largely stop transpiring after maturity. Furthermore, the cost of cutting is high and stubble may puncture apples in case they drop.

The After-Blossom Sprays For Apple Scab Control In Wisconsin

G. W. Keitt and C. N. Clayton

NO single spray program can be recommended as the best for apple scab control. The sprays used, especially in the after-blossom treatments, should be chosen to meet the conditions of the individual orchard as the season develops.

The requirements for insect control have a very important bearing on the scab program. In Wisconsin the calyx spray and an application about 10 days later are essential to the scab program, but the time and number of later applications are usually determined largely by requirements for insect control. Later protection is highly essential to scab control, but the details of application can usually be adapted to the needs for insect control.

The chief problem in the post-blossom part of the scab program is the selection of the fungicide. The choice will be determined chiefly by the need for scab control on the one hand and the danger of spray injury on the other. There are three main types of sulphur sprays to choose from. Lime-sulphur is the strongest of these from the standpoint of scab control, but it is also the most liable to cause injury. The very finely divided sulphur sprays, such as Flotation Sulphur paste and Mike Sulphur, are intermediate in effectiveness for scab control and for danger of injury. The coarser wettable sulphurs are somewhat less efficient fungicidally and less liable to cause injury.

The Lime-Sulphur Program

In situations in which the need for protection against scab seems to outweigh the risk of injury, liquid lime-sulphur may be used at 1-50 or 1-60 or dry lime-sulphur at 2½ to 4 pounds in 50 gallons. If applications are made at 10, 20 and 30 days after petal-fall the weaker dilutions are usually preferred. In such programs it is desirable to substitute a particulate sulphur spray in the 20- or 30-day treatment if the requirements of scab control will permit, rather than to use lime-sulphur continuously at 10-day intervals through this period. If scab is sufficiently under control, a paste wettable sulphur should be substituted for lime-sulphur in any post-blossom spray when hot weather prevails, unless the weather is excessively hot, in which case the fungicide may be omitted or the application delayed. High humidity in hot weather at the time of application increases the danger of lime-sulphur injury. It is generally regarded as dangerous to spray with lime-sulphur while the temperature is 85 degrees F. or higher. There is also danger of injury if the weather should turn very hot within a few days after the spray is applied. The use of lime-sulphur in this period, therefore, involves a risk that must be weighed against the danger of failure to control scab.

The Modified Lime-Sulphur Program

Unless the use of lime-sulphur seems to be necessary for scab-control, the substitution of particulate sulphur preparations may be desirable in some or all of the post-blossom sprays. The use of a program carrying treatments, such as the 10-day, 20-day, 30-day, and second brood codling moth applications, is necessary if such substitution is made. The finer particulate materials, such as Flotation Sulphur paste, 6-100, or Mike Sulphur, 5-100, are recommended, unless hot weather prevails, in which case the coarser wettable sulphurs may be used as recommended by the manufacturers. In this program lime-sulphur may be used in the calyx spray or at any other time when weather conditions are favorable and there seems need of strengthening the protection. It is usually preferred for the second brood codling moth application on badly scabbing varieties unless the weather is so hot as to make its use inadvisable. Under ordinary seasonal conditions in Wisconsin the greatest danger of injury is over by the time this application is made.

SPRAY HOSE BARGAIN

500 feet new, ½-inch, 600 lb. Pressure Spray Hose, at 22¢ per foot, delivered. Your order cut in one length, no splices. Cash with order. We must sell at a sacrifice, you reap the benefit. First come, first served.

Southeastern Wisconsin Fruit Growers Co-op, Inc.
Lester Tans, Sec.
Waukesha, Wis. Telephone Big Bend 2821 Route 3

Shall We Thin Apples

W. G. Brierley, Minnesota

ALTHOUGH the effects of thinning on the grade and condition of the harvested apple crop have been studied and the results presented clearly and logically, growers always have been reluctant to add this operation to their orchard management program. It has been shown that by far the most important cause of culls at picking time is small size. Thinning has been shown to result in an increase in size of the individual apples with only a slight reduction in total crop volume, because of the reduced competition for water and for the foods manufactured in the leaves. Color also has been improved by thinning for the same reason. Spraying is made more effective and the loss from worms and stings has been reduced greatly when apples have been thinned so that clusters are eliminated and contact between apples prevented. Records of the cost of thinning show that this operation does not add much to production costs as at harvest time there are fewer culls to be picked and sorted out of the marketable fruit.

Thin At Proper Time

Of course if thinning is to be given a trial it should be done at the proper time. We know that it is best to wait until after the "June drop" so that the actual set can be observed. Also, we know that the best results usually are obtained if thinning is done before the apples have grown enough to have used much of the food supply of the trees. To gain the full advantage of spraying it will be highly desirable to thin before the late June cover sprays are applied, because every grower knows that spraying is for protection and not for cure, and it is very desirable to protect apples that grow in clusters.

Thirty Leaves per Apple

Recent studies of what is called the "leaf-fruit ratio," or the relation of the number of leaves required for the proper development of a single fruit, show clearly that about 30 well developed leaves per apple are necessary for the production of good size, color and quality. When apples are borne in clusters, or when fruiting spurs are so close together that the apples touch, the leaf-fruit ratio is reduced to the point where the apples cannot develop properly. In order to get the proper number of leaves per apple it has been found desirable to thin so that the apples are spaced from 4 to 6 inches apart.

From The Minnesota Fruit Grower.

EXPERIENCE WITH BOYSENBERRIES

George C. Curtis, Merrill

FOR the last two winters our boysenberry canes which were lying on the ground went through the winter in fair shape and most of them showed signs of life when the snow went off (we had plenty of snow). They started to grow in the very early spring, really too early for our conditions, and in each spring were caught by late hard freezes. All canes except those that had accidental shelter due to weeds or other growth were killed back.

It is evident to me that if the boysenberry is to be grown here, it will have to be covered with straw or similar covering and kept covered until danger of heavy freezes is past. The job of trellising the vines is also quite a problem. The berries we have had were very attractive.

STRAWBERRY DAY

WEDNESDAY—JUNE 15

Sturgeon Bay

COUNTY FAIR GROUNDS

10:00 a. m. Program at Fair Grounds. Topics on strawberry varieties, fertilizers, soil management, etc.

Speakers: N. C. Jacobs, Sawyer; Don Reynolds, Sturgeon Bay; Prof. R. H. Roberts, H. J. Rahmlow, John Lilly, and E. L. Chambers, Madison.

12:00 m. Low priced luncheon served at Fair Grounds.

1:30 p. m. Tour to leading strawberry farms to study varieties and cultural methods.

TESTING NEW FRUITS

A. G. Dawson, Franksville

I NOTICE that a number of the new varieties of pears, from both the Minnesota and the New York Stations, are seedlings of Winter Nellis, a hardy and delicious variety. I have trees forty or more years old of this variety. There is room for a few new pears of winter varieties.

We have not found any of the Minnesota plums to be very heavy bearers. None of the latest varieties which we are giving a trial would equal America for production and size of tree. We are trying out some of the New York state varieties.

Will there come a time when we will have a peach variety hardy enough to stand any of our winters? We are trying out the Marquette, Hardee, and South Haven. We no doubt have a hardy apricot.

The recent frost greatly damaged the Crath walnut but did not damage the hicans or Japanese walnut. Is a time coming when we can no longer grow the cut-leaved weeping birch? Borers seem to be destroying them rapidly. Is there any remedy?

Pyrethrum, An Agricultural Crop

By T. C. Allen

(Continued from May issue)

When large enough, pyrethrum crop may be harvested the first season but a heavy bloom occurs the following summer. The plants are set out in rows much the same as cabbage using about 12,000 plants per acre. It is better to have the plants rather close together, from 20 to 24 inches apart, as the yield is higher and the stems stand up better. When the plants are too far apart the stems become irregular and harvest is very difficult.

Cultural practice involves clean tillage, and in cultivation care is taken not to cover the crowns of the plants. Regular cultivation is practical but after the first cultivation in the spring, only shallow cultivation is advisable. Fertilizer may be worked in in early spring or following harvest. Although soils will vary, usually an application of from 300 to 500 pounds of a 4-12-4 is recommended.

Harvesting

The pyrethrum crop is cut with a mower or self reaper and the flowers are separated by means of a powered cylinder. A field stripper has been recently developed which is very efficient. The flowers are dried preferably in the shade or artificially dried at 140 degrees F. or under. They are turned frequently to prevent heating and discoloration during drying. The whole dried flowers are then placed in bags or baled for market. These flowers will run from about .5 to .75 per cent pyrethrins.

Although no experimental work has been reported to indicate how successfully pyrethrum might be grown in Wisconsin, results of investigations in Ohio, Colorado, Michigan, and many other states show that pyrethrum may be raised as an agricultural crop. In view of the lack of information regarding the value and adaptation of this crop under Wisconsin conditions, it would seem advisable at this time for the grower to be somewhat reluctant in diverting much of his land to the growing of pyrethrum.

Things to Consider

Several important factors must be taken under consideration by growers who anticipate the growing of pyrethrum. First, although there will always be a demand for a quick-killing insecticide such as pyrethrum, we still have the threat of synthetic substitutes. At the present time the newly developed synthetic thiocyanates are being substituted for pyrethrum in many quick killing insecticidal preparations. The advantages of such synthetics is that they do not deteriorate in toxicity upon storage.

Prices May Drop

Secondly, although importations of Japanese grown pyrethrum flowers are now extremely high-priced, the market outlook for pyrethrum in the future should be considerably cheaper. This is because East Africa, Brazil and Yugoslavia are producing annually a greater tonnage of better quality flowers.

Seed

Lastly, a large supply of good reliable pyrethrum seed for wide spread distribution does not appear to be available at the present time. In certain areas in America where pyrethrum growing is being attempted, an organization has been formed so that available seed, baling equipment, and marketability of the product is guaranteed.

Information pertaining to the growing and marketing of pyrethrum in United States may be obtained from the following:

Colorado State College Experiment station. Bul. No. 401 and 428. Fort Collins, Colo.

University of Tenn. Experiment Station. Circular No. 59, Knoxville, Tennessee.

Crop Protective Institute. Mr. W. C. O'Kane, Chairman, Durham, N. Hampshire.

STRAWBERRIES PROTECTED FROM FROST BY MULCH

MR. J. R. Williams, proprietor of the Lake View Fruit Farms, Montello, who is a large grower of strawberries and vegetables, saved his strawberry crop from frost by mulching.

The folowing is Mr. Williams' statement of his method:

"We learned it was going to be cold and probably freeze by radio and started putting mulch on the berry field at noon, using three men with a tractor and trailer hauling into the field, with two men and six women doing the spreading. We covered about six acres during the afternoon. The rest of the berries were not far enough advanced to be in great danger.

"I do not think the labor item excessive and I certainly think it would pay for those who lose about 25% of their crop by frost.

"Mulching is not cheaper than irrigation, but in our case we were moving an irrigation system from one farm to another, and it wasn't ready for use at that particular time."

Gladiolus Gleanings

By the WISCONSIN GLADIOLUS SOCIETY

B. A. Robinson, Kenosha, President
K. J. Timm, Markesan, Vice-President
H. J. Rahmlow, Madison, Cor. Sec.
Otto Kapschitzke, Rec. Sec.-Treas. 1710 Illinois Ave., Sheboygan
Regional Vice-Presidents
Robt. Jantz, Eldorado
Frank Thomas, Kenosha
Chester Harrison, Waldo
Clarence Kunde, Oshkosh

Care of Gladiolus During July and August

R. W. Jantz, Eldorado

ALL indications point to a great year for gladiolus and many large and strong spikes should be shown at the coming state show at Sheboygan this fall. The first reason is that we have had plenty of spring rain and cool weather to hold the moisture. This makes better blooms and stronger bulbs.

My garden has been so wet this spring that I was unable to get a team of horses on it so the next best thing for me was to work the garden with a small hand cultivator on top to dry the land. When I started to plant my bulbs, I marked the row and then took the cultivator and worked a trench about eight inches deep and then planted the bulbs six inches deep. No fertilizer was used then but I will use liquid fertilizer when the plants show five leaves.

As soon as the plants show through enough to see the rows, I cultivate every week and also as soon as the soil is fit after each rain. This is done right up until the glads are in bloom. This keeps weeds down and makes stronger bulbs for the next season. If you have a few choice glads that might make the show, get some well-rotted manure and place in a barrel of water. In a few days put the water around the plants every week for about six weeks before blooming.

Much has been printed and said about thrip but I have decided to let nature take care of things this year. With the cool weather and weekly rains, I still think thrip cannot do much damage. So here's hoping we get the breaks this year.

I would like to see the Wisconsin Gladiolus Society place ribbons on the winners at the show this year and then issue a certificate with the winners' names and varieties that won in order to make a better record. Many of the ribbons are taken off by non-members. I am sure the certificate would make a fine record for all of the winners.

LARGE STATE GLADIOLUS SHOW PLANNED AT SHEBOYGAN

August 19-21

SHEBOYGAN gladiolus growers are planning for the 1938 Wisconsin Gladiolus Show with considerable enthusiasm. They insist that it will be the biggest and best show ever held in Wisconsin.

The Sheboygan Association of Commerce is backing up the show and has agreed to help out in case of a deficit. A printed premium book is being planned, to be paid for by advertising. The entire city of Sheboygan will be canvassed in an advance sale of tickets.

The following committees have been appointed for the 1938 show:

Show Manager—Fred Hagedorn, Sheboygan.

Finance Committee and Treasurer—Otto Kapschitzke, Sheboygan, chmn.

Floor Manager and Chairman of Entry Committee—Rudolph Grob, Sheboygan.

Premium List Advertising—Fred Pomerich, Sheboygan, chmn.

Advertising Committee—Otto Hagedorn, Sheboygan, chmn.

Publicity Committee—Harvey Kiel, Sheboygan, chmn.

Annual Banquet—Oscar Wolter, Sheboygan, chmn.; Chester Harrison, Waldo; Harvey Austin, Kohler; and Walter Axel, Sheboygan.

Supervisor of Judges—W. E. Menge, Oshkosh, chmn.

Premium List and Classification—W. C. Krueger, Oconomowoc, chmn.

Out-of-town Exhibits and Advertising—Dr. and Mrs. Geo. H. Scheer, Sheboygan.

DR. GEORGE H. SCHEER MENTIONED AS HYBRIDIZER OF GLADIOLUS

IN the June issue of the Country Gentleman magazine, Dr. George H. Scheer is mentioned among the newer hybridizers of gladiolus by Harry R. O'Brien in his article, "The Glad Hunt."

DONATIONS FOR GLADIOLUS SHOW COMING IN

IN a letter from Mrs. Mary Scheer, of Sheboygan, she states that donations from gladiolus growers are pouring in for the Wisconsin Gladiolus Show to be held at Sheboygan. Offers for donations to the premium list have been received from R. H. Burtner, J. H. Heberling, J. A. Hullibarger, Four Maples Farm, Herbert O. Evans, W. A. Sisson, Elmer Gove, Bancroft Winsor, E. H. Young, of Peoria, Swift and Company Fertilizer Works, John T. Majeski, and Azalea Pross of Pross Glad Gardens. Such varieties as Burtner's, Beautiful Ohio, Frostpink ornatus, Aladdin, Amulet, Amrita, Sari, Surfside, Buffette, Black Opal, Creve Coeur, Mary Ansteen, Maid of Honor, New Era and Shirley Temple are among the gladiolus donations. Marietta Sisson, Minnie Shalor, and Nippon Beauty are peony donations. Donations of Vigoro were also made.

BULBLET GERMINATION TEST

E. A. Lins, Spring Green

THE following are the results of our 1937 gladiolus bulblet germination test. Five hundred bulblets were used in each test.

	Hours	Germinated
Water	24	430
Lye	24	452
Muriatic Acid, 30 minutes	23½	264
Muriatic Acid Cut, 30 minutes	23½	250
Drain King	24	380
Sulphuric Acid, 15 minutes	23¾	350
Lysol Solution	24	246
Cracked		298
No treatment		285

Acids were used for the minutes listed and then twenty-four hours completed with water.

Over six-year period we are unable to recommend any acid treatment for bulblets. Lye looked promising in 1937, but 1936 germination was even 100 out of 500.

In the Garden

AFTER the heavy rains the middle of May, heavy soils became packed and hard. The value of such soil-loosening materials as peat moss, sand, leaf mold, or manure was then quite apparent. It is also quite important to loosen up the soil by turning it over with a spade or shovel so that when it again turns dry the soil will not be baked and hard thereby drying out rapidly.

We have been quite free from insects and diseases in our garden this spring due to a program of dusting with a sulphur dust containing an insecticide. This year we are using a sulphur and rotenone combination dust. The rotenone is one of the best insecticides for both chewing and sucking insects we have yet tried.

While our neighbors were complaining about the large number of dandelions in their lawn, we had very little trouble this year. The reason is probably that we use a nitrogen fertilizer — ammonium sulphate — once or twice each year in order to get a heavy, dense stand of grass. Then as the dandelion seeds fall on this dense sod, they fail to grow. The result is that we never bother about digging dandelions.

Japanese iris have been quite hardy with us, and yet the leaves seem to turn yellow in the spring. Our opinion is that since they require an acid soil, the yellowish color is probably due to the soil again turning sweet from watering with city water and the natural limestone in the soil. We therefore dug in several teaspoonfuls of alum around each plant.

Good drainage seems to be absolutely essential for good wintering of many perennials. Hardy chrysanthemums especially must have good drainage or they will not survive the winter. If your garden is flat, it probably will be necessary to grow such varieties in raised beds, although, of course, this is sometimes difficult to do.

Try rotenone dust on anthills in the garden. Our experience is that the ants disappear about three or four days after the dust is applied heavily on the hills.

What a difference in the appearance of a lawn following a heavy rain. Lawns require a great deal of watering. Never "sprinkle" the lawn. Apply water heavily so that it will soak down deeply.

Among the hardiest perennials we have ever grown are the new dwarf hybrid asters. They seem to survive under any type of wintering conditions and have to be divided frequently.

Wisconsin Gladiolus Show

Wisconsin's Largest Flower Show

Eagles' Hall, Sheboygan

August 19-21, 1938

AGICIDE
TRADE MARK
Use Proven Safe Insecticides
for
Controlling Garden and Crop Pests
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Editorials

KEEN INTEREST IN NEW FRUIT VARIETIES

INTEREST in testing new varieties of fruit under Wisconsin conditions seems to be increasing each year. This spring we offered to help our members purchase some recommended fruit varieties for testing.

Interest in the new hardy apricot introduced by Professor N. E. Hansen, of South Dakota, from Northern China brought requests from 81 members for 192 trees.

We recommended testing the six new varieties of grapes (Westfield, Hector, Golden Muscat, Yates, Brocton and Seneca) from the New York Experiment Station. This brought requests from 20 of our members.

The Taylor and Marcy red raspberries, introduced by the New York Experiment Station, created considerable interest. Six hundred of the plants were ordered by the Bayfield Peninsula Fruit Growers Association for distribution among their members, and, in addition, 43 members ordered through the Society.

A large number of scions of Kendall, Beacon, and Minnesota No. 1007 apples were distributed this spring free of charge to our members.

Many Orders for English Walnuts Received

The interest in the new Carpathian English walnut continues to surpass that of anything else recommended for trial. Three hundred and fifty pounds of the

seeds were imported through Rev. P. C. Crath, of Toronto, Canada, direct from the Carpathian Mountains of the Ukraine. Orders from 608 individuals were filled up to May 23. We answered approximately 2,000 letters of inquiry in regard to these walnuts.

FOLIO ON THE HEMEROCALLIS

A FOLIO monograph on Hemerocallis is being planned by Dr. A. B. Stout, curator of education at New York Botanical Garden. It will be a complete and authentic botanical and horticultural treatment of the daylilies.

There will be 24 colored plates 11 by 15 inches in size, about 25 pen sketches, and about 90 pages of descriptive text. It will be bound in attractive library buckram.

The price will depend upon the number of copies ordered in advance. Anyone interested in such a monogram should get in touch with Dr. A. B. Stout, or write the Macmillan Company, publishers, 60 Fifth Avenue, New York City.

BAYFIELD TO CHOOSE STRAWBERRY QUEEN AND KING JULY 2-3

THE Strawberry Queen and the Strawberry King will be crowned at the annual Bayfield Strawberry Festival to be held in the city of Bayfield on July 2-3.

Entries are now being taken by the Bayfield Peninsula Fruit Growers Association for the Strawberry King Contest. All growers of Bayfield County are urged to enter their fields, which will be judged by the Secretary of the Horticultural Society and the County Agent of Bayfield County. All neighboring counties and all counties interested in growing strawberries should hold contests to select the girl who can make the best strawberry shortcake, to be entered in the queen contest at Bayfield.

Other events will include a pageant, parade, and two days of celebration.

WISCONSIN IRIS SHOW

Milwaukee Public Service Building Auditorium, June 11-12

AN excellent exhibit of new varieties of iris is promised visitors at the Fourth Annual Iris Show in the Milwaukee Public Service Building Auditorium on June 11-12.

In addition, it will be possible to visit the flower show of garden clubs of West Allis, as listed in our flower show calender elsewhere in this issue.

NO MAGAZINE IN JULY

AS has been our custom during the past four or five years, Wisconsin Horticulture will not be published in July. The combined July-August issue should reach our members the last days of July.

Due to business conditions it has been almost impossible to get new advertising this year. This, together with the fact that we increased the size of Wisconsin Horticulture to 32 pages during the past five or six months, has made it necessary for us to economize on this issue in order not to exceed our budget. Still, where can you equal the value received for the price paid.

GARDEN CLUB RADIO PROGRAMS

DON'T forget that every Tuesday during the Homemaker's Hour over radio stations WHA and WLBL, from 10:00 A. M. to 10:45 A. M., there is a program of interest on gardening. During June the following will be presented:

June 14. Fort Atkinson Gardens, by the Fort Atkinson Garden Club.

June 21. Gardens at Elkhorn, by the Elkhorn Garden Club.

June 28. Flowers I Like for Midsummer. Mrs. G. R. Qualley, Madison.

HEARINGS MAY BE HELD ON CHANGING HONEY GRADES

A HEARING to eliminate the use of the packer's number on containers of extracted honey may be held by the Department of Agriculture and Markets at the three summer meetings scheduled for the Beekeeper's Association in this issue. Many beekeepers have requested that this ruling be eliminated on extracted honey but not on comb honey. Legal notices for the meetings may be given by the department later.

VISIT THESE FLOWER SHOWS

June 3-4. Spring Flower Show, Madison Garden Club — Unitarian Parish Hall, Madison.

June 9. Brandon Community Garden Club Spring Flower Show — Brandon High School Gymnasium. Admission, 10c.

June 10-11. Elm Grove Garden Club Flower Show—Leland School, Elm Grove. Hours: 2:00 P. M.—10:00 P. M., first day; 1:00 P. M.—9:00 P. M., second day.

June 11. First Annual West Allis Flower Show by the Juneau Heights, West Allis, and Hillcrest Garden Clubs—West Allis High School, S. 76th and W. National Avenues. Hours: 2:00 P. M.—10:00 P. M. No admission charge. Music by West Allis High School Ensemble.

June 11-12. Plymouth Spring Flower Show—Guild Hall. Admission, 15c.

June 17. Green Tree Garden Club Flower Show — Milwaukee County Day Junior School, Milwaukee. Hours: 11:00 A. M.—10:00 P. M.

June 23-24. Superior Garden Club Eleventh Annual Iris Show, sponsored by the Iris Club—Superior Water, Light and Power Building, June 23-24. Show open from 2:00 P. M.—8:00 P. M., first day; 10:00 A. M.—3:00 P. M., second day. No admission charge. Dates subject to change.

August 3-4. Waupaca Garden Club Flower Show — Public Library, Hours: 2:00 P. M.—9:00 P. M. Mrs. Ed. Hart, chairman.

August 13-14. Wausau Garden Club Annual Flower Show—Hotel Wausau. Admission free.

September 10-11. Milwaukee Art Institute Garden Club Flower Show—Art Institute, 772 N. Jefferson St., Milwaukee. Hours: 12:00 Noon—8:00 P. M., first day; 2:00 P. M.—5:00 P. M., second day.

CHERRY BLOSSOMS ATTRACT 16,000 TO DOOR COUNTY

NEARLY 16,000 persons visited Door County Peninsula on Sunday, May 15, to see the 8,000 acres of cherry trees in bloom.

The crowd was the largest ever to visit Door County for so early a bloom, the second earliest on record.

YOU ARE INVITED TO VISIT OUR PEONY GARDENS

W. A. Sisson

JUNE is the month of peonies. From around June 10 to the 20th will probably see the heaviest bloom in our gardens.

The season so far has been favorable in every way and the outlook is for the most perfect blooming time we have ever experienced. There is, of course, always a possibility of a wind storm, or a hail storm, that might spell ruin.

Fifteen years ago this coming fall I planted a Memorial Plot of peonies at the Riverside Cemetery in Oshkosh, consisting of 56 standard varieties. They are just coming into their own and from now on they will do well if they have the excellent care they have had so far.

We would like you to come here and to Oshkosh, and to those who wish it I will be glad to show how to plant and care for peonies. The perfect plant of many varieties of flowers is grown in one year, but the perfect peony plant takes from ten to fifteen years.

Good Varieties

Certain varieties of peonies do their best in different locations. For Wisconsin and farther north, Le Cygne, Mad. de Verneville and Marie Lemoine in the whites might cover the season. For pinks, Edulus Superba, Therese, and Grandiflora. For reds, Richard Carvel, Karl Rosefield, and Philippe Rivoire. There are hundreds of others to select from along with a great array of Japanese and singles. Mikado is the leading red Japanese, introduced into this country from Japan at the 1892 World's Fair at Chicago.

Old Man: "I'll give you a dime, little girl, if you give me a kiss."

Little Girl: "Pooh on that stuff—I can get a quarter for taking castor oil."

Home and Garden

Mrs. C. E Strong, West Allis

"WHAT do you do in your garden now?" So asks a gardener who says very kindly that she reads everd word in Wisconsin Horticulture because she does not want to miss anything helpful. She also says that she enjoys our page because she never knows what she will find there—and I wish to tell her that sometimes I wonder myself. However, we do appreciate knowing that the magazine is really helpful to the readers.

Necessary Work

In May I clean up all those tufts of June grass and white clover that entrench themselves so closely around the iris and delphinium, not to mention every other spot that is hard to get at. Then with a small spade and trowel I work up the ground thoroughly between plants, being especially careful not to injure bulbs and roots. With plants spaced quite closely, this means slow, careful work. While working up the soil is a good time to give a light application of some good commercial fertilizer.

Usually there are too many self sown plants of Elder Daisies, Hesperis Matronalis, and Cherianthus Alloni (Siberian Wallflower). These extra plants are taken out carefully to be used in some other garden where a filler is needed in tulip and iris time.

When this very necessary work is finished, there is a chance to do a few things that you seem to put off doing at the right time. When the ice did so much damage to the tulips several years ago, it left a number of places in the border bare of color in tulip time. There was a bed of mixed tulips in the back yard—about

four varieties, lovely by themselves but not so good looking in a mixture—that really needed to be taken up. So I decided to move them right then.

How To Move Tulips

You can move tulips in bloom, you know, although it is a fussy job and much easier to do at the right time. First the ground is taken out of each space where the tulips are to be planted to a depth of about 12 inches, the ground worked up well at the bottom, and thoroughly soaked with about two pails of water. Then each clump is carefully spaded out so as not to disturb roots or bulbs and each clump placed in the hole as soon as dug. When the hole is filled, dry ground is firmly packed around each clump and then watered thoroughly to make sure no crevices are left to dry out. Dry ground is sprinkled over the top, and the tulips look as though they had been growing there for years.

Later, when the tulips are through blooming, they can be moved and heeled in to ripen. The strip of ground will be covered with well-rotted manure, spaded deeply, and planted to chrysanthemums that will later be used for the fall display. Then this spot will be used for some peonies that are at present all too close to some trees and large shrubs to do well.

Seeds of annuals that will be used for the bare spots in the borders where the bulbs grow have been sown in the cold frame. Heavenly Blue Morning Glories are growing thriftily in pots, having been pinched back to make them sturdy and ready to set out when the weather is warm and settled.

Japanese Cherries

In this month of May two other gardeners and myself moved a number of Japanese cherries in full leaf from the nursery of the late W. J. Moyle. We regret to say that this most delightful spot to every gardener who visited it is a thing of the past. After the passing on of Mr. Moyle, a few years ago, the youngest son, "Mac", tried to keep on with the work, but the labor situation, along with the depression, proved too great an obstacle.

The Japanese cherries were one of the many things Mr. Moyle succeeded in growing. At first they froze back, but now they are seemingly getting to like our State of Wisconsin. They have bloomed in the nursery row. Because of our long friendship and interest in his father's work, "Mac" gave us the great privilege of trying to grow these trees in our home gardens. We are hoping that in a few years we may have a display of these lovely blossoms.

A Tribute

The Wisconsin Nursery and W. J. Moyle have passed on, but the memory of his wide knowledge

of plant life, his willingness to share this knowledge with all who asked his help, his interest in the gardens of many, his cheerful, good-natured way of forgetting the trouble we made him in our desire for something different for our beloved gardens, will not pass on. They will live in the memories of his many friends forever.

We Progress

A number of years ago, a speaker literally tore his hair because, as he expressed it, one would think, to see the average garden and home plantings, there were only two kinds of shrubs—Spirea and Barberry. He became almost breathless as he named shrub after shrub that could be used — shrubs that would give a long season of bloom—and then actually shouted at us, "But do you plant any of these beautiful shrubs? No! No! You only plant Spirea and Barberry."

I was reminded of this as I looked over the lists for new homes to be planted this spring. **No** Spirea and **no** Barberry. French lilacs in variety. Philadelphus Virginal. Flowering Almond. Hydrangeas in variety. Forsythia. Viburnums. Flowering crabs. Hamamelis (witch hazel.) Some of the Cytisus (hardy brooms.) Magnolias. Flowering quince. And as for evergreens, no one is even thinking of planting Austrian pines or blue spruce as a foundation planting. They have learned that those "cute" little trees grow up and fill in the whole yard as well as cover the windows. Junipers and Mugho pines seem to be the favorites. These lists lead one to hope that those stone piles, called rock gardens, in the center of the lawn, will some day silently steal away to the outer edges, wander up closely to the trunks of trees and proceed to feel at home. They do look so forsaken with no background whatever.

NEW LUPINES CREATE INTEREST

MOST gardeners have seen the new Russell Lupines advertised in seed catalogues. Unusual interest in lupines is being created as a result of these large flowers.

Many growers have not had success in growing lupines and some of their requirements should therefore be considered.

First of all, lupines grow best on a well-drained soil. They are often found on dry, sandy soils where they seem to grow in spite of some slight soil acidity. On heavier soils in a garden, therefore, drainage becomes a deciding factor.

Lupines are legumes. If they have not been grown in the garden before, it is well to inoculate the seed with genuine lupine commercial culture which can be purchased from many seed companies.

Whether lupines require an alkaline or acid soil has been a matter of controversy. However, many authorities claim that they require a slightly alkaline soil or at least a neutral one.

Winter protection seems important in sections where there is considerable winter moisture, and some authorities recommend covering the plants with roofing paper to keep off excessive moisture which causes crown rot and root rot.

It has been estimated that in a day the average farmer walks twenty-six miles, a letter carrier twenty-two, policemen fourteen, boys fifteen, girls eleven and a half, and housewives eight.

Kill

Insects With Your Garden Hose!

Use ROTOTOX or other spray this easy way.

Two-gallon sprayer, $3.75; 4-gal., $4.75; 8-gal., $6.00, postpaid, terms cash.

Directions Included

You will really enjoy spraying your garden with the handy sprayer illustrated. ROTOTOX is the ideal spray to use as it kills all insects whether chewing or sucking. It is non-poisonous to humans and animals.

Our free booklet gives directions for soaking Gladiolus bulbs and for spraying to control thrips, letters on Cyclamen mite on Delphinium, Rose pests, etc. Ask for our special bulletin on European corn borer in Dahlias.

ROTOTOX postpaid prices: 1 oz., 35¢; 8 oz. (makes 12 to 24 gals.), $1.00; 1 pint, $1.75; 1 qt., $3.00; ½ gal., $5.00; 1 gal., $10.00.

THE ROTOTOX COMPANY 812 Yale St., East Williston, N. Y.

Wisconsin Garden Club Federation News

Mrs. J. Martin Johnson, President
529 Woodside Ave., Ripon
Mrs. Chester Thomas, Hon. President
2579 Downer Ave., Milwaukee
H. J. Rahmlow, Cor. Secretary
Madison

Mrs. Sam Post, Rec. Secretary
Shorewood Hills, Madison
Mrs. E. A. St. Clair, 1st V. President
2418 N. 65th St., Wauwatosa
Mrs. Charles Schuele, 2nd V. President
Oconomowoc

GARDEN CLUB CONFERENCE WELL ATTENDED

A DAY filled with visits to beautiful gardens and attendance at very instructive meetings was enjoyed by officers and committee members of Wisconsin garden clubs at Oconomowoc on Saturday, May 21.

The rock garden at Rogers Memorial Sanitarium was at its best. Dozens of varieties of beautiful flowers were in bloom and most visitors spent the entire forenoon in this garden.

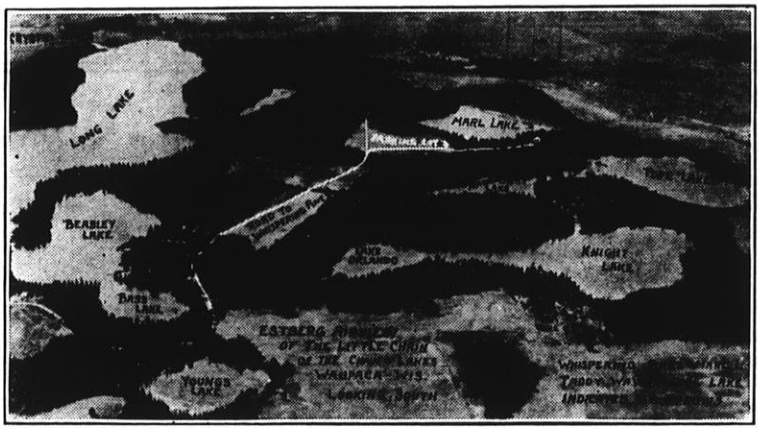
The LaBelle Garden Club of Oconomowoc furnished a most delicious luncheon in the high school during the noon hour. This was followed by an excellent program. Mrs. R. B. Felton, of the Racine Garden Club, presented a most interesting discussion of the origin of many of our garden flowers. Mrs. Lyle Nash had prepared a year's budget for a garden club which was presented by Mrs. A. G. Derse of the LaBelle Club. Mrs. G. H. Schuele, general chairman of the meeting, told how to prepare a year's program for the club. This was followed by an excellent talk on highway beautification by Mr. K. L. Shellie of the Regional Planning Department, Madison. His theme was that all highways must have usefulness, safety, and beauty.

The forum rooms, following the general program, were crowded. The total attendance was about 125. There were five different forum meetings and judging by the animated discussion in each of the rooms, they were most profitable.

WHERE MEMBERS OF THE WISCONSIN GARDEN CLUB FEDERATION WILL HOLD THEIR SUMMER MEETING

In the shade of this inviting hut at Whispering Pines, the summer home of Christ Hyldgaard on the Chain o' Lakes, Waupaca, 40,000 visitors left their comments about its beauty last year. Here members of the Wisconsin Garden Club Federation will spend the large portion of Saturday, July 30.

An aerial view of the little chain at Chain o' Lakes shows the location of Whispering Pines on Marl lake. The parking ground indicated accommodates visitors' cars.



ATTEND THE SUMMER CONVENTION

The above pictures give an indication of the beauty of the places to be visited by garden club members during the Federation summer meeting and picnic at Waupaca. We are informed that special arrangements have been made by the Waupaca Garden Club for boat rides through the Chain o' Lakes, the rate to be only 15c per person. At least five outstanding gardens will be visited.

ANNUAL SUMMER MEETING AND PICNIC WISCONSIN GARDEN CLUB FEDERATION

Waupaca — July 30-31

Hosts — The Waupaca Garden Club

Saturday, July 30

Call at the Information Booth on Courthouse Square, Main Street, Waupaca, for program, directions, and reservations.

10:30 A. M. To "Whispering Pines" on Marl Lake. Visit the gardens of "Whispering Pines" and "Taddy—Wa Wa." These two large privately-owned gardens have many interesting features.

12:00 Noon-1:30 P. M. Picnic Luncheon at Whispering Pines. Bring your own luncheon and cups. Free lemonade and coffee will be furnished. Ice cream and other refreshments will be sold.

1:30 P. M. Garden Program. Speakers to be announced. Short business meeting.

2:30 P. M.-5:00 P. M. Visit gardens on the lakes and in Waupaca.

5:00 P. M.-7:00 P. M. Dinner in city. Guests find lodging quarters.

7:00 P. M. Campfire program. Music by the Waupaca High School Band under the direction of Director Weber.

7:30 P. M. The early history of the Chain O'Lakes Region. Mr. Charles Brown, Director of the State Historical Museum, Madison.

A talk about the stars under the stars. Professor C. M. Huffer, University of Wisconsin.

Sunday, July 31

8:00, 9:00, and 10:00 A. M. Boat rides through Chain O'Lakes from Edmunds Dock. Takes one hour for the trip.

Visiting gardens. Church services in Waupaca churches.

Sunday noon and afternoon program to be announced.

Notice: Be sure to make reservation for room or cabin early. Write Mrs. O. F. Peterson, 333 W. Union St., Waupaca, Housing Chairman, for information.

Committee Chairmen

General Chairman: Mrs. Orville Peterson, 333 West Union St.
Reservations and Housing: Mrs. Sam Solon, 112 Harrison St.
Registrations: Mrs. P. J. Christofferson, 604 S. Main St.
Program: Mrs. Theo. J. Peterson, 319 Harrison St.
Refreshments: Mrs. J. W. Carew, South Washington.
Both Registrations: Mrs. Edward Hart, 411 South State.
Publicity: Mrs. C. H. Cristy, 313 Lake.

Garden Club Flower Show At the State Fair

August 20-21-22

IN this issue will be found the premium schedule of the Garden Club Flower Show to be held during the first three days of the Wisconsin State Fair.

Here is an opportunity for garden clubs to win cash prizes on exhibits and interest the public in the value of garden club work.

May we suggest that the first three days of the Wisconsin State Fair be made "Garden Club Days at the State Fair." Perhaps one of the days, either Saturday, August 20, or Sunday, August 21, can be set aside as a garden club day and all garden club members visit the fair flower show and have the opportunity of visiting with each other. We suggest that a special booth be set aside in the Horticultural Building for the use of garden club visitors and officers. Here literature on how to organize garden clubs might be given to anyone interested and a committee be present to answer questions and confer with those interested in organizing clubs in their communities.

Thousands of people pass through the Horticultural Building at the State Fair each day. Here is an opportunity for advertising the garden club movement.

A FINE SUMMER MEETING IN STORE FOR GARDEN CLUB MEMBERS

A MOST interesting and pleasant summer meeting and picnic is being planned for the Wisconsin Garden Club Federation members by the Waupaca Garden Club.

A visit to Whispering Pines and Taddy Wa-Wa alone is worth the trip.

There are many tourists and visitors in Waupaca during July. Rooms and cabins will be difficult to get, so we urge our members to make reservations just as soon as possible. Write Mrs. O. F. Peterson, 333 West Union Street, Waupaca, general chairman. State how many there will be in your party and what type of room or cabin you desire.

Protect Your
FLOWERS and EVERGREENS
Niagara Dust
for diseases and insect control may be obtained from the Wisconsin dealers listed below.

Central Wisconsin Seed Co., Waupaca
Fertilizer Chemical Mills, Inc., Milwaukee
F. R. Gifford Co., Madison
Lester F. Tans, R. 3, Waukesha
D. P. Wigley Co., Racine
Platten Products Co., Green Bay
Clark Grain & Fuel Co., Chippewa Falls
Fruit Growers Co-op, Sturgeon Bay
A. T. Bronstad, Rice Lake
Hein Implement Co., Ladysmith
J. M. Stobbe, Berlin
H. A. Merget, Plymouth
George McNeeley, Wausaukee
Coleman Elevator Co., Coleman
Suring Farmers Mercantile Co., Suring
Outagamie Equity Co., Appleton

Niagara Sprayer and Chemical Co., Inc.
J. Henry Smith, Sales Rep.
Waupaca, Wisconsin

Wisconsin State Fair Garden Club Flower Show

August 20-21-22

The Wisconsin Garden Club Federation will cooperate with the Wisconsin State Fair this year in staging a three day garden club flower show. A special premium list has been arranged by the Fair for this exhibit. We are giving a synopsis of the premium list, but for more details and rules, write the State Fair Park, West Allis, or E. L. Chambers, Superintendent of State Fair, Capitol, Madison, for a premium list.

All judging will be done according to the Wisconsin non-competitive judging system. All entries must be in by August 10. Entries may be sent to the State Fair Park, to Mr. E. L. Chambers, State Capitol, Madison, or to Mrs. Chester Thomas, 2579 Downer Avenue, Milwaukee, who represents the Federation Board on the flower show.

The premium list includes the following:

Little Gardens

Class 19. Any type of Little Garden. Size—8 x 12 feet with wall space. All materials to be supplied by exhibitors. Entries limited to five gardens. Awards: $25.00 will be awarded each garden scoring 75 points or more on the score card.

Flower Arrangement Tables

Class 20. A table of seven bouquets of more than one variety of garden flowers, one variety predominating as the point of interest. The same variety should not predominate in every bouquet.

Class 21. A table of seven artistic arrangements of annuals in vases, each bouquet containing more than one variety.

Class 22. A table of seven arrangements of more than one variety of flowers in low bowls.

The tables are twelve feet long. Covers and containers are to be furnished by exhibitors. Limit of fifteen tables. Premiums :$7.00 for each table scoring over 75%.

Shadow Boxes

Class 23. Arrangement showing Oriental influence.

Class 24. Fruit or vegetable arrangement.

Class 25. Arrangement of more than one variety of either perennials or annuals.

Entries limited to 15 shadow boxes. Size of boxes, 30 inches tall, 24 inches wide, and 18 inches deep. Boxes to be decorated by exhibitor. Premiums: $4.00 for each shadow box scoring over 75%.

Dinner Tables

Class 26. Informal dinner table set for four, with flowers for centerpiece.

Class 27. Special occasion table set for four, using fruits or flowers or vegetables for centerpiece.

Class 28. Garden luncheon table; fruits or flowers for centerpiece.

Limit of fourteen tables. No silver or napkins. Premiums: $4.00 will be awarded each table scoring over 75%. Size of tables, about 48 inches by 48 inches.

Bouquets of One Variety

Cash premiums are awarded on first, second, and third prizes on the varieties of flowers listed below. They will be judged as follows: Quality of flowers—50%; arrangement — 50%. Each variety is entered as a separate exhibit in the name of the garden club with the exhibitor's name also appearing. Vases furnished by State Fair, but privately-owned vases or bowls may be used.

Varieties: Calendulas, China Asters, Cosmos, Gaillardia, Marigolds, Zinnias, large type; Zinnias, small type; Phlox, Salpiglossis, Scabiosa, Hemerocallis or Lemon Lily, Gladiolus, Nasturtium, Centauria, Dahlias, Perennial Asters, Petunias, Annual Phlox, Nicotiana, Celosia, any type, and any other variety.

An exhibitor's season ticket must be purchased by each garden club entering, which is good for only the garden club entries. Price per ticket, $2.00. The club can make only one entry in any one class. Judging begins at 9 A. M. Saturday, August 20.

PROGRAM PLANNING

Mrs. Elmer L. Sevringhaus
Program Chairman, Madison

AMONG programs received recently are those from Menasha, Waukesha, Fort Atkinson, Iola, Hillcrest Garden Club, Blue Mound, Racine and Lodi.

With the pale green wall-paper covered program from Menasha comes a similar miniature with blank pages for note taking at meetings. Clever and thoughtful! Of special note was their February meeting on "Parade of trees that flower," and "Tree physiology", followed in March by a discussion of planting a tree on the new high school grounds. No doubt they chose a flowering one! "Hardy vines," "Garden accessories", "How to water your garden without injury to stalk and flowers", and "Shrubs that bloom in the fall" are among their subjects showing intelligent planning.

Waukesha also is planting a tree, theirs to be on the municipal hospital grounds. In May and July the club will visit members' gardens. In October gourds make an unusual subject—"Varieties and how to grow them", and "Drying and Curing of gourds", timely help for a new garden interest.

Most helpful also should be Fort Atkinson's May discussion of "Porch and window boxes for sun and shade", and later, "Summer flowering bulbs" and "Color effects in the garden".

Iola's garden club is divided into four working groups. It would be of interest to know more about their plan. How wise of Iola to arrange for three outdoor meetings, two in gardens and one with a pot-luck supper in a park! Why not copy their idea more frequently?

The other programs will be reviewed in next month's column. I hope we all may benefit by the kindness of the many clubs sending their programs. And for June, I wish you happy gardening!

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GARDENS OPEN FOR VISIT

THE Madison Garden Club lists the following gardens open for visit during the summer. The gardens are those of Messrs. and Mesdames Sam Post, Shorewood Hills; George Harbort, Sun Prairie Road; H. S. Bostock, Mendota Beach; W. T. Lindsay, 942 Lake Court; Arthur Connaughton, 705 Riverside Drive; Forrest Middleton, Shorewood Hills; Otto Nieman, Seminole Highway; and F. E. Ballard, Middleton Road.

Hales Corners Gardens. Mrs. Harry Berger, R. 1; Mrs. John Paul.

Iola Gardens. Mrs. G. H. Irwin; Mrs. Jacob Rosholt, R. 3; Mrs. J. L. Larson; Mrs. O. J. Aasen; Mrs. B. M. Gordon; Mrs. Ed. C. Knutson; Mrs. E. A. Lutz; Mrs. Arthur Moore, Ogdensburg; Mrs. Walter Staub, R. 1, Scandinavia.

Lake Geneva Gardens. Mrs. E. J. Terres, 1024 Wisconsin St.; Mrs. Louis C. Sandel, 1031 Main St.; Mrs. A. B. Dickinson, South Lake Shore Drive; Mrs. Allen E. Peacock, 613 Geneva St.; Mrs. H. L. Macdonald, 915 Main St.

Madison, West Side Garden Club Gardens. Mrs. J. N. Harris, 1713 Summit Avenue; Mrs. Freas M. Long, 206 Virginia Terrace; Mrs. E. J. Kallevang, 4130 Iroquois Drive; Mrs. Geo. Qualley, 2303 Hollister Ave.; Mrs. H. J. Rahmlow, 2315 Regent St.; Mrs. H. H. Reese, 3431 Circle Close, Shorewood Hills; Richard Vaughn, 3841 Nakoma Road; Mrs. Walter Dakin, 4110 Mandan Crescent; Mrs. S. T. Odegaard, R. 1. Waunakee; Mrs. J. F. O'Connell, R. 1, Waunakee; Mrs. E. L. Roloff, R. 2; Mrs. John C. Wilken, 2637 Mason Street.

Waukesha Gardens. Mrs. J. B. Christoph, 306 West Avenue, N.; Mrs. W. A. Christoph, 102 West Avenue, N.; Mrs. F. W. Kramer, 229 Fountain Ave.; Mrs. Charles Rhode, 217 Fountain Ave.; Mrs. Effe Smith, 124 Garfield Ave.; Mrs. P. H. Leineger, 615 Beechwood; Mrs. Phil Olson, 1109 Ellis St.; Mrs. A. C. Hartman, 151 College Ave.; Mrs. Margaret C. Peterson, 119 W. College Ave.

Waupaca Gardens. Mrs. O. F. Peterson, 333 West Union; Mrs. Joseph Bissig, 471 Oak St., Wisconsin Rapids; Mrs. Geo. W. Mead, Belle Isle, Wisconsin Rapids; Mrs. Stanton Mead, 730 First Avenue S., Wisconsin Rapids; Mrs. Michael Woolf, 1131 Third St. S., Wisconsin Rapids; Dr. D. Waters, 1241 Third St. S., Wisconsin Rapids.

Kohler Gardens. Messrs. and Mesdames Walter Kohler, Riverbend; A. G. Kroos, 425 Church St.; F. W. Eppling, 238 E. Park Lane; F. W. Hooslif, 523 Audubon Road; E. A. Ring, 562 Roosevelt Road; Elmer Klawitter, 429 Church St.; Mrs. Walter Ring, 573 E. Riverside Drive; Mr. William Berlin, 466 Church St.

Sheboygan Gardens. Messrs. and Mesdames Wm. Hubert, 426 Erie Avenue; Wm. Hamacheck, 2316 N. Sixth St.; Thomas Olson, 1604 S. Tenth St.; J. V. R. Evans, 622 Ontario Ave.; Fred Leicht, 710 Dillingham Ave.; Ed. Jensen, 704 Dillingham Ave.; Mrs. Hugo E. Sperling, 1311 Maryland Ave.; Mr. E. D. MacBride, 2327 N. Third St.; Rev. and Mrs. McCreary. Also Vollrath's Park on North Second Street, and Terry Andrae State Park, about 5 miles south of Sheboygan east of highway 141.

SOUTHERN DISTRICT HOLDS SPRING SHOW

Mrs. F. H. Taggart, Lake Geneva

ENTERING a garden path, banked on either side with blossoming spring shrubs, potted ageratum and delicate pink geraniums, visitors to the Town and Country Garden Club's Annual Spring Flower Show, held this year in conjunction with the South Central District Show, passed under a snow white archway, through gates into the main show room of the Horticultural Hall at Lake Geneva on May 14 and 15.

If one could resist passing the lovely yellow cart filled with potted plants being sold by charming young girls, one saw a miniature of Flanders Field. Then the tables, which seem to be more lovely each year.

The Flower Arrangements were separated from the miniature arrangements by exhibits of potted plants from our near-by nurseries.

The judging was done entirely by the new merit system.

Outstanding for originality and interest was a shadow box named "Mr. McGregor's Garden" with every detail of the artist's description included. There was an interesting and instructive display of garden books, bird houses, and trellises, as well as urns, garden benches, furniture, sun dials, bird baths, etc.

In spite of bad weather, there was an excellent attendance. The committee members and exhibitors from the garden clubs of Lake Geneva, Jefferson, Fort Atkinson, Whitewater and Elkhorn deserve much praise for their splendid work.

Intemperance

Those men who destroy a healthful constitution of body by intemperance and an irregular life, do as manifestly kill themselves, as those who hang, or poison, or drown themselves.

—Sherlock.

Rotonone Dust

For Controlling Destructive Insects In Flower and Vegetable Gardens

McConnon Insecticidal Dust is especially prepared for use in hand or power dusters and will control most garden insects troublesome at this time.

Available in 1 lb., 5 lb., 25 lb., and 75 lb. sizes.

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Fertilizing — Tree Moving

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2333 N. Murray Ave. Milwaukee, Wis.
Lakeside 2907

Successful Flower Arrangement Schools Held

THE two flower arrangement schools conducted by the Wisconsin Garden Club Federation at Fort Atkinson on May 18 and at Menasha on May 19, proved more successful than anticipated by the officers and committee in charge. Mrs. Christine Whitlock, of Glen Ellyn, Ill., proved a most popular speaker and demonstrator on the art of flower arrangement. She, together with her sister, had prepared a number of excellent arrangements which she discussed in addition to presenting fundamental principles for making them. She emphasized the need for a careful study of the fundamental principles of flower arrangement and art before attempting to become original or making arrangements showing one's individuality. Hard work and study is the basis for future success, she emphasized.

Miss Merle Rasmussen, of Oshkosh, gave an excellent talk on the perfection of bloom classes at our flower shows and how to exhibit and judge them. She called attention to the need for more classes of this kind at our shows to create interest on the part of flower lovers who specialize in new varieties.

Mrs. Ed. Hoebel, of Madison, gave a demonstration and discussion on the art of table arrangement and setting and shadow box exhibit. She had prepared several excellent arrangements which she demonstrated on a dinner table set with attractive dishes and glassware.

Mrs. Samuel Post, of Madison, spoke on the organization of our 1938 Flower Shows, outlining the various committees which should be appointed and how to meet some of the problems which every show management faces.

H. J. Rahmlow outlined the use of the new method of judging, which has become popular in Wisconsin. It was suggested at the Fort Atkinson meeting that this new system be called the "merit system." It is not designed to give more people prizes but to give each person **what he deserves** on his exhibit. The exhibits are judged according to a standard of perfection and when the exhibitor receives a blue ribbon it means that the exhibit rates "excellent" and not that it is just better than that shown by someone else, as is the case in the old system, where first, second, and third prizes only are given.

Among the interesting features of the meetings was the discussion by a committee of judges of a number of artistic arrangements, dinner tables, and shadow boxes prepared by local committees, which had been judged under the merit system by those in attendance.

Quite unusually, the attendance at both meetings was approximately the same, i. e., about 60 at each meeting. The expenses were rather high and there will be a deficit of approximately $10 which will be taken from the Speakers' Fund.

The committee wishes to thank the officers and committees of the Fort Atkinson and Menasha Garden Clubs for their excellent cooperation.

WRITING WHILE TRAVELING

When necessary to write while traveling in an automobile, train, or bus, press the elbows into the body just above the hips, and you will find the task easy.

FILLING WINDOW BOXES

AS a rule there is not much variety of material seen in the average window boxes. A typical arrangement is red geraniums and variegated vincas. One has to go to seaside resorts to see really fine arrangements, in which not only geraniums but petunias, verbenas, heliotropes, tuberous-rooted begonias, browallias, fuchsias and such trailers as English ivy, German ivy, green-leaved vincas, ivy-leaved geraniums and other materials are used.

Window boxes require a rich soil, as the rooting area is limited for the number of plants usually crowded into them.

Window boxes have a limited use in America as yet compared with the older European countries. In great cities like London the contents of the boxes used at some of the big stores and hotels are changed several times in the course of a season; chrysanthemums are used in autumn and these are followed with evergreens, those carrying bright berries being used for winter effects.

Condensed from The Florists' Review.

GARDEN CLUB OF ILLINOIS ELECTS OFFICERS

MRS. George Plamondon, of Wheaton, Ill., was elected president of the Garden Club of Illinois at their annual meeting this spring.

Mrs. A. C. Weber, of Freeport, was elected first vice-president, and Mrs. Clinton O. Dicken, of Hinsdale, corresponding secretary. Mrs. Raymond Knotts, Berwyn, Ill., is editor of "Garden Glories."

The date for the next Chicago Flower Show will be March 26-April 3, 1939.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

OFFICERS

A. J. Schultz, Ripon, President
Walter Diehnelt, Menomonee Falls, Vice-president
H. J. Rahmlow, Madison, Cor. Secy.
Mrs. E. Voigt, Box 60, Menomonee Falls, Recording Secretary-Treasurer

DISTRICT CHAIRMEN

S. P. Elliott, Menomonie
N. E. France, Platteville
Edw. Hassinger, Jr., Greenville
F. J. Paepke, Burlington

STATE ASSOCIATION GROWING FAST

DID you know that during the past year 145 new members have joined the Wisconsin State Beekeepers Association? The total paid-up membership is now about 400. We have received many new enthusiastic memberships through the county associations which were organized this spring. Mr. C. D. Adams, our state inspector, deserves much credit for his work in this connection.

Let's get all of our neighbor beekeepers to join the association so that they can attend the summer meeting.

If you will send your membership dues promptly when you receive the notice, it will save missing copies of Wisconsin Horticulture and Wisconsin Beekeeping.

With an increase in membership, which means an increase in funds, we can hold bigger and better meetings and carry on a better program of work.

Ernestine Voigt, recording secretary-treasurer, Menomonee Falls.

From Clark County

By Frank E. Greeler, Neillsville

The outlook for a honey crop is very good in Clark County. The beekeepers took good care of the bees by feeding.

From Janesville

By S. J. Riesterer

Our bees wintered very well. They are strong and ready to go to work. This locality is blessed with clover everywhere, even in old June grass pastures this year. Looks like we are going to have a good honey crop.

AROUND THE STATE WITH OUR BEE-KEEPERS

From Kaukauna

By George Jacobson

THE weather was quite cool and rainy during the middle of May, with some heavy frosts. It was too cold and windy for the bees to do much flying and they did not get much nectar from fruit bloom or dandelions.

Many colonies are weaker now than they were when taken out of the cellar and some have dwindled to very weak colonies. In fact, they dwindled to the point where they often could not take care of the brood and many colonies in this section were almost starving, so lots of feeding will have to be done to get them in shape for the clover flow.

The clover is flowing fine. Alfalfa is tall and may not yield if the season is wet. The sweet clover looks good.

From Sheboygan County

By Gerald J. Wentz

Sheboygan County had a heavy winter loss due mostly to starvation. The remaining colonies are in good shape. All clover is in fine condition and the prospects for a good honey flow are encouraging.

From West Bend

By Paul J. Cypher

There are not many bees left in this section. In some cases where beekeepers had from 5 to 50 colonies many have only one colony left and some none at all. We now have plenty of moisture and the clover looks good with good prospects for a crop for those colonies that are left.

From Northern Wisconsin

By Frank P. Reith, Boyd

Conditions do not look any too well at the present time. The raspberries do not look as good now as they did several weeks ago. Clover looks good at Boyd. Plenty of pollen came in this spring and most colonies are in good condition in spite of cool weather.

From Grant County

By Ralph A. Irwin, Lancaster

Bees were in poor condition at the beginning of fruit bloom. No pollen was held over and little is coming in. Most of the time during fruit bloom it was too cool or rainy for bees to fly.

IT'S SECTIONS THAT COUNT

in the production of Comb Honey!

• • • •

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—For that Glossier Polish which enhances the appearance of your Comb Honey!

WHEN BETTER SECTIONS ARE MADE, LOTZ WILL MAKE THEM

A complete line of other bee supplies listed in our new 1938 catalog. Write for your free copy.

August Lotz Company
Boyd, Wisconsin

STRENGTHENING WEAK COLONIES

WHY is it that in almost every apiary there are some colonies that become very strong, even by the middle of May, while others make little or no progress and are still weak.

There are several angles to the question which we hope will be answered during our summer meetings. In the meantime, what can we do to strengthen the weak colonies? Perhaps as good a way as any is to shake a frame or two of young bees in front of the entrance of the weak colony, shaking them from a strong colony, possibly so strong that it is likely to swarm early in the season.

If this is done during the middle of the day when the bees are flying freely, then the old field bees will fly back to the original hive while the young bees will go into the entrance of the weak colony and be of much greater help in building it up than will a frame of brood. Furthermore, it is never a safe practice to exchange frames of brood, due to the danger of spreading disease.

AROUND THE STATE

MR. Newton Boggs, of Viroqua, writes, "Bees have built up rapidly this spring. Almost all have consumed an enormous amount of feed. The last ten days (written May 16) have been hard on most bees."

THEFT CONTROL

CONSIDERABLE interest was aroused recently when a thief was caught as a result of the work of the Brown County inspector, Mr. Thomas Cashman. The thief was convicted by the local judge and no doubt will serve as a warning against further raids on bee yards in that section of the state.

In Ohio the State Beekeepers Association has adopted the plan of providing "warning posters." A committee was set up to lay the plans. Fifty dollars has been set aside as a "warning poster fund." The reward sign provided by the state association provides for $10 as a reward for evidence leading to the conviction of persons stealing or molesting an apiary.

The cost of the sign to members will be double the actual cost of printing and mailing, the profits to be placed in the warning poster fund.

What do our Wisconsin beekeepers think? Is such a plan of value and should we adopt a similar plan here in Wisconsin? If it is we should ask our president to appoint a committee to consider the matter at once for presentation at the summer convention.

A SEASON WHEN GOOD BEEKEEPING PAYS

BEEKEEPERS who did not watch their colonies lost many from spring dwindling and starvation, according to reports. Cool, wet weather prevented bees from gathering nectar from early flowers which resulted in starvation and stopping of brood rearing. Colonies with plenty of stores, however, are in excellent condition.

BEEKEEPERS MEETING AT DUBUQUE

SOUTHWESTERN Wisconsin beekeepers are invited to attend the summer meeting of the Iowa beekeepers to be held at Dubuque on June 17-18. The meeting is being held by the Iowa Beekeepers Association cooperating with the Dubuque County Association.

The two days will be devoted to a program of topics by authoritative speakers, contests, and an evening program of movies on the honey bee.

The meeting will be held at Eagle Point Park in the city of Dubuque.

MILWAUKEE COUNTY ASSOCIATION HAS EXCELLENT MEETING

THE Milwaukee County Beekeepers Association had a very fine meeting early in May. The business meeting was very ably conducted by Mr. Frank Brown, the president, and Mr. O. T. Bernau, secretary-treasurer. This was followed by a social evening at which there was an attendance of about 60. Cards were played and a very fine supper served afterward. Many of the members joined the State Beekeepers Association.

I wish that some of our other county association members could see how fine these evenings turn out and how the beekeepers enjoy them.

Our next meeting will be a picnic at Mr. L. Figge's apiary on Highway 74 near Port Washington Road, Milwaukee, on July 10. We wish to extend an invitation to any of our state association members to attend.

Walter Diehnelt, Honey Acres, Menomonee Falls.

ANNUAL SUMMER MEETING AND PICNIC

Ladies Auxiliaries Wisconsin State Beekeepers Association

Forest Junction — Otto Apiary
Friday, July 22
Mrs. Frank Ortlieb, Chilton, chmn.

Chippewa Falls — Irvine Park
Sunday, July 24
Mrs. S. P. Elliott, Menomonie, chmn.

An excellent program is being prepared by the officers of the Auxiliaries. Mrs. Malitta Jensen, Madison, has been invited to be the principal speaker. The Auxiliary will have charge of the luncheon. A good time is planned.

The wives of all members of the State Association should attend and join the Auxiliary.

SUMMER MEETINGS—WISCONSIN BEEKEEPERS ASSOCIATION

Eastern Wisconsin Meeting

COOPERATING WITH FOX RIVER VALLEY DISTRICT
Apiary of Leonard Otto, Forest Junction

Friday, July 22

Celebrating the 50th anniversary of the first honey crop produced in the John S. Otto and Son, Leonard Otto, Apiary. Apiary established in September, 1887. First crop produced in 1888. One of Wisconsin's most successful apiaries.

10:00 A. M.-12:00 M. Assemble at the Otto Apiary. Visiting. Inspection of apiaries. Demonstrations. Beekeeping equipment exhibited.

Noon Luncheon

A cafeteria-style luncheon will be served under supervision of the Ladies Auxiliary. Each family should bring sandwiches and a dish which will be placed on a table and served cafeteria style. The Auxiliary suggests one of the following dishes: Potato salad, honey baked beans, vegetable salad, meat loaf or cold meat, honey cakes or cookies, pickles or relish.

Be sure to bring plates, cups, silverware, and glass for lemonade. Free lemonade and coffee will be served by the Association. Ice cream will be sold.

PROGRAM

Mr. Edward Hassinger, Jr., district chairman, presiding

1:30 P. M.

Address of Welcome. Leonard Otto.

Response. A. J. Schultz, president of the State Association, Ripon.

Fifty Years of Beekeeping at Forest Junction. A short history of the Otto Apiary. Robert Haese, Forest Junction.

What the Central States Bee Laboratory is Doing. New findings on supersedure, pollen, and two-queen management. Dr. C. L. Farrar, Madison.

Progress in Foul Brood Control. E. L. Chambers or C. D. Adams, Madison.

What is New in Beekeeping. Prof. H. F. Wilson, Madison.

Representatives of the Dadant Company, G. B. Lewis Company, and A. I. Root Company may be with us and will speak.

Western Wisconsin Beekeepers Meeting

CHIPPEWA FALLS — SUNDAY, JULY 24

10:00 A. M.-11:30 A. M. Visiting at the apiary of E. A. Duax.

To get there, take Highway 53 north to Eagleton. Turn right ½ mile at sign pointing to apiary. Turn left 1 mile and to the right 1½ miles. Twelve miles north of Chippewa Falls.

11:30 A. M.

To Irvine Park, Chippewa Falls. Cafeteria luncheon. Bring dishes as suggested for Eastern Wisconsin meeting. Ladies Auxiliary in charge. Free coffee and lemonade.

AFTERNOON PROGRAM

S. P. Elliott, Western District chmn., presiding

1:30 P. M.

Address of Welcome. E. A. Duax.

Response. A. J. Schultz, president of the State Association, Ripon.

What the Central States Bee Laboratory is Doing. Dr. C. L. Farrar, Madison.

Balance of program to be the same as given above for the Eastern meeting.

Notice: Supply dealers and manufacturers are invited to exhibit their bee supplies.

SOUTHWESTERN DISTRICT MEETING

VIROQUA — JULY 25

10:00 A. M. Meet at home of Newton **Boggs, 315** Minshall Street (near Court House) and inspect extracting equipment, etc.

Noon. Cafeteria luncheon at City Park nearby. Bring dishes suggested for Eastern Wisconsin meeting. Free coffee and lemonade furnished.

1:30 P. M. **Program.** Talks by Dr. Farrar and others. Program similar to that of other meetings. Ladies will hold separate meeting and program.

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By buying your supplies from the Wisconsin Beekeepers Association, you are helping the Association carry on its program of work.

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Our process of manufacture, with heavy cell base, imparts strength and pliability to foundation. It is instantly accepted by the bees.

Our thin super foundation is made from the whitest wax obtainable.

We carry a complete line of beekeeping equipment.

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See our plantings of all the leading varieties of peonies.

Visit Riverside Cemetery, Oshkosh, where we planted a memorial plot of peonies consisting of 56 standard varieties 15 years ago.

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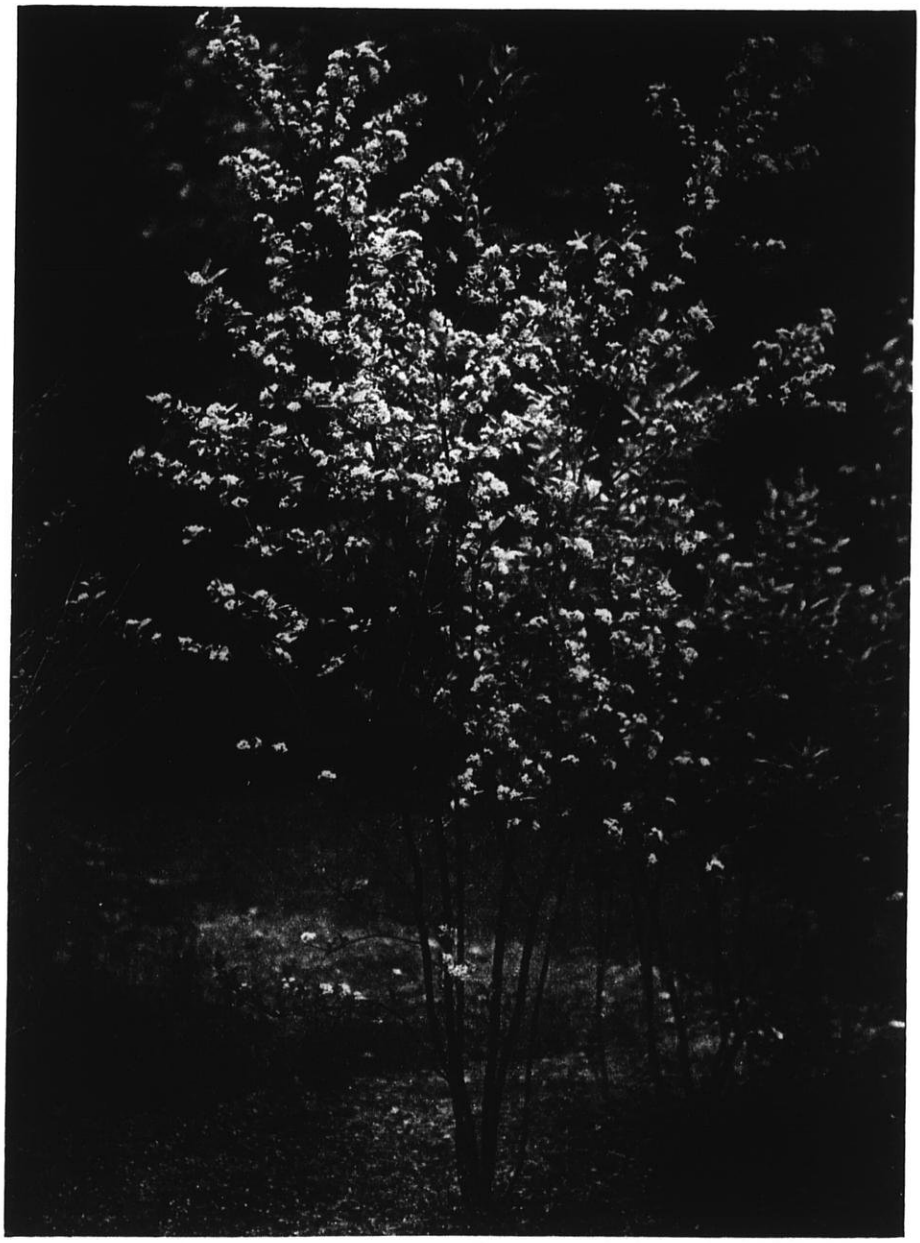
Wisconsin Horticulture



Aronia arbutifolia

July-August, 1938

HONEY MAKES A GOOD BELT DRESSING

HONEY is recommended as a belt dressing in the Farmers' Advocate, London, Ontario. Liquid honey is applied to the belt sparingly and "makes the belt cling with a tenacity never dreamed of."

We have not tried it and will appreciate a report from any one who makes the test or has used honey for this purpose.

It's a funny world. If a man gets money, he's a grafter. If he keeps it, he's a capitalist. If he spends it, he's a playboy. If he doesn't get it, he's a ne'er-do-well. If he doesn't try to get it he lacks ambition. If he gets it without working for it, he's a parasite. And if he accumulates it after a lifetime of hard work, he's a sucker.

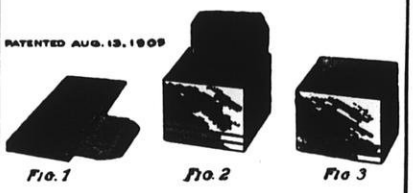


Fig. 1 Fig. 2 Fig 3

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Cumberland Fruit Package Company

Dept. D, Cumberland, Wis.

Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

Established 1910

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

Published Monthly Excepting July by the

WISCONSIN STATE HORTICULTURAL SOCIETY

424 University Farm Place

Madison, Wisconsin

H. J. RAHMLOW, *Editor*

Secretary Wisconsin State Horticultural Society

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

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Subscription to Wisconsin Horticulture is obtained by membership in the Wisconsin State Horticultural Society for which the annual dues are $1 per year or $1.50 for two years. Garden Clubs, Horticultural Societies, and other Horticultural Organizations are affiliated at a reduced membership rate. Fifty-cents of the annual dues paid by each member is for a year's subscription to Wisconsin Horticulture.

PLEASE DO NOT SEND STAMPS

Wisconsin Horticulture

Strawberry Day At Warrens

ONE hundred and fifty people attended the annual Strawberry Day for central Wisconsin at Warrens on June 6. An excellent program was presented.

Prof. J. D. Winter of Minnesota told about the new work being conducted by the Experiment Station to perfect a method for keeping strawberries in better condition during shipment. He stated that during the past strawberries have been shipped under refrigeration at a temperature of about 45° F. When taken out of this temperature they go down fast and lose their lustre or bright color.

Experiments being conducted on the use of carbon dioxide gas look very promising. The berries are first cooled to a temperature of from 55 to 60° F. instead of the lower temperature. A certain percentage of carbon dioxide is then added to the air in the storage chamber. This has a retarding effect upon the development of mold and when the berries come out they are in much nicer condition than with the older method. The cost, according to experiments, is about the same for the carbon dioxide method as for the refrigeration method.

Mr. W. H. Hanchett, well known grower from Monroe County, stated that last year about 100 carloads of berries

were shipped from that section of the state. Without organization this crop would not have brought the cost of picking. As it was, by cooperation a good price was obtained.

Strawberry Fertilizers

Dr. A. N. Wilcox of the Minnesota Horticulture Department urged growers to plant early. Blossom buds on the strawberry plants are formed in September. It is therefore very important what we do for the plants early in the season in order that they develop and all the runners become of good size before September. He stated that experiments show that the commercial fertilizers applied to strawberry beds in the spring give very little value. He pointed out that experiments seem to indicate that if large amounts of nitrogen are applied to the soil it may result in a deficiency of potash.

In setting out plants only the large plants from the center of the row should be used for planting.

An interesting talk was given by Mr. Harold White of the W. A. White Brokerage Company, Minneapolis, on the many angles to marketing a strawberry crop when they are shipped to other states. Our crop comes into competition with crops from various sections, maturing at the same time and of course many problems are the result.

Mr. Rex Eberdt, president of the Warrens Fruit Growers Association, presided at the meeting, and emphasized the value of staying by the Association to market the crop to best advantage.

Tour Marred By Rain

After an excellent strawberry dinner in the new High School gymnasium, prepared by local church ladies, at which everyone had their fill of strawberry shortcake, the group visited the shipping platform of the Warrens Fruit Growers Association. Here Rex Eberdt pointed out the method used for inspection and shipping the berries.

Three strawberry fields were then visited. First the field of Mr. H. H. Pederson who had an excellent field of berries in spite

of the fact that a portion of it was covered by an ice sheet last winter.

At the farm of Mr. R. E. Harris, Mr. H. H. Harris discussed the strawberry varieties. However by this time the light rain had become rather aggravating to those who had not brought raincoats, so not much time was spent in the field. However Mr. Harris emphasized that the Catskill variety looked very promising. It had very large, vigorous foliage and a heavy set of berries. It seemed to be the best of any of the new varieties.

Dorsett and Fairfax looked good, but didn't have the set of the Catskill. Some of the other varieties on test looked much less promising than these.

The field of Mr. W. H. Morse was then visited. Here again the rain drove the visitors back to their cars. Thereupon it was decided to hold a short meeting in Mr. Morse's barn to discuss the things seen in the field. Mr. Noel Thompson of the State Entomologist's Department outlined a program for controlling leaf spot which was quite bad in some of the fields, due to the wet weather. He recommended trimming all the leaves carefully in the spring when starting a new bed so that the disease is not brought into the new planting. Certain varieties such as Senator Dunlap and Warfield are more susceptible to leaf spot than others. If the disease is bad then the leaves of the old patch should be carefully removed following picking to prevent its spread. Leaf curl was also discussed, but no satisfactory explanation of it given.

Prof. R. H. Roberts spoke on the value of early uncovering, stating that the plants cannot be held dormant very long by covering and that there is evidence that the crop is much better if the plants are uncovered just as soon as the ground has thawed and growth starts. If covering is kept on much after that time there is a definite decrease in yield.

H. J. Rahmlow, secretary of the Horticultural Society, showed interesting colored moving pictures of strawberry varieties and how to spray apples.

WHO REALLY CARES ABOUT APPLES

From the Mountaineer Grower

DID it ever occur to you that the apple grower is the ONLY person really and permanently concerned about selling apples?

Would the city Housewife lose much sleep if she never saw another apple? Not a moment's, since she has thirty to forty other fresh vegetables the year 'round to select from.

Would the Grocer lose any sleep if no more apples came into his store? Not a moment's. He has hundreds of other items, fresh and preserved, to pass along to his customers. Apples are only another item to him.

Would the receiver, the wholesaler, the broker, the commission man—would any of these grieve long if no more apples came to market? Hardly. With very few exceptions, apples are only one among their line of commodities. When one line "goes sour" they simply turn to another.

Who, then, is vitally, permanently interested in apples? Only one group—the apple growers. With a 40-year investment in orchards, the grower can't turn to another line and just forget.

It is the Grower who must MAKE SURE that apple packing is being done right; that the apple market is being developed properly; that apple selling is keeping up the modern merchandising.

From the start, in the orchard, to destination in the American stomach, apples are "the growers' baby"—and the growers' alone.

REASONS FOR THE BIENNIAL BEARING OF McINTOSH APPLES

DURING the past few years, the McIntosh apple has shown a much greater than usual tendency to bear fruit only every other year under Wisconsin conditions. Since most apple growers in this state have a high proportion of McIntosh in their orchards, this development seriously handicaps efforts to keep those orchards producing efficiently.

An investigation by R. H. Roberts (Horticulture) has revealed two factors that favor the biennial bearing habit.

One of these factors is the shortage of rain, which has reduced terminal growth and resulted in relatively few new spurs being formed. The individual spurs bear only every other year; if the tree as a whole is to have a crop each season, then a good number of new spurs must begin development at the same time others are fruiting. But when the season is too dry, new spurs do not grow and form blossom buds for the next year.

The other contributing cause is the tendency of some apple growers to overprune the tops of their trees, thus leaving them too open. This practice favors the setting of more blossoms than the tree needs to produce a crop. Many of the small fruits afterward drop off, but too late for the spurs to form blossom buds for the next season. On the other hand, when fewer blossoms set early in the season, the spurs generally form blossom buds to produce a crop the next year, a condition favorable to annual bearing.

From "What's New in Farm Science" by Wisconsin Agricultural Experiment Station.

Cherry Juice Gaining In Favor

By Donald K. Tressler

AMERICA'S fastest growing food industry is the production of canned and bottled fruit and vegetable juices.

Canned cherry juice was packed last year on a large scale for the first time. In many respects this product is more inviting than Concord grape juice; consequently, the demand should grow rapidly once the public becomes familiar with it. Since the best juice is prepared from the red sour cherries, Montmorency, Early Richmond, and English Morello, large scale manufacture of this juice should do much to remove the periodic surpluses of these cherries, and consequently, have a marked stabilizing effect on the market.

In many ways the simplest method of making cherry juice is by heating the washed cherries to approximately 180° F. and then pressing the fruit before it cools. This heating extracts a large portion of the pigments of the cherries, and in the case of the Montmorency and Early Richmond varieties produces a brilliant red juice. The English Morello yields a very dark red juice.

An hydraulic press of the type commonly used for grapes is suitable for the pressing of cherries. However, the press cloths should not be of coarse waste, as otherwise much pulp passes into the juice. The hot juice coming from the press should be strained through either a fine wire screen made of corrosion resistant metal or a muslin bag. The strained juice should be chilled to 50° F. or lower and allowed to settle overnight. The clear juice should be siphoned from the sludge and then mixed with a small amount of a filter aid, e.g., Hyflo Super-Cel or Dicalite, and filtered through canvas in an ordinary plate and frame press or a home made muslin bag filter of the type shown in Circular No. 181 of this Station on cider making.

Some Possible Blends

Juice from red sour cherries is too tart to please the average palate. Therefore, a much more inviting product can be made by diluting the juice with half its volume of water and adding sufficient sugar to bring the percentage of total solids back to the original point. If the sweetened, diluted product is labeled cherry juice, the addition of sugar and water must be clearly indicated on the label. The product may be called cherry cider or cherry cocktail without calling attention to the dilution.

Information concerning the making of cherry juice will be found in Station Circular No. 180, which may be obtained without charge upon application to the Station.

Condensed from Farm Research, New York Agricultural Experiment Station, Geneva, New York.

ORCHARD AND GARDEN SUPPLIES

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ORCHARDISTS AND BEE-KEEPERS MUST CO-OPERATE

MOST orchardists realize that a good set of fruit is dependent upon good pollination. Most apple varieties are self-sterile and pollen from a different variety must be brought to the blossom before fruit is set.

The honey bee is the best pollinizer for all kinds of fruit. There are several reasons for this. First of all, the honey bee is especially adapted for pollinizing because its body is covered with hair to which pollen grains stick. As it crawls over one flower after the other, the thousands of pollen grains clinging to the hair pollenize the pistils. Furthermore, it is known that honey bees visit only one type of plant at a time. That is, they work only on apple trees once they get started, and do not, for example, fly from apples to dandelions. Third, they are hard workers and visit thousands of flowers daily. Then too, there are so many honey bees in a colony (as high as from 15,000 to 50,000 bees in one colony) that one colony is enough to pollenize an acre of fruit trees. This is not true with other insects.

Many Bees Poisoned

However, due to improper spraying, beekeepers are becoming afraid to establish apiaries near orchards. We have in mind an example of an apiary located at the edge of an orchard this year completely ruined by being sprayed a little too late during the pink stage. The weather being warm the blossoms came on fast. The orchardist did not spray soon enough and as a result many trees were in bloom or just beginning to open. Poisoned pollen and nectar was carried to the hive and the bees continued to die off for a period of about two weeks, leaving the colonies with just a handful of bees. This being a good honey year, the bee-

keeper is losing hundreds of dollars. As a result, he will move his bees out of this section and away from the orchard. If this continues fruit growers will eventually suffer.

Reports are coming in from various sections of the state reporting spray poisoning this year.

SOAP SUBSTITUTE WORKS WELL AS SPREADER IN VEGETABLE SPRAY

A SOAP substitute which is not affected by the hardness of water, and which is now commonly used in such products as household soap flakes, shampoo, and tooth powder, gives excellent results as a wetting and spreading agent in vegetable sprays.

This versatile product, known as sodium lauryl sulphate, has been found by T. C. Allen (Economic Entomology) to be harmless to cabbage plants even when used at concentrations a dozen times stronger than necessary. One part of this material in paste form to each 1,200 or 1,600 parts of water is recommended.

The particular advantage of sodium lauryl sulphate as a spreading agent is that it will not cause the calcium and magnesium salts in hard water to precipitate out of solution and clog the spraying equipment. This often happens when common laundry soap is used.

Materials similar to the soap substitute used by Allen can now be purchased under various trade names in either paste or powder form. The cost of using them runs from 15 to 20 cents per 100 gallons of spray. This investment may be worth while where the water is extremely hard, but if relatively soft water is available it will be almost as satisfactory and more economical to use laundry soap.

From "What's New in Farm Science" by Wisconsin Agricultural Experiment Station.

Producing Cantaloupe Seed

Millard E. Ryan

UNLIKE other vegetables the cantaloupe cannot be judged by its outward appearance. It is the inner qualities of this vegetable that are of prime importance. Hence in saving seed these inner qualities are the ones that must be observed.

Should you have an opportunity at harvest time to go into the cantaloupe seed fields at Rocky Ford, Colorado, which has long been famous for its cantaloupes, you would see enormously interesting activity.

The field is entered by a gang of about seventy-five men, most of whom have had many years of experience in the work. These men go over the field, carefully picking and putting into piles the ripe melons of the type corresponding to the particular variety represented in that field. These piles usually contain approximately two hundred melons and are ranged throughout the field about every twenty feet. When all the ripe melons have been picked, a select group of men immediately begin sorting the melons according to outward appearance. Off sized and off type melons are removed from the piles and discarded. This is the first selection made under this method of harvest. When the piles have been carefully sorted, the cutters begin work. Each man in this group has his own cutting stool and bucket. The cutting stool is a four-legged backless chair, underneath the seat of which is fastened a long broad knife, so placed that the blade extends beyond the edge of the seat about eight inches. The men work in pairs, one pair to each pile of cantaloupes. They place their stools at the side of the pile within easy reach of the melons and place their buckets underneath the blade of the knife. The worker then seats himself upon the stool and taking each melon separately cuts it on the knife, observing whether it is satisfactory when cut. If unsatisfactory it is discarded. If it passes inspection the seed is scraped out of the cavity by drawing each half separately over the broad end of the knife blade. The seed falls into the bucket. When full, the buckets are emptied into barrels and these are taken by trucks to a central building where the seed is poured into wooden vats to ferment, after which it is washed (again by hand) and dried.

Although it is possible to make use of machines in the harvesting of cantaloupe seed, no machine has yet been found that can make the individual selection that the careful seedsman deems necessary.

Endless as the task may seem, the cantaloupe seed producers at Rocky Ford harvest each season 90% of the cantaloupe seed grown in the United States, and the greater portion of this seed has been saved by hand.

From Garden Digest, April, 1938.

COPPER DUSTS FOR ANTHRACNOSE OF MELONS

ENCOURAGING results have been obtained in South Carolina in control of downy mildew of cucumbers, cantaloupes and with anthracnose of watermelons, by use of red copper oxide and copper oxychloride in spray or dust mixtures. In general they surpassed bordeaux.

From Market Growers Journal.

In the Berry Patch

DOOR COUNTY HOLDS STRAWBERRY DAY

A STRAWBERRY Day was held for Door County this year on June 15. The meeting was called by County Agent Mullendore cooperating with the Wisconsin Horticultural Society. During the forenoon a program with speakers was presented at which the growing of strawberries was discussed. This was followed by luncheon prepared by the County Agent and served from the kitchen in the fair grounds where the meeting was held. During the afternoon a field inspection tour was made. The first farm visited was that of the Martin Orchard Company, Mr. Earl Johnson, superintendent. Here a number of varieties were seen, all looking very good.

The plots of the Reynolds Preserving Company were then visited. Mr. Don Reynolds described the varieties being grown and discussed their comparative merits.

Beaver and Premier seemed to do the best of any of the varieties being grown. Dorsett and Fairfax did not seem to yield well, while Catskill looked very promising in the test plot.

Warfield was almost a complete failure. It looked as if some type of disease had hit these plants as the leaves were curled, small and the berries were drying up even before getting ripe.

The field of Mr. Ralph Otis was then visited. Here an excellent stand of plants was seen. The plants had been set very close a year ago which proved to be desirable because of the dry season. Ordinarily, however, it would have resulted in too thick a stand and a lowering in production.

Mr. N. C. Jacobs of Sawyer then showed the group a fine field of strawberries grown on muck soil. Here again Beaver and Premier seemed to do the best, with Catskill looking very promising in a test row. Mr. Jacobs finds muck soil very good for growing strawberries.

Speakers on the forenoon program included Mr. John Lilly, Dr. R. H. Roberts, Mr. A. L. Pillar, County Agent Mullendore, H. J. Rahmlow, Don Reynolds, and Nick Jacobs. H. J. Rahmlow presided and conducted the field tour in the afternoon.

DORSETT AND FAIRFAX STRAWBERRIES LOOK GOOD IN NORTHERN WISCONSIN

DORSETT and Fairfax strawberries looked very impressive this year in Bayfield County, while in many other sections of the state the growers feel that these two varieties do not yield as well as they should and most growers are discontinuing them. In the Bayfield section growers tell a different story. Mr. John Black of Bayfield, crowned strawberry king this year, said that he will plant only these two varieties with a test plot of Catskill this coming year.

Several other growers made the same statement.

On looking over various fields we were impressed at the higher yield produced by Fairfax and Dorsett on Bayfield county soil, especially those farms on which red clay predominated, as compared to the showing made by these varieties in the southern part of the state, or in the Warrens-Sparta area.

In the opinion of the judges who judged the strawberry king contest, they had never seen strawberry plants with more vigor, higher production, or better quality berries than in the Dorsett and Fairfax fields this year at Bayfield.

The Catskill variety looked very promising. On the farm of Mr. Ed Carlson of Bayfield there were an equal number of rows of Beaver, Premier, Dorsett, Fairfax, Senator Dunlap and Catskill. The Catskill was the best producer of any of the varieties, with Fairfax and Dorsett second and third. Premier did not seem to stand up well this year.

STRAWBERRIES AT WARENS

By H. H. Harris

MOST of our rows of Beaver strawberries produced the largest and best berries we have ever raised of this variety. The berries were as large as those of the Dorsett, Fairfax or Catskill.

Our Catskills produced at the rate of 625 cases per acre this year, Fairfax, 520 crates, Dorsett, 440 crates. I think some of the Beavers in a field fruiting in 1937 produced as high a yield as the Catskill and stood the wet, changeable weather the best of all.

Our Premiers were not up to their usual crop. Grand Champion and Ambrosia were better than a year ago but not as firm as the others mentioned.

Weed seeds buried 50 years showed germination percentages as follows, when brought under growing conditions: Yellow dock, 52; moth mullein, 62; evening primrose, 38.

CHIEF RASPBERRY FAVORED IN FAR NORTH

THE Chief raspberry is the favorite variety grown at the College of Agriculture at Winnipeg, Canada, according to Prof. Walker, horticulturist.

The editor spent several hours on July 4th going over the trial plots and horticultural grounds at the Winnipeg Station where most of the varieties of fruits known to us in Wisconsin can not be grown because of the severe winters.

Mr. Walker emphasized that the Chief raspberry is better than any other they have tried.

According to Prof. J. G. Moore, the Chief red raspberry was first in both yield and value of the crop among varieties tested in 1937 at Madison. This was a drought year so perhaps the Chief does especially well under dry conditions which also obtained at Winnipeg.

SPACED ROWS PRODUCE HEAVIER YIELDS OF STRAWBERRIES

By the United States Department of Agriculture

LARGER-SIZED and better-quality strawberries, and heavier yields as well, have been produced in field tests by the United States Department of Agriculture by thinning and spacing the runner plants and keeping off all additional plants once a good stand has been obtained.

Until recently strawberries have been grown thickly matted in the bed, with the idea that the more plants in the bed the more berries it would produce. Most growers still employ this method.

George M. Darrow, who has charge of small fruit investigations for the bureau of plant industry, has been studying the spacing method of planting for several seasons.

Crab Grass Control In the Lawn

Dr. L. E. Longley

Division of Horticulture, University of Minnesota

TO understand the control of crab grass a word or two about its life history will be valuable. Crab grass is an annual grass, that is, it does not live over winter as do our lawn grasses, but must come from seed each year. Also the seed is late in germinating, being dependent on rather high soil temperatures for germination. Normally, it will germinate some time in early June, but lately it has germinated earlier due to hot weather in early summer. This has lengthened its growing period and thus made its growth heavier with a resultant greater production of seed for the next year.

This habit of coming from seed each year makes possible certain procedures to help in its control.

Heavy Blue Grass Stand Helps

The first thing necessary is to be sure that there is sufficient blue grass in the lawn to make a good coverage. If there is a heavy turf of blue grass, crab grass has difficulty in establishing itself. So if the stand is thin, more grass seed should be seeded in. The best time to do this is in the fall, say from August 20 to September 10 or 15. Rake the lawn heavily with an iron rake to stir the surface and take out all the crab grass stems possible. Then scatter the grass seed and rake again to cover the seed. Then soak heavily to wash the seed that is on the surface down into the soil. If seeding was not done in the fall, do it as early in the spring as possible.

One of the possible methods is effective but very laborious. It consists in pulling out the young plants in early July. At this time they will appear as small grass clumps an inch or two tall with rather wide coarse blades. A little search will enable one to recognize the crab grass, and much can be accomplished in control by pulling at this stage.

Mowing and Fertilizing

If the young crab grass plants are not pulled out, the next procedure of value is to prevent them from scattering seed. This can be done by mowing the lawn closely and using a grass catcher. Then rake over the lawn to bring up the strands of grass; mow again at once at right angles. Repeat this once or twice weekly and the crab grass will be largely prevented from seeding and the wide spreading growth will be minimized.

Fertilizing the lawn to discourage crab grass will help. Apply a high nitrogen fertilizer in early spring and then again in late summer, say about the last of August. This will induce a heavy growth of lawn grass in midsummer when it is most active. Avoid organic nitrogen fertilizers such as tankage, bone meal, manure, etc., for this purpose and use a fertilizer high in nitrogen or use sulphate of ammonia alone for a year or two. Sulphate of ammonia can be applied at the rate of four pounds per 1,000 square feet for this purpose; its continued use will also tend to discourage dandelions and clover. If a fertilizer is used of a formula approximating 4-12-4, use about 20 pounds per 1,000 square feet. Be sure the lawn is heavily soaked at once after applying this type of fertilizer.

From The Minnesota Horticulturist.

Flower Lore

A BULLETIN entitled "Flower Lore"—the lore and legends of garden flowers by Charles E. Brown, Madison, is available for 25 cents from The University Co-op, Madison, Wisconsin.

The purpose of the booklet is to encourage the revival of interest in the lore and legends of some of our common garden flowers. The following are a few examples taken from the bulletin.

Bachelor's Button. (Cornflower). Bachelors formerly wore a blossom in the button hole of their coats. Young men in love carried a blossom in a pocket, young women in their apron pockets. Queen Louise of Prussia fled frow Berlin at the advance of Napoleon. She hid in a grain field and while there braided wreaths of cornflowers for her children. Emporer William thereafter adopted it as the flower of the imperial family. A Greek youth who worshipped Chloris (Flora) devoted himself to gathering flowers for her altars. When he died the goddess gave his name—Kyanus—to this plant.

Canterbury Bell. This beautiful plant obtained its name from the resemblance of its bells to those once carried by pilgrims winding their way to Canterbury cathedral to pray at the tomb of the murdered Thomas a'Beckett. The fairies were very fond of ringing sweet little chimes on the bells of this plant.

Campanula. Venus, goddess of beauty and mother of love, had a mirror which had the magic power of increasing the beauty of anything that was reflected in it. The mirror she mislaid and a wandering shepard found it. Gazing into it he became enraptured with his own beauty. Cupid found him thus employed and became so angry at finding a yokel admiring himself in his mother's mirror that he struck it from his hands. From the soil where the mirror fell sprang up the campanula or bellflower, which was once called Venus' looking-glass. In China, Shetland and Sweden the marebell is believed to give people the nightmare and is shunned.

Chrysanthemum. It is believed to have blossomed at the time of the birth of Christ in Bethlehem. A symbol of perfection and long life. In the 14th century it became the national flower of Japan. In Hemaji in Japan, there once lived a great nobleman. Among his most prized possessions were ten dishes made of pure gold. To care for these he employed a girl, Okiku (Chrysanthemum). Each morning she counted the dishes and one morning found one of them missing. The poor girl was in despair. She looked everywhere for it. Fearing the anger of her lord she drowned herself in a well. Her spirit is restless and often returns to count the golden vessels in the hope, perhaps, that the missing vessel may have returned.

Dahlia. The home of this admired plant is Mexico. The Empress Josephine of France planted the dahlia in her gardens. She invited the courtiers to see the flowers. She would not part with even a seed. A Polish prince bribed a gardener to steal some of the plants. After that the Empress lost all interest in her dahlias.

Thank God we live in a country where the only dictators men tolerate are the ones they marry!—Foreign Service.

CARE OF PEONIES AFTER BLOOM

W. A. Sisson, Rosendale

NOW that the blossoming season is over, cut off the old blooming stems down to the top of the foliage. Slightly trim the bushes so that they present a good appearance to the eye. Cut to the ground any unsightly stems and begin intensive cultivation. Keep the ground well worked about the plants and in the rows. They need this care especially at this time after the severe strain of bearing flowers.

We believe that all plants no matter how small, should be allowed to function as best they can; then cut off the withered flower. Small plants are not unlike children. They want to perform as well as they can, growing larger and stronger each year until in from five to ten years we have the perfect or mature plant.

Immediately after flowering the new root system begins to grow and new eyes to form which will make next year's growth or plants. These eyes grow from mere dots into nicely colored sprouts by late September.

Contrary to all articles on the peony, new roots are grown only from July to freeze up. Fall plantings make no new root growth. You can verify this in your own garden.

More about planting in the next issue.

APPLE BREAD

ORIGINALLY introduced nationally by the Washington State Apple Advertising Commission, apple bread is said to be gaining in popularity. Bread dough is made in the usual manner with one pint of strained apple sauce added to each quart of mix.—American Fruit Grower.

Gladiolus Gleanings

By the WISCONSIN GLADIOLUS SOCIETY

B. A. Robinson, Kenosha, President
K. J. Timm, Markesan, Vice-President
H. J. Rahmlow, Madison, Cor. Sec.
Otto Kapschitzke, Rec. Sec.-Treas. 1710 Illinois Ave., Sheboygan
Regional Vice-Presidents
Robt. Jantz, Eldorado
Frank Thomas, Kenosha
Chester Harrison, Waldo
Clarence Kunde, Oshkosh

Success With Gladiolus

Karl Timm, Markesan

This year I managed to place my plantings in three distinct plots to observe the difference in growth.

In preparing the soil I used a new form of fertilizer with remarkable results thus far. It was peat moss that had been used in a chick hatchery as litter for small chicks. I gave each plot a good coating before plowing.

Planting of corms started about May 12th and continued for about three weeks, using the usual trench method with an average depth of from 4½ to 5 inches. We treated all stock with Bichloride of Mercury solution before planting.

My home garden is retained as a small trial garden for about 130 varieties which I wanted to keep under strict observation.

Palmer Varieties Do Well

In the trial garden all Palmer varieties tend to hold the lead with their robust growth and beautiful deep green foliage. We must give him credit for his accomplishments as a hybridist.

Del-Ray, by Burtner, a favorite of Mrs. Lins of Spring Green, is making history for itself. It is not a new one, but a promising variety, very pretty flower, good grower, and increases well.

Pfitzer varieties such as Allemania, Allegro, Arrabella, Alchemist, Blue Beauty, DeCapo, Gold Dust, Isola Bella, Joseph Hayden and Ninth Symphony appear to be very good growers, but tend not to look as stalky nor as thrifty as Palmer's varieties, nevertheless wonderful varieties.

Mrs. Whitely (New Zealand) varieties, a few of which I grow, tend to perform very good. The most popular is D. A. Hay, the tallest grower in the trial garden to date. It is an early bloomer with nice flowers.

Some of Errey's (Australia) varieties are doing nicely and one in particular, Laidley, is one of my favorites. At the Lawsonia Flower Show of 1937 at Green Lake, a single spike of Laidley auctioned off for 85 cents. How is that for a single spike? It is a nice clean growth, a good increaser as the bulblets germinate readily.

Moisture

I have numerous varieties from Mair (England) which I have kept under observation for the third year and had in mind discontinuing these this fall but find that a few have shown some remarkable growth in comparison to the past two seasons. To my way of thinking it seems that Mair varieties require an abundance of moisture, or does anyone know better how to make Mair's varieties perform?

Some forty new varieties, foreign and domestic, that I am growing from bulblets this season have germinated nearly 100% in the open ground and are doing nicely. This includes such varieties as Artemis, Bad Homburg, Black Opal, Kochbrunnengeist, Morgonrote, Praludium, Rotenburg, Rudesheim and Tasman. It is the only method I use in starting a new variety, thus protecting myself from getting any foreign diseases or insects in my stock.

Thrip

As to thrip, I fail to find traces of any to date among my plantings. I am not stating that none will be found for thrip may appear at any time like a thief at night but am keeping a very close check and if found, the dust gun and the sprayer are in readiness.

With the abundant rain we have been having the past weeks let us hope that the gladiolus season of 1938 will be the best we have had.

ROBERT C. LEITSCH

MEMBERS of the Wisconsin Gladiolus Society were shocked to hear of the death of the first president of the Society, Mr. Robert C. Leitsch of Columbus, a few months ago.

Mr. Leitsch, who was the editor and owner of a weekly newspaper in Columbus, was an enthusiastic gladiolus grower and did much for his community in promoting a love for flowers, especially the gladiolus.

This Season With Glads

Walter C. Krueger

IT has been said by many people that weather is the subject of much of the conversation of the world. Where the variability of temperature, rain, etc., is of no immediate consequence this subject might be almost trite, but to anyone who grows plants of any kind or description, weather is more than a subject of conversation. It is a factor that determines success or failure or the degree of success.

The extreme weather variability this season has in my observation more than offset the extra early spring in retarding bloom to almost its average blooming date in my garden. July 13 is about average for the first bloom. While most of the planting was completed two weeks in advance of normal, no earlier bloom will result.

The same variable cool weather has allowed the development of a different crop of bugs in my planting. The aphids, usually prejudiced in favor of peas, have taken a liking to my glads. Another newcomer somewhat redish-brown in color looks a great deal like an aphid, and they do multiply when rains keep poisons washed off of the leaf surfaces. Thrip arrived in my garden one week later than last year.

The greater ease of dusting an insecticide on the plants over that of liquid application is a boon when such frequent rains occur. Whether the results from dusting will be as good will be shown at a later date.

Planting glads on a time schedule for show purposes has been made very difficult of results because glads planted May 23rd came up at the same time as those planted on June 10th.

The only observation of consequence for this season relating to named varieties is the greater health of native originations over those from foreign lands. Most of the failures to grow seem to be in foreign varieties.

The greatest joy so far this season has been bloom from seedling bulbs planted in the greenhouse which flowered during the month of May. Some day after I have tested these seedlings to my satisfaction I plan to share them with the glad fraternity. Wind, weather, and bugs willing, I will again make a few selections from some 4,000 seedlings and check the performance of earlier selections.

BIG GLADIOLUS SHOW IN PROSPECT

COMMITTEES in charge of the 1938 Wisconsin Gladiolus Show to be held at the Eagles Auditorium in Sheboygan, August 19-20-21, are enthusiastic over the support being received.

Dr. Geo. H. Scheer writes, "Imagine my surprise when I received a letter from John T. Majeski advising me he was donating 25 large bulbs of each Shirley Temple and New Era. In addition he was forwarding to me 100 New Era to be planted here and shown for him."

Cash donations have been made by business men in Sheboygan to help the show.

With the favorable weather for growing, the 1938 show should have the best quality blooms in the history of the Society.

August 15 - 16. Minneapolis. Annual Gladiolus Show, Minnesota Gladiolus Society, Northwestern National Bank Bldg.

INTERSTATE GLADIOLUS SHOW AT SIOUX CITY

AN Interstate gladiolus show will be held at Sioux City, Iowa, on August 6-7 in the ballroom of the hotel. The Iowa Gladiolus Society will be the host organization.

GLADIOLUS SHOW PLANS

A LETTER from Dr. Geo. H. Scheer, of Sheboygan, states that the committee is planning on an attendance of at least 10,000 at the Gladiolus Show. They are soliciting advertising for the premium list and exhibits by manufacturers of fertilizers, insecticides, tractors, etc. They hope to sell enough exhibit space to pay the hall rent and enough advertising to pay for the premium list. Some of the large, nationally-known growers indicate that they will exhibit, offer premiums, and some will attend in person.

Wisconsin Gladious Show

Wisconsin's Largest Flower Show

Eagles' Hall, Sheboygan

August 19-21, 1938

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Editorials

OUR COVER PICTURE

OUR cover picture this month shows Aronia arbutifolia or the Red Chokeberry. The cut was loaned us by the American Horticultural Society, and was used in a recent issue of the National Horticultural Magazine, Washington Loan & Trust Bldg., Washington, D. C., official organ of the Society. We appreciate the loan very much.

The Red Chokeberry is a valuable shrub because of its attractive fruit which hangs upon the plant for a long time. The plants are upright, usually not over 6 feet tall. The leaves turn red in autumn. The fruits are red, ripen in September and are very showy.

WISCONSIN NURSERYMEN'S ASSOCIATION TO MEET AT BROWN DEER

THE Wisconsin Nurserymen's Association will hold their mid-summer meeting and picnic at the nursery of Holton and Hunkel Company at Brown Deer, Wisconsin, on Thursday, August 18th.

The meeting will be held on the picnic grounds adjacent to the nursery and greenhouses, highways 100 and 57. The meeting and picnic will begin at 11 a. m. Each family should bring their basket luncheon.

Mr. H. W. Riggert, Fort Atkinson, with the Coe, Converse and Edwards Company, Fort Atkinson, is secretary-treasurer of the Association.

AMERICAN IRIS SOCIETY HOLDS ANNUAL MEETING

THE 19th annual meeting of the American Iris Society was held at Cincinnati May 14th.

Secretary B. Y. Morrison reported a large increase in membership.

Among the new varieties which received special attention at the meeting was Exclusive, a light blue, and Indian Hills, a deep blue, introduced by Dr. Grant; Triptych, a large yellow of Mr. Wareham's; Jasmania, a deep yellow of Dr. Ayres'; Sable, a rich deep blue by Paul Cook; Wabash, an amoena, and E. B. Williamson, a copper red, by Miss Williamson; Christabel, a red bi-color, and Belle Covert, a pink, by Mr. Lapham.

A man with an inferiority complex should watch his wife when she is backing the car into a parking place.—The Kiwanis Magazine.

BAYFIELD HOLDS STRAWBERRY FESTIVAL

THE largest number of people ever to visit Bayfield in one day attended the annual Strawberry Festival and the crowning of the Strawberry Queen and King July 2-3.

It is estimated that 15,000 people visited the city to take part in the celebration during the two days.

Miss Maxine Fuller, Marengo, Ashland County, was crowned queen of the celebration, winning the strawberry shortcake baking contest from a long list of competitors. Other winners included Irene Pippel, Bayfield, second place; Shirley Fuller, sister of the queen, third place; and Dorothy Sabota, Bayfield, fourth place.

John Black is Strawberry King

Mr. John Black of Bayfield was crowned Strawberry King for his wonderful field of Fairfax and Dorsett strawberries. Mr. Black's were the best producing plants seen by the judges this year. The plants were unusually large, vigorous and highly productive. The berries were of unusual size, and excellent in quality. Mr. Black has been a farmer near Bayfield for about 20 years, combining dairying with strawberry growing. He came to Bayfield as an artist and still paints pictures.

Second place was won by last year's Strawberry King, Mr. William Luttman of Herbster, who had an excellent field of Senator Dunlap.

Third place was won by Mr. E. E. Meyers of Bayfield who also had an excellent field of Fairfax and Dorsett though the drought of last year had affected his stand of plants and plots in the field.

Mr. John Forsberg of Herbster was in fourth place and Mr. Ed. Betzold of Bayfield won fifth place.

The King was crowned in a celebration the evening of July 2nd. Mr. Karl Reynolds, president of the Wisconsin Horticultural Society, gave the address, presented the King with the honorary recognition certificate of the Society, and placed the crown upon his head. Mr. Carl Sundquist, manager of the Bayfield Fruit Association, presented the check for the prizes awarded by the Bayfield Commercial Club.

The crowning of the King was followed by the entrance of the Queen and her escorts who proceeded to a float on which a throne had been placed. The crown was placed upon the head of the queen by the 1937 Queen, Miss Ruth Paddy of Bayfield. Mr. Reynolds again gave the address following this ceremony in which he praised the high quality of the strawberry crop at Bayfield, and urged the growers to improve the quality and production each year.

Mrs. J. M. Black and Mrs. J. W. Provorse, both of Bayfield, captured first places in the strawberry exhibit with excellent crates and boxes of Dorsett, Fairfax and Premier strawberries.

Scenes from the Bayfield Strawberry Festival

UPPER LEFT: The Queen and her attendants lead the parade. UPPER RIGHT: John Black, Bayfield Strawberry King for 1938 with the winning crate of Fairfax strawberries. LOWER LEFT: The Queen, Miss Maxine Fuller, Marengo, seated on her throne, surrounded by attendants and flower bearers. LOWER RIGHT: President Karl Reynolds, Sturgeon Bay (right), and H. J. Rahmlow, Madison, Secretary of the Wisconsin Horticultural Society were the speakers on the first day's program.

Home and Garden

Mrs. C. E. Strong, West Allis

A FEW THINGS THAT HAVE BEEN SAID ABOUT GARDENS

A Chinese proverb:

"If you want to be happy three hours, get drunk.

If you want to be happy three days—kill a pig.

If you want to be happy three weeks—get married.

If you want to be happy ALWAYS—be a gardener."

Julian Meade says in a recent article: "Men and women who have come in close contact with the earth are much less harrassed and neurotic than men and women who walk upon the earth and never touch it."

And as we visit gardens—so many, many more gardens than there were a few years ago—we hear enthusiastic men and women tell of the new plants they are trying out, how much more lovely some of the older plants are under special treatment, how certain borders are so much more satisfactory since—in the garden clubs they studied plants and their blooming season. Now they have no trouble in having a fairly good show of flowers all through the season, and the whole family enjoys the garden. We think of the little girl who lived in the old garden to whom the Queen of the Fairies told the story of the Pansies, concluding, "And when all the world loves a garden, then the Pansies will be able to speak again and take their place—." "Some day when everybody in the world loves a garden," repeated the little girl very softly, "It will be just like Heaven down here, won't it?"

As We Walk Through the Gardens

The new **Veronica Blue Spire** that has been so widely talked of in garden circles, seems to have all the good points claimed for it. It is a strong healthy grower, good foliage and a free bloomer. Does not seem to be at all particular as to where it is planted, doing nicely in that hot dry spot in the border where other Veronicas positively refuse to do more than exist. **Veronica subsessilis** will grow beautifully in some gardens, while in others it just disappears. Have been observing that where it is doing well the ground is rather on the damp side.

Gaillardia Sun God is a clear yellow blossom that fits in almost anywhere in the garden, is also a good cut flower. Hope it will prove as hardy as the blanket variety.

I cannot imagine anything more lovely for the cool moist spot in rock garden or border than **Anemone sylvestris.**

Hardy Fuchsia

That hardy **Fuchsia magellanica** is surely winning friends for itself, blooming at once and continuously on very small plants. Even though it will need considerable protection it will be worth growing for the beauty of its slender vivid blossoms. But one plant is not enough; you will want at least half a dozen. If you fear to leave your plant outside, bring it in the house. It will make a very attractive window plant.

By the way, **Fuchsias** are coming back into favor as a window plant. Be sure to either get the everblooming variety, or else the winter blooming sort, for the summer bloomers are just what they are called—they bloom only during the summer months.

A plant of the new improved **Elder Daisy** sent me, has made many friends because of its long strong stemmed blossoms. It is not at all sprawly. When the first crop of blossoms were cut, it promptly proceeded to give more flowers. Even transplanting in hot weather didn't seem to bother it very much.

Erigeron

Erigeron speciosus has been unusually attractive this season, due no doubt to the plentiful supply of moisture. Its blue daisy-like flowers are very showy in the garden and attractive as a cut flower.

Dianthus Princess Beatrice is another plant that seems to like plenty of moisture along with a well drained spot. Rock gardens and borders fortunate in having clumps of this Dianthus, drew admiring, "Oh, how lovely," from every visitor.

Funkias have had a real chance to show off this season. Every variety, clear through the list, is a thing of beauty. They will exist under any sort of

treatment—but given plenty of moisture, both foliage and flowers are something to talk about.

Astilbis are another group of plants you are beginning to meet more often in gardens. They, too, like a rich moist soil, and will do well in shade. The soft feathery plumed heads add a distinctive note to the garden.

More and more are the friends of the **Trollius** growing. These plants also like rich moist soil. Even a wet spot seems to suit the early varieties. If you wish to divide your large Trollius plants, do it soon after blooming.

Genistas—the really hardy variety—should find more gardeners willing to try them either in rock garden or border. They are charming small shrubs with spikes of pea-like blossoms.

Hemerocallis as a topic of conversation among gardeners seems to have become "regular." We are still looking for pink and white shades. Some very enthusiastic fans thought they had found them—but alas, those precious plants at ten and twelve dollars faded away, not even leaving one blossom for a delightful memory. So we must be content with what we have until our dreams come true. When we look at the eight inch blooms on W. W. Wyman, six inch blooms on Ophirs, four foot stems, clear gold and pale yellow, wide petals and star-like bloom, we just wonder if anything could be more lovely than those we have.

LAWN SEEDS ALMOST A "RACKET"

EXCEPT for the high-quality unmixed grass seed sold for lawn seeding purposes and a few special mixtures sold by dependable seedsmen, the lawn seed mixture business appears to be largely a "racket" in that packeters compete with each other in seeing who can put up the largest bulk package at the lowest price per pound.

With Kentucky bluegrass seed abundant and relatively cheap each season there is absolutely no reason for packeters to load down their mixtures with timothy, ryegrass, or other non-lawn-producing grasses.

Critical tests show that hundreds of lawns never have a chance because but little permanent turf-forming grass seed was ever planted. The quick-growing annual grasses come and go quickly, leaving only a very little permanent grass and many weeds to fill up the vacant spaces.

From Farm Research, N. Y. Experiment Station, Geneva, New York.

SOILLESS GROWTH OF PLANTS

A NEW book entitled "Soilless Growth of Plants" by Ellis and Swaney has just been published by the Reinhold Publishing Corporation, 330 West 42nd Street, New York City. (Price $2.75).

There has been considerable interest in the subject of how to grow flowers, vegetables and other plants without soil, or in a water solution containing the essential elements required for plant growth. The book describes the chemistry of plant life, sand culture and sub-irrigation methods of growing plants; and growing in water.

There is a chapter on growing flowers and vegetables for the family and another on plant hormones and special chemicals. Doubleling Chromosomes in Plants is described.

Coincidence

Tobe: "See hyah, woman! Didn't Ah see you kissin' a no-count piece of trash las' night?"

Liza: "Gwan, Tobe. It was so dark Ah thought it was yo'."

Tobe: "Come to think of it, mebbe 'twas me—what time was dat?"

DELPHINIUM

Lyondel Delphiniums for sale. Again I have a fine planting of these aristocrats. Come and select your colors for later delivery. Also have Campanula gargarica, Campanula porscharskyana, and Trollius Ledebouri, Golden Queen. Ph. Henry Hartwig, 511 W. Capitol Drive, Hartland, Wisconsin.

AMERICAN ROCK GARDEN SOCIETY

HUNDREDS of interesting plants in the Thompson Memorial Rock Garden at the New York Botanical Garden were ready for the members of the American Rock Garden Society to admire when they visited the garden on May 16; Antennaria aprica from the West Coast, Chrysogonum virginicum from Piedmont, N. C., Cypripedium parviflorum pubescens, a native orchid brought to the garden from Westchester County, Tulipa formosa and T. viridiflora among others.

This visit was the occasion of the society's fifth annual meeting, the business session being held in the Administration Building, prior to the inspection of the Thompson Memorial Rock Garden. Mrs. Clement S. Houghton of Chestnut Hill, Mass., was re-elected president; Mrs. Dorothy E. Hansell of Summit, N. J., secretary; Robert Senior of Cincinnati, Ohio, treasurer. T. H. Everett, horticulturist of the New York Botanical Garden, was elected vice-president.

From Horticulture.

A remarkable sugar maple tree is reported in Garret County, Md. It is 22 feet in circumference at the bottom, and has a record of yielding 276 gallons of sap in one season.

Wisconsin Garden Club Federation News

Mrs. J. Martin Johnson, President
529 Woodside Ave., Ripon
Mrs. Chester Thomas, Hon. President
2579 Downer Ave., Milwaukee
H. J. Rahmlow, Cor. Secretary
Madison
Mrs. Sam Post, Rec. Secretary
Shorewood Hills, Madison
Mrs. E. A. St. Clair, 1st V. President
2418 N. 65th St., Wauwatosa
Mrs. Charles Schuele, 2nd V. President
Oconomowoc

NOMINATING COMMITTEE APPOINTED

AS provided in the constitution, our president, Mrs. J. Martin Johnson of Ripon, has appointed a nominating committee to nominate officers for election at the annual convention, consisting of the following members: Mrs. James Livingstone, Milwaukee, chairman; Mrs. E. R. Durgin, Racine; Miss Merle Rasmussen, Oshkosh.

The candidates nominated by this committee will appear in the next issue.

GARDEN CLUB FLOWER SHOW—WISCONSIN STATE FAIR

August 20-21-22

WISCONSIN garden clubs will have three special days at the Wisconsin State Fair this year on August 20-21-22.

Saturday and Sunday, August 20-21, will be garden club reunion at the State Fair. A special booth will be provided by the State Fair management for the use of garden club members. Here the officers of the Federation will have their headquarters, there will be chairs for relaxation and visiting.

Entries Coming Slow

Mrs. Chester Thomas, 2579 No. Downer Avenue, Milwaukee, chairman of the garden club show, writes that entries for exhibits are coming in slowly.

It is important that garden clubs make this show a success this year. It is our first effort to cooperate with the State Fair. Liberal premiums are being awarded. This show offers an opportunity for a garden club reunion, plenty of help and cooperation in staging a flower show, and cash prizes for exhibits.

If this first attempt to bring in the garden clubs to the State Fair proves unsuccessful it will be discontinued in the years to come. Let us make it a success.

The premium schedule was published in our June issue.

VISIT THESE FLOWER SHOWS

August 3-4. Waupaca Garden Club Flower Show. Public Library. Hours: 2 p. m.—9 p. m. Mrs. Ed. Hart, chairman.

August 12-13. Lake Geneva 34th annual exhibition of the Lake Geneva Garden Club and Gardeners and Foremen's Association at Horticultural Hall.

August 13-14. Wausau Garden Club Annual Flower Show. Hotel Wausau. Admission free.

August 13-14. Kaukauna Garden Club Flower Show, High School, Kaukauna.

August 16-17. Waukesha Garden Club Flower Show, Avalon Hotel. Show opens 1 p. m. August 16. Admission 15c.

August 20-21. Green Bay Garden Club Flower Show. Saturday and Sunday, August 20-21, Allouez Community House, East Walnut Street, Green Bay.

September 10-11. Milwaukee Art Institute Garden Club Flower Show. Art Institute, 772 N. Jefferson St., Milwaukee. Hours: 12 noon—8 p. m., first day; 2 p. m.—5 p. m., second day.

September 17-18. Cedarburg Garden Club Flower Show, Cedarburg. Colored slides to be shown of gardens in Cedarburg. Hours: 3—9 p. m., first day; 10 a. m. to 5 p. m., second day. Admission 15c.

SUMMER CONVENTION PLANS

THE summer meeting at Waupaca July 30-31 will be held about the time this issue reaches our members.

The committee of the Waupaca Garden Club has been making elaborate plans and feel sure everyone will have an enjoyable time.

Slight changes were made in the program. Mrs. C. E. Strong of West Allis was scheduled for a talk on her garden flowers, and Mrs. E. A. St. Clair, Wauwatosa, agreed to speak of her trip to Bermuda following the annual convention of the National Council.

These summer meetings provide an opportunity for garden club members to get together and enjoy visits to beautiful gardens.

The National Council Meeting

Mrs. E. A. St. Clair

AFTER attending the annual meeting of the National Council of State Garden Clubs in New York this last May, I wonder why more of us do not attend these conventions. Doors are opened in welcome which otherwise would be closed if we came as sightseeing tourists. Even in New York City, we were not just a few, lost in a big city. Driving out to Westchester down Park Avenue with police escort, we felt really important, as if New York had waited quite some time for us and these few days were set aside just for us.

All business meetings were in the morning, conducted in a snappy manner by President Mrs. Dynes, and truly inspiring. I hope to have the opportunity at the annual convention to give you the highlights.

At noon, buses transported us out into the beautiful countryside; one day to Westchester, a stop at the famous horticultural experimental station, the "Boyce Thompson Institute," and then on to beautiful estates, with stretches of lawns, terraced gardens, pools and arbors covered with lavender and white wisteria. Everywhere were the last of the flowering dogwoods, lovely purple beeches and red maples. We had tea at the Hartsdale Country Club, where we saw the world-famous Baird Rock Garden, perfected in a natural setting.

Every meal was a flower show, with several New York Garden Clubs acting as hostesses. In the evening a delightful garden talk by Prof. Hugh Findlay and the next day Miss Grace Cornell talked on color in flower arrangements. The banquet was formal only in dress and in the decorations—everyone had a grand time.

Thursday on Long Island some more beautiful estates. At the Wm. Coe estate we saw miles of rhododendruns and azaleas with dogwood and laburnum for backgrounds and tall evergreens—azaleas in the new shades of yellow, peach and salmon. Then in the evening topped off with a Shore Dinner on the Sound.

On to Bermuda

After the busy day in New York it was quite a relief to get on board ship Saturday noon, bound for Bermuda; and after the necessary details of reserving a place in the dining room and for a deck chair, we came on deck and stayed there, going inside only for meals, which were too good to be missed. All menus carried our National Council seal and the ship was ours.

The water and the sky, as we neared Bermuda, was the bluest of blues. As we entered the harbor, only two days trip from New York, it seemed we were entering a new world. The clean white buildings stand out against the hills and are surrounded by oleanders and hibiscus and many other gayly colored shrubs, with morning glories over all.

Two perfect days were crowded with garden parties and a picnic on the beach, a visit to a perfume factory and the Government Aquarium. We were driven from place to place in carriages drawn by well-fed horses. In Bermuda one can see trees and shrubs and flowers from Borneo, Australia, brought in from all corners of the globe.

In an article in the July **House Beautiful** the writer says, "If you can lure a letter of introduction to a Bermudian out of anyone, grab it, guard it, use it." We had those letters in the form of a little card, hung on a string around our neck, bearing our name and our state. It was all we needed to see any garden.

PROGRAM PLANNING

Mrs. Elmer Sevringhaus

"A garden's life is a helpful life,
For never a passerby
Can look upon its smiling face,
Upturned to a smiling sky,
And not discover that his heart
Has been uplifted too."

THESE true words of Mollie Anderson Haley are the preface to the Hillcrest Garden Club's Yearbook. A decorative hand-tinted pot of tulips adorns its cover. At each of their meetings the hostess reads an appropriate poem, and also at every meeting a "Garden Digest Review" is given 5 minutes, a quick and painless way of gaining new information. I was very impressed by the subject "Flower Orthoepy" which appears each month. I asked the 12 year old to bring the dictionary, which says "the art of correct pronunciation." A spell-down on "flower orthoepy" should be fun! Especially practical papers are listed on "Gardening on Nothing a Year," "Winter Storage of Bulbs and Tubers," and "Native Trees Appropriate for Home and Garden."

The Blue Mound Garden Club for 4 months made an intensive study of evergreens. A worthy subject done thoroly might be of more permanent value than a number of disconnected papers. Programs should have plan and continuity, not only for the year but for a cycle of several years, putting vision and energy into that central part of a club's life. Blue Mound's May paper on "Flowering Trees and Lilacs" was followed in June by "Flowering Shrubs." November brings the perfect roll call for that season, "What My Garden Has Taught Me This Year."

Lodi offers a suggestion in the subject, "Contributions of Luther Burbank." Clubs would find fascination in delving more often into the historic lore of gar-

dening. Also along this line is "Flowers With a History."

Since nothing is more basic than "Soil Chemistry," Racine devoted one month to that. In November they will hear about "Autumn Wild Flowers in Wisconsin." Racine is very fortunate in being able to announce that Alfred Hottes, associate editor of Better Homes and Gardens, will talk at their October meeting. They suggest that other clubs in that vicinity might be interested in having him at the same time.

WHEN IS A BOUQUET A DISPLAY?

THE word "display," according to Webster, means "to force into notice, to spread out." Is it then a good word to use in connection with a bouquet of pansies, roses, or other flowers?

It would seem that the term "bouquet of roses" would be quite appropriate, and yet we do see in flower show schedules the word "display" used when a simple bouquet is meant.

In our opinion, if the term "bouquet" had been used in connection with the varieties of flowers on which premiums have been given for these many years at, for example, the flower shows at county fairs, and some credit, at least, had been given to the arrangement of these flowers, such flower shows would have become much more pleasing and popular. Far too often the exhibitors and perhaps the judges, too, understood the word "display" to mean a massive group of flowers without regard to how they were arranged. Treating flowers in that way can hardly fail to offend those who really love flowers and like to see them shown to the best advantage.

If flowers are worthy of being shown at all they are worthy of being shown so their beauty is displayed to the best advantage —without crowding, and in suitable containers.

Garden Notes

AFTER another year of experience with sulphur-rotenone dust for the control of insects and diseases, we are enthusiastic about the results. Starting early in the season when the plants were just a few inches high, we dusted frequently—about once each week or after each heavy rain—and to date have no disease or insect injury visible. However, it was necessary to dust later than usual this year because of the frequent rains. A little mildew was found on the climbing roses early in July. We had never dusted after the middle of June because of dry seasons. We will have to watch more closely this year if the wet weather continues.

Nicotiana Crimson Flame. Here is a real find among annuals. It has Petunia-like flowers forming five pointed red stars. It is very fragrant and a free bloomer. It is especially attractive because of its beautiful red color and creates attention in the garden by all who see it.

Rose Springtime, or the Apple Blossom Rose is a real find among the roses. This variety was on our plant testing list and deserves to be grown everywhere. The plants set out in the spring of 1937 bloomed well last year, lived over with light protection this past winter, and are blooming unusually well this summer. The blossoms are striking because of their beautiful pink color. It blooms over a considerable period of time.

The lawn has been especially attractive this year because of ample rainfall and a light application of ammonium sulphate this spring. If you are troubled with dandelions, give the lawn a dressing of ammonium sulphate at the rate of about one pound per 100 square feet. Apply it during a rain as you would sow lawn seed, or apply it in the evening and water it down with a garden hose, using plenty of water. This so thickens the grass stand that the dandelions are crowded out. It's the best way to control dandelions.

CUT WORMS BAIT

THE following mixture is recommended as cut worm bait.

25 lbs. bran
1 lb. Paris green
1 quart of black strap or common feeding molasses
2½ gallons water.

A pound of crude white arsenic can be substituted for the Paris green, as can one pint of the liquid sodium arsenite which is used as grasshopper poisoning.

Arsenate of lead or calcium arsenate do not give satisfactory results.

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Iris At Their Best This Year

A VERY favorable season brought out iris this year at the height of their glory. A visit to some of our good iris gardens was a real pleasure.

We hear on all sides that Wisconsin gardeners are finally recognizing the value of the newer varieties of iris in the flower border. More iris fans, however, are needed because there are many communities in which there is hardly a single plant of the better varieties being grown.

The Whites Attracting Attention

Considerable improvement in the white varieties, their purity of tone and fine finish is attracting attention.

Easter Morn. Easter Morn was grand this year and worthy of a place in any iris garden.

Gudrun, Dykes Medal winner of 1931, created comment by all who saw it. It is a dazzling warm white, with soft gold dusted finish, with very long falls, sometimes four inches long.

Wambliska, a white of huge proportions with a soft blue sheen, is one of the older varieties which is still popular.

Of the newer iris, and among the best are **Snow King, White Goddess, Cathedral Dome** and **Kalinga.**

The Blues

Missouri is still our choice of the best blues. It won the Dykes Medal in 1937. It is a medium toned blue, has very large flowers, the falls of a slightly deeper blue then the standards, with a heavy velvety surface.

Sierra Blue should also be in every garden. It is an enormous lavender-blue self, with a deep orange beard, and grows to 48 inches tall. It won the Dykes Medal in 1935.

Shining Waters is another blue of exceptional quality. It is a medium blue self, and is like the reflection of the blue sky in water. The flowers are large.

The Black Douglas and **Amigo** are also very good.

A number of new blues have appeared this year which are quite outstanding.

The Yellows

A big improvement will make this class outstanding in our gardens in the near future. The best yellows we have seen are **Jasmania** and **Sahara.** The latter won the Dykes Medal in England in 1935, and is a light yellow or primrose. Both are very new. Among the older yellows well worth having are **Helios,** a pure lemon yellow with an enormous flower; **Alta California,** with falls of deep golden yellow flushed bronze, and **Chromylla.**

Sun Dust, Golden Treasure, Alice Harding and **California Gold** are among the best of the newer yellows.

The Reds

A great many reds have been introduced during the past few years. Many of them are low in price at the present time so that one may have an excellent garden of reds at small cost. Among these are **Numa Rumestan, Red Radiance,** and **Waconda.**

Among the newer varieties that are outstanding are **Burning Bronze, Red Douglas,** and **Copper Crystal.**

Good Varieties for Any Garden

Inexpensive varieties which created a great deal of attention this year and are good enough for any garden, are the following: **No-We-Ta** and **Wm. Mohr,** hybrid varieties, dwarf but with huge flowers are excellent.

Marquita gives us a thrill every time we see it. The standards are clearest ivory, and the falls ivory with brilliant ruby lines.

Jean Cayeux is an excellent pale brown. **Mary Geddes** won the Dykes Medal in 1936. The standards are salmon and the falls red. **Pink Satin** is a very clear pink, low in price and is excellent.

King Juba, a golden and red variegata, **King Midas,** orange and brown blend, **Frieda Mohr,** a fine pink bi-color, **King Tut,** flaming red brown, **San Francisco,** a red plicata, **Indian Chief** in a velvety red—all are good varieties.

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Honey Prospects

MEMBERS of the Wisconsin Beekeepers Association are writing optimistic letters about the honey prospects this season. Some report 100 pounds of surplus already on the hives the first part of July.

Several interesting observations might be made in regard to this season. First of all, the old saying that plants with wet feet and dry tops produce the most nectar seems to be borne out. Honey was coming in fast during warm days in late June and early July in spite of frequent rains.

Inspectors, however, report from the same localities where good beekeepers have a 100 pound surplus, many yards in which there are weak colonies, with but little honey, and frequent swarming. This then is a season where good beekeeping counts.

The beekeeper's year really started last September. Those who are getting large crops had a good queen in the hive last fall producing plenty of young bees to live over winter. They had plenty of stores and good wintering conditions. In spring they fed colonies that were light in stores if necessary. They gave them plenty of room to expand the brood nest and prevented the desire to swarm before the honey flow started.

From Forest Junction by L. A. Otto

The honey flow here has been good since July 2. It was not good in June because it was too dry. Now (July 15) however, it is becoming less each day and gradually tapering off. I think sweet clover yielded most of the nectar this year. In our vicinity the colonies were in average condition this spring.

From Kenosha by Richard Hansen

The southeastern section of Wisconsin is having a normal honey flow, mostly from white and sweet clover; very little alfalfa this year.

Many colonies are weak from swarming and where no control measures are used have not yet stored surplus. Some yards, including our own, were set back by poison dusting or spraying. Many colonies had to be united to save them. Supercedure of package queens has, from reports, been very common. If the honey flow lasts another month we will have a bumper crop.

From Ripon by A. J. Schultz

The honey flow in Ripon was slow until about the first of July when it became better and if it continues as long as we expect, we will have a good crop.

Southern Wisconsin

Reports from Mr. Ivan Whiting of Janesville and Rockford indicate that the southern part of the state and northern Illinois is having a very good honey flow.

Mr. Walter Diehnelt of Menomonee Falls reports an excellent honey flow and if the flow continues throughout July and early August, a bumper crop is expected.

From Fountain City by H. O. Rodeske

We have had terrible rains here. On July 6th we had a five inch rain in 15 minutes, and on July 12 hail and a tornado which did great damage. The honey flow is very poor in both Trempealeau and Buffalo counties. Many yards have no surplus at all. Many colonies are weak, and about 70% of bees in Trempealeau County starved this spring. We have about 50 pounds surplus in our yard.

From Neillsville by Frank Greeler

Clover and basswood yielded the most here this year. We have extracted about 70 pounds per colony. There are many weak colonies in our locality and many colonies which were not fed starved. We are having lots of rain and some beekeepers will not get much surplus honey this year.

From Menomonie by S. P. Elliott

The honey flow here is fair—less than 50 pound average—principally from basswood, white and sweet clover.

There are many weak colonies in this section of the state, and many colonies starved early in June before the honey flow started—about June 20th.

From Viroqua by Newton Boggs

So far our honey flow here is a flop. We have had hard rains almost every night. I will have to move my bees to the Mississippi bottoms to get a decent crop. Have about a 50 pound average at the present time (July 12).

From DePere by Thomas Cashman

The honey flow is fine—colonies filling third super. Sweet clover is yielding heavily. Many colonies are weak due to the cold spring. The sun would come out warm, bees would fly, and then when sun went under clouds they would chill. There is considerable supersedure.

From Greenville by Edward Hassinger, Jr.

The honey flow was irregular because of unfavorable weather. In between rains bees worked but nectar was thin. Average surplus middle of July about 100 pounds. Yellow sweet clover seems to be in first place for nectar. Then alsike and white sweet clover. Basswood was good. So far total crop is small. Prospects for second crop alfalfa good if weather is right.

A fool and his gasoline are soon parted. The careless shall inherit the earth in a cemetery. Forgive us our skids as we forgive those who skid against us. He that looketh upon a woman loseth a fender. Consider the traffic light as it will save thee from the police court. — Exchangite.

PROTECTING BEE EQUIPMENT AGAINST THEFT

BEEKEEPERS in an eastern state are marking their beehives and equipment with an identification number which is registered with the state police. Each article of equipment is branded and when found this brand can easily be identified.

Some such plan might be adopted in Wisconsin. Mr. James Gwin of the Department of Markets, Madison, suggests that beekeepers adopt a trade mark which can be registered with the Secretary of State. By writing the Secretary of State, State Capitol, Madison, for an application blank and information, full details will be sent. The cost for having the trade mark registered is $2. The trade mark must be published in a local newspaper once each week for three weeks, after which it may not be used by anyone excepting the owner. It is also recorded with the registrar of deeds in the county in which the owner resides.

By having a punch stamp made with the trade mark, a deep mark could be punched on each article made of wood, which would be a permanent identification.

Those who do not care to adopt this plan, might use their own packer's number as registered with the Department of Markets, State Capitol. Number punches may easily be obtained. If these numbers are then punched in a certain place in the hives and on the frames, it would serve as an identification mark.

"I am willing," said the candidate, after he had hit the table a terrible blow with his fist, "to trust the people."

"Gee" yelled a little man in the audience. "I wish you'd open a grocery."

THE KLEEBERS CELEBRATE GOLDEN ANNIVERSARY

MR. and Mrs. A. L. Kleeber of Reedsburg celebrated their golden wedding anniversary this spring. In addition to the children and grandchildren, a number of those present at the wedding reception 50 years ago, were present and congratulated the Kleebers.

The Kleebers have seven children. About 160 friends called to extend best wishes during the evening, and presented many bouquets and gifts.

Mr. Kleeber has kept bees all his life and has exhibited at the State Fair for nearly 50 years.

The Wisconsin Beekeepers Association extends to Mr. and Mrs. Kleeber best wishes and congratulations. We hope the Kleebers will enjoy many more years of happiness.

1938 Honey Crop

needs attractive, sanitary CONTAINERS: well made and soldered with pure tin solder. Prices have not advanced and **within twenty-four hours after receipt** of your order your containers will be in transit. Our stock is complete as follows:

2½ lb. cans, case of 24	$1.20
2½ lb cans, carton of 100	4.10
5 lb. pails, case of 12	.95
5 lb. pails, carton of 50	3.20
10 lb. pails, case of 6	.80
10 lb. pails, carton of 50	4.70
60 lb. cans, bulk, each	.34
60 lb. cans, box of 2	1.00
60 lb. cans, carton of 24	7.85

F. O. B. Boyd, Wis.

Consult our 1938 catalog for prices on Glass Jars, Comb Honey Cartons and Cellophane Wrappers. Write for free sample Honey Labels

August Lotz Company

Boyd, Wisconsin

ASSOCIATION OFFICERS VISIT RED RIVER VALLEY

OUR president, A. J. Schultz, of Ripon and his assistant, Mr. Beck, Mrs. Schultz and H. J. Rahmlow, corresponding secretary, made a trip to the Red River Valley visiting beekeepers over the week-end of July 4th.

Several large beekeepers were visited and an enjoyable hour spent with each. Among them were Mr. Ivan Gunther, who operates 2,500 colonies east of Crookston. The longest stops were made at Warren and Hallock, Minnesota, where the Tanquary Company of Minnesota operates 7,000 colonies. The superintendent, Mr. W. J. Synott, was very hospitable and spent considerable time showing his visitors around.

Five thousand colonies are located near Hallock and about 2,000 near Warren. Three men with one truck are in charge of about 1,500 colonies. However, beekeeping in that section is nothing like what it is in Wisconsin. Colonies are largely in Dadant hives, only one hive body being used. The supers are of Dadant depth shallow size. Top supering is practiced.

We might wonder how swarming is controlled. Very little effort is made to control swarming as there is but little. Bees do not build up fast during the cold spring months, the season being late in that section, as it is considerable farther north than Duluth. Sweet clover begins to bloom the last week in June. There is such a large acreage of sweet clover that when the flow starts—which is just before the bees begin to have the swarming fever, they forget about it and store honey instead.

The Red River Valley is a wonderful country to visit, especially in this year of ample rainfall. Level land with only an occasional clump of small trees, with grain fields as far as the eye can reach were seen. Wheat, barley, sweet clover, and oats are the main crops. Sweet clover is used in the crop rotation both for seed and for building up the soil. Every half mile one sees a large field of sweet clover. We wondered what some of our strong colonies this year would do if placed in such a pasture.

While one is thrilled with the possibilities for farming in this section, one is mystified and wonders why it is that there are not more nice homes and home grounds as we know them in Wisconsin. It seems as if people go there to make money but don't stay there and make their home. We hope some day the country will be settled by real home lovers.

MRS. HARRIET GRACE TO HEAD THE HONEY INSTITUTE

THE American Honey Institute announces the appointment of Mrs. Harriet Grace of Madison to take the place of Mrs. Malitta Jensen, resigned, to carry on the honey publicity work for the Institute, on a part time basis.

Mrs. Grace is a graduate of the University of Wisconsin, Home Economics Department, and attended Oxford and Cambridge Universities in England. She is a former teacher and has been in public work for a number of years. She has served a number of educational and professional organizations and made four trips to Europe so that she is well acquainted with the type of work she is about to undertake.

Mrs. Grace will attend the summer meetings of the Wisconsin Beekeepers Association so that our members may become acquainted with her.

A GOOD SUGGESTION

MR. Edward Hassinger, of Greenville, suggests that beekeepers have a large calendar handy for entering each day the number of hours spent with the bees. It is an easy method of bookkeeping. Other costs might also be entered on the calendar.

VALUE OF POLLEN

MR. G. M. Ranum, Mount Horeb, reports that a good supply of pollen has proven beneficial for wintering colonies. However, he emphasizes two reasons for giving closer attention to honey stores when considerable pollen is available: first, one may underestimate the amount of honey by "hefting" colonies which contain a large amount of pollen; second, colonies which winter "strong" because of the brood reared when pollen is available will consume more honey than colonies unable to rear brood. Mr. Ranum states that about 90 per cent of his colonies which starved last winter had been well stocked with pollen. Some of these had been marked "very heavy" or "heavy" and a few that were given a moderate amount of sugar syrup in the fall were marked "good weight."

Honey Chews

½ cup butter.
1 cup honey.
1 cup walnuts.
½ cup dates.

Mix all ingredients except dates. Cook over slow fire about 50 minutes or until it forms a firm ball in cold water (266° F.) Stir often. Remove from first and add chopped dates. Let cool and cut in squares. Wrap.

First prize, 1936 Contest, Mrs. Ila McEwan, Cal.

Comparing Races of Bees

IN THE report of the Iowa State Apiarist for 1937, is an interesting article entitled "Races of Bees for Iowa", by O. W. Park.

Carniolan bees led in honey production. The Carniolans ranked first, followed in order by Italian and Caucasian. The following table shows production for each race of bees during the five years.

HONEY PRODUCTION AVERAGES

Season	Caucasian Lbs.	Italian Lbs.	Carniolan Lbs.
1932	168.6	177.7	165.2
1933	208.0	267.0	244.6
1934	105.9	116.0	200.5
1935	17.8	20.2	22.4
1936	148.2	147.9	242.7
5-year weighted average	117.3	146.1	173.0

The report goes into considerable detail as to qualities of the different races, so we can give only a brief review. The following is a chapter on the comparison of the dispositions of these bees.

Disposition

"Little fault could be found with the disposition of any of the races or strains used in these studies, so long as conditions were favorable for handling bees. Under conditions somewhat less than favorable, both the Caucasians and the Carniolans were slower to show resentment than were the Italians. At times, however, when bees had to be handled during cold, windy or rainy weather, the Carniolans handled best, Italians next best and Caucasians worst. With reference to the handling qualities of the particular strains studied, our observations would require us to rate the Carniolans first, the Caucasians a close second and the Italians third.

Propolis

"Both strains of Caucasians tested were found to use far more propolis than either of the other two races under test. Before their hive bottoms could be adjusted for winter, a propolis barrier had to be chiseled out of practically every Caucasian colony. An occasional colony of Carniolans was found to show a tendency toward excessive use of propolis, but as a rule colonies of this race propolized only slightly more than did the Italians.

Summary

"Carniolans led in honey production, economic use of winter stores, freedom from supersedure and queenlessness, and in disposition. Their greatest drawback is their swarming propensity.

"Italians ranked second in the highly important item of honey production and led in freedom from the propensity to swarm, response to swarm control measures and in freedom from the use of propolis. While its faults are not outstanding, this race is considered somewhat deficient in winter hardiness, colony development in spring and in disposition.

"Caucasians failed to excel in any of the characteristics studied, but ranked second in freedom from winter-killing, colony development in spring, freedom from propensity to swarm, response to swarm control measures and in disposition. This race made a less favorable showing in honey production than either of the others, was less economical of winter stores and used propolis in excess.

"Further studies are needed before definite conclusions and specific recommendations would be justified but, in general, it may be said that all three races are worthy of careful consideration. The race that pleases one man may not suit another. Beekeepers who plan to try out a different race are urged to do so on a small scale until they become familiar with its propensities."

Old Man: "I'll give you a dime, little girl, if you give me a kiss."

Little Girl: "Pooh on that stuff—I can get a quarter for taking castor oil.

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For fifty years Dittmer's foundation has given absolute satisfaction wherever used.

Our process of manufacture, with heavy cell base, imparts strength and pliability to foundation. It is instantly accepted by the bees.

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