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WISCONSIN HORTICULTURE

SEPTEMBER, 1936

ORCHARD AND GARDEN SUPPLIES

Spray and Dust Materials
Orchard Ladders
Baskets
Picking Bags
Packing Equipment

Write for Prices

F. R. GIFFORD CO.
2201 University Avenue
Madison, Wisconsin

The production of maple syrup and maple sugar is purely an American industry, the United States and Canada being the only countries where these products are made.—Massachusetts Extension Service.

A cord of hickory wood weighs 4,468 pounds. The same amount of red oak firewood weighs 3,255 pounds; of ash, 3,449 pounds; of hard maple, 2,864 pounds; and of beech, 3,234 pounds.—Massachusetts Extension Service.

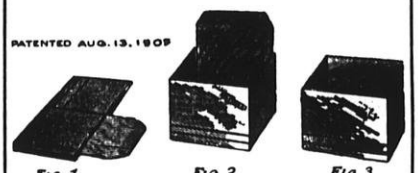

Fig. 1 Fig. 2 Fig. 3

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
The Wisconsin Garden Club Federation

Established 1910

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TABLE OF CONTENTS

	Page
The Root System of Apple Trees	3
Apple Advertising Possibilities	4
Protect the Orchard Against Mice	6
The Orchard May Be Fertilized This Fall	7
In the Berry Patch	8
Cranberry Growers Meet at Wisconsin Rapids	9
Door County Becoming Important Strawberry Section	9
Horticultural News	10
The Value of a Magazine	11
Fruit Show Premium Schedule Annual Convention	11
Editorials	12
Lotus Increasing in Wisconsin	13
Abount the Home and Garden	14
Coming—An Exposition for Horticulture	15
Gleanings From the Gladiolus Patch	16
The Time to Plant Peonies	17
Garden Gossip	18
Give Us Liberty In Flower Arrangement	19
State Garden Club Federation News	20
In the Garden	22
Lawns Can Be Made In September	23

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Subscription to Wisconsin Horticulture is obtained by membership in the Wisconsin State Horticulture Society for which annual dues are $1 per year or $1.50 for two years. Garden Clubs, Horticultural Societies, and other Horticultural Organizations are affiliated at a reduced membership rate.

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.

The Root System Of Apple Trees

L. P. Batjer, West Virginia Experiment Station

UNLIKE the above ground parts of an apple tree the root system has no dormant or rest period. Root growth takes place any season of the year when moisture and temperature conditions are favorable and when food material made by the leaves is available for growth. It is generally thought that the greatest root growth takes place during the growing season when the top of the tree is growing the least. This would be between June and September. Root growth takes place to some extent during the entire winter.

The root system of an apple tree varies, depending upon the kind of soil and to some extent upon the variety and the root stock. Several 40-year-old trees located on imperfectly drained soil were examined in New York and found to root only 2½ to 3 feet deep, while trees located on a well-drained soil rooted 12 to 15 feet deep.

Apply Fertilizers Over Large Area

An apple tree root system, regardless of the soil type, has a lateral extent much greater than the spread of the branches. In any mature orchard the roots of the different trees overlap in the middle. The roots are more concentrated immediately adjacent to the trunk and they decrease in concentration as the distance

from the trunk is increased. This is true at any depth. A commonly given reason for placing nitrogen fertilizer directly beneath the spread of the branch is that the feeding roots are more concentrated at this point. The feeding roots, however, increase in abundance as the trunk of the tree is approached. Trees very low in vigor can be stimulated quicker by applying nitrogen fairly close to the trunk where the roots are more concentrated per cubic foot of soil. Nitrogen, however, stimulates root branching and increases the absorbing area, and for this reason it is advisable to apply it over the entire surface, once the vigor of the orchard is built up.

Cultivate Shallow

On any soil type the greater proportion of the roots are contained in the upper layers of the soil. In New York State, with several hundred trees examined, growing on soil of widely different textures and degrees of drainage, over 60 per cent of the root system occurred in the first 16 inches of the surface soil; at least one-third of the root system was located in the first eight inches of soil. A fruit grower will do well to keep this point in mind when cultivating in the orchard. I have seen shallow rooted orchards seriously injured by loss of roots from deep cultivation. It has taken some of these orchards years to recover.

Helpful Practices Where Soil Moisture May Be Limiting

Most of the trouble experienced with unfavorable soil may be traced to a water shortage for the tree at certain critical times. The problem of conserving moisture becomes important as the adaptability of the soil decreases. Moisture conservation is a broad subject and few generalities can be made that would apply to all soil and climatic conditions.

Heavy mulching with straw, cornstalks or other similar material is an excellent method of conserving moisture. A heavy application of such material reduces surface evaporation, keeps down weed growth competing with the tree for soil moisture, and—most important of all—increases rain penetration by reducing run-off. There are, of

course, certain disadvantages of mulching such as mice and fire hazards. Building up the organic matter content of the surface soil by means of cover crops aids in moisture conservation by reducing run-off. Frequent mowing of sod and cover crops during periods of drought is a good practice. Deep rooted plants such as alfalfa and sweet clover should not be grown in orchards on shallow soil because of the severe moisture competition. If cultivation is practiced in connection with a cover crop program, it should be only deep enough to accomplish the purpose. Severe injury to the roots can be caused by deep disking on shallow soils.

The value of a soil which naturally affords deep rooting cannot be over-emphasized. Fruit growers should keep in mind that shallow rooted trees are less productive, more susceptible to sun scald, spray injury, winter injury, drought spot and other troubles connected with moisture shortage.

It is not my purpose to minimize the importance of soil fertility in orcharding. However, if fertility is lacking it is far easier and cheaper to correct this situation than it is to improve an inherently faulty orchard soil.—From the Report of the Maryland State Horticultural Society.

FROM DOOR COUNTY

MR. S. S. Telfer of Ellison Bay writes: "We harvested 1400 cases of cherries here at the Ellison Bay orchard. This, I believe, is the best of any single orchard in the county. Cherry foliage in the county as a whole looks very good. Some growers reported no prospects for a crop for the coming season. This is entirely erroneous as there are plenty of fruit buds.

"The apple crop looks pretty sick up here due to lack of rainfall. The trees are badly wilted and the fruit getting no larger or any color."

Apple Advertising Possibilities

PLANS for increasing the use of apples were discussed at a meeting of apple growers, members of the National Apple Institute at Cincinnati in June.

Mr. Geo. Eager, representing an advertising firm, presented some information every grower should study. We give here a portion of his paper.

"Association advertising helps to make an entire industry more market minded.

"It tends to produce better grading of the product, better quality, better packages, and better retailing methods.

"Association advertising tends to unite the various factors in an industry by bringing them together into one common effort.

"Last, and most important, is the effect of association advertising on the stabilizing of prices and the increase in public consumption of a product. On this point, I would like to quote a few figures on the effect of advertising by growers in other fields.

Why Some Fruits Sell Better

"In the first place here is what other packers are spending for advertising:

Oranges, 5 cents per box.

Lemons, 10 cents per box.

Pineapples, 5 cents per box.

Cranberries, 50 cents per barrel.

Walnuts, 50 cents per 100 pounds.

"And here are some records of results:

Walnut Growers—

Production in 1909—22,070,000 lbs.

Production in 1934—78,000,000 lbs.

Price in 1915—13.6 cents per lb.

Price in 1930—20.0 cents per lb.

The Possibilities

"Now getting down to the possibilities of organizing the apple industry for national advertising ,let us look at the unfavorable side of the picture and get it out of the way first.

"You have a scattered industry—an industry that is not organized nationally for domestic marketing and promotion of apples.

"The apple is difficult to identify without a mark which can be demanded and looked for by the ultimate consumer. Only a small portion of your crop is sold individually wrapped. This inability to identify the product is a handicap.

"The trend of your business has been down and it is always more difficult to turn a downward trend up than it is to start from a low point and build up.

"A large section of your industry has not paid sufficient attention to proper grading and are not now equipped or apparently conscious of the necessity of selling graded fruit that will lead the public to buy again and again.

"You are suffering from the handicap of retailers not knowing how to sell apples. Many are not familiar with the varieties and their uses, are either ignorant or careless about proper storage of apples in the store so as to prevent deterioration.

"The industry is now composed of a number of sectional groups—some more aggressive than others. Will these sectional groups cooperate. Will the growers in one section appreciate the fact that the prices they receive in the principal markets are, to a considerable extent, determined by the available supply in those markets of apples from an entirely different section. If each section believes that it will prosper by staking out a share of a declining market there would seem to be nothing but trouble ahead.

The Bright Side of the Picture

"Having looked at the gloomy side of the picture, let's put it aside, out of the way, and look at the favorable constructive side.

"In the spring of this year we called on 275 families in New York, Boston, Buffalo, Pittsburgh, Chicago and Minneapolis and asked them questions about apples. Of these 275 families, only 3, or about 1%, said they didn't like apples. Only 22% said they were eating more apples than they did five or six years ago and of the 78% remaining, the largest percentage were eating less than they did five years ago.

"The apple is in a favorable position from another standpoint. That is, the trend of pubic food habits is toward the increasing consumption of fresh fruit and vegetables and when a product can fit into a favorable trend, advertising can produce results for less cost.

How to Advertise

"The significant thing is that today's advertiser tells you what a product will **do for you.** He spends little time patting a product on the back, boasting about how well it is made or packed, but makes his main appeal on something more interesting—the things people want out of life. Men want health and success in business. Men and women want to know what will make their children healthy and happy. Women want to know how to make themselves attractive, how to get husbands—how to hold husbands. These are the big appeals that modern advertisers are using. So if you want to profit by what others have found successful, look into your product for these things that will give people the important things they want out of life."—From Better Fruit.

Cover cut courtesy "Horticulture," Boston, Mass.

MAPLE SYRUP NO GOOD FOR PAINT

A CLIPPING from New York State was sent in by Mr. Ingman Nelson of Westby stating that a high school teacher at Norwich painted his own house but found that swarms of bees, flies and bugs stuck fast to the newly painted surface. This puzzled him until he investigated and found a can of oil intact in his cellar and nearby an empty can of maple syrup. Sweets have their place, but not in paint.

LIVINGSTONE'S REPELLANT

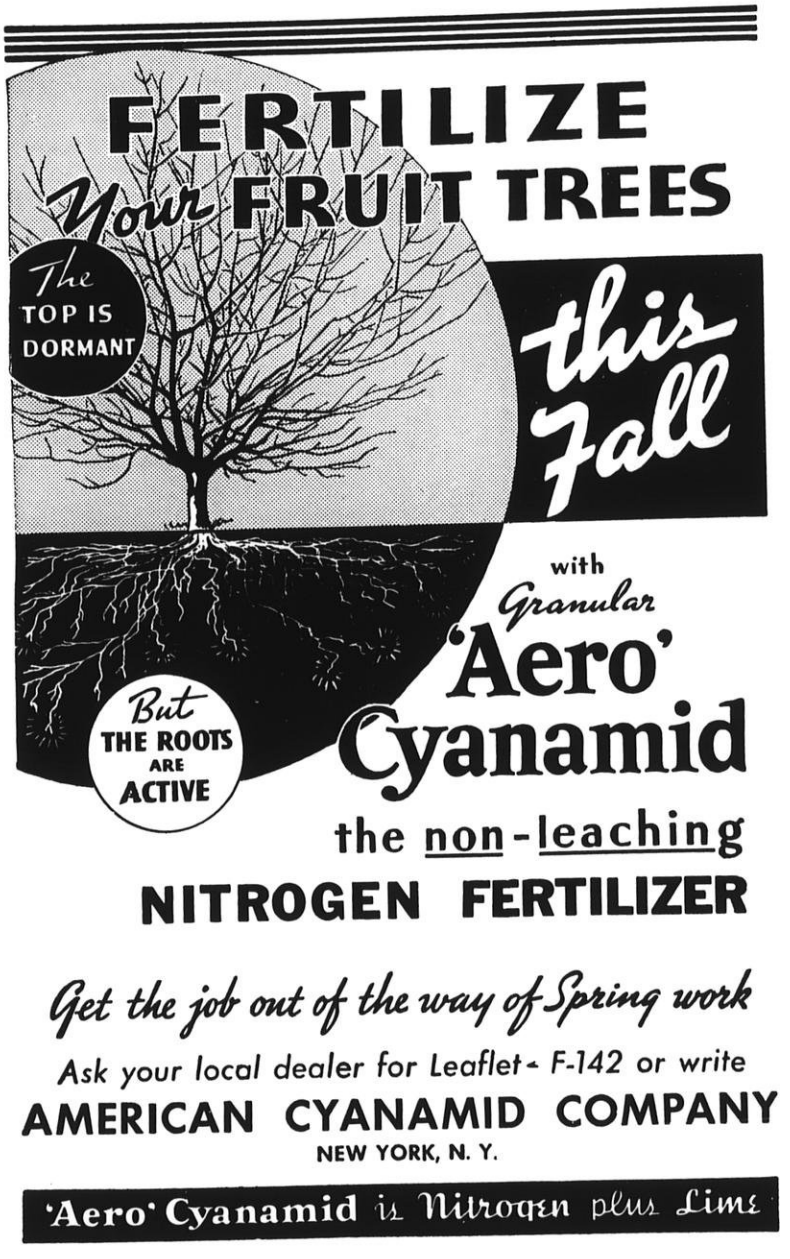
For Rabbits and Mice

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.



Protect The Orchard Against Mice

G. C. Oderkirk

AN abnormal infestation of field mice has prevailed in the north central states the past year and reports from fruit growers indicate that considerable injury has resulted to shade and fruit trees, principally apple and cherry, bush fruits, and ornamental shrubs. The high population of mice in fields and orchards continued through the summer and unless the infestation is soon reduced by disease or other factors responsible for their decimation, further injury may be expected during the coming fall and winter months.

Use Wire

A number of methods have been used to protect trees from injury by mice. Wire netting, wood veneer, paper, and cloth, covering the trunks of the trees to a height of about 18 inches, is quite effective, particularly the wire of four meshes to the inch. Cleaning the sod and weeds, leaving a bare area at the base of trees is a good practice to prevent injury by mice to the trunks of trees. It has little effect, however, in preventing injury by mice that commonly make underground runways and girdle the roots of the trees.

Tamping Snow

Some orchardists find that the girdling of trees in winter above the surface of the ground can be greatly reduced by tamping the snow surrounding the tree trunks. All of these methods have proven quite effective but it usually pays to actually reduce the infestation of mice to insure fairly complete protection to the orchard. This can be done practicably by the use of poisoned baits, placed along the surface runways or holes in the ground, made by mice.

In selecting a bait to control mice it has been found that they have a preference for certain foods, usually accepting vegetables such as sweet potatoes and carrots, and grains such as steam crushed whole oats, rolled oats, and wheat, quite well. A good practice in winter, when a slight depth of snow permits baiting the mouse runways, would be to make the initial bait exposure with a combination of rolled oats and wheat, following a week or so later with a steam-crushed whole oats bait. During the fall or spring months the first baiting could be made with the whole oats bait, followed a week later by the vegetable bait.

NEW PRICES ON OATS BAIT FOR MICE

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

F. O. B. Madison

Address:
Wisconsin Horticultural Society
1532 University Avenue
Madison, Wisconsin

Oats prepared by the U. S. Bureau of Biological Survey. Handled gratis by the Society.

Make checks payable to "Rodent Control Fund."

When to Bait

It is usually advisable to expose more than one bait to secure a high degree of control. If the orchard seems to be quite heavily infested with mice this fall, it would be well to bait early and try to reduce the infestation before snow covers the ground. If snow would be anticipated by November first or shortly thereafter, it would be best to make the initial bait placement the first week in October, using a steam crushed oats, following within a few weeks with an exposure of sweet potatoes or carrots or, preferably, both. Then, if it is planned to leave a poisoned bait in stations in the orchard during the winter, a steam-crushed oats bait could be placed in the bait containers to be left beneath the snow, thus furnishing mice a supply that will be available for several weeks.

Bait Stations

Bait stations protect the baits from the weather and prevent birds and other animals from consuming it. Several types of bait stations constructed of wood, glass, metal, or building paper, can be used. Although stations made of wood, metal, and glass have been common in the past, those made of a light weight asphalt building paper that is water-proof, are being used more widely each year. The paper is cut into pieces approximately 9 x 13 inches and rolled to make a tube that is about two inches in diameter. The tubes may be held in shape with paper clips, staples, or string. Tar paper should not be used as the tar may have a repellant effect on the mice.

The poison stations should be baited with a tablespoonful of grain or three or four small cubes of vegetable bait, and placed in active mouse runways. These runways are easily found by parting the matted grass or weeds. Look at the runways before placing a station to note if it is being used. Fresh mouse droppings will be found in active runways and the grass will be kept out of the runs.

To be continued in our next issue.

THE ORCHARD MAY BE FERTILIZED THIS FALL

FRUIT growers are gradually changing from applying nitrogen fertilizers in the orchard in the spring to applying them in the fall.

About a dozen states report experiments showing that fall application of fertilizers has some advantages.

The nitrate fertilizer is applied right after McIntosh have been picked or between the middle of September until October. The tree roots absorb nitrogen in large amounts nearly all fall and winter. In fact, it is said that it is not necessary that the leaves be on the trees for nitrate absorption.

Experimentors find that weather and soil moisture conditions often interfere with the effectiveness of spring application of fertilizers if nitrogen is applied too late. Then a large part of that required by the tree early in the season must come from its reserve. If the fertilizer is applied late in the spring, grass and other plants making up the sod will get a larger share of it than is desirable. In the fall of the year the nitrogen is absorbed by the trees and stored in the larger roots for use in spring, so probably we will find as time goes on that fall application is even better than spring application.

FOOD RESERVES IN TREE AT START OF WINTER HELP AVOID WINTER INJURY

INFORMATION on contributing causes to winter injury is being gathered all over the country, says Dr. E. P. Christopher, Rhode Island Experiment Station, in New England Homestead, Vol. 108, No. 19. Fertile soils and large food reserves in the tree at the beginning of winter are everywhere recognized as important safety factors, he adds.

Dr. Christopher states that a great deal of consideration is being given to fall fertilization. Experiments demonstrated that nitrogen fertilizer applied in September made leaves stick on the trees and stay a dark green much later in the fall. Experiments were made to determine the late fall activity of leaves on fertilized and unfertilized trees. The results, he says, were striking. Leaves on fertilized trees manufactured several times as much food as those on unfertilized trees.

"We therefore again advise growers of the possibility of providing better root and conducting tissue development, increased food and nitrogen storage, and increased cold weather resistance by fall fertilizer applications."—From American Hortigraphs and Agronomic Review.

A PAINT FOR PROTECTING TREES AGAINST MICE

MR. James Livingstone of Milwaukee, former president of the Wisconsin Horticultural Society, has an ad in this issue advertising a tree paint which he claims will protect trees against mice and rabbits.

Offhand, most orchardists will hesitate to try a paint because of failures in the past. Mr. Livingstone makes this statement.

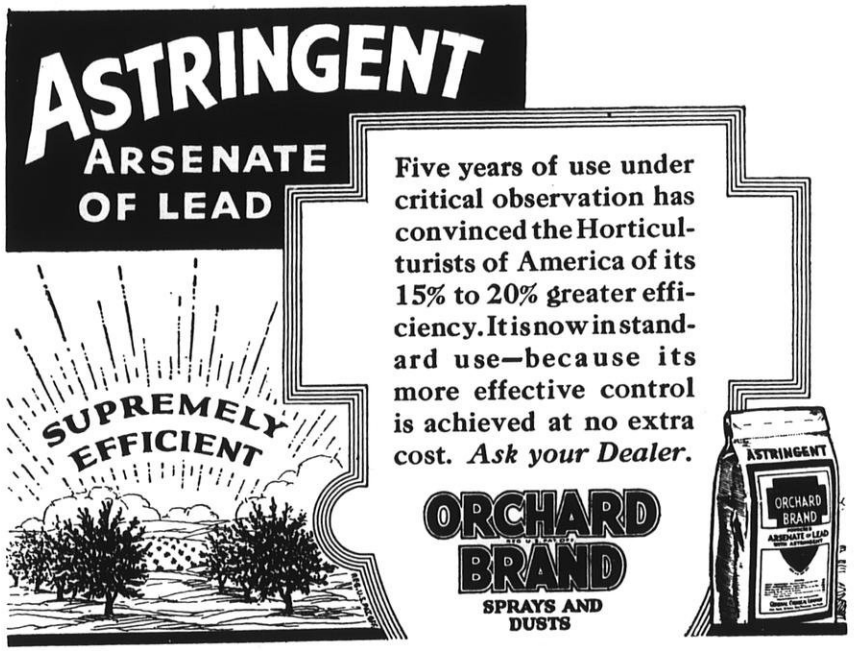
"I have used this paint myself for over thirty years, and have had entirely satisfactory results. It gives complete protection and in my experience with it, has positively never injured a tree."

Mr. Livingstone states that he made this paint for his own use and never intended to commercialize it until just recently when he decided to give orchardists and nurserymen a chance to try it.

A letter from C. E. Godshalk of the Morton Arboretum at Lisle, Illinois, to Mr. Livingstone reads as follows:

"We find that where we used your paint to stop damage by mice which were girdling many of our trees, the paint was one-hundred percent protection in all cases where it was used.

"We shall be glad to recommend your product to any one who comes to us for advice, and will be in the market for some more of your paint."



In The Berry Patch

STRAWBERRIES AT WARRENS

By H. H. Harris

MOST strawberry fields that fruited this season were mowed about the middle of July. Very few did anything else to them, on account of the ground being so dry. Some removed the old mulch and some did not. We mowed ours July 17th and removed all loose mulch, weeds and leaves as clean as the rake gathered it. About a week later we plowed a furrow from one side of each row, carrying the furrow so that all furrows were turned in the same direction. Then the field was harrowed in each direction, lengthway of the rows first. The plowing was shallower than usual, as the ground was so hard and dry. After the harrowing most all loose dirt was dust. The whole operation thinned out the remaining plants in the rows so they look rather thin and only an occasional runner was left hanging to the mother plant.

To date, August 13th, we haven't had enough rain to wet a board all over, since July 23rd but still all live plants have started new leaves. I think a good many plants were nearly dead from lack of moisture and the intensive heat soon after the fruiting season ended.

Mowing Only May Be Best In Dry Season

Fields that were mowed and nothing further done to them have formed new foiliage and if there is no perennial grass or weeds that live over winter these fields will have more plants than those that were plowed.

I haven't seen many new plantings, but our own are setting some runners and with good cultivation and not too long extended drought will make good rows. Where frequent cultivation and hoeing has been done, a good shower would make it easy to get the runners rooted to the ground.

Judging from what I have seen, including my own, and what others say, I think there will be some good new setting on the favorable soils and some that will not amount to much on the higher, lighter, older and poorer locations. Of the old beds that do not get any cultivation, some may be quite good and some not amount to anything at all.

With no cultivation during the fruiting season and none since, our blackcap raspberries have made exceptionally nice growth of new bushes. I cut the old brush out when the folks said there were no more berries.

Returns from strawberries through the Association were quite satisfactory to the growers here at Warrens, at Alma Center and Tomah.

FROM BAYFIELD

MR. Carl Sundquist of the Bayfield Peninsula Fruit Association writes on August 11th.

"The conditions here have been rather dry. Strawberries did not run over 25% crop. Raspberries suffered continually but have come across in some patches with about a 50% crop and others not so well.

"Apples are beginning to show the effects of dry weather. Some orchards are holding up very well, however. The apples are small but are perfectly clean with no scab. This is much better than to have them small and scabby.

"We have predictions of rain this week so we hope the apples will improve."

The Bayfield Association paid the membership in the Wisconsin Horticultural Society for 30 of their leading growers.

FALL DIGGING OF STRAW. BERRY PLANTS

By Wesley Reynolds, Warrens

DURING the last eleven years I have had winter damage about eight times. That has caused me to experiment with fall digging for spring selling the last three years, with the result that I am confident I will have good plants if dug in the fall and properly heeled in and covered.

Last fall the first frost came the first week in October so there was no chance to protect against it but it was gratifying to find that my fall dug plants were exactly as good as the spring dug plants.

Much care must be taken with the heeling in. The plants must not be tied in bundles. They can be well covered, which cannot always be done in the field. They may be covered enough to prevent the ground freezing—but care must be taken to remove the covering in the spring. That is valuable for anyone having early orders from the South.

I don't believe any damage is done by too much mulch covering in the late fall, but every spring I have observed considerable damage from leaving the mulch on too late. After the frost is out and growing weather starts the mulch must be removed. It will not hold the plants back but will smother them. Smothering always injures the plants.

WELL-FED RASPBERRY PLANT CAN STAND THE COLD

WINTER hardiness of some of the berries, particularly raspberries, is not entirely a matter of winter temperatures or snow cover. It is the well-fed raspberry plant that endures cold winter weather. When the

summer climate is favorable to development of anthracnose (gray bark) and leaf spot, the plants are defoliated and go into the winter weakened and with scant reserves of food, says George M. Darrow of the Bureau of Plant Industry. The result is winter injury.

In Maryland, for example, where winter temperatures are relatively mild because it is near the southern border of the raspberry range, there has been much winter-killing among varieties that are known to be hardy even in Canada. To prevent winter injury, growers need to spray regularly in the summer for control of fungus diseases.—From American Hortigraphs.

SOW A COVER CROP IN THE RASPBERRY FIELD

MINNESOTA raspberry growers have adopted the practice of sowing oats or barley in the raspberry field during September, especially if there is plenty of rain and the raspberries are making a good growth. Prof. W. H. Alderman of the Minnesota Horticultural Department has recommended this practice for a number of years. In his opinion, if the rainfall is normal, there may be a tendency for the canes to be somewhat tender when cold weather comes. Sowing a crop of oats and barley will then be of considerable benefit as it takes up much of the moisture and stops the growth of the canes.

The grain can be sown between the rows as early as possible in September. Never sow rye because it will not winter kill and will prove a weed difficult to get rid of next spring.

Annual grains, however, will not only cause the canes to become dormant sooner, but will tend to hold the snow and furnish some humus for the soil. It should be especially valuable if the soil washes on hillsides.

CRANBERRY GROWERS MEET AT WISCONSIN RAPIDS

THERE was a good attendance at the annual summer meeting of the Wisconsin Cranberry Growers Association held at Wisconsin Rapids in August.

Mr. E. L. Chambers, State Entomologist, Mr. L. Rogers and Mr. H. Bain gave excellent talks with information and advice on the pest and disease situation. Mr. W. F. Grimmer of the Conservation Department, Game Management, gave a timely explanation of the muskrat-beaver trapping laws as it affects our industry. Mr. Jens Jensen of Ellison Bay, landscape architect, spoke on conservation.

Crop Estimate

Mr. C. M. Chaney gave the crop estimate for August as follows:

Massachusetts, 350,000 barrels.

New Jersey, Long Island, 80,000 barrels.

Wisconsin, 53,000 barrels.

Oregon - Washington, 21,000 barrels.

New Jersey crops were damaged by early spring frosts, and Wisconsin suffered from the July heat and drought.

—Clare S. Smith, Secretary.

CANVAS HOSE IRRIGATION GAINING HEADWAY

A NUMBER of Wisconsin small fruit and vegetable growers tried out the canvas hose system of irrigation this season. With prices as they are, and with such a terrible drought, irrigation would have paid this year if the cost of the water was anywhere within reason. For strawberries, raspberries ,potatoes and similar crops the canvas hose system has proven very successful in many states, notably in Michigan where the idea originated. In fact, it is being used successfully in orchards in some sections, though whether it would pay in the orchard will depend upon the cost of pumping the water and the value of the fruit crop.

DOOR COUNTY BECOMING AN IMPORTANT STRAWBERRY SECTION

ACCORDING to County Agent B. F. Rusy of Sturgeon Bay, there were between 1,000 and 1,200 acres of strawberries in production this year in Door County. Due to the low prices received from cherries during the past few years, many growers have turned to strawberries as an additional source of income, following out the very good advice, "don't put all your eggs in one basket."

The Reynolds Preserving Company is taking an active interest in the strawberry situation in Door County. They are planning to carry on variety tests to determine the best varieties for shipping and canning on Door County soils.

The Horticultural Society will cooperate in providing the plants and carrying on this test with the growers. The growers will have a steady market for the berries because the Canning Company will be able to take care of a large crop of the fruit by canning.

ALREADY BLOWED

A certain middle-aged spinster has a vivid memory of Texas courtesy.

She was struggling with a hot cup of coffee in a small-town railway station, trying to gulp it before the train pulled out. A cowboy, seated a couple of stools away, noted her plight, and seeing the guard waving to the woman, came to the fore.

"Here, ma'am, you can take my cup o' coffee. It's already saucered and blowed."

Horticultural News

By A. F. Yeager, North Dakota

MANY of my friends in the past few years have been inclined to think me too conservative in not handing out a recommendation for Chinese elm. However, we have taken the position that the tree was still under trial. After this winter, I am still more inclined to think so. A great many of the Chinese elm in this region were severely winter killed last winter, while beside them the American elm was not damaged. Perhaps this is only a local condition and does not apply to the state generally. Any of our members who agree or disagree with the above statement will be doing all of us a favor if they will write in their observations.

The Market Growers Journal suggests the use of rhubarb stalks which are too tough to sell as a source of rhubarb juice. Add one cup of sugar to a gallon of the juice before canning.

The Michigan Experiment Station reports that the more frequently cucumbers are picked the greater total number of fruits, though longer intervals give greater total weight. Where intervals were longer than 4 days more culls resulted. They suggest picking at least twice each week.

The blossoms on the potato plant have nothing to do with the production of tubers. The plants may produce a normal crop without blossoms, or if they do bloom the removal of the blossoms will not affect in any way their productiveness.

A writer to GARDENING ILLUSTRATED says that 1 teaspoonful of powdered borax mixed with 3 teaspoonfuls icing sugar and spread around freely where black ants can get at it will destroy them completely.

The English Gardeners Chronicle gives as a satisfactory method for catching wasps the filling of an ordinary fruit jar two-thirds full of water then adding fruit juices or jelly. Set near the wasp nest and the insects fall in and drown.

The American Rose Magazine states in the Adams Garden at Quincy, Mass., there is a rose bush which was planted in 1788.

Market Growers Journal says that sweet corn shipped in bags first dipped in ice water then iced for shipment will arrive in good condition some distance away.—From North and South Dakota Horticulture.

OUR ADVICE TO YOU . . .

may not be worth any more than a wooden leg to a tight rope walker, but here it is:

Out of this kindergarten of experience, commonly called "Fruit Tree Injury," has come one important lesson. The fruit grower who does not choose to change his ideas or his methods will find the road to prosperity rather rough.

It's going to take all the running you can do to keep in the same place. Change and competition march down Main Street arm in arm. They must be met face to face.

The fall and winter of 1935-1936 saw more fruit trees injured or destroyed through mouse injury than many fruit growers care to relate. In some instances the loss and damage caused by mice was simply enormous!

Years of effort and investments of consequence wiped out in a few weeks.

Well, here's the remedy! Use poison bait, and just because the word POISON happens to be in the limelight, don't get panicky. No one is going to be hurt.

Use one ounce of pure powdered strychnine to half a bushel of wheat. We'll tell you exactly how to mix it and use it. Forget all about oats. Mice will run around a carload of oats to get a taste of a kernel of wheat. So there you are, Mr. Fruit Grower! Nothing to it, and next spring you won't have dozens of trees to bridge graft or re-plant.

No use buying your poison bait ready mixed. The freight or express will cost you as much as the bait itself. Mix your own and save money.

We promised to give you our advice. It's just this . . . start thinking about mouse control in your orchard NOW! Your neighbor may have begun.

PURE POWDERED STRYCHNINE, U. S. P.

All Prices Prepaid

1 oz. tin ..... $ 1.10
5 oz. tin 4.50
25 oz. tin 19.00

Full Directions Furnished

C. W. AEPPLER COMPANY — Oconomowoc, Wis.

THE VALUE OF A MAGAZINE

DEAN Chris L. Christensen of our College of Agriculture, speaking before the Association of Agricultural College editors, stated:

"Work done by the Universities and other departments of Farm Research could not be effective without the cooperation of an efficient farm press."

Says the Milwaukee Journal in an editorial. "A veritable army of researchers, chemists, experimental farmers, and we don't know what all, is to work all the time. Their work is producing something useful to someone—if it reaches him.

"The 'if' is a large one. So much of the results of this study is buried in the ponderous tomes with which governments and foundations and the like keep the printer busy. The gold is there, but what busy man has the time to search it out for himself? The searching must be done by someone. It must be someone who can tell gold when he finds it—someone who knows what the man needs who is supposed to be helped.

"No industry flourishes today without reliance on all kinds of trade papers. A farmer's industry is not different, though few farmers can maintain an organization to study out the facts which may be helpful."

The above remarks emphasize what we are trying to do in Wisconsin Horticulture. Very few magazines or journals are doing what we are trying to do—give to the horticulturists the results of research and successful practices found profitable by producers.

PREMIUM SCHEDULE

FRUIT SHOW

Annual Convention Wisconsin Horticultural Society

NOVEMBER 4-5, 1936, STURGEON BAY

INDIVIDUAL GROWERS DISPLAY

Premiums: 1st prize, $35; 2nd prize, $30; 3rd prize, $25; 4th prize, $20; 5th prize, $15; 6th prize, $15; 7th, 8th, 9th and 10th prizes, $10 each.

Display to consist of: 10 trays; 5 bushel baskets; 5 half-bushel baskets; 15 plates of not less than 5 nor more than 10 standard or new varieties.

EDUCATIONAL DISPLAY OF MARKET CONTAINERS FOR APPLES

Five points will be added to the total score of each individual exhibit if some type of marketing containers in addition to any already called for are shown. Example: small basket, colored mesh bags, boxes, etc. At least 3 containers must be shown for credit.

Special Premiums for Market Display: 1st prize, $10; 2nd prize, $6; 3rd prize, $5; 4th prize, $3; 5th prize, $2.

The above prizes will be given for the most educational displays of market containers filled with apples shown in individual booths. Will be judged separately from rest of exhibit. May be a part of grower's individual display.

TRAYS

Trays will be furnished and placed on tables.

Premiums on each variety, Classes 1-7. 1st prize, $2; 2nd prize, $1.50; 3rd prize, $1.

1. Ben Davis
2. Gano
3. Golden Russet
4. Northern Spy
5. Salome
6. Jonathan
7. Golden Delicious

Premiums on each variety, Classes 8-13. 1st, $2.50; 2nd, $2; 3rd, $1.50; 4th, $1; 5th, $1.

8. Grimes Golden
9. Snow
10. McIntosh
11. Delicious, Red Delicious or Starking.
12. N. W. Greening
13. Wealthy

PLATES OF APPLES

Premiums on each variety, classes 14-31. 1st, $1; 2nd, 75c; 3rd, 50c; 4th, 50c; 5th, 50c.

14. Ben Davis
15. Gano
16. Grimes Golden
17. Golden Russet
18. Jonathan
19. Cortland
20. Delicious
21. Northern Spy
22. Salome
23. Westfield
24. Tolman Sweet
25. Windsor
26. Golden Delicious
27. Snow
28. McIntosh
29. N. W. Greening
30. Wealthy
31. Any other variety

NEW VARIETIES—PLATES OF 4 APPLES

Premiums on each variety, classes 32-37. 1st, $1; 2nd, 75c; 3rd, 50c; 4th, 50c.

32. Haralson
33. Macoun
34. Orleans
35. Kendall
36. Newfane
37. Secor

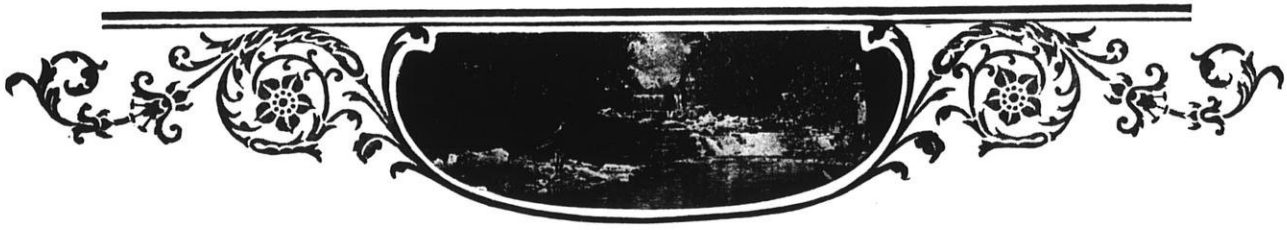
CHAMPION SEEDLINGS

Plate of 5 Apples

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

Open to past prize winners in the Society's seedling exhibits or new seedlings submitted for approval in advance.

EDITORIALS



THREE BIG CONVENTIONS COMING

THE Wisconsin State Horticultural Society will assist three of its affiliated state-wide organizations in conducting their annual conventions this year, as is our practice in helping all organizations affiliated with the Society.

The Wisconsin Garden Club Federation is planning its convention at the Loraine Hotel, Madison, on October 13-14. In connection with it there will be a flower show. The early dates will allow for exhibiting hardy garden chrysanthemums and other flowers. We are now corresponding with speakers from Michigan and Iowa for the program. It will be an interesting gathering and the attendance should be very large.

The Fruit Growers

The annual business meeting of the Society will be held in connection with the fruit growers convention at Sturgeon Bay November 4-5. Already a large number of commercial concerns have reserved space in the large High School Gymnasium to exhibit machinery, insecticides and orchard equipment. A total of $450 is being spent for the fruit show, which will also be held in the Gymnasium. Mr. Ben Rusy, county agent, is cooperating in this show, part of the funds being made available from the county fair.

The program will be entirely on commercial fruit growing and we will no doubt have speakers

from several other states on the program. We should have at least 250 fruit growers in attendance each day.

The Beekeepers

The Wisconsin Beekeepers Association will meet at Fond du Lac on October 29-30 in the Retlaw Hotel. Plans are being made for one of the largest conventions ever held. Since the district meetings in July brought out about 350 beekeepers, the Fond du Lac meeting should be a large gathering. Several speakers from Iowa are being asked to appear on the program, in addition to Wisconsin talent.

Many of our members do not quite understand the connection of these organizations with the Wisconsin Horticultural Society. Inasmuch as they are all affiliated and members of the Wisconsin Horticultural Society, which is a service organization, much of the work of planning and preparing for the conventions is done in the office of the Horticultural Society. The Society is now so large that it has been found advantageous to have separate meetings of the different branches of the organization because of the specialized interest.

Important Conventions

October 13 - 14. Annual convention Wisconsin Garden Club Federation, Loraine Hotel, Madison.

October 29 - 30. Annual convention Wisconsin Beekeepers Association, Retlaw Hotel, Fond du Lac.

November 4 - 5, Fruit Growers convention, annual meeting Wisconsin State Horticultural Society, Sturgeon Bay. High School Auditorium and Gymnasium.

HOW MUCH HONEY DOES WISCONSIN PRODUCE

FROM the U. S. Department of Agriculture, Bureau of Agricultural Economics, comes the report of the estimated production of honey in all of the states in the United States. The following are the number of pounds produced from 1928 to 1934 in Wisconsin:

1928—13,430,000
1929—19,038,000
1930—11,715,000
1931— 5,197,500
1932— 5,800,000
1933— 5,200,000
1934— 6,500,000

In 1929 our figure of 19,038,000 was the largest production of any state in the United States. In 1930 we were in fourth place with California first, Iowa second, and Michigan third. No state holds the lead consistently, but Wisconsin is near the top most years.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

OFFICERS

A. E. Wolkow, Hartford, President
Arthur J. Schultz, Ripon, Vice-president
H. J. Rahmlow, Madison, Cor. Secretary
Mrs. Millie Francis, Recording Secretary
West Allis, R. 4, Box 608.
Paul J. Cypher, West Bend, Treasurer

BOARD MEMBERS
Frank E. Greeler, Neillsville
A. L. Kleeber, Reedsburg

Vol. XII **SEPTEMBER, 1936** **No. 9**

DISTRICT MEETINGS DRAW LARGE CROWDS

SPLENDID meetings of three districts of the Wisconsin Beekeepers Association were held July 24-25-26.

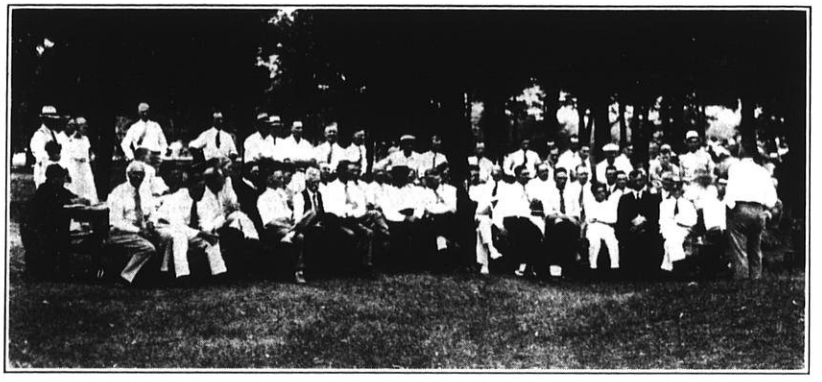
The meeting at the Schultz Apiary on the 24th brought out a crowd of 175 beekeepers and their wives. At the Boggs Apiary, Viroqua, 65 from the Southwestern District turned out and at the Elliott Apiary at Menomonie the total attendance was 125.

At each meeting a Woman's Auxiliary was organized. This was one of the outstanding features of the program. The meetings were conducted by Mrs. Malitta Jensen and Miss Mercedes Cranston of the American Honey Institute.

At each meeting the forenoon was spent in visiting and inspecting the apiary and extracting plant. This gave the beekeepers an opportunity to visit and there was considerable discussion among them about methods. During the noon hour we enjoyed a picnic luncheon. This was followed by an excellent program, with Mr. M. J. Deyell of Gleanings, Medina, Ohio, M. G. Dadant and C. P. Dadant of Hamilton, Illinois, Prof. H. F. Wilson, E. L. Chambers and H. J. Rahmlow, Madison, as speakers.

The district organization plan is working out unusually well and will be the means of building up with the largest and strongest State Association in country.

We wish to express our appreciation and also that of the beekeepers and their families in attendance for the privilege of visiting their apiaries and honey packaging plants and for the help given by Mr. and Mrs. A. J. Schultz of Ripon, Mr. and Mrs. Newton Boggs of Viroqua, and Mr. and Mrs. S. P. Elliott of Menomonie.



At the Western District Meeting, Menomonie, July. The Ladies' Meeting May Be Seen in the Right Background.

NOMINATING COMMITTEE APPOINTED

A COMMITTEE to nominate candidates for offices in the Wisconsin Beekeepers Association has been appointed by President A. E. Wolkow of Hartford. The committee consists of Mr. H. Hodgson, Waukesha, Chm.; Mr. Edw. Hassinger, Jr., Greenville; and Mr. Sam Post, Madison.

The committee will report at the annual convention to be held in Fond du Lac October 29-30. They will welcome suggestions from the members.

A blotter is something you spend your time looking for while the ink is drying.

STATE BEEKEEPERS CONVENTION

Fond du Lac, October 29-30
Retlaw Hotel

We are planning a fine program for the convention. Watch for details in the October issue.

All beekeepers are invited to attend the district meeting announced below.

DISTRICT MEETING

SOUTHWESTERN DISTRICT WISCONSIN BEEKEEPERS ASSOCIATION

Apiary of John Kneser
Hales Corners

Saturday, September 26

11 a. m. Inspection of extracting equipment.

12 m. Picnic luncheon — cafeteria style. Bring a hot dish, sandwiches or cake..

1:30 p. m. Two programs. Special program for the ladies. Good speakers.

The Kneser Apiary is 4 miles east of Hales Corners on County Trunk U between BB and 36.

How Are Your Queens?

A GOOD question for the beekeeper to ask himself during the early fall is "How many queens in the apiary are there whose work of egg laying is not up to par?"

We recommend you try this plan for this year. Go through your yard and give the brood nest of each colony a quick examination. Notice the following points:

1. How many frames of brood are there?
2. Is the brood solid without many empty cells, and does it come up close to the top bar and cover a large surface of the frame?
3. Are the bees irritable?

There is a big difference, at least in the average yard in what the queens are doing at this time of the year. Last fall we examined the brood and made a small mark on the outside of the hive to indicate the kind of queens. The term "ex," "g," "f," and "p" were used, meaning excellent, good, fair and poor.

We were interested this spring to find that all hives marked "p" were weak and throughout the spring did not build up fast, nor did they make very much honey this year. These colonies have been requeened.

Many beekeepers will agree that you can almost tell the amount of honey you will have next spring from a colony by the looks of the brood nest in August or early September. Try it and see.

Requeening can still be done. Rather than buy extra bees next spring to help weak colonies, it might be still better to invest 50c in a good queen now and have her raise some young bees to go into winter. These young bees are most likely to live over under normal conditions, and then it won't be necessary to buy bees in the spring.

Another type of queen that should be gotten rid of is one that produces bees that are so irritable they fly at the beekeeper the minute he opens up the hive and then follow him all around the yard. Better requeen such colonies now so that they won't raise a lot of drones next spring to mate with young queens produced in the yard.

There is some pretty good evidence that queens raised during the summer are of better quality than those raised in early spring. That's another reason for requeening in the early fall or summer.

Many beekeepers hold the opinion that proper mating of the queens can only take place during a warm day. In the early spring there are so many cool days that poor laying queens may result.

FOR SALE

Bee hives, eight and ten frames, in good condition, for sale at a reasonable price. Mrs. Rosetta Blumer, Monroe, Wisconsin, Route 5.

HONEY WANTED

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

NOTICE!

The following new retail prices cancel our 1936 catalog prices on Tin Containers.

Fresh stock of tin containers and the pails have the new **pure tin** solder feature.

2½ lb. cans, per reship. case of 24	$1.13
2½ lb. cans, per carton of 100	3.90
5 lb. pail, per reship case, 12	1.03
5 lb. pails, per carton of 50	3.50
10 lb. pails, per reship. case, 6	.82
10 lb. pails, per carton of 50	5.05
60 lb. cans, in bulk, each	.34
60 lb. cans, per case of 2 cans	1.00

F. O. B. Boyd, Wisconsin

Orders of $50.00—5% discount.
Orders of $100.00—10% discount.

For a complete list of glass and paper honey containers, refer to our 1936 catalog.

AUGUST LOTZ, CO.
Boyd, Wisconsin

HONEY CONTAINERS AND LABELS

WISCONSIN BEEKEEPERS' ASSOCIATION

TIN CONTAINER PRICES

	50	100	500	1000
2½ pound pails	$1.75	$3.50	$17.50	$34.00
5 pound pails	3.15	6.25	31.00	60.00
10 pound pails	4.50	9.00	43.00	85.50

60 pound cans—2¼" opening, packed 24 to carton—$6.00 per carton.
Case to hold two 5 gal. cans—per case—$0.40.

LABELS

	250	500	1000
Comb honey section labels	$1.25	$1.75	$3.00
8 ounce size	1.65	2.25	3.50
1 pound size	1.75	2.50	4.00
5 pound size	2.00	3.00	5.00
10 pound size	2.25	3.50	6.00

Send money with order. Send orders to

MRS. MILLIE FRANCIS, Rec. Sec.

Wisconsin Beekeepers Association

Route 4, Box 608 **West Allis, Wis.**

MELTED DOWN COMBS

THE past season was one of the worst for high temperatures which melted down combs in many apiaries. Inactive colonies seemed to suffer most, which brings up the old question of colony temperament and its effect on the honey production. Vigirous, strong, hard working colonies fan air through the hives and in most cases kept the temperature down below the danger point. Of course the wax didn't actually melt, but the honey in the comb being so thick and heavy crumbled the combs, squeezing out the honey.

Spare bottom boards, covers, and old boards placed on top of the covers helped. Probably hives painted white were less hot than those painted a dark color. A sheet of insulation material placed underneath the outer cover, also protected the comb.

LOOK FOR A. F. B. NOW

THIS is the time of year to give all colonies a final inspection for A. F. B., providing there is no danger of robbing. If the disease is found, the colony should be destroyed this fall rather than wintered over with possible spreading of the disease in the spring. If it is found before the supers are taken off, then we won't get the diseased supers mixed up, infecting other colonies next year.

Extracted Honey Wanted

Send Samples and Quote Price

WALTER GEIGER

325 W. Vine St. Milwaukee, Wis.

BEEKEEPERS

Let us quote you our prices for working wax into foundation. We will make special prices for quantity lots of 300 lbs. or more.

Our foundation is made by our own process. It is tough and under the most severe tests has been proven to be everything that we claim for it. It is readily accepted by the bees. Give the bees our foundation and be assured of good combs that you will be proud to own.

We carry a full line of beekeepers supplies and can serve you promptly.

Write for prices and estimates on anything you may need in the line of beekeeping supplies.

Gus Dittmer Company

Augusta, Wisconsin

HONEY CONTAINERS

SOLDERED WITH VIRGIN TIN

All our tin containers in the three smaller sizes are this year soldered with virgin tin. In this way no honey can come into contact with lead, used in ordinary solder. You run no risk of contamination or confiscation of shipment by pure food authorities.

If your order is for $50 at the prices shown, deduct 5%; if $100 deduct 10% in ordering tin and glass containers or both together.

	F. O. B. Watertown, Wis.
2½ lb. cans, 100 in ctn., wt. 31 lbs.	$3.95
5 lb. pails, 50 in ctn., wt. 27 lbs.	3.55
10 lb. pails, 50 in ctn., wt. 45 lbs.	5.10
5 gal. cans, 1 in ctn., wt. 6 lbs.	.45
5 gal. cans, 50 in crate, wt. 175 lbs.*	16.00
½ lb. jars, 24 in ctn., wt. 12 lbs.	.67
1 lb. jars, 24 in ctn., wt. 21 lbs.	.88
2 lb. jars, 12 in ctn., wt. 17 lbs.	.60
3 lb. jars, 12 in ctn., wt. 21 lbs.	.73

* Can only be shipped 50/c.

G. B. LEWIS COMPANY - - - - - - Watertown, Wisconsin

FEEDING SUGAR SYRUP

SUGAR syrup should be fed to the colonies quite soon now and for two reasons: 1. To provide enough stores to over-winter the bees and provide them with feed during early brood rearing. 2. To provide stores that will not cause dysentery. The latter is necessary in case we have a late fall snow, especially in the case of hot weather when the bees do not evaporate enough of the moisture from the honey. If it is true that the amount of moisture in the honey is what causes the dysentery, then it can be readily seen that if the weather turns cold and wet following a flow from asters or other flowers in the late fall which has been placed in the clustering nest of the bees, and the moisture of this honey cannot be evaporated, then we will have trouble. Probably more loss occurs in northern Wisconsin in this respect than farther South, though one never knows when it will occur.

If some of the frames of this honey can be removed and sugar syrup fed the colony may be saved.

In the production of extracted honey when the queen excluded is used above the first body or in other words if only one brood chamber is allowed the queen, then it becomes almost necessary to feed. A good queen will prevent the bees from storing very much honey in this brood chamber. That is why many beekeepers are turning toward the double brood chamber.

Some beekeepers object to double story wintering because of moldy combs in the spring. We have observed that the moldy combs are largely in the weaker colonies, a large strong colony providing enough ventilation and air circulation to prevent mold. That again goes back to the problem of a vigorous queen during August and September.

LADIES AUXILIARIES ORGANIZED

WISCONSIN is making splendid progress in the development of auxiliary work for the ladies belonging to beekeeping families. This program has been promoted by American Honey Institute since 1930 and both it and the State Beekeepers Association are much encouraged by the splendid response our Wisconsin beekeeping ladies gave at the recent district meetings.

July 24th, Ripon — Through the fine work of Mrs. Andrew Stevens, Stockbridge, Wis., and Mrs. Arthur Schultz, Ripon, seventy-five postal card notices were sent to ladies in the northeastern part of Wisconsin. And what a turn out there was—73 women from 20 counties came to Mrs. Schultz's home and pledged their support to auxiliary work. Mrs. Stevens was elected as permanent Chairman and Mrs. Schultz as permanent secretary. The visiting ladies expressed their appreciation of Mrs. Schultz's hospitality and her untiring efforts in arranging exhibits and demonstration facilities for the Institute's representative, Mrs. Malitta Fischer Jensen. Mrs. Jensen cited concrete examples of the profit and pleasure women in California, Oregon and Illinois had gained from auxiliary membership.

July 25th, Viroqua — Miss Mercedes Cranston of American Honey Institute met for the first time with the ladies of this section and was encouraged to have nine of them sign up under the leadership of Mrs. Newton Boggs, 315 Minshall Ave., Viroqua, for the development of auxiliary work.

July 26th—Thirty-three ladies in Dunn and neighboring counties attended this meeting and selected Mrs. S. P. Elliott, Menomonie, as their chairman for a District Auxiliary Program. Miss Cranston represented the Institute and outlined definite programs for the ladies. Mrs. Elliott expects to get the work under way this fall.

Any lady interested in helping with the auxiliary work will please write one of the above Chairmen, preferably the one closest to her own location.

WISCONSIN HONEY

THE Wisconsin Beekeepers Association has been asked to furnish samples of Wisconsin honey for the meeting of the American Honey Producers League at San Antonio, November 22-25.

Miss Arlene Weidenkopf, Madison, secretary of the League, asks that we secure samples of clover, basswood, buckwheat, raspberry, fireweed, goldenrod and other types of honey produced in Wisconsin. A 5-lb. pail of each kind would do.

If any of our members have special kinds of honey outside of sweet clover, drop us a card so we can make arrangements for sending it.

DISTRICT OFFICERS ELECTED

ELECTIONS of officers were held in July as follows:

Southwestern District: President, Mr. N. E. France, 305-4th St., Platteville; Vice-presidents, Mr. Newton Boggs, Viroqua, Mrs. Chas. Zilmer, Steuben, Mr. Frank Zilmer, Boscobel, Mr. Henry Verick, 206 Hillister Avenue, Tomah, Mr. W. I. Hatch, Richland Center; Secretary-Treasurer, Mr. Ralph Irwin, Lancaster.

Western District: President, S. P. Elliott, Menomonie; Vice-presidents: H. O. Rodeske, Fountain City, Ed. Duax, Chippewa Falls, E. H. Hanselman, Augusta, Leroy Colbert, Exeland, Martin Peterson, Clam Falls, H. A. Schaefer, Osseo, I. L. Calkins, Ladysmith, Arnold Krenz, Hamburg, Ed. Blodget, Wm. Mickelson, Max Vircks, Dorchester; Secretary - Treasurer, Frederick E. Nabor, R. 3, Chippewa Falls.

HOTICULTURAL SOCIETY BOARD OF DIRECTORS MEET

Recommend Changes in Constitution

THE Board of Directors of the Wisconsin Horticultural Society met at the Raulf Hotel, Oshkosh, on July 28th. After considering the financial report of the Secretary, a budget for the coming year was adopted.

The profits from the sale of English walnuts made this spring were voted to be placed in our endowment fund. It is hoped that this fund will gradually grow to a size where the income from the investment will annually pay for the cost of the magazine which now goes to over 200 life members. In fact, the Board expressed the desire that this fund might grow to a considerable size in the future. There is now a total of $383.04 in the endowment fund. Mr. E. L. Chambers is treasurer of the endowment fund committee.

At the convention last November a motion was passed asking the Executive Committee to make desirable revisions in the constitution of the Society. The committee has prepared a number of amendments which were considered and discussed.

Vote By Mail

One of the principal changes recommended is that of voting for officers of the Society by mail. It was felt by the Board that because of our large membership in several different lines of horticulture, that no one meeting could satisfactorily be held at which a great majority of these members could attend. Therefore by having a nominating committee appointed to prepare a slate of candidates and having these submitted to the members either by mail or through the magazine, every member would then have a chance to vote.

In our October issue we will present additional recommended changes for the constitution.

Lotus Increasing In Wisconsin

—Photo by Robt. Hopkins for Milwaukee Journal

The editor is induced to pose in the Lotus Bed, University Bay, Lake Mendota. No, Lotus do not grow on dry land.

LOTUS beds are becoming quite an attraction in Wisconsin. The photograph on this page was taken on Lake Mendota near the University, Madison, where a large Lotus bed has become established and is visited by thousands every summer. Members of the staff of the Department of Horticulture planted both seeds and rhizomes in starting the bed.

This variety is the American Lotus, Nelumbo lutea, also called Water Chinkapin. It grows from 2 to 6 feet out of shallow water. The leaves are cupped or depressed in the center, and from 1 to 2 feet across. The color is whitish to pale sulphur yellow, and they are from four to ten inches across.

The Nelumbiums are bold plants suitable for large ponds or the shallow shores of lakes. The rhizomes may run 30 to 40 feet in a year. The American Lotus blooms well only when thoroughly established and in entire freedom. A well established Lotus bed is worth traveling miles to see.

The American Lotus was well known by the Indians and cultivated by them four centuries ago in the waters in the Tennessee and Cumberland River, and was abundant on the tributaries of the Mississippi. It was carried northward and eastward by the Indians and was established as far East as Connecticut.

Another variety, the East Indian Lotus, also known as the Egyptian Lotus, has been introduced from foreign countries, but are not hardy in northern climates, though in protected locations they are doing well. It is not, however, a native of the Nile. The Lotus of the ancient Egyptians is a Nymphaea or water lily.

NOTICE—CONVENTION DATES CHANGED

THE dates for the annual meeting of the Wisconsin Horticultural Society and fruit growers convention were changed to Wednesday and Thursday, November 4-5. This change was made necessary because of conflicts with the annual County Agent conference to be held in Madison the last week in October. Notice the convention dates on page 12 and the fruit growers premium list on page 11.

About the Home and Garden

MRS. C. E. STRONG

PHLOX

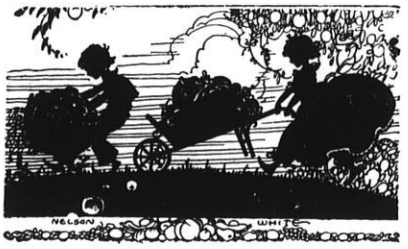
A most delightful family in the
garden—named the Phlox—
Lives constantly in danger of
catastrophies and shocks.
It seems that in their history—
oh, very long ago—
A blot came on their escutcheon
—a Miss Phlox told be so.
A very, very common strain—
magenta to the eye—
Crept into this old family—they
don't know how nor why.
Now all the Phlox still live in
dread—
The white, the pink, the rose, the
red—
And fear that in their dwelling
place—
Magenta strain will show his
face.

—L. Young Correthers, In
More Blooming Friends.

Why Phlox Changes Color

NEARLY every one who grows Phlox has at one time or another found plants of that dull magenta color so disliked by every Phlox collector—and sad to relate—immediately blames the nurseryman. Again and again we hear the complaint, "I bought the very finest Phlox, now after a few years, THIS is what I have." "THIS," is a head of Phlox in the despised magenta. After listening to their tale of sorrow, as well as the vow—"Never will I buy anything from that nursery again," we decide to ask a few questions. Did you let your Phlox go to seed? "Oh certainly, we scattered the seed carefully among the plants, so as to thicken them." "And that is where you spoiled your Phlox bed," was our reply.

Phlox does not come true from seed; about eight-tenths of the seedlings are liable to revert



back to that old dull magenta. These magenta seedlings are very strong growers—and in a very short time will choke or smother the choicer varieties. If you keep all seeds clipped off and carried away—do not throw the faded heads on the ground—your Phlox will continue to bloom in the same lovely colors sold you at the nursery.

An Experiment

If you wish to convince yourself of this, sow the Phlox seed in a row somewhere in the garden. You may get some very nice Phlox—but also a goodly number of magenta plants. Notice what strong plants they are. You will soon understand what happened to the choice plants in the border. But you are not through with the experiment. Pull up all the magenta plants, leaving only those you decide to keep. Much to your surprise, late in the season or the following spring—you will see many small plants coming up where you pulled up the magenta plants. Let them grow and bloom—where you had one magenta plant, there are four or five now—even more perhaps. Phlox grows from root cuttings, so naturally every tiny bit of root left in the ground produces another plant, especially of this magenta type.

You will readily understand after this why you should be very careful about letting Phlox go to seed—or replanting choice Phlox where the magenta type has grown.

How to Grow Phlox

Well grown Phlox give a fine showing of blooms over a long period. Have the bed deeply spaded, use plenty of some sort of fertilizer—well rotted manure is good—if you are sure it is not filled with quack grass seed. Quack grass in a Phlox bed is almost impossible to eradicate without digging up the plants and separating them root from root. Any of the usual commercial fertilizers can be used, mixing thoroughly with the soil.

Then I like to add a fine peat that has been well moistened. I wish to emphasize soaking the peat—because one amateur gardener, to whom I suggested using peat with Phlox—bought some very fine clumps in bloom, put about a half bushel of dry peat in the bottom of the hole, set in the clum of Phlox, gave it a pailful of water, and filled up the hole with soil. The water given was not enough to even moisten the peat—of course the Phlox dried up and the gardener was quite indignant, she just knew the peat killed the Phlox. She changed her mind however when it was shown just how much water it took to even moisten dry peat.

If you are using dry peat as it comes in bales—put a quantity in a barrel or large tub, fill with water and let soak for several days. The Wisconsin peat comes to us in a rather moist condition, and does not need such long soaking. The ground peat mixed with fertilizer makes a fine mulch for the Phlox bed.

In planting Phlox in the borders, groups of one color are more effective than mixed groups.

How to Divide Phlox

If you have a particularly fine variety of Phlox, it can be increased by digging up the plant carefully, shaking the soil from the roots, then separating each stem with its root from the rest of the plant. Replant in the well prepared soil, and you will have nice blooming clumps in a couple of years. Do not get the "dividing" fever and spoil your plants for show purposes. A good sized clump that has been well cared for, is much more effective in the border than single stems.

Phlox like plenty of water in order to do their best. When watering—soak the ground; sprinkling just coaxes the roots to the surface where the heat drys them and so injures the bloom.

If you have not been satisfied with your Phlox this season—perhaps it needs resetting. Try it this fall, respading the ground, adding fertilizers and peat, plenty of each, soaking the ground thoroughly after replanting.

A DELIGHTFUL BULB GARDEN

FOR a long time an enthusiastic gardener longed for a bulb garden—a real one with all sorts of bulbs, tulips, hyacinths, daffodils, scillias, fritillarias, camassias, calachortus, etc. But alas, longing did not bring the bulbs. Dozens of bulbs cost much more than she could afford. Finally she began to buy one, two, and three of a kind. If the bulbs were quite expensive—one satisfied her. Yes, it really did satisfy her—for she says, "If I can't have all I like, I am going to like what I can have. Really I am getting a wonderful lot of pleasure from one Daffodil five inches across. Really I couldn't admire a whole dozen like it any more than I do this one. Besides I could not afford a dozen at twenty-four dollars." She is getting together a fine collection of bulbs. Those she bought at first are increasing and at some future day she will have the thing she longed for—a real bulb garden.

COMING—AN EXPOSITION FOR HORTICULTURE

IN the International Amphitheatre, Chicago, will be held on September 12th to 20th the first annual International Horticultural Exposition. After a thorough investigation of the plans behind the exposition, and of its possibilities to the horticultural industry, we have come to the conclusion that here is something of value to us—something which we have needed for a long time.

This exposition aims to do for the horticultural industry what the International Livestock show, held in the same place, has done for the livestock industry.

The setting is—a building covering seven acres of floor space; an organization which has developed the greatest show of its kind in America—the International Livestock show; unlimited financial backing to put the show over, an unselfish motive, in that all the profits will be put back into the exposition.

Therefore we are endorsing the exposition and urging our affiliated organizations and members to exhibit. There are departments for fruit growers, gladiolus and dahlia growers, garden club members—in arrangement and perfection of bloom classes, commercial florists, nurserymen, beekeepers and vegetable growers. Prizes are liberal.

Admission to the show will be 40c. If you can't exhibit, try to see the show. The amphitheatre is at the Chicago Stock Yards, 43rd and Halsted streets.

GOOD USE FOR PEONY SUPPORTS

MRS. Frances King writing in Horticulture (Boston) says that her gardener takes the wire peony supports away from the plants after they are through blooming, and usem them on the tomato plants. The long branches of the tomato plants are tied to the upper ring of the strong wire. The supports then have a long period of usefulness—first for flowers and then for vegetables.

In the same magazine we find the suggestion that it is important to clean up and burn all old hollyhock leaves and stems as soon as the flowering season is over. This helps to control the hollyhock rust which spreads and infects new plants. In addition, sulphur dust should be applied to the plants once or twice a week to fully control the rust, and this treatment will also keep the red spiders away.

IMPORTED TULIP BULBS

Tulip bulbs properly planted will give you bright, dazzling colors for many years. For personal selections of highest quality write

GEORGE A. HUNT

Woodstock **Illinois**

Four Leading Hardy Perennials

for Fall Planting

Delphiniums, Gold Medal Hybrids. Grown in mixtures, light blue to darkest blue.

Columbine, Hybrids, mixed colors.

Platycodon, Balloon-flower, mostly blue, some white in mixture.

Pentstemon, Grandiflorus, Lavender Queen. Lavender color, flowers like Digitalis, but larger.

Prices—While they last, 2 of any 3, or six plants, 65c; 3 of each, or 12 plants, $1.25; 6 each, or 24 plants, $2.40.

With every order for 12, three Coreopsis (yellow daisy) free. All 2-year plants, postpaid. Catalog free.

SWEDBERG NURSERY

Battle Lake, Minnesota.

Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

Walter C. Krueger, Oconomowoc, President
B. A. Robinson, Kenosha, Vice-Pres.
H. J. Rahmlow, Madison, Cor. Sec.

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

Regional Vice-Presidents
Karl Timm, Markesan

F. P. Thomas, Kenosha
G. A. Barrer, Cudahy
M. J. Rahn, Green Bay

Our State Gladiolus Show

THE 1936 State Gladiolus Show, staged by the Wisconsin Gladiolus Society, proved a surprise to everyone in the high quality of the flowers exhibited. Due to the extreme heat and dry weather everyone expected blooms to have been burned and with probable thrip injury, but instead growers brought in some of the finest flowers seen in many years. In quantity the show was smaller than for several years past, but this was to be expected. Nevertheless the hall was well filled but not as crowded as has been the case at many shows.

The Kenosha Horticultural Society and Racine Garden Club gave splendid support in exhibiting dinner tables and shadow boxes, which were very attractive.

A list of all the premium winners is being prepared by the State Horticultural Society and will be mailed to every member of the Wisconsin Gladiolus Society. Additional copies will be furnished on request.

The Kenosha Y. M. C. A. was a very nice place for holding the show and splendid cooperation was received from the committees and those taking part. Members of the Kenosha Horticultural Society acted as members of the entry committee and finance committee. With their assistance everything went smoothly.

Mr. B. A. Robinson, chairman of local arrangements took care of many details and Mr. Noel Thompson, acting as chairman of the entry committee lined up the tables and classes in the hall so that they were ready for the judges in ample time.

Officers Elected

At the annual meeting and banquet the following officers were elected for the coming year: President, Walter C. Krueger, Oconomowoc; Vice-president, B. A. Robinson, Kenosha; Recording Secretary - Treasurer, Otto A. Kapschitzke, Sheboygan; Corresponding Secretary, H. J. Rahmlow, Madison.

Directors: Arthur Strobel, Hartford; Chas. Melk, Wauwatosa; W. A. Sisson, Rosendale; W. E. Menge, Fond du Lac; Walter F. Miller, Sun Prairie; George Morris, Madison.

Vice-presidents: Karl Timm, Markesan; F. P. Thomas, Kenosha; G. A. Barrer, Cudahy; M. J. Rahn, Green Bay.

Premium Winners

The largest point winner was Mr. Walter C. Krueger, Oconomowoc, with a total of 160. Next was Mr. F. P. Thomas, Kenosha, with a total of 118. Third was Mr. C. Kunde, Oshkosh, with a total of 84 points.

Champion Spikes

Mr. Walter C. Krueger of Oconomowoc won a grand champion on his exhibition spike of Picardy. He also won the grand champion for his decorative spike of Debonair.

Mr. Krueger also had the champion exhibition seedling.

Variety Table Winners

The winners of the 20 variety and artistic arrangement table were, 1st, Chester Harrison, Waldo; 2nd, F. P. Thomas, Kenosha; 3rd, Mrs. B. A. Robinson, Kenosha.

Winners of the 25 variety table were: 1st, Chester Harrison, Waldo; 2nd, Rev. John Schultz, Van Dyne; 3rd, Wm. Neuberger, Reeseville; 4th, John Stransky, Racine; 5th, Mrs. Fred Poynor, Waunakee.

The traveling cup donated by Colonial Gardens, Rushford, Minnesota, was won by Mr. Arnold Fiedler, Cudahy, for the best bouquet.

Division Champions were won by: Section B, Arnold Stautz, West Bend; Section C, Exhibition, Walter C. Krueger, Oconomowoc; Section C. Decorative, A. O. Stautz, West Bend; Section D, Walter Krueger, Oconomowoc; Section E, Exhibition, H. Voelke, Racine; Section E, Decorative, Walter C. Krueger, Oconomowoc; Section F. Exhibition, Chas. Lindbloom, Kenosha; Section F, Decorative, J. C. Clemmensen, Racine.

Shadow Box Winners

Shadow box of gladiolus only: 1st, Mrs. Geo. H. Treviranus, Racine; 2nd, Mrs. F. H. Patrick, Racine; 3rd, Mrs. Elizabeth Damar, Racine; 4th, Ellen Larsen, Kenosha; 5th, Mrs. W. A. Strangberg, Kenosha.

Shadow box of gladiolus and other flowers: 1st, Mrs. S. Sorenson, Racine; 2nd, Mrs. M. M.

Hueffner, Racine; 3rd, Suie Thomas; 4th, Mrs. W. A. Strangberg, Kenosha; 5th, Mrs. Elizabeth Jones, Kenosha.

Artistic Dinner Table

1st, Mrs. H. W. Schaeffer, Kenosha; 2nd, Mrs. M. Knoblock, Racine; 3rd, Mrs. W. G. Strangberg, Kenosha.

Artistic Arrangement Classes

Vase of gladiolus without other flowers. 1st, Mrs. B. A. Robinson, Kenosha; 2nd, Mrs. William Welch, Kenosha; 3rd, Ellen Larsen, Kenosha.

Bouquet of gladiolus in vase, other flowers added, for living room table. 1st, Mrs. B. A. Robinson, Kenosha; 2nd, Mrs. A. M. Naysmith, Kenosha.

Artistic floor basket of gladiolus. 1st, Mrs. B. A. Robinson, Kenosha; 2nd, Mrs. Frank Thomas, Kenosha; 3rd, Mrs. H. Madsen, Kenosha.

Artistic basket of gladiolus—smaller than floor basket. 1st, Mrs. B. A. Robinson, Kenosha; 3rd, Mrs. Frank Thomas, Kenosha.

Vase of Primulinus or Laciniated gladiolus. 1st, Mrs. B. A. Rabinson, Kenosha; 2nd, Frank Thomas, Kenosha.

Artistic arrangement of 5 spikes of gladiolus. 1st, Mrs. Frank Thomas, Kenosha; 2nd, Mrs. B. A. Robinson, Kenosha.

A complete list of all the prize winners has been mailed to all members of the State Gladiolus Society. The list comprised 10 pages.

TRIAL GARDEN GLADS LOOK GOOD

ABOUT 50 varieties of gladiolus remained at the College from the Gladiolus Trial Garden last fall. These were dug, placed in paper bags, allowed to dry and then after about one week, naphthalene flakes were added to each bag. This was removed in January and the glads planted this spring. All varieties bloomed well showing very little thrip injury. Thrip came in from the outside, but did not multiply enough to injure the flowers. Since practically all varieties were injured last season by thrip this shows that such bulbs may be planted and do well the next year.

There is evidence that if the bulbs are planted free from thrip, that the blossoms will be good for that season.

VARIETIES PREFERRED BY CANADIANS

THE recent Gladiolus Society Symposium rates the following as the highest in popularity among their members. While they list 50 varieties, we are giving only the 25 of highest rank.

1. Picardy
2. Star of Bethlehem
3. Rosemarie Pfitzer
4. Minuet
5. Marmora
6. Miss New Zealand
7. Reverie
8. Johan S. Bach
9. Commander Koehl
10. Mother Machree
11. Tip Top
12. Maid of Orleans
13. Blue Admiral
14. Red Lory
15. Golden Chimes
16. Bagdad
17. Duna
18. Guardsman
19. Pelegrina
20. Moorish King
21. D. A. Hay
22. Jonkheer Van Tets
23. Champlain
24. Cherokee
25. Betty Nuthall

Student: "These university professors don't know a thing! Why, they oughta get a whole new teaching staff!"

Other: "Yeh, I flunked, too."

Good Hunting

1st Hunter: "Hey, Bill."
2nd Hunter: "Yeah."
"Are you all right?"
"Yeah."
"Then I've shot a bear."

THE TIME TO PLANT PEONIES

IN "The Book of the Peony" by Mrs. Edward Harding, she discusses in a charming way the proper time for planting peonies. "Dr. E. B. Voorhees, an expert on crops and soils, used to say that The proper time for seeding alfalfa is **August 15 at 8 a. m.,**" writes Mrs. Harding.

"The effect on the hearers of such an unconventional statement was usually startling—incredulity, scorn or amazement, as the case might be, depending upon the wisdom of the individual. But nearly everyone **remembered the date.**"

Therefore she places the proper time for planting peonies at September 15th at 9 a. m. (She doesn't believe in hurrying through breakfast). However, she adds the work may be carried on for five or six weeks afterward. By the middle of September the root buds are usually fully formed and will not be injured by lifting.

W. A. Sisson of Rosendale maintains that the planting can be done any time this fall or even in the spring.

In planting, the uppermost eyes of the roots should be placed between two and three inches below the surface of the ground when leveled off. Too deep planting sometimes causes "blind growth" meaning that no flowers are produced. If planted too shallow there is more danger of winter injury.

DERRIS DUST

Most effective control for cucumber beetles and cabbage worms.

5 lb. package ____ $1.20 postpaid
10 lb. package ____ $2.30 postpaid
25 lb. package ____ $5.50 postpaid

F. E. CARROLL
1915 West Lawn Avenue
Madison, Wisconsin

Reference: Wis. State Horticultural Society

GARDEN GOSSIP

MOVE ORIENTAL POPPIES NOW

THE best time to transplant or move Oriental Poppies is during the late summer when the plants have died down. They are then in a dormant condition and can be moved without danger of loss. If increase is desired, some of the larger roots may be cut into one inch sections and placed in sandy soil. Each one should make a new plant.

The variety Olympia is somewhat different than others because it succers freely, and the succers may be transplanted.

BUDDLEIA ILE DE FRANCE

THE new Buddleia or Butterfly Bush Ile de France is becoming very popular as the result of having been tested by members of the Wisconsin Horticultural Society during the past two years. While the members consider it as a perennial because it dies back to the ground each year, nevertheless it grows to a height of from five to six feet and must be handled as a shrub. It is well shaped and carries many showy panicle blooms of a deep rosy-purple color. This past winter it proved hardy wherever covered with a mulch of leaves or hay and wherever there was snow protection.

CONTROLS BORERS

THE June Wisconsin Horticulture advocated dusting iris with arsenate of lead and sulphur in the spring; sulphur for the prevention of leaf spot and arsenate of lead to destroy the iris borer. I have used it and have found it very helpful. Last year and this I have dusted my Aquilegia with arsenate of lead to destroy borer and have had few losses whereas in former years I have had a great many. —Miss Paula Jussen, Ripon.

A BEAUTIFUL TREE

By Paula Jussen, Ripon

I WONDER if there is any more beautiful tree anywhere than one at the "Grignon House" in Kaukauna. There are many beautiful elms about this home but one in particular is magnificent; its trunk has a circumference of 15 ft. and I think the tree must have a spread of 100 feet. Horticulturists no doubt can estimate the age of the tree.

The historic "Grignon House" which is now open to the public in summer, was built in 1839. (The original home was built about 50 years before and contains much of the original furniture and other articles of the first Grignons.) The present Mrs. Grignon, a very fine old lady, will conduct visitors through the house and will relate many interesting incidents relative the house and its family. The blue prints of the house are at Washington and the State historical Society expects to restore it sometime in the future.

If any members of the Wisconsin Horticultural Society drive to Kaukauna I urge them to see the "Grignon House" and the wonderful elm.

Editor's Note: We hope more of our members will write about outstanding horticultural specimens or beauty spots.

It is estimated that a mature 30-year-old apple tree requires about 4,500 gallons of water during a single season.—Massachusetts Extension Service.

The wasp provides for her young by burying her eggs with insects she has paralyzed by stinging. When the young are hatched, their first meal is all ready for them.—New Hampshire Extension service.

SUGGESTIONS FOR THE GARDEN

JAPANESE IRIS may be divided or planted now. They dislike lime and should be planted from two to three inches deep. At Madison Japanese Iris have been quite hardy and have bloomed well during the past two or three years. A covering of mulch is advised for the winter however.

Oriental Poppies should be divided now as the tops are dried down and this is the best time to transplant them, or buy new plants. If bought in the spring, it will be best to use potted plants.

Daffodils should be ordered and planted as soon as possible. They are planted earlier than other fall bulbs.

Hardy Primroses should be divided if there are several crowns on the same plant. Each crown will make a new plant and will do better than if left undivided over winter.

Evergreens may be planted during September if the present rains keep up. Order them at once with the understanding that they are not to be delivered, however, unless there is plenty of moisture in the soil. Then be sure to keep them well watered until frost comes if there is not plenty of rain.

Watermelons and Muskmelons are troubled with wire worms. Some control may be obtained by placing shingles or short pieces of board under them.

New Dawn is a new everblooming climbing rose which is said to be a very promising variety. After the first year which it requires to become well established, it blooms well in June, and again in August.

Give Us Liberty In Flower Arrangement

PROF. Victor H. Ries of Ohio publishes a little bulletin each month for garden club members. In a late bulletin he discusses some of his experiences in conducting flower arrangement schools. He laments the long list of "thou shalt nots" which some leading exponents of flower arrangements whom he calls flower arrangement fanatics have laid down. Here are the rules which these fanatics would have obeyed.

"Roses should be arranged only in crystal containers.

"Miniature arrangements should be made up only of flowers from miniature plants.

"All flowers should be arranged in relation to their natural height, as Elegans lilies above pansies, Giant Zinnias above dwarf French marigolds.

"Annual or perennial flowers and tree or shrub flowers should never be used together.

"Yellow flowers should never be used with any other color.

"Roadside flowers and garden flowers should never be used together.

"Roses being of such an exquisite nature, should never be used with any other flowers.

"Garden flowers should never be used in crystal or clear glass containers.

"Copper containers should never be used on a dining table.

"The Japanese way is the only way to arrange flowers."

Prof. Ries continues as follows:

"Oh me, oh my, what are we coming to? But who says we cannot do any of the above if the result is artistic?

"After all, what are we after when we arrange flowers? We are after a beautiful effect, an artistic result. If the above fanaticisms were basic rules of art, well and good, but they are merely the expression of a lot of personal opinion based on individual likes and dislikes.

"But what are we going to do about this plague of 'arrangement rules' that is sweeping judges and exhibitors alike into these narrow and biased views of flower arrangement? Firstly, ignore them. Secondly, use judges that have not absorbed these biased views. Third, if a judge develops these ideas, just do not use him again.

"For a good, sound basis for flower arrangement, may we recommend Professor E. A. White's book, 'Principles of Flower Arrangement'? And then in the words of Professor S. C. Burton of the department of applied arts, University of Minnesota, remember that all of these rules can be broken if we only know how. After all, it isn't how you do it but the artistic result you achieve. Be tolerant in your viewpoint, be broadminded in your judging, be experimental in your efforts. It is not what flowers or what containers you use, but how you arrange them and where you place them after they are arranged that counts."

Rhubarb Juice Has Pleasant Flavor—Blends Well With Fruit Juices

THE Geneva, N. Y., Experiment Station is encouraging the use of rhubarb juice, not the clear juice but diluted with water and adding sugar, says The Dariymen's League News. It can be produced for about seven cents a gallon, Station chemists say.

"It has an unusually pleasant, tart flavor, and has been used for many years in some parts of the world to pep up homemade beverages and wine. Rhubarb juice blends well with most fruit juices, and goes especially well with cider and grapejuice."—From American Hortigraphs.

LECTURES FOR CLUBS

MR. Alonzo W. Pond, who gave such an interesting talk at the Garden Club Federation summer meeting at Oshkosh, has several other lectures which he gives based on his experiences in trips of exploration which may be of interest to garden clubs in cooperation with Woman's Clubs and other organizations.

The titles of these lectures are: Reliving the Past, a story of the old stone-age man in Europe with motion pictures and colored slides.

The Country of Veiled Men, exploration in the Sahara Desert and personal contacts with the Tuaregs, veiled men of mystery, with slides.

Lost John of Mummy Ledge, the discovery of a pre-historic Indian in Mammoth Cave with slides.

With Andrews in the Gobi, '28 exploration in the Gobi Desert of Mongolia.

Nomads of Algeria, an intimate view of the primitive people of North Africa, with three reels of Motion Pictures.

The price of these lectures run about $50. Anyone interested should write to Mr. Alonzo W. Pond, Box 334, St. Croix Falls, Wisconsin.

MILWAUKEE DISTRICT

THE Milwaukee District of the State Garden Club Federation had $73 in the treasury last spring and now after paying up all bills accruing from their flower show held in May, have a balance of $109.

A district board meeting was held every month until after the show. This board consists of the president of each club or an alternate, and all the flower show chairmen. It helped a great deal in keeping the clubs posted on happenings and brought them in closer contact with each other.

Mrs. Edith Hibbard, Chm.

On January 1, 1936, 34 per cent of the 6,800,000 farms in the United States were mortgaged, and 66 per cent were clear of that type of indebtedness. The total farm mortgage debt was $7,500,000,000. This was 56 per cent of the total value of the farms which were mortgaged.—Ohio Extension Service.

STATE GARDEN CLUB FEDERATION NEWS

Mrs. E. R. Durgin, President
1815 Park Ave., Racine
Mrs. Chas. Jahr, Hon. President
Elkhorn
H. J. Rahmlow, Cor. Secretary
Madison
Mrs. E. A. St. Clair, Rec. Secretary
2418 N. 65th St., Wauwatosa
Mrs. Chester Thomas, 1st V. President
Thiensville.
Mrs. J. M. Johnson, 2nd V. President
Ripon

FEDERATION SUMMER MEETING VERY SUCCESSFUL

WELL over 200 members attended the summer meeting of the Wisconsin Garden Club Federation at Menominee Park, Oshkosh, on August 5th. The officers of the Federation worried a little preceding the meeting because the prospect of continued heat and drought made the outlook rather unfavorable.

The weather was ideal for an outdoor meeting in the park during the forenoon when Mr. Alonzo Pond, well known lecturer and explorer now in charge at Interstate Park at St. Croix Falls, told in a most interesting way the work being done in Wisconsin parks to make them more attractive and enjoyable to tourists and visitors. His talk was one of the best heard by the members in years. The lecture was provided by the Wisconsin Horticultural Society.

The noon luncheon was also a very enjoyable affair. Groups gathered at tables and visited, renewing acquaintances and friendships.

The tour was divided into two sections, each section having about 50 autos. With the aid of printed instructions giving the name and address of the owner of each garden, something about the garden, and a time schedule, five gardens were visited and their beauties enjoyed. All were very attractive ,showing good design, and many new varieties of flowers, shrubs and trees. The weather was cool enough so that everyone enjoyed the visits.

ANNUAL CONVENTION

Wisconsin Garden Club Federation
Loraine Hotel, Madison
Tuesday and Wednesday
October 13-14
Excellent Program Being Prepared

The tour ended at the Rasmussen Nursery which was followed by an optional tour to a beautiful Lotus bed on Lake Butte des Morts.

THE REGIONAL GARDEN CLUB MEETING

THE annual meeting of the North Central Region of the National Council of State Garden Clubs will be held at French Lick Springs, Indiana, September 23 and 24, at the invitation of the Indiana Garden Club Federation.

An instructive program is being planned.

Several of the officers of the Wisconsin Garden Club Federation are planning to attend this meeting and other members are invited. A detailed program may be obtained by writing Mrs. E. R. Durgin, 1815 Park Avenue, Racine, president of the Wisconsin Federation.

NEW CLUBS JOIN FEDERATION

THE youngest garden club in the Wisconsin Garden Club Federation is the Clintonville Garden Club. The club was organized this spring and has been having an active and interesting program this summer.

Officers of the club are as follows:

President: Frank Mauseo.

Vice-president: Mrs. E. A. Hutchinson.

Secy.-treas.: Mrs. John Buehrens.

The Federation officers and members take pleasure in welcoming the Clintonville Garden Club to membership.

THE Menominee Falls and the Countryside Garden Clubs affiliated with the Wisconsin Garden Club Federation and Horticultural Society during July. These clubs have been quite active this year and the officers and members of the Federation take pleasure in welcoming them to membership. The officers of the clubs are as follows:

Countryside Garden Club

President: Mrs. L. A. Wandel, "Pine Acres," Cedarburg.

Vice-pres.: Mrs. James Martin, R. 2, Thiensville.

Secy.-treas.: Mrs. Elmer Niss, R. 1. Thiensville.

Menominee Falls Garden Club

President: R. H. Wendt.

Vice-pres.: K. A. Eckhardt, Fred Arnold.

Cor. Secy.: K. A. Eckhardt.

Rec. Secy.: Mrs. J. C. Dexheimer, 209 W. Third St.

Treasurer: J. C. Dexheimer, 209 W. Third St.

NOMINATING COMMITTEE APPOINTED

A NOMINATING committee to nominate candidates for office for the Wisconsin Garden Club Federation to be elected at the annual convention at Madison on October 13-14, was appointed by the president at the summer meeting at Oshkosh.

The committee consists of Mrs. Chas. Jahr, Chairman, Elkhorn; Mrs. W. F. Roecker, 3319 N. 14th St., Milwaukee; Mrs. E. J. Wells, Oakfield.

It is the duty of this committee to prepare a list of candidates for publication in our October issue. Suggestions from members will be appreciated by the committee.

NATIONAL FLOWER AND GARDEN SHOW

Milwaukee Auditorium April 10-18

THE Wisconsin Garden Club Federation is invited to take part in the National Garden and Flower Show which will be held in the Milwaukee Auditorium April 10-18, writes Mr. A. R. Leidiger, Milwaukee florist, chairman of the local committee for the show.

This great show comes to our state only about once in a generation. Exhibits are received from all parts of the United States and many foreign countries. In addition to flowers of all kinds grown in greenhouses at that season of the year, there will be many types of gardens—formal and informal, rock gardens, alpine gardens, rose and tulip gardens, to add variety to the show.

Garden clubs in the section of the country in which the National show is held always cooperate. Premiums and money for expenses are provided by the show management to help out garden club exhibits.

A Federation officer will attend a meeting of the National Garden and Flower Show Committee to be held in Milwaukee on September 16-17. At this time a schedule of classes will be presented for garden club participation.

Wisconsin Garden Club Federation Flower Show Schedule

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.

14 shadow boxes, size 30x24x18 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 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 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. Centerpiece may be of any type of horticultural material—fruit, flowers, vegetables, branches. Not artificial.

Class 9. A Thanksgiving Dinner Table. Centerpiece of horticultural material.

No flat silver on tables. Napkins allowed. To be set for 6. Size: 72x30 inches.

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

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

OUR HONORARY PRESIDENT VISITS ENGLISH GARDENS

A LETTER from Mrs. Chas. Jahr of Elkhorn, who with Mr. Jahr visited in Europe this summer came from Hastings, England. Mrs. Jahr wrote. "I've seen gardens and flowers ever since we landed in Italy, but most interesting of all is the vegetation of England.

"Here at Hastings the gardens are beautiful. Tomorrow (August 7th) they will have their flower show.

"Yesterday I attended the Royal Horticultural Show in London. Had complimentary tickets furnished by Mrs. Biscoe of the English Speaking Union, Garden Committee. You see what our National Committee on Visiting Gardens does for us.

"Since we have left Italy we have needed our top coats most of the time. It is almost unbelievable that we should be so cool and that it should be so hot at home.

"We visited some most unusual and beautiful public gardens in Dresden. This is the first year for them. Many English gardens are so scattered that without an auto they are difficult to reach.

"We have thoroughly enjoyed bus trips through the country. Most of the time we ride through green lanes with here and there vistas across the fields from some vantage point."

BEHIND BEFORE

On mules we find two legs behind
And two we find before.
We stand behind before we find
What the two behind before.

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In The Garden

WHAT a summer we have had. Heat records were broken and at Madison at least, drought records as well. We hope the records established will remain records for a long time to come.

But in spite of all this, there were many beautiful gardens this season as the average gardener does have water at hand to keep the lawn green and the flowers growing.

Our garden was as beautiful in July and August a sit has ever been because of the various varieties of perennial Phlox which we began planting about two years ago. We were able to control the red spider by dusting with Derris dust. It looks as if this new dust is going to be the coming thing for several different insects, including aphids.

Petunias also did very well this year. They seem to like the heat and do fairly well with a small amount of moisture.

Hardy chrysanthemums have grown unusually well. Many of our plants began to bloom about September 1st. That is rather early but it shows we are getting varieties which are in bloom early enough to escape the frost in the fall. When more such varieties in all ranges of color are introduced to the trade, the chrysanthemum will become a very popular flower indeed. It withstands the early frost and is as beautiful a flower as one may wish for in the garden.

Tomatoes in the Flower Garden

For the first time this year we grew a half dozen tomato plants in the flower border. Is that garden heresy? We hope not because we liked the idea so well we will no doubt repeat it. Tying them up on two or three low stakes so that they were not too tall, they harmonized very well with the flowers, and the red fruit was quite attractive. In fact, garden visitors seldom noticed the tomatoes until we called their attention to them. Then they remarked, "Why, the tomatoes look very nice among the flowers."

In addition, the half dozen plants have provided our table every day during their ripening season.

A Good Plum Tree

We have one variety of plums in the back yard which we like very much. It is a Minnesota variety and the name is Underwood. It was introduced by the Minnesota Fruit Breeding Farm a few years ago and is a large red variety that ripens about the first week in August. It has a delicious flavor and our friends have all remarked how they enjoy eating them. This variety requires pollen from a native or American variety for pollination. There are usually several other varieties of plums in the neighborhood, however, and bees will carry the pollen. Otherwise plant Surprise or Hanska for pollinizers.

Planting Iris

We didn't plant Iris in August as we usually do. It was too dry and hot. We ordered them however after the rains came the latter part of August.

We noticed in the September issue of the Country Gentleman that Harry O'Brien writes that he thinks Iris should be planted one or two inches below the surface of the soil. He quotes the Sass Brothers, famous Iris breeders at Omaha, as stating that Iris grow this way in their native state. If Iris seed is planted the roots develop about one to two inches below the soil instead of the rhizome being on top of the ground like a duck on water as so many Iris growers seem to think they should be planted.

We quoted Mrs. Douglas Pattison of Freeport, who should know, as making this same statement, a year ago. She said that the newer varieties are not considered hardy by many people, but she finds them quite hardy if planted about an inch below the ground and if in the fall just a light covering of hay or straw is thrown over them.

Now is a good time to break up large clumps of Iris. After a clump is from four to five years old, the rhizomes become so crowded that they do not do well. In the average border, the clumps look best if not more than about one foot in diameter, sending up four or five flower spikes. Much larger flowers and taller spikes can be grown in this way. While Iris growers claim that Iris do not do well mixed in with other perennials and annuals, nevertheless, the average backyard gardener will prefer to grow them that way rather than in rows by themselves. During mid-summer Phlox foliage usually hides the Iris foliage quite well and the border can be in full bloom even with quite a large number of Iris plants tucked among the blooming varieties.

Hemerocallis Do Well

Did you happen to see any of the better varieties of Hemerocallis in bloom during August? If you did, I am sure that you admired them. Some of the newer colors of light lemon yellow and those runing to a dark shade are very attractive indeed.

Some varieties bloomed early, with the Iris, while the later varieties bloom with Phlox and planted among August blooming flowers, make a fine showing. Late blooming kinds send up flowering shoots from two to three feet tall and flowers continue to appear on a single stem for over two weeks. Being very

hardy and easy to grow, they should become a popular addition to our gardens.

Tuberous Rooted Begonias Much Admired

A bed of Tuberous Rooted Begonias was the most admired portion of our garden this year. We found from this year's experience that these flowers require almost complete shade for best development. In one corner of the garden we have some evergreens planted forming a rather shady nook. After giving the bed a liberal coating of bran in the spring, the tuberous rooted begonia plants were set out. Those plants in complete shade have given enormous flowers. Those at the edge of the bed where the early afternoon sun shone on them for a short time did not do so well.

Here is a suggestion for those who want a beautiful flower in a shady spot in the garden. Plant Tuberous Rooted Begonias. They will have to be ordered next February or March as that is the time they are listed in the trade. The bulbs do not keep much longer than that as they are planted in pots indoors early in April or even in March. In the fall they are dried off and then packed in sawdust or peat moss and kept in the basement where the temperature is between 50 and 60 degrees.—H. J. Rahmlow.

FEDERATION AND DISTRICT NEWS

THE Executive Committee of the Wisconsin Garden Club Federation met at the home of Mrs. J. M. Johnson, Ripon, 2nd Vice-president, on Friday, August 28th. The ladies of the committee were the guests of Mrs. Johnson at her cabin on Green Lake for the evening and attended the meeting of the Fox River Valley District at Neenah the following day.

The meeting of the Fox River Valley District of the Federation was held at Neenah on Saturday, August 29th. There was a good program, beautiful gardens were visited and a short business meeting held. Since we go to press before the meeting, we will not be able to publish the names of the new officers until the next issue.

The South Central District of the Wisconsin Garden Club Federation will hold their annual meeting on Wednesday, September 16th in the Public Library, Jefferson, from 10 a. m. until 4 p. m.

LAWNS CAN BE MADE IN SEPTEMBER

THIS is a good time to make a new lawn, or to repair the old one. Usually there is plenty of rain in September and the weather is sufficiently cool for lawn seed to germinate rapidly and make a good growth before cold weather. Then the grass becomes well established next spring before the heat and drought of mid-summer comes.

There are two important requirements for making good lawns. First, buy a good grade of lawn seed, one that will germinate well and is free from weeds, and contains the correct varieties desired. Second, after preparing the soil well by raking it fine and sowing the seed then raking it in lightly, it must be protected from sun, winds and splashing rains. One way on small areas is to cover the patch with burlap which is easily prepared by cutting up burlap bags. Stake them at the corners and then water every day on top of the burlap unless there is sufficient rain. The soil must never be allowed to have a dry appearance. If the burlap is not used, watch the soil carefully and as soon as it looks dried out, sprinkle again. The seed is planted very shallow, probably only one-fourth of an inch deep, and when it begins to sprout it is easily killed by drying sun and wind. If kept sufficiently moist the grass should be up within two weeks.

TREASURER'S REPORT

August 1, 1936

GENERAL FUND

Balance on hand, Apr. 15, 1936		$ 56.16
Receipts		
Membership dues:		
450 Federation dues at 15c	$ 67.50	
429 Horticultural dues at 35c	150.15	
Total	$217.65	
Membership dues paid out:		
429 Horticultural dues at 35c	$150.15	
Balance		67.50
Cash rec'd for rental of Flower Arrangement slides		2.00
Cash rec'd from Waukesha Co. District		4.02
Total Receipts		$129.68
Disbursements		
Expenses:		
Rec. Secretary	$ 3.95	
Mrs. Weart, judging Show	6.60	
Mrs. Pearl Johnson, loss of flower holders	2.50	
Refunds on dues	1.05	
Bank service charges	5.16	
Total Disburse.		19.26
Bal. on hand Aug. 1, 1936		$110.42

FLOWER SHOW FUND

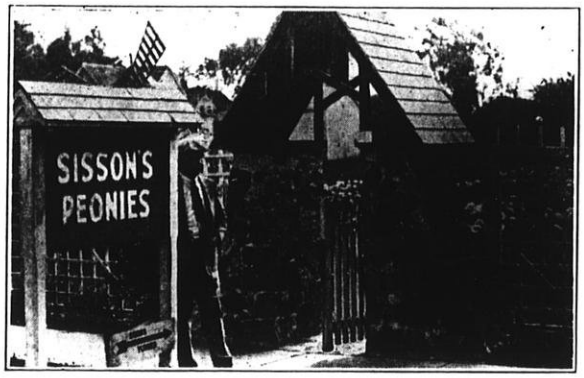
Bal. on hand Apr. 15, 1936	$246.62
Receipts	
For sale of 7 copies of "Judging the Amateur Flower Show"	3.50
For use of Japanese Arrangement slides	6.00
Total receipts and bal. on hand	$256.12

No Disbursements

SPEAKERS FUND

Bal. on hand Apr. 15, 1936	$ 10.89

No Receipts or Disbursements



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Kind of Foundation	Cost of Manufacturing Per Pound			
	10 lbs.	25 lbs.	50 lbs.	100 lbs. or more
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Thin Super	32c	28c	25c	21c

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OCTOBER, 1936

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LOOK NATURAL!

The rich farmer was paying a visit to his son at the university, and thought it might be a good idea if they had their photograph taken.

The photographer suggested that the son should stand with his hand on his father's shoulder. The farmer objected.

"It would be much more lifelike," he said coldly, "if he stood with his hand in my pocket."

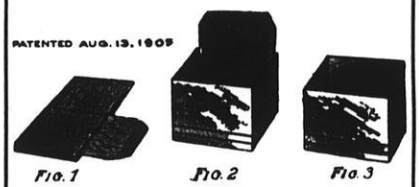

Fig. 1 Fig. 2 Fig. 3

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Wisconsin Horticulture

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The Wisconsin Garden Club Federation

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TABLE OF CONTENTS

	Page
Cider for Roadside Stands	27
Tillage and Cover Crops in the Orchard	28
The Montmorency Cherry	29
Comments About Carpathian English Walnuts	29
Protect the Orchard Against Mice	30
Covering Strawberry Plants	32
Strawberry Growing at Sturgeon Bay	32
Getting Raspberry Plants Ready for Winter	32
Two Excellent New Red Raspberries	33
Selling Apples at Home	33
Insulating Values of Various Materials	34
Drought in the United States	35
The International Horticultural Exposition	35
Officers Nominated for Horticultural Society	36
Program Horticultural Society Convention	37
About the Home and Garden	38
Garden Club Winners at International Exposition	39
Premiums Offered on Cherefresh Jelly	39
Gladiolus Variety Experiences	40
Arrangements for Hallowe'en	42
Garden Gossip	43
The Regional Meeting	44
October Garden Club Program	44
Program Wisconsin Garden Club Federation Convention	45
Impressions of European Gardens	46
Nominations for Officers Wisconsin Garden Club Federation	47

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Subscription to Wisconsin Horticulture is obtained by membership in the Wisconsin State Horticulture Society for which annual dues are $1 per year or $1.50 for two years. Garden Clubs, Horticultural Societies, and other Horticultural Organizations are affiliated at a reduced membership rate.

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.

Cider For Roadside Stands

By D. K. Tressler
New York Experiment Station

A VISIT to the average cider mill is enough to convince one that this inustry has not kept pace with the times. Cider is still being made by grinding and pressing cull apples and, without any treatment to improve its quality, it is sold for use as a beverage or for conversion into vinegar. Such a product is of relatively low quality and so commands a low price. Fruit growers and cider makers are often chagrined to find that cider, notwithstanding the fact that it is a pure juice, ordinarily sells at a lower price than the cheapest of soft drinks—soda water—to which imitation fruit flavors have been added.

Blending Juices

Cider may be improved or modified in several ways, any one of which should make it more attractive to the public and so increase its value. Perhaps the simplest means of improving it is by blending the product with small amounts of more highly flavored juices, such as that from russet aples, crab apples, quinces, and gooseberries. The blending of juices is common practice in England, Canada, and Germany where cider is a much more popular drink.

Clarification of cider converts it into a brilliantly clear beverage and thus greatly improves its appearance. In the last few

years the clarification and filtration procedures have been greatly simplified so that now any farmer can produce sparkling cider in his own home without the purchase of any expensive equipment. The detailed directions for the clarification of cider are presented in Circular No. 149 recently published by the New York Experiment Station, Geneva, N. Y.

Carbonation of cider adds a tang which appeals to nearly everyone. Those who like soft drinks and demand carbonated drinks, such as soda, root beer, and ginger ale will like it. Moreover, they will be benefited by its consumption as it is a pure fruit juice and is higher in food value than the usual soft drink prepared with imitation fruit flavors. Formerly, carbonation required expensive equipment. A simple method is now available which will enable the owner of a roadside stand to carbonate his own product. This method is also described in Circular No. 149 referred to above.

Preservation Not Difficult

There is no reason why sweet cider of excellent quality should not be available the year around for home consumption and sale at roadside stands. Perhaps the simplest method of preservation is by freeing the product placed in waxed paper cartons, kegs or bottles in a cold storage at 10° F. or lower. This will not burst the containers if they are not filled more than 4/5 full. The frozen product may be held in the storage a year or more, and, when removed and thawed, will be found to possess its original flavor and color. This method possesses the advantage of being applicable to both cider as it comes from the press and also to the clarified product. Of course the grower cannot afford to construct and operate a cold storage in order to keep his cider Most towns of five thousand population or more now have ice plants which maintain cold rooms used for storage of butter, ice cream and other perishable products. These storages will keep products at low temperature at a relatively small cost. The grower can place his cider in such a storage and draw it out as required for use or sale.

Frozen cider which has been packed in kegs or toher relatively large containers does not thaw quickly; therefore, it will be nec-

essary to withdraw it from storage the day before it is required for use. Another point to be remembered is that thawed cider contains no chemical preservatives and so ferments in a few days when held at ordinary room temperatures.

Clarified cider packed in bottles may also be preserved easily by pasteurizing or heating the bottles for 20 minutes at 170° F. The details of this simple method are also given in Circular No. 149. If care is taken in pasteurizing cider (so that it is not overheated), the product is of excellent flavor and can be distinguished from the freshly clarified product only when the unpasteurized product is available for comparison. Its flavor is superior to the clarified product to which benzoate of soda has been added.

Lightly carbonated clarified cider should also be pasteurized, but the temperature need not be as high as that required for the uncarbonated product. Heavily carbonated cider should not be pasteurized as there is great danger of the heat causing the bottles to burst.

Ordinary unclarified cider is not suited for preservation by pasteurization as the heating causes the coagulation of various substances contained therein. For this reason pasteurized cider, which has not been clarified prior to bottling, always contains much sediment which is unsightly and undesirable. The juice also has the flavor of apple sauce and not that of fresh cider.

Cider Should Be A Summer Beverage

Cold cider is even more delicious in hot weather than it is in the cool autumn. Iced, pasteurized, clarified cider or thawed fresh cider offer interesting business possibilities to those operating roadside stands located on busy thoroughfares. Outings and picnics offer another important outlet for these desirable beverages. Local restaurants, hotels, drug stores and soft drink stands will also buy the product once they learn of its high quality.

If sweet cider becomes an important national drink, our health will be benefited for the consumer will obtain a nutritious food as well as a cooling drink.

—From Farm Research, Geneva, N. Y.

TILLAGE AND COVER CROPS IN THE ORCHARD

IT has long been recognized that clean tillage without incorporating a green crop or manure is not good for an orchard. This is different from a fallow in which the land lies idle a year which has often proven highly beneficial.

The purpose of a cover crop is to furnish green manure or organic matter to the soil, to supply nitrogen, utilize soluble nutrients that might otherwise be lost, help prevent erosion, and hold snows in winter as a means of preventing deep freezing, build up the organic matter, increase water holding capacity, improve the physical condition of the soil, and others. Just how far a cover crop will accomplish these results is being questioned in some quarters. Any system of cultivating the land increases the rate of loss or oxidation of organic matter.

Probably the briefest statement that can be made is to say that a soil well supplied with organic matter is better than one in which it is low. If a cover crop system or tillage system is to be followed, as is often desirable, a heavy crop should be plowed in rather than a meager one. But one should be selected that will not be an excessive drain on the soil moisture.

—J. H. Gourley, Ohio, in the Maryland Fruit Grower.

HEAVY MULCHING IS SATISFACTORY SYSTEM OF ORCHARD MANAGEMENT

THE orchard practice of applying sufficient poor hay or similar material to suppress the growth of grass and weeds over most of the soil occupied by the tree roots keeps the soil a little cooler in hot weather and warmer in cold weather, and conserves soil moisture in dry periods, according to Shaw and Southwick, in Massachusetts Experiment Station Bulletin 328.

They add that an abundance of mulching material will supply sufficient soil nutrients other than nitrogen. It prevents soil erosion and favors absorption of rainfall by the soil.

"The amount of air-dry material necessary seems to be not much less than one pound per square foot per year for the area actually covered."

Cost and Danger From Fire and Mouse Injury Possible Objections

McIntosh and Wealthy apple trees were observed during a 15-year period under a comparison of heavy mulch and cultivation with a cover crop. Growth and yield of the trees was greater under the mulch system than under cultivation.

"This work suggests that heavy mulching is a satisfactory system of orchard management. The possible objections are cost, danger of fire, and danger of injury from mice."—From American Hortigraphs.

DRIED FRUIT

The teacher had forbidden the eating of candy and chewing of gum during school time. One day she became suspicious of a lump in Jimmie's cheek. "Jimmie, are you eating candy or chewing gum," she asked.

"No," replied Jimmie. "I'm just soaking a prune to eat at recess."

The Montmorency Cherry

A NEW bulletin has just been published by the Michigan Experiment Station, East Lansing, Michigan, entitled "Factors Influencing the Yield of Montmorency Cherry Orchards in Michigan," by V. R. Gardner. The bulletin discusses the relation of tree age to yield, soils, climatic influences, and fruit setting.

The Summary

The following is a summary of the bulletin:

1. The Montmorency cherry as grown in Michigan, begins to bear at five or six years of age, increases gradually in productivity until about 20-22 years of age and then declines, more or less rapidly as the case may be.

2. Comparison of trunk circumference measurements of a random sample of 44 representative Montmorency cherry orchards with those of certain selected "standards" indicates that, on the average, trees of that variety in Michigan attain only three-fourths of the size and productivity that would be possible were they planted exclusively on first-grade land. In other words, poor soil levies approximately a 25 per cent tax on the sour cherry industry of the state.

3. Yield records on a random sample of 422 orchards covering periods of from three to nine years for each orchard between 1920 and 1934 show that on the average one crop out of three is lost because of spring frost, which in turn is associated with unfavorable sites and locations. In the one-third of the orchards with the best sites, crop loss from frost occurs less frequently than once in five years.

4. The percentage of blossoms setting and maturing fruit varies greatly, depending on many conditions ,variations of from 10 to 50 per cent being common An important factor in this connection is the relative number of bees present to effect pollination.

5. In view of prices that have prevailed during recent years, and general production trends, substantial profits can be realized only where production costs per pound can be kept low by obtaining yields well over the general average of 50 pounds per tree per year.

COMMENTS ABOUT CARPATHIAN ENGLISH WALNUTS

INASMUCH as we shipped out 350 pounds of new Crath Carpathian English walnuts this spring to 1,028 cooperators, it is inevitable that we should get letters commenting on the success or failure of the project from time to time. Several letters have been received stating that out of 9 nuts planted not any grew, which is unfortunate and probably due to the hot dry season.

Occasionally we have a letter which is more enthusiastic.

Mr. R. E. Hodgson, Superintendent of the Southeast Demonstration Farm and Experiment Station at Waseca, Minnesota, writes as follows:

"Last spring I secured one pound of walnuts from your importation. From these I have 23 small trees which aroused much interest in this locality. A representative of The Farmer, St. Paul, happened to see the trees and put something in the paper, and ever since I have been swamped with correspondence from as far away as California.

"These trees seem to be thrifty and I am hoping that they will prove hardy. I would like to secure another pound of seed next spring so as to stand a better chance of getting some trees which will live through."

Prof. A. F. Yeager, head of the North Dakota Horticultural Department, writes:

"Last spring we invested in a pound of Carpathian English walnuts. I am glad to report that there are 41 seedlings out of this lot." (A pound is from 45 to 50 nuts). "Of course it is rather doubtful whether these plants can withstand our winters even though some of them do survive in Wisconsin, but we believe they are worth a trial at least. We noticed that while the black walnut is keeping its drop to maturity this year, all the butternuts have fallen off. Apparently the butternut, while cold resistant and an early bearer, does not seem to take so well to heat and drought."

We are pleased to hear that Prof. Yeager was successful in getting so many nuts to grow.

A mother's love is greater than a wife's. His mother believes him.

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.

'Aero' Cyanamid
NITROGEN + LIME FERTILIZER
FEEDS THE CROP
SWEETENS THE SOIL

Protect The Orchard Against Mice

By G. C. Oderkirk

(Continued from September Issue)

One Station Per Tree

Only one station is needed near each tree. If there is little or no natural cover of weeds, grass, or mulch, for mice near some trees, the stations could be placed in the part of the orchard where mice are likely to be more abundant. Always try to place the stations in active mouse runways, covering them lightly with grass, weeds, or straw so that mice will be attracted to the stations. If there is little grass or other cover near a tree, and it is the desire of the orchardist to give each tree protection with the bait, a station could be placed about four feet from the tree trunk, covering it with straw so that any mice in the vicinity will be attracted to it and will readily find the poisoned bait.

If weather permits, it would be well to inspect the stations during the winter and rebait them. This may not be possible due to the depth of snow, or other conditions. However, considerable injury by mice is inflicted during the late winter and early spring months and it cannot be emphasized too greatly to closely observe the infestation in orchards at that time, baiting thoroughly where mice are known to be present.

During the warm months of the year, that is, from March until October, the range of mice is much more extended than is the case during the late fall and winter. When winter approaches mice tend to colonize and they restrict their range during the winter to a relatively small area. Thus, a poison bait station properly placed in an active runway late in the fall will usually remove all or at least a high percentage of the mice in a colony.

Locate Favorite Spots

It is also usually the case that mice will select certain parts of the orchard affording protection from winds and other unfavorable weather. Soil drainage apparently also has quite an effect on their selection of places to live. It is desirable to note from year to year, the areas in the orchard selected by mice. In using poisoned bait, plan to expose the bait most heavily in these favored locations.

HOW TO PREPARE BAIT FOR MICE

THE following formula may be used for preparing vegetable and grain bait.

Starch-Coated Grain Bait

Mix 1 tablespoon of gloss starch in one-fourth teacup of cold water and stir into three-fourths pint of boiling water to make a thin clear paste. Mix 1 ounce of powdered strychnine with 1 ounce of baking soda and stir into the starch to a smooth creamy mass free of lumps. Stir in one-fourth pint of heavy corn syrup and 1 tablespoon of glycerin or petrolatum. Apply to 12 pounds of wheat and mix thoroughly to coat each kernel.

Rolled-Oat Bait

Mix together, dry, ⅛ ounce of powdered strychnine and ⅛ ounce of baking soda. Sift the strychnine-soda mixture over 1 quart of rolled oats, stirring constantly to insure an even distribution of the poison through the grain. Thoroughly warm the poisoned rolled oats in an oven and sprinkle over them 6 tablespoonfuls of a mixture of 3 parts of melted beef fat and 1 part of melted paraffin, mixing until the oats are evenly coated. When the grain is cool it is ready to use. Caution: In heating the rolled oats be careful that the bait is not scorched, thus rendering it unpalatable.

Vegetable Bait

Cut 3 quarts of sweet potatoes or carrots into one-half inch cubes. Mix ⅛ ounce of powdered strychnine and ⅛ ounce of baking soda and, using a pepper box, sift this over the freshly cut bait, stirring the mixture constantly to distribute the poison evenly. Use the bait while it fresh.

POISONED OATS AVAILABLE FOR MOUSE CONTROL

A LARGE shipment of poisoned oats to control mice in field and orchard has been received by the Wisconsin State Horticultural Society from the Federal Mixing Plant in Idaho operated by the United States Bureau of Biological Survey.

The bait will be shipped to anyone express collect. It is illegal to ship poisoned material by mail. Checks should be made out to "Rodent Control Fund."

Prices are as follows:

10 lb. bag_____$1.20
25 lb. bag_____ 2.50

HOW TO STORE SQUASH

SQUASH and pumpkins should be allowed to become fully ripe on the vines before they are harvested. The riper they are the better they will keep. Then store them in a fairly warm place. We know of one grower who is very successful in storing squash by placing them in the hay mow and covering with a pile of hay. The hay absorbs the moisture and prevents them from freezing until he has disposed of them.

AN INEXPENSIVE BAIT STATION FOR FIELD MOUSE CONTROL

A BAIT station for mouse control in the orchard, made of asphalt roofing paper was sent to us by Mr. G. C. Oderkirk of the U. S. Bureau of Biological Survey. It is simply a roll of roofing material 9 inches wide and 13 inches long rolled into a tube with a hole about 2 inches in diameter.

This is a very inexpensive bait station and can be made by anyone since roofing paper is available at all building supply companies. The tube is held in place by paper clips, staples or string. Tar paper, according to Mr. Oderkirk, should not be used as the tar may repel the mice. The poison bait is placed in the station and laid along the runway. Mice will readily run through a tube of this kind, and prefer it to tin cans because it has an opening at both ends.

PICKING GRIMES GOLDEN AND GOLDEN DELICIOUS

DURING the summer months Golden Delicious has an almost grass-green color. This color changes to a lighter shade, becoming distinctly whitish-green just before maturity. Golden Delicious should be allowed to remain on the tree until the greenish color changes to a whitish-yellow. It is then still hard and hangs well to the tree, and this will bring out its full flavor and best keeping qualities.

Grimes Golden should be picked, however, when it is still a whitish-green. It will then yellow in storage.

In storing Golden Delicious, it should be put into storage as soon as possible after picking and should be kept as cold and as damp as possible to prevent shriveling.

Did you notice the Convention Fruit Premium list in the September issue?

OPEN MESH BAGS MAKE GOOD FRUIT PACKAGES

MERCHANDISING fruits and vegetables in small consumer unit packages is becoming quite popular in many states. The open mesh bag, coming in different colors, is being used by many orchardists with success. In fact, recently a car was shipped from Yakima, Washington, to Buffalo, New York, in open mash bags with less bruising than those shipped in boxes. The reason is that apples are packed tight in boxes and there is more or less bruising when the lid is nailed on.

In making a store display, attractive price cards are used in connection with the open mesh bags. Only first class fruit should be packed in the bags, and the colors should harmonize. In fact, in selecting the colors it will be well to try out different colors of bags with the fruits one has to sell and use only the colors that bring out to best advantage the color of the fruit.

Plan now to attend and exhibit at our Fruit Growers Convention, Sturgeon Bay, Oct. 28-30.

FRUIT GROWERS WIN PRIZES AT INTERNATIONAL HORTICULTURAL EXPOSITION

WISCONSIN was well represented in the fruit department at the International Horticultural Exposition at Chicago September 12-20, and took away a majority of the premiums.

We do not have a complete list of all the premiums won, but the following are the first premiums in the different classes won by our growers.

The Wisconsin Orchards, Gays Mills, won 10 first prizes on McIntosh, Wealthy, Wolf River, Northern Spy, N. W. Greening, Cortland, Snow and a fancy gift basket.

A. K. Bassett of Baraboo won 9 first prizes on Ben Davis, Fameuse or Snow, Alexander, Senator, Tolman Sweet, on a display of fall varieties, on the new variety Joan, and on Martha crab apple.

C. W. Aeppler of Oconomowoc won five first prizes on new varieties, Macoun, Medina, Milton, Newfane and Orleans.

In The Berry Patch

COVERING STRAWBERRY PLANTS

IT IS now becoming a well established custom in Wisconsin to cover strawberry plants about November 1st, depending upon the locality and when the first frosts are expected. Growers in the commercial sections in central Wisconsin usually cover the first week in November with marsh hay or straw. The plants are covered with about three inches of mulch as compactly as possible to prevent the first heavy freeze from injuring the plants.

During the past two years snow has come before heavy freezes and uncovered fields in many cases wintered as well as those that were covered. This should not however, lead us to assume that this will be the case every year. Should we have temperatures of from 5 to 15 degrees above zero F., during the forepart of November when the plants are unprotected, the crop will be seriously cut next year as has been the experience of growers many times.

This early frost coming at a time when the plant seems to lack dormancy, turns the crown and roots a dark color and is known as black root. Such fields may produce a fair crop if there is a lot of rain until after the picking season, but with even a short dry period during the time of picking the crop is a failure.

Straw containing weed seeds should be carefully avoided as the weeds will seriously compete with the plants for moisture next spring unless hand weeding is done, which is expensive. It may be well to plan to grow such crops as Sudan grass during the summer to be used as a mulch on the strawberries. Early cut marsh hay without seeds is probably the safest.

STRAWBERRY GROWING AT STURGEON BAY

A LARGE number of strawberry growers attended the first all strawberry meeting in Door County at Sturgeon Bay on September 4th. The meeting was called by County Agent B. F. Rusy, cooperating with the Horticultural Society. The speaker was H. J. Rahmlow, secretary of the Society. Prof. J. G. Moore who was to have attended found it impossible to do so.

Varieties Discussed

The meeting opened with a thorough discussion of varieties for Door County. Growers took part in the discussion and it was brought out that Beaver and Premier are preferred by leading growers, while Dorsett and Fairfax look very promising and will be tested more extensively next year. Mr. Nick Jacobs of Sawyer, a large grower on muck soil, was a booster for the Beaver, and stated that he preferred it because it brought him more money than any variety he has grown. He is also trying out Dorsett and Fairfax which look good.

A tour to strawberry fields was held during the afternoon and some interesting observations made. The first stop was at the farm of Nick Jacobs, Sawyer, where some fine rows of plants were seen. At the Martin Orchard Company plots — Mr. Earl Johnson, manager, canvas hose irrigation was studied and met with universal approval by the growers. Mr. Johnson is using the eyelet hose made by Mantle & Mantle of Painesville, Ohio. Both eyelet and ordinary canvas hose irrigation were also seen at the Reynolds Preserving Company fields. Mr. Don Reynolds explained the system consisting of a water supply from a pressure tank together with a force pump operated by a tractor. The Reynolds Preserving Company is planning to can in their factory all strawberries available during the coming years. This will serve as an outlet especially in seasons of large production. It will stabilize the price and assure growers of a steady market for their crop.

Mr. Karl Reynolds, vice-president of the Society, then opened a number of cans of strawberries of different varieties and canned by factories in different states. He explained the process and stated that it is their aim to put up a superior pack of the best canning variety and that they are studying this question in order to establish a reputation for Door County canned strawberries.

GETTING RASPBERRY PLANTS READY FOR WINTER

THE well fed raspberry plant is the most hardy and will stand winter conditions the best, according to tests. It has been found that canes injured by disease or in poor condition due to lack of proper food in the soil wintered poorly even in milder climates. In other words, hardy varieties winter killed in Maryland, for example, where winter temperatures are relatively mild, but came through all right in Canada under better growing conditions.

Will the Plants Be Dormant When Cold Weather Comes?

There is some evidence that plants grown on rich and rather low soils continued to grow so late in the fall that the canes did not become dormant in time to withstand winter temperatures. If we continue to have heavy rainfall this fall there may be some danger of winter injury. We would suggest by

all means that growers sow oats or barley between the rows in order to hasten this dormancy. The grains will compete with the raspberries for food and moisture late in the fall and help to mature the canes. They will also provide some humus.

TWO EXCELLENT NEW RED RASPBERRIES

TWO new red raspberries that are being introduced by the New York Station this fall deserve the consideration of home gardeners. The first of these new varieties, Marcy, is the largest red raspberry now available for planting, being somewhat larger than Newburgh and considerably larger than Latham. The berries have the attractive long conic shape and refined appearance of Lloyd George, one of the parent varieties. The color is medium red, the flavor mild, and the quality good. The plants are tall, stocky, vigorous and productive of very heavy crops. Marcy is intermediate in season between Newburgh and Latham and for home use and market is well worthy of trial.

New Everbearing Variety

The second of these varieties is somewhat of a novelty, being an autumn fruiting or so-called everbearing raspberry. The name Indian Summer refers to its habit of bearing a second crop late in the fall. The berries of Indian Summer are large, roundish conic, sofewhat soft, rather dark red in color and of a fine flavor. The summer crop ripens about the first of July at Geneva, N. Y., while the autumn crop commences to ripen early in September, continuing until early November. The bulk of the fall crop ripens in October. The plants are of medium height, vigorous, stocky and bear heavy crops.

The second or fall crop is borne on the tips of the new canes. The following spring these are cut back as with the ordinary summer fruiting red raspberries and they then fruit in July in the usual manner, after which they are removed. Culture is the same as for other red raspberries except that somewhat better care is advisable in order to produce large canes as soon as possible. The largest canes are the first to fruit and bear the most berries. The first year after planting, little or no fruit will be produced in the fall as the canes are not large enough, but a full autumn crop may be expected the second year.

Indian Summer is a distinctly worthwhile addition to the list of fruits for the home garden, being much superior to the other fall bearing raspberries now available, such as Ranere (St. Regis), Erskine Park, and La France.—C. L. Slate, Geneva, N. Y., in Horticulture.

A SMALLER CRANBERRY CROP IN WISCONSIN THIS YEAR

THE Wisconsin cranberry crop will be smaller than that harvested last year according to the State and Federal Crop Reporting Service.

The estimates on September 1st were that the crop would be about 55 thousand barrels. Last year with about the same acreage the Wisconsin crop was estimated at 81 thousand barrels, which was an exceptionally large crop for the state. The crop this year is about normal.

For the United States the crop is estimated at being somewhat larger than a year ago, and is given at 531 thousand barrels compared to 519 thousand barrels harvested last year. Massachusetts has the largest production with an estimated crop of 370 thousand barrels. Wisconsin ranks third, with New Jersey second.

SELLING APPLES AT HOME

THE following article appeared in the June issue of Minnesota Horticulturist, written by E. W. Mayman of Sauk Rapids, Minnesota. Mr. Mayman's success is no doubt due to his advertising plan.

"We had a very heavy apple and plum crop last year; in fact it was general all over the state. Truck load after truck load came through Sauk Rapids headed for the North, where many of my patrons reside. During the Duchess season several parties were here buying and they wanted to see through the orchard. Of course I went with them. They said,' Mr. Mayman, you will never get them picked, and if you do you will never get them sold.' Well, I said if you want to do the worrying it will save me the trouble! I have sold my apple crop at home since 1914.

"I advertise in two daily papers three days each week and in nearly all the weekly papers north of me continuously for six and in some eight weeks, as well as in St. Cloud and Stearns County. I sold all before November 1 and still they came. I had six high school boys come up every night and pick them from the ground. The badly bruised ones I made into cider every week and we made about 500 gallons which sold at 35¢ a gallon.

"I got 75¢ and $1 for the Wealthy. I also made a School Boy's pack of Wealthy for any that are below the second grade, and advertise them as such. It has been a hit with me. Two thousand bushels would be easy for me to sell, especially if I had plenty of the Wealthy and Haralson varieties. On Saturday and Sunday it nearly always takes two or three to wait on the patrons."

Read the Convention program on page 37. See Fruit Premium list in September issue.

Insulating Values Of Various Materials

IT has been said that an inch of good cork board has as high an insulation value as 36 inches of solid concrete wall.

To give the value of the different insulating materials and compare them with concrete, brick, etc., the following is a part of a table on relative insulating values obtained from the Forest Products Laboratory, Madison, and gives the insulating value of a few of the most common materials.

Light Materials Best

It will be noticed that the lighter the material the better the insulation value. B. t. u. means the Thermo conductivity in British Thermol units per hour and per square foot of conducting material. The smaller the number in the B. t. u. column, the better the insulating value of the material.

This information is of value in determining materials to use for building fruit storage houses, in insulating our homes or poultry houses, and also in insulating bee hives where bees are wintered out-of-doors.

It should be remembered that most of these materials absorb some moisture and if moisture is absorbed they lose their insulating value. Therefore they should all be protected from moisture.

Some of the materials are now available with one side coated with a thin layer of asphalt which is impervious to moisture.

Material		Lb. per cu. ft.	B. t. u.
Name	Description		
Balsam wool	Chemically treated wood fiber	2.2	0.27
Hair felt	Felted cattle hair	11.0	.26
Sawdust	Various	12.0	.41
Shavings	Various, from planer	8.8	.41
Corkboard	No added binder; very low density	5.4	.25
Corkboard	No added binded; medium density	10.6	.30
Celotex	Sugar cane fiber	13.2	.34
Insulite	Wood pulp	16.2	.34
Building brick			3 to 6.00
Concrete			6 to 9.00
Fir sheathing and building paper			*.7
Pine lap siding and building paper	Lap siding 4 inches wide		*.9
Wood			0.3 to 1.1

* For the thickness given or for that usual in construction, not per 1-inch thickness.

STATE FAIR APPLE SHOW

WINNERS in the 40-tray apple class at the Wisconsin State Fair this year were:

1st, Wisconsin Orchards, Inc., Gays Mills.

2nd, Ed. Stoeber, Madison.

3rd, A. K. Bassett, Baraboo.

4th, Arno Meyer, Waldo.

In the 10-tray classes, the above exhibitors won practically all the first prizes.

Pear prizes were won by F. B. Sherman of Edgerton, Ed. Stoeber, Madison, Cooper Bros., West Allis, and Wm. Wolf.

Leading plum and grape prize winners were G. M. Kehan and A. K. Bassett of Baraboo.

F. B. Sherman, Edgerton, was also a winner in the apple plate classes, as was Geo. Mahm, and the Fieldhouse Nursery, Dodgeville.

WISCONSIN APPLE CROP ESTIMATES

THE State and Federal Bureau of Crop Estimates predicts a very small apple crop for Wisconsin this year. The following are the estimates.

The total crop for Wisconsin, 1936, 908,000 as compared to 2,520,000 for 1935, a five year average of 1,801,000.

The commercial crop produced by commercial growers for shipment or commercial channels is estimated for 1936 at 238,000 compared to 540,000 last year, and a five year average of 399,000.

AN EXTENSION COURSE FOR GARDENERS

"THE Home Landscape" is the title of a course for gardeners offered by the University of Wisconsin Extension Division. The program was prepared under the direction of the Wisconsin College of Agriculture, Extension Department, as a project under the National Youth Administration and Works Progress Administration. Anyone interested in a study of home landscape should write the Extension Division for more information.

Two other courses are as follows: "Building the Home Landscape," and "Public Problems in Landscape Design."

Droughts In The United States

"THERE is much loose talk these days about changes in climate due to human activity, and various suggestions that man should do this, that, or the other thing to prevent droughts. Most of such talk is utter nonsense," according to a circular released by the U. S. Weather Bureau, Washington, D. C.

The present dry phase, according to the bulletin, began in 1930 and has continued, with a few interspersions of fairly good years, such as 1935, up to the present time. There were three extremely dry years — 1930, 1934, and 1936.

Available records, covering 100 years or more, indicate that a general dry phase, somewhat comparable to this existed in 1886-95, and another still earlier in the 1830's, or approximately 100 years ago.

The outstanding wet phase in the last century was from about 1865 to 1885.

Some tree ring records of the far Northwest indicate that there probably was a very dry period along about 1755-80. The records also show that in the early 90's or some 40 years ago there was a drought in the so-called "dust bowl" just as severe as that recently experienced.

Rain Making

There are two basic principles in rain production — getting moisture into the air through evaporation and getting it out again, through condensation, in the form of cloud and rain drops. The only way to produce rain in appreciable amounts is by cooling the air containing the invisible vapor of water. A cubic foot of saturated air at 80°, if cooled down to 60°, must lose, by condensation, half of its water content, which appears as clouds and rain.

Air cools most rapidly when rising; the normal fall in temperature for an ascending column of air is 1° for each 183 feet of rise. Air moves from place to place over the earth's surface in mass formation. These masses come from two main regions —polar and tropical. Those from the Poles are dense, heavy, and relatively cold; those from a tropical direction are warmer and lighter.

When polar and tropical air masses—one from the north, the other from the south—meet, the tropical air, being lighter, naturally flows up over the opposing dense air, just as it would flow up a mountainside. As it ascends and cools, and thus the water vapor is cooled enough to condense and fall as fain. This illustrates Nature's method of producing rain in appreciable amounts. It is the only effective way. When the normal courses of these opposing air masses are disrupted for a considerable period, abnormal conditions, such as droughts result. These processes have a world-wide rotation. In other words, Nature's weather factory is of enormous dimensions—the whole world—and some of its operations have not yet been discovered. Enough is known, however, to make ridiculous any suggestion that man can basically change the order of things.

THE INTERNATIONAL HORTICULTURAL EXPOSITION

ALL branches of Horticulture were given recognition at the International Horticultural Show held at the Chicago Amphitheatre September 12-20. The Amphitheatre has seven acres of floor space. The show this year probably exceeded the expectations of everyone connected with it. Still, we anticipate that in the future it will become much greater than it was this year.

Horticulturists from all parts of the United States expressed themselves as feeling a need for an International show of this kind. It provides a meeting place for an exchange of ideas among horticulturists the world over. It brings exhibitors from all the states together. It will be a great educational show.

One large hall was devoted to fruits, vegetables and honey. New and standard varieties of all kinds were displayed. In the Arena on the first floor was a beautiful scene, a replica of the Hanging Gardens of Babylon at one end, with formal beds and pools throughout the Arena floor.

Another hall was devoted to nursery displays. On the second floor one hall was reserved for commercial exhibits including gladiolus and cut flowers of all kinds. Another hall contained the amateur exhibits, shadow boxes, luncheon tables, flowers, the gladiolus show and a great dahlia exhibit. The dahlia show was probably an outstanding feature because of its size and quality.

Then there were trade displays by commercial concerns, and on the top floor an art exhibit of horticultural paintings.

The Amphitheatre is probably the most suitable building which could be found in the United States for this purpose. This organization, which has staged the International Live Stock Show for 36 years, is experienced and will keep the show running smoothly. The financial backing is adequate and will assure the continuance of the exposition.

He was an energetic, serious minded, up to the minute grocer. His store was immaculate, his goods were artistically displayed, his prices were modest and his service prompt and courteous. But his customers were few and far between.

He kept covers on the cooky cans.

EDITORIALS

OFFICERS NOMINATED FOR WISCONSIN HORTICULTURAL SOCIETY

THE nominating committee appointed by the president of the Horticultural Society to nominate officers for the annual election to be held at Sturgeon Bay November 4-5, reports the following nominations:

For President: Karl Reynolds, Sturgeon Bay.

For Vice-president: R. L. Marken, Kenosha; Peter Swartz, Waukesha.

For Treasurer: E. L. Chambers, Madison.

For Directors for three years as follows:

To succeed D. E. Bingham, Sturgeon Bay: Nick Jacobs, Sawyer; S. Learned, Sturgeon Bay.

To succeed Sam Post, Madison: Geo. MacLean, Madison; Walter F. Miller, Sun Prairie.

To succeed Earl Leverich, Sparta: R. E. Harris, Warrens; A. L. Butts, Tomah.

For the information of members we give the following brief information about these men:

Karl Reynolds is secretary of the Reynolds Preserving Company, large cherry and apple growers and canners. He is at present vice-president of the Society and very well known in horticultural circles.

R. L. Marken is associated with Thompson Bros. of Kenosha, and is a large grower of apples, cherries, small fruits and vegetables. He is at present a director of the Society. Was formerly manager of the Kickapoo Development Company at Gays Mills.

Peter Swartz of Swartz Bros., Waukesha, is well known in horticultural circles as a fruit grower. For many years he was a speaker on the Farmer's Institute program throughout Wisconsin on orcharding. Swartz Bros. at the present time are among the largest growers of apples in the state.

N. C. Jacobs, Sawyer, is a well known fruit grower in Door County. He grows apples, cherries, and is an extensive strawberry grower.

Sam Learned, Sturgeon Bay, is also a well known fruit grower and a member of the Fruit Growers Co-op of Door County.

George MacLean of Madison together with his two brothers are probably the growers of the best crysanthemums in Wisconsin. They operate a large greenhouse in which they grow flowers and tomatoes. In addition they have a large orchard and are testing many new varieties of grapes.

Walter F. Miller of Sun Prairie is one of our best known gladiolus and peony growers. He was formerly treasurer of the Gladiolus Society. He is an extensive exhibitor and flower judge.

R. E. Harris of Warrens is vice-president of the Warrens Fruit Growers Association. He succeeds his father, the well known H. H. Harris, as one of the leading strawberry growers in central Wisconsin.

A. L. Butts of Tomah is a strawberry and raspberry grower and a member of the Warrens Fruit Growers Association. He is also very much interested in other lines of horticulture and donating the land for the Tomah Park. He is a retired business man but still operates his farm adjoining the city.

Each member of the Society attending the business meeting at Sturgeon Bay on November 5th will receive a printed ballot with the above names and a blank line for each position for nominations from the floor.

THREE BIG CONVENTIONS

October 13-14. Wisconsin Garden Club Federation 9th Annual Convention, Hotel Loraine, Madison.

October 29-30. Wisconsin Beekeepers Association 58th Annual Convention, Hotel Retlaw, Fond du Lac.

November 4-5. Wisconsin Horticultural Society 68th Annual Convention and Fruit Growers Program. High School Gymnasium and Auditorium, Sturgeon Bay.

Featuring a fruit and implement show.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

OFFICERS

A. E. Wolkow, Hartford, President
Arthur J. Schultz, Ripon, Vice-president
H. J. Rahmlow, Madison, Cor. Secretary
Mrs. Millie Francis, Recording Secretary
West Allis, R. 4, Box 608.
Paul J. Cypher, West Bend, Treasurer

BOARD MEMBERS
Frank E. Greeler, Neillsville
A. L. Kleeber, Reedsburg

Vol. XII | OCTOBER, 1936 | No. 10

A GREAT CONVENTION PLANNED

THE convention program of the Wisconsin Beekeepers Association this year offers a wonderful opportunity to hear two men well known in the beekeeping world—Prof. F. B. Paddock and Dr. O. W. Park of Iowa, and to see the pictures and first-hand account of the work now going on in breeding for disease resistance. Be sure to read over the program. Then bring the wife and come to the meeting.

Women's Auxiliary Program

Ladies — A special program has been prepared for you. See notice, page 34.

Honey, Fruit and Nut Bread Contest

The Ladies' Auxiliary is planning a honey, fruit and **nut bread** contest in connection with the convention. All entries should be brought to the Retlaw Hotel, Fond du Lac, by 1 p. m., October 29th, the first day of the convention. There will be an interesting program for the ladies and six prizes will be awarded to the six best samples of nut bread brought in.

Entries must use all honey for sweetening, and the bread must contain both fruit and nuts, and should average a pound to a pound and a half in weight. Wrap it in heavy wax paper or cellophane.

Write for Entry Blank

Write to Mrs. Arthur Schultz, 835 Liberty Street, Ripon, for an entry blank which must accompany each entry. The recipe must also be written on the entry blank. None of the samples will be returned but will be used at the annual banquet.

PROGRAM

FIFTY-EIGHTH ANNUAL CONVENTION

Wisconsin Beekeepers Association

Retlaw Hotel, Fond du Lac

OCTOBER 29-30, 1936

Note: The Board of Managers consisting of one delegate from each affiliated county or district organization will meet at 7:30 p. m. Wednesday evening, October 28, in the Hotel Retlaw to discuss and pass upon all matters of business pertaining to the organization.

THURSDAY, OCTOBER 29

10:00 a. m. Cutting the cost of honey production. Prof. F. B. Paddock, Ames, Iowa.

11:00 a. m. What we have learned about the storing and ripening of nectar. Dr. O. W. Park, Ames, Iowa.

12:00 M. Luncheon.

1:30 p. m. Improving your stock of queens. Prof. F. B. Paddock, Ames, Iowa.

2:30 p. m. Progress in disease resistance experiments, illustrated with pictures. Dr. O. W. Park, Ames, Iowa.

3:30 p. m. How I raise a young queen in each colony. Top entrance wintering. H. A. Schaefer, Osseo, Wis.

4:00 p. m. Joint meeting with Woman's Auxiliary. Talk by Mrs. Malitta Jensen of the American Honey Institute.

THE BANQUET

6:30 p. m. Banquet in Hotel Retlaw. Price 85c per plate.

Presentation of honorary recognition certificate for outstanding work in Wisconsin Beekeeping.

Music and entertainment by Fond du Lac Beekeepers Association.

Some of the great beekeepers of America and what they have done. Prof. F. B. Paddock, Ames, Iowa, Prof. H. F. Wilson, Madison, N. E. France, Platteville.

Northern beekeepers I have met in the South. Richard Hansen, Kenosha.

Old time dance, auspices Fond du Lac Association. Everybody dance until?

FRIDAY, OCTOBER 30

9:30 a. m. Present and future plans for disease control in Wisconsin. E. L. Chambers, Madison.

10:30 a. m. How I keep 400 colonies of bees in one yard. Leonard Otto, Forest Junction.

11:00 a. m. Annual business meeting Wisconsin Beekeepers Association. Election of officers.

1:30 p. m. Care and storage of honey. Cause of dysentery. Prof. H. F. Wilson, Madison.

2:15 p. m. How to exhibit honey in store windows. Pointers on exhibiting at Fairs and judging honey. C. D. Adams, James Gwin, Madison, Walter Diehnelt, Menomonee Falls.

3:15 p. m. New ideas about outdoor wintering of bees and how I will pack them this fall. H. J. Rahmlow, Madison.

Round table discussion on wintering methods, cause and prevention of dysentery, different methods of outdoor wintering by leading beekeepers.

LATE BROOD REARING AND SIZE OF ENTRANCES

LATE fall or October brood rearing is desirable, within certain limits, since it is the young bees from this late brood that best survive the rigors of our Indiana winters. It is these late reared bees that can be expected to be on the scene of action for home duties as well as for gatherers of water, pollen and nectar so necessary for spring building next spring. Careful observations were made in a number of apiaries on October 16th, both where summer entrances had been restricted and in other yards where they had been left wide open in spite of a number of frosty nights and a few freezes. Bees were still gathering nectar from white aster.

In every instance the amount of brood still present was much greater in the colonies with restricted entrances. Observations of several deputy inspectors confirmed this finding. In so far as could be determined there was no difference in the age of the queens in these apiaries as no special efforts had been made to requeen any and all colonies were left to shift for themselves. Some variations could be expected because of differences due to vigor of queens but it was observed that in many colonies with entrances one inch by the full width of the hive, brood rearing had almost entirely ceased by the middle of October. Sometimes only a few eggs could be seen and no unsealed larvae. In others, only a few cells of sealed brood remained as against several frames of brood in hives where entrances had been cut to about 5/16" by 3". A hint to the wise should be sufficient. I have no doubt that too large entrances in spring also curtail the brood rearing operations.

—From Indiana Beekeepers Association News Letter.

WOMAN'S AUXILIARY MEETING

A feature of this year's convention will be the Woman's Auxiliary meeting to be held in an adjoining room at the Beekeepers convention at the Hotel Retlaw, Oshkosh, October 29th.

A fine program has been prepared by Mrs. Andrew Stevens, Chairman, and Mrs. Arthur Schultz, Secretary of the Auxiliary for the Fox River Valley.

The program will begin at 1:30 and will consist of five minute talks by the wives of beekeepers who have had some practical experience in putting on programs for women. This will be followed by a talk by Mrs. Malitta Jensen of the American Honey Institute, a discussion of interesting uses of honey, and a short business meeting.

At 4 p. m. the men will join the ladies for the general program and then all may attend the banquet for a good time. Be sure to invite the wife of your neighboring beekeeper, or any of the ladies of his family.

HONEY IN BREAD

IT HAS been reported that a national baking company has asked for bids from large honey packers for 2 million pounds of honey to be used in bread baking. It is surprising the amount of honey now going into this channel. If the darker grades of honey can be used for this purpose it will relieve the market and strengthen prices on the lighter grades. As long as prices remain on a certain level no doubt the use of honey in baking will increase.

NEW BULLETIN ON BEE DISEASES

"DIAGNOSING bee diseases in the apiary" is the title of circular No. 392 just published by the U. S. Department of Agriculture, Washington.

This is a most complete bulletin with illustrations showing the different kinds of bee diseases in the brood stage as well as those of the adult bees. After studying this bulletin most any beekeeper should be able to diagnose bee diseases in his own apiary.

HONEY WANTED

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

HONEY OF THE NATIONS TO BE EXHIBITED

HONEY from the following countries will be exhibited at the National Beekeepers' meeting at San Antonio November 23-25, according to Miss Arlene Weidenkopf, Secretary, who is collecting the samples. Palestine, Japan, China, France, Germany, India, New Zealand, Greece, Tahiti, and 30 states of the United States. This honey is already on hand and in all 33 foreign countries have promised to send samples. This will be an interesting exhibit.

Beekeepers: Don't forget to bring the ladies to the convention.

NOTICE!

The following new retail prices cancel our 1936 catalog prices on Tin Containers.

Fresh stock of tin containers and the pails have the new **pure tin** solder feature.

2½ lb. cans, per reship. case of 24	$1.13
2½ lb. cans, per carton of 100	3.90
5 lb. pail, per reship case, 12	1.03
5 lb. pails, per carton of 50	3.50
10 lb. pails, per reship. case, 6	.82
10 lb. pails, per carton of 50	5.05
60 lb. cans, in bulk, each	.34
60 lb. cans, per case of 2 cans	1.00

F. O. B. Boyd, Wisconsin

Orders of $50.00—5% discount.
Orders of $100.00—10% discount.

For a complete list of glass and paper honey containers, refer to our 1936 catalog.

AUGUST LOTZ, CO.
Boyd, Wisconsin

WINNERS AT THE STATE FAIR

THE honey exhibit at the Wisconsin State Fair was up to its usual high standards again this year. We find that this exhibit has a reputation throughout the United States as one of the largest and best in the nation.

A few of the larger premium winners were as follows:

Individual General Exhibit: 1st, Walter Diehnelt, Menomonee Falls; 2nd, A. L. Kleeber, Reedsburg; 3rd, Gilbert Schultz, Reedsburg; 4th, V. G. Howard, Milwaukee; 5th, Millie Francis, West Allis; 6th, John Kneser, Hales Corners; 7th, Charles Pritchard, Wisconsin Rapids; 8th, H. H. Moe, Monroe.

County Association Booth Exhibits were won by the following: 1, Sauk County; 2nd, Waukesha County; 3rd, Milwaukee County; 4th, Dane County; 5th, Wood County; 6th, Green County.

Premiums On Baked and Canned Goods Made With Honey

The culinary department was of high quality and had a large number of entries. Winners in these classes were as follows:

Spice Cake: 1st, Mrs. Howard Chafin, Elkhorn; 2nd, Walter Diehnelt, Menomonee Falls; 3rd, Mrs. A. E. Ott, Milwaukee.

Oatmeal Cookies: 1st, Mrs. W. R. Thomson, Milwaukee; 2nd, Walter Diehnelt, Menomonee Falls; 3rd, Mrs. Howard Chafin, Elkhorn.

Candy—Chocolate Caramels: 1st, Mrs. Lee Shultis, Reedsburg; 2nd, Mrs. Howard Chafin, Elkhorn; 3rd, Elladora Du Bois, Milwaukee.

Canned Fruit—Strawberries: 1st, Paul Cypher, West Bend; 2nd, V. G. Howard, Milwaukee; 3rd, Walter Iiehnelt, Menomonee Falls.

Jelly—Apple: 1st, John Kneser, Hales Corners; 2nd, Mrs. A. E. Ott, Milwaukee; 3rd, A. L. Kleeber, Reedsburg.

Pickles: 1st, Mrs. A. D. Stoppenbach, Milwaukee; 2nd, Mrs. Howard Chafin, Elkhorn; 3rd, Mrs. W. R. Thomson, Milwaukee.

CONTROL OF WAX MOTH

PARADICHLOROBENZENE is recommended as one of the best materials for controlling the wax moth in a bulletin just issued by the U. S. Department of Agriculture entitled "The Wax Moth and Its Control." It is circular No. 386, U. S. Department of Agriculture, Washington, D. C.

Paradichlorobenzene is not poisonous to humans, is not unpleasant to smell, is heavier than air, and will kill adults and larvae of the wax moth, but is not effective against eggs.

In fumigating the supers should be stacked as tightly as possible and preferably the cracks between supers covered with gummed paper strips. A generous handful of crystals should be placed on the top of the frames of the top super and the cover put tightly in place. This may be done when the supers are in ordinary storage. It is at present as cheap as any material which can be used. It is most effective at temperatures of 70° F. During summer storage new material should be added at intervals of three or more weeks.

Freezing is of course a very effective measure for controlling wax moth. If supers are stored in an unheated place, so that the temperature goes down to zero or below, and the supers are stacked with tight bottom and cover, there is little to worry about in Wisconsin from the wax moth, excepting in the fall of the year when they are first stored.

The old time dance to follow the convention banquet is creating some excitement.

Tin Pails—Glass Jars—Labels

Members: Look up our prices on tin containers and labels in the August and September issues of Wisconsin Beekeeping.

Send your money with order to:

Mrs. Millie Francis, Rec. Secy.
Wisconsin Beekeepers Assn.
Route 4, Box 608, West Allis, Wis.

Extracted Honey Wanted

Send Samples and Quote Price

WALTER GEIGER
325 W. Vine St. Milwaukee, Wis.

BEEKEEPERS

Let us quote you our prices for working wax into foundation. We will make special prices for quantity lots of 300 lbs. or more.

Our foundation is made by our own process. It is tough and under the most severe tests has been proven to be everything that we claim for it. It is readily accepted by the bees. Give the bees our foundation and be assured of good combs that you will be proud to own.

We carry a full line of beekeepers supplies and can serve you promptly.

Write for prices and estimates on anything you may need in the line of beekeeping supplies.

Gus Dittmer Company
Augusta, Wisconsin

How Our Members Winter Their Bees

WHICH shall it be? Cellar wintering or outdoor wintering? In our opinion, it doesn't make much difference. Both methods are being carried on successfully, at least in the southern half of Wisconsin if done correctly.

Celler wintering is very successful if we have the right conditions and the right kind of cellar. Outdoor wintering is just as good if we have enough honey above the bees, if it is properly ripened, and if the bees are packed properly and given a wind break. Therefore, it isn't a question of which method is the best, but how to prepare the bees correctly for whatever method we decide upon.

Letters From Beekeepers Wintering in Cellars

Mr. Leonard Otto of Forest Junction, one of our largest beekeepers, is sold on the cellar wintering method. He writes as follows:

"Wintering of bees is the least of my trouble. I winter in the cellar because it is the only sure way I know of to winter bees in Wisconsin. I know what the cellar will be like and last winter I had no loss.

"The time to put the bees into the cellar depends upon the weather, and the kind of stores one uses. With good stores, put them in the beginning of November regardless of the weather—for my part of Wisconsin at least. (Forest Junction is east of Appleton). If the stores are not so good, take a chance on a flight which we sometimes have the latter part of November.

"Be sure that the bees have plenty to eat. If any of them need feed I supply sugar syrup —about one-half water and one-half sugar.

"The bee cellar must have good ventilation. This is important. The ventilators are left open unless the weather gets too cold. In that case they should be closed. With a good cellar one can put in the bees in the fall and not look at them all winter. I have wintered 100% in this way.

"I know very little about dysentery. Occasionally I have a colony with it and I think improper food or failure to take advantage of a flight are the most common causes.

"I never watch the thermometer in the bee cellar. It's a waste of time. If the cellar is okey and bees in proper condition, they will take care of the temperature."

Cellar Wintering in the North

Mr. Joseph Garre, Aniwa, Marathon County, writes that he usually puts the bees in the cellar from November 8th and not later than December 10th, as a rule just before Thanksgiving. If the entire month of November takes on a wintery outlook it may be best to put them in a little early.

Last year one beekeeper in his section put the bees in the cellar about the middle of October and his loss was heavy. He writes further:

"We do not feed sugar unless we know that much honey dew has been carried in during the season. We supply every colony as much as possible with the best honey gathered. On all the lighter 10 frame colonies we place a full shallow super or so-called food chamber filled with honey.

"Our bee cellar has a fresh air intake underground and a foul air outlet at the back end of the cellar leading through the roof. Seven inch pipes and tile are used. Our cellar is well insulated and last winter we had difficulty in keeping it cool enough, as it was heavily covered with snow. We like the temperature at 45° F or less.

"Disturbance from mice causes activity and should be avoided."

Wintering Outdoors

Mr. S. P. Elliott of Menomonie winters outdoors. He writes as follows:

"I have packed some of my bees with just asphalt paper and no other packing, and some with asphalt and three inches of leaves or shavings. I use shallow feeders in connection with both types of packing. For outdoor wintering I believe the bees should have from 50 to 65 pounds of honey on each colony. This will take care of spring brood rearing.

When To Pack

"I like to pack the bees before it gets too cold to work without gloves. This is usually the latter part of October. I leave them packed until I think they might be building queen cells in the spring—sometime in May.

"In my experiencing packing in just asphalt paper with extra packing on top seems to be best. I never have over 10% loss in this way. My packing with asphalt and three inches of leaves or shavings did not winter so good. I had about 20 to 30% loss last year.

"I had a 50% loss in one cellar last year due to the ventilator being filled with water, and later freezing up. Another cellar wintered with a 10% loss. I expect to winter outside with just asphalt paper, no packing excepting some on top."

Wintering in Outdoor Cases

Mr. A. J. Schultz of Ripon winters his bees in double cases, two colonies per case. He uses three inches of wood shavings on the sides, two on the bottom, and six on top. The cases are made of one-half inch lumber lined with paper. The inner covers are left on the hives, sealed as the bees seal them in the fall.

About the middle of October each colony is fed all the sugar syrup they will take down. Mr. Schultz aims to be through with the feeding and packing by November 1st. Unpacking is partially done about the latter part of March to enable the sun to warm up the colonies. Final unpacking is done about May 1st. He uses only one body with 10¼ inch frame and on an average has only about a 2% loss.

SUGGESTIVE

The more than usual lack of intelligence among the students that morning had got under the professor's skin.

"Class is dismissed," he said exasperatedly. "Please don't flap your ears as you pass out."

A BIG CONVENTION PLANNED

AN interesting program, a large apple exhibit, and our first real implement and fruit growers supply show will feature our 68th annual convention.

Out-of-state speakers will come from Michigan. The program was planned in cooperation with the growers committee at Sturgeon Bay and we feel meets the need of the fruit industry of this state.

The Fruit Show

The fruit premium list was published on page 11 of our September issue. We urge all growers to take part and make this show a success.

Fruit Judges

The following are the judges for the fruit exhibit:

Individual Growers Display: Prof. J. G. Moore, Madison.

Trays of Apples: R. L. Marken, Kenosha; N. A. Rasmussen, Oshkosh.

Plates of Apples: C. L. Kuehner, Madison; R. Barden, Sturgeon Bay.

Fruit exhibits may be set up on Tuesday, November 3. In fact we urge as many growers as possible to set up exhibits on Tuesday to avoid congestion on Wednesday.

A large implement and supply show will be a new feature of the meeting.

Several members have suggested that if this convention proves as successful as anticipated it should be made an annual event.

MINNESOTA HORTICULTURAL SOCIETY MEETING

THE Minnesota State Horticultural Society will hold its annual convention and show at the Radisson Hotel, Minneapolis, November 3-5. Mr. R. S. Mackintosh, University Farm, St. Paul, Minnesota, is secretary.

68th ANNUAL CONVENTION

Wisconsin Horticulturrl Sociey Fruit Growers Program

HIGH SCHOOL AUDITORIUM, STURGEON BAY

WEDNESDAY, NOVEMBER 4, 1936

10:00 a. m. Progress in apple and cherry disease control experiments. Dr. G. W. Keitt, Madison.

11:00 a. m. Cost of orchard operations. Horses versus tractors. Rubber tires versus steel wheels on tractors. Prof. F. W. Duffee, Agricultural Engineering Department, Madison.

Some facts and figures on tractor operations. Don Reynolds, Sturgeon Bay.

12:00 m. Noon luncheon.

1:30 p. m. The importance of pollination and honey bees in fruit yields. H. D. Hootman, East Lansing, Michigan.

2:15 p. m. Experience in Orchard Soil Management. R. E. Everts, Michigan.
Discussion by Prof. J. G. Moore, Madison.

3:15 p. m. How to increase the demand for Wisconsin apples. Prof. A. W. Hopkins, Madison.

4:00 p. m. Moving pictures of apple picking, packing and grading methods in Wisconsin. Karl Reynolds, Sturgeon Bay.

4:30 p. m. Question box on orchard problems.

BANQUET

6:30 p. m. Annual banquet. Price 75c per plate.

Presentation of honorary recognition certificate to an outstanding Wisconsin horticulturist.

Music and entertainment arranged by County Agent B. F. Rusy.

Speakers to be announced.

THURSDAY, NOVEMBER 5

9:30 a. m. Progress on codling moth and other insect control experiments. Dr. C. L. Fluke, Madison.

Discussion: Experiences in insect control during this season. John Lilly, Department of Entomology.

10:30 a. m. Grower experiences in apple thinning and pruning. H. D. Hootman, East Lansing, Michigan.

11:15 a. m. Experiences in orchard management. R. E. Everts, Michigan.
Discussion: C. L. Kuehner, Madison.

12:00 m. Luncheon.

1:30 p. m. Annual business meeting Wisconsin Horticultural Society. Election of officers.

2:30 p. m. Experiences in marketing apples at roadside stands and other methods. Ray Pallett, County Agent, Milwaukee, N. A. Rasmussen, Oshkosh.

3:15 p. m. Our fruit research program. Dr. R. H. Roberts, Madison.

Rooms available at Sturgeon Bay Hotels at special low rates.

About the Home and Garden

MRS. C. E. STRONG

MARIGOLDS

The marigold is a movie-star
She seems to think—the sun
Is just a great big spot-light
To show her to everyone.
She curls her hair and dyes it gold
And wears bright, frilly green
She always stands up straight and tall
So that she will be seen.
She's giddy gay and striking
And is sure that she amuses
I wish she'd be more careful
Of the perfume that she uses.

L. Young Correthers, in
These Blooming Friends

Marigold Supreme — One of the new annuals, has certainly done just that—been careful of the perfume she uses; instead of the usual strong odor found in most marigolds, Marigold Supreme has a faint sweet Carnation like perfume that is very pleasing. Tall, strong growing, with large clear yellow carnation petaled flowers, this new marigold has won a place for herself in every garden where she has been tried out.

Dainty Lady Petunia — The color is very disappointing—it is not a clear yellow, but a muddy, greenish yellow, that is not at all attractive, but its form is good—one of those frilly graceful flowers that one always admires in a Petunia. But it will need much improvement in color, before it will be a real welcome addition to the family.

Dixie Sunshine Marigold — Seeds were planted indoors March 1st, on September 7th, they were just showing buds. This means that in order to have flowers before frost, the seeds must be sown in January. Will it be worthwhile? That is a question to be answered later.

Ideal Unwin Dahlia — Grows readily from seed and blooms early and freely; color good, a

salmon rose with golden sheen, a good cut flower.

Aster Golden Chief—Height about 3 feet, color of flowers, pale yellow, fading to creamy white; very double, good form, nice as a cut flower. But do not look for golden blossoms.

Annual Canterbury Bells — Very satisfactory although some clumps are not blooming. They have the same good habit as the biennial plants—keeping up a constant bloom so long as faded flowers are removed.

"Just one more year—then if that Rose, Blaze, does not give more than one blooming—out she goes." So speaks Mr. A. Flohr, of West Allis, a most enthusiastic gardener and Garden Club member. Both Mr. and Mrs. Flohr are members of Garden Clubs, both are interested in gardening—and so far as we can find out — are getting along peacefully. We think they must like the same flowers. It was from the Flohrs' garden that specimens and descriptions of the new annuals came in answer to my request in a recent Horticulture.

Both **Vitex Macrophylla** and **Vitex Agnus Castus** have been very attractive shrubs blooming very freely. Foliage in both varieties good, not injured by heat. A well worthwhile addition to either the shrubbery border or the perennial border.

Good Chrysanthemums

Azaleamum, Chrysanthemum Amelia, or Pink Cushion, or any name you may choose to call it —it will be a lovely early dwarf Mum, starting to bloom in August and, judging by the masses of buds, quite likely to still be in bloom late in October. The color varies from pale pink to deep rose, the plants are veritable bouquets of bloom.

Glory of Seven Oaks, a pure golden Mum, as early as Azaleamum but not new—for it grew in my mother's garden many, many years ago, a good bloomer and very hardy if in a well drained spot.

Carrie, almost identical with Glory of Seven Oaks. Plants grow a bit more upright, blooming perhaps a week later.

Argenteuillais, a good early bronze red, tall and well branched even without pinching; hardy.

Barbara Cumming, a deep yellow Aster like flower, tall grower, hardy.

These Chrysanthemums along with Firebrand and Velma, two new varieties from Mr. Toole, also an unknown variety, with lovely pinky yellow blossoms, have been blooming for several weeks. One could make charming groups with these early varieties. Firebrand lives up to its name, while Velma is a dainty single variety in a very pale yellow, very free bloomer.

If our readers have other varieties that are hardy and as early as those mentioned—will you please tell us about them.

Campanula Portenschlagiana, in spite of that awful long name, is a most delightful rock garden plant. It is really a constant bloomer, nice sprays of blue

bells, strong growing plants, standing the heat well.

Helianthemum Buttercup and H. Peach are two really ever blooming plants ,they seemed to enjoy the sun. Both are compact growers with glossy green foliage

Once again we wish to mention **Aster Hybridus Luteus.** If you have not grown it—you are missing something, it is a most delightful tiny yellow blossomed Aster. It starts to bloom in early August—and keeps on blooming.

Again we would remind you that if you wish a lovely bulb garden next spring—NOW is the time to think about it, and order those bulbs you so much admired in other gardens.

Have you grown Eremurus? Why not try something new. Then tell your friends about them.

Do you remember all the changes you wished to make in your grounds or borders? This is evidently going to be a very good fall to do that sort of work —plenty of moisture.

Look at your home and the planting around it with the eyes of a passer by. Do you feel satisfied; is it pleasing? Does your house look at home—or does it look as though it were dropped there accidentally and hoped to move on some day? Have you been careful of the colors near the house? Scarlet Salvia and Purple Clematis — while they may be your favorites—are not harmonious when the house is red brick. Do you take advantage of some particularly beautiful feature in a neighboring yard—and plant up to it? Show it off as a background. It is a compliment to your neighbor and to your own cleverness. Do you shut off unsightly objects with shrubs that are attractive to the neighbors? Some times this is very helpful to the neighbors.

Garden Club Members Win Prizes At International Horticultural Exposition

WISCONSIN Garden Club members are among the best in making artistic arrangements as indicated by their winnings at the International Horticultural Exposition at Chicago in September.

Mrs. Chester Thomas of Thiensville, our first vice-president, won first prize on a shadow box as a representative of the State Garden Club Federation. She also won first on an all white arrangement in a white container, 2nd in a Harvest dinner table.

Mrs. A. Taylor of Wauwatosa, another member of this committee, won 1st prize on an all green arrangement of leaves or vines, 2nd prize on an arrangement of fruit or vegetables suitable for a dinner table, and 3rd prize on a Harvest dinner table.

Mrs. Marvin A. Lemkuhl of Elm Grove, near Milwaukee, won first on a basket arrangement, gladiolus predominating, 1st on a still life artistic picture shadow box, 2nd on an arrangement in a vase over 8 inches, 2nd on a basket with marigolds predominating, and 2nd on an arrangement in a clear glass container, and 1st on a basket of zinnias.

Mrs. James Johnson of Elm Grove won 1st in an arrangement of fruit or vegetables for dinner table, 2nd on an arrangement in a wooden container, and also in a lead container, and also a 3rd prize on an arrangement in a lead container.

Mrs. Conrad Biebler of Shorewood won 1st prize on an arrangement in a lead container.

Mrs. Helen Haasch of Elm Grove won 2nd on an arrangement of flowers, pink predominating, and on a basket with zinnias predominating.

Mrs. A. G. Flohr of West Allis won 8 first prizes on flower varieties, and a championship on petunias.

Mrs. A. Hargrave, Ripon, won first on a wall pocket arrangement, and Miss Clare Mears of Ripon won 1st in an all green arrangement.

Our information comes from the news release sent out by the Exposition but we found some errors and the above may not be complete. However, Wisconsin exhibitors were well represented and won many prizes in all departments of the Exposition.

PREMIUMS OFFERED ON CHEREFRESH JELLY

THE Reynolds Preserving Company of Sturgeon Bay is offering special premiums for jelly made of Cherefresh to be shown at the annual convention of the Society and fruit growers meeting at Sturgeon Bay on November 4-5.

The following prizes are offered for a jar of jelly made of Cherefresh, the jelly to be judged for attractiveness and quality, and to be shown in an appropriate container of from one-half to one pint in size. 1st prize, $2; 2nd prize, $1; 3rd, 4th, 5th and 6th prizes of 50c each.

The Reynolds Preserving Company of Sturgeon Bay will furnish Cherefresh with which to make the jelly to anyone interested, at the wholesale price of 17½c per 20 ounce can. Send your orders direct to the Reynolds Company.

The jelly may be mailed or sent express prepaid to the Reynolds Preserving Company, Sturgeon Bay, before November 4, or brought to the convention on the morning of November 4.

Broad-mindedness is the ability to smile when you suddenly discover that your roommate and your girl are missing from the dance floor.

Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

Walter C. Krueger, Oconomowoc, President
B. A. Robinson, Kenosha, Vice-Pres.
H. J. Rahmlow, Madison, Cor. Sec.

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

Regional Vice-Presidents
Karl Timm, Markesan

F. P. Thomas, Kenosha
G. A. Barrer, Cudahy
M. J. Rahn, Green Bay

Gladiolus Variety Experiences

By Walter C. Krueger

IN order to properly interpret my observations recorded below the following facts must be borne in mind: firstly, I hobby chiefly to see the new, and secondly to obtain the new varieties to use as parents for cross pollinating which makes my percentage of discards extremely high because of the limited space for my garden. Then too, my observations must of necessity apply only to my soil and growing conditions, as witness Wasaga, Salbach's Orchid, Pfitzer's Triumph at the state show which do not do well for me, yet the same were shown to perfection. Varieties new to my garden are of necessity in small lots, and while I attempt to visit other gardens frequently the observations are not final because what I find beautiful you may find mediocre or vice-versa.

My records show that some last year's additions improved in my estimation. Flaming Meteor is tall and fine and well worthy of its name. It is a real performer. Duna came much better as did Grand Slam. Lavinia too won a place in my garden. Gunvor was gigantic and of extra superior substance. I still am not sold on the color of Coronation which from my soil is not clear. Early Dawn will be given another trial.

Of the newer varieties classed as good last year but not outstanding, Miss Bloomington in light yellow, Dr. Hoeg in the dark reds and Heritage in the pure pinks won their right for retention for some years to come. Blue Peacock will hold its own in the blues; perhaps I expected too much of this variety. Red Phipps was good. Southern Cross has fine color and placement but its flowerhead could be longer.

MEETING
WISCONSIN GLADIOLUS SOCIETY
Oconomowoc High School
Room 43
Saturday, Oct. 10, 1:30 P. M.
PROGRAM

New varieties discussed by leading growers.

Insect and disease control by Noel Thompson, Madison.

Notes on show at International Horticultural Exposition at Chicago.

Everyone interested in gladiolus invited.

Of the superior varieties new a year ago the following held in my estimation. John Bach has but two faults—a few double flowered spikes and poor storage habits, it is superb with nine open large florets. Ruffled Beauty and Wings of Joy are superior, the growth of the latter being the best in my garden. Debonair in the pinks makes the longest flowerhead of any glad. Golden Goddess is the real yellow, a little too close arrangement of its 22 florets and buds but a true "super-glad."

New Varieties

Oregon in giant light pink seemed to top the new ones but Tip-Top in red and Mrs. E. J. Heaton (salmon pink) were outstanding. Bob-White with its red throat mark is excellent. Arabelle from small stock showed an improved color. Milford was good in light violet but came with poor placement. Allegro has a fine light blue color, but I prefer Max Reger. Big Lilly and Pink Champion disclosed their large florets from small stock but of necessity had short spikes. Allayne from small stock in rose pink was extra fine. Miss New Zealand and Lakina must acclimate themselves before I can judge them at all. Pinnacle is blotched rose pink, was good as was Palmer's smoky Evensong. Prairie Gold has a fine color and growth but a short flower head. Mrs. McManus was superior only for substance.

Lucifer and Del Ray for some reason, perhaps thrip control procedure, did not grow well. The same may be said of the Australian yellow Mrs. G. M. Wade. Blue Admiral was fine but I expected it bigger.

Older Varieties

In spite of the heat the "old timers" were not outdone. Min-

uet had a fine year. Picardy and Maid of Orleans were magnificent. Bagdad, Commander Koehl, Dr. F. E. Bennett, Amador, Betty Nuthall, Mary Elizabeth were outstanding. Margaret Fulton, Mildred Louise, Lotus, Marmora and Mother Machree had a fine year. Dream O'Beauty was better than ever with but few spikes showing the stem between floret rows.

At The Show

The superior quality of bloom at the Society Show at Kenosha, with no evidence of thrip injury, made the choice of new ones more difficult. I am going to try my third lot of Wausaga bulbs to match those I saw at the exhibition. Trevonian looked good as did lavender Krimhilde. When I saw Gem of Sparta in buff I regretted more than ever its loss in my garden. New Era was superb in ruffling, a fine pink which I hope to grow next year. The coming Shirley Temple under seedling number was good.

GLADIOLUS EXHIBITORS AT THE INTERNATIONAL HORTICULTURAL EXPOSITION

WISCONSIN took a large number of premiums in the Gladiolus Department at the International Horticultural Exposition in Chicago September 12-20. While we do not have a complete list of all winnings, the following were outstanding.

Robinson's Gardens, Kenosha, won 19 awards.

Chester Harrison of Waldo won 37 first prizes, a number of second and third prizes, a championship on a salmon pink with markings, and a championship on small decorative pink. He also won prizes on asters and zinnias.

Edwin H. Ristow of Oshkosh won 6 first prizes, and a grand championship on his introduction, Heritage.

DERRIS TESTED FOR THRIP CONTROL

DEFINITE possibilities for the effective control of gladiolus thrip with the use of ground derris root, have been developed by experiments conducted at the University of Wisconsin Horticultural gardens by Mr. F. E. Carroll, Entomologist.

In order that these results may be made available for use next season by the growers, and the public in general, further research is to be conducted by Mr. Carroll this winter toward perfecting the commercial preparation.

HOW TO DIG GLADIOLUS BULBS

GLADIOLUS bulbs should be dug as soon as the foliage begins to turn yellow. Some growers advise curing them in the sun before storing for winter. A good method due to the presence of gladiolus thrip is to purchase paper bags, the kind used by your grocer, of the proper size to hold the number of bulbs of each variety in the amateur garden. In digging the bulbs, clean them as much as possible and throw them into bags together with the label, or the name of the variety may be written on the bag. Leave the bags open and carry them to an airy shed to dry for about a week. When dry, add naphthalene flakes at the rate of about 1 tablespoonful to from 10 to 30 bulbs. (One ounce per hundred is the proper amount).

Then fold down the bags tightly and store them away for winter in a cool basement. After the first of the year the bags should be opened and the flakes removed to prevent injury. This will effectively control gladiolus thrips, and if everyone in the community will do this no doubt we will have no trouble next year.

In addition, all the old foliage should be burned.

CHEREFRESH JELLY

2 cups Cherefresh
3½ cups sugar
½ cup fruit pectin

Mix the Cherefresh and the sugar and bring to boiling point. Then add the pectin. Bring to a full rolling boil for one-half minute. Remove from fire, skim, and pour into sterilized glasses. —Recipe by Mrs. Irving Lorentz, Milwaukee.

FLUENT

Note from teacher on Betty's report card: "Good worker, but talks too much."

Note from Father over signature on back of card: "Come up sometime and meet her mother."

OCTOBER SPECIAL

Our Regular $6.50 Exhibition Collection

100 large bulbs, Picardy, Bagdad, Wasaga and 12 other prize-winning Glads prepaid, labeled, for only $3.65—50 for $2.10. Unlabeled—100 for $2.95—50 for $1.75. Same collection medium bulbs, 100 for $2.40—50 for $1.45. Unlabeled, 100 for $1.95—50 for $1.10 if ordered by November 20. Order direct from ad and receive prize package free.

THE FLOWER GARDENS
Offices, 912 Main, Green Bay, Wis.

Four Leading Hardy Perennials
for Fall Planting

Delphiniums, Gold Medal Hybrids. Grown in mixtures, light blue to darkest blue.

Columbine, Hybrids, mixed colors.

Platycodon, Balloon-flower, mostly blue, some white in mixture.

Pentstemon, Grandiflorus, Lavender Queen. Lavender color, flowers like Digitalis, but larger.

Prices—While they last, 2 of any 3, or six plants, 65c; 3 of each, or 12 plants, $1.25; 6 each, or 24 plants, $2.40.

With every order for 12, three Coreopsis (yellow daisy) free. All 2-year plants, postpaid. Catalog free.

SWEDBERG NURSERY
Battle Lake, Minnesota.

Arrangments For Hallowe'en

Mrs. B. W. Wells

WHEN the season of Hallowe'en returns we think of the pranks of youngsters before we think of witches and goblins. The Hallowe'en tradition is one that is hard to trace to its source. In ancient times these creatures were taken seriously and the revelries of celebration were held to frighten them away on this night when people of the spirit world were believed to be most in evidence. Fun, frolic and fortune characterize the observance of more recent times for old and young alike. Grotesque decorations best express our sentiments and a party of some sort is the occasion.

The makers of paper prints and paper-mache articles have flooded the retail market with suitable things to use in the form of time-honored accessories —witches, cats and Jack-o'-Lanterns. However, if one wishes to be original, an inventive mind is essential. New ideas are both entertaining and amusing. A dash and a dare in finding new uses for familiar things charms all. Decorations, foods and stunts employing seasonal materials are especially appropriate.

What To Select

When I make any visit to the garden, it is with the thought of gathering materials to use. My Hallowe'en visit is no exception. In fact, I shall need to make several visits, for I want to use so many things: some branches of autumn leaves, a basket of red apples, pumpkins large and small, a few odd-shaped squashes, two shapely cabbages and some unshapely potatoes and carrots, a few cornstalks, several ears of dried, yellow corn, vari-colored small gourds, Chinese lanterns, bittersweet and some seed pods of regal privet and string beans. The yellow and bronze chrysanthemums are still fresh and lovely. Perhaps some of these things have already been gathered and put away to use at this season.

Although the Mass of This Arrangement Is Furnished by the Lunaria or Money Plant, It Is the Frail Bittersweet Berries Which Make Up the Lines

Using Pumpkins

Of course, pumpkins make Jack-o'-Lanterns, but there are new uses for them. Many Jack-o'-Lanterns, fastened to two foot streamers and hung over the bannister, light the entrance hall. The porch light may be a pumpkin ghost. Pumpkins may be placed over the floor and table lamps to furnish all the lighting needed. Lined with paper, these make receptacles for holding fruits, salads, bon-bons or party favors, either as a center-piece for the dining table or for individual service. These shells also make attractive cider bowls. Cross-section rings on plates may have the centers filled with diced vegetables or ice-cream. Yellow squashes may be similarly used and gourds have unlimited possibilities. They may be grouped to form a center-piece and cut to make candle holders. They make bewitching souvenirs.

A hollowed-out cabbage is an appealing container for nuts and fruits. Carrots may be carved and waxed to make individual place favors. They make candle-holders, too, as do also the yellow corn ears that have been broken in two and the base set in paraffin.

All these garden products harmonize well with the wooden dishes now so popular. Garden and field also supply materials for the living room. A corner decorated with cornstalks and lighted by Jack-o'-Lanterns only is a vantage point where fortunes may be told. A heap of yellow corn ears and branches of bright leaves fill another corner. A witch's broom made of shredded corn husks tied to a crooked stick and placed near the black iron kettle on the hearth lends atmosphere to the occasion. The irregularly shaped potatoes and carrots when combined with raisins, prunes and peanuts may be used to fashion elf-

ish little creatures for the mantel and end table. Chinese lanterns, orange straw-flowers and bitter-sweet combined with the black berries of the privet and placed in black vases make suitable bouquets for any room.

The garden also furnishes materials for stunts. The dry seeds of the string bean are magic beans in a glass jar—you may guess their number. How many seeds in a pumpkin, how many apples in a basket and how many kernels on an ear of corn are other guessing contests. Stringing the wet, slippery seeds of a fresh pumpkin is heaps of fun and not too easy. A large kettle covered with gay autumn leaves holds prizes and favors made from fruits and vegetables. Goodies placed in pumpkin baskets and hidden about the room may be searched out and brought to the fire-place, where contents furnish the evening's refreshments.

A ghost story is the final chapter in this evening of fun.

DAHLIAS FEATURED AT INTERNATIONAL SHOW

WISCONSIN dahlia growers won many prizes at the large dahlia show which was a feature of the International Horticultural Exposition at Chicago, September 12-20. Among the winners were the following:

W. E. Kemen, Wauwatosa, 6 first and sweepstakes; E. M. Larsen, Madison, 6 firsts and most perfect bloom; August Malson, Milwaukee, 12 firsts and sweepstakes; Harry Ploog, Madison, 6 firsts; D. O. Eldredge, Madison, 10 firsts; Mrs. W. Delaporte, Milwaukee, 9 firsts; Mrs. Josephine Derse, Oconomowoc, 12 firsts and sweepstakes; J. S. Stonek, Racine, 16 firsts and sweepstakes; Dr. R. B. Milbee, Sullivan, 5 firsts; Mrs. Mamie Woboril, Oconomowoc, 10 firsts; R. W. Sanders, Madison, 1 first; Fitchett, Dahlia Gardens, Janesville, 8 firsts; T. W. Schroeder, Milwaukee, 5 firsts.

Garden Gossip

CHRYSANTHEMUMS are the flower of the month. Chrysanthemum Amelia, often misnamed Azaleamum, began to bloom the forepart of September and continued blooming over a long period. With careful covering this variety is probably hardy, at least in the southern half of the state. It has the peculiar habit of beginning to bloom early in the season and then sending out new shoots which grow above the blooms so that it sometimes blooms in two stories. The first blossoms are usually pale pink and not very attractive; they are hidden by the newer growth, but the later flowers are an attractive pink. With a little pinching early in the summer to throw out more branches, the plant will make a very large compact clump completely covered with blossoms.

Dwarf Asters. The Dwarf Hybrid Asters also began to bloom the forepart of September. They are quite dwarf, from 9 to 12 inches high and this year were covered with attractive blossoms ranging in color from pale pink to rose pink. Victor is a lavender blue. Lady H. Maddocks is a pale pink, Marjorie a rose pink, Nancy flesh colored, and Countess of Dudley clear pink. Experiences last winter indicate that this plant is quite hardy and can be multiplied rapidly by making divisions in the spring.

Lilium Philippinense formosanum. This lily has attracted a great deal of attention this fall. It blooms in August and September and the blooms are long and trumpet shaped of pure white with a shading of reddish brown on the exterior. It is very graceful and the foliage is attractive because it is wider than that of the Regal lily and the stems stand in an upright position. In some respects it is superior to the Regal and can be highly recommended for trial.

Tritomas. Tritomas, especially those of the newer colors in the brown and gold are becoming very popular. A shadow box exhibited at the International Horticultural Exposition by Mrs. Chester Thomas, Vice-president of the Garden Club Federation at Thiensville, contained an arrangement made entirely of Tritomas, with a harmonizing background and vase in brown and bronze. It was a most beautiful arrangement showing that Tritomas may merit a more important place in our garden.

Tower of Gold is a very attractive golden variety.

Tulips. The Parrot tulip Fantasy is no longer new, but is now within the reach of most all gardeners in price. We recommend that our members purchase some of these bulbs if they do not already grow this variety as it is a very beautiful tulip and a wonderful addition to the border and excellent for flower shows. Several new varieties of Parrot tulips have appeared on the market but are still high in price.

Some of the new Triumphs and Darwins are also unusually good.

A good place to plant tulips is in the flower border, planting different varieties in groups of from six to a dozen or more bulbs. This will give beautiful spots of color throughout the border and later annuals can take their place and there will be continuous bloom.—H. J. Rahmlow.

COLLEGIATE COURTESY

Freshman: "Say, what's the idea of your wearing my raincoat?"

Roommate: "Well, you wouldn't want your new suit to get wet, would you?"

STATE GARDEN CLUB FEDERATION NEWS

Mrs. E. R. Durgin, President
1815 Park Ave., Racine
Mrs. Chas. Jahr, Hon. President
Elkhorn
H. J. Rahmlow, Cor. Secretary
Madison
Mrs. E. A. St. Clair, Rec. Secretary
2418 N. 65th St., Wauwatosa
Mrs. Chester Thomas, 1st V. President
Thiensville.
Mrs. J. M. Johnson, 2nd V. President
Ripon

THE NORTH CENTRAL REGIONAL MEETING

By Mrs. E. R. Durgin

CONSERVATION was the keynote of the two day session of the Regional Garden Clubs at French Lick Springs in September. Reports from Michigan, Illinois, Indiana, Iowa, and Wisconsin showed the seriousness of present drought continues and the need for action.

In most every state, much attention is being given to the teaching of conservation to children, for they are our citizens of tomorrow. All felt that Wisconsin was a step ahead, with our law enforcing the teaching of conservation in public schools. The plan and results of our "Children's Forest" was received with much enthusiasm.

As a new feature in adult education, it has been recommended that the National Council of Garden Clubs collect a set of slides containing two or three from each state, showing what conditions are in each section. This set of slides, together with a lecture would be available to garden clubs.

Considerable interest was shown in junior garden club work. Several states in the group work as we do, through the schools. An instance was cited, where one large city employs a regular salaried teacher whose duty it is to form and supervise junior garden clubs.

A most interesting experience was related in regard to the elimination of billboards. A letter was sent to all presidential candidates and their campaign managers, asking their cooperation in keeping political billboards off the highways. In each instance a courteous reply was received, telling of the interest in billboard elimination and roadside beautification, commending the garden clubs for their splendid work along that line.

Each year Regional meetings are held in some state of this region. In almost every case all garden club members are invited. It is particularly interesting to chairmen of committees for they will be greatly stimulated and encouraged in their work. The exchange of ideas tends to unify the work we are trying to accomplish.

CONVENTION PLANS

AN excellent convention program has been planned for the 9th annual meeting of the Wisconsin Garden Club Federation. Speakers will include such noteworthy horticulturists from out of the state as Mr. Sam Campbell of Forest Park, Illinois, Profs. O. I. Gregg and C. E. Wildon of Michigan, and Mr. Jens Jensen, famous landscape architect.

The Flower Show

Not many entries have been received for the flower show as we went to press. To make the show a success, we urge all clubs to appoint committees to take part.

Madison Club members plan on entertaining visiting club delegates. It will be a very worth while convention.

OCTOBER GARDEN CLUB PROGRAMS

PROGRAMS should be timely. Each month we should have on our program some topic of practical value to the members during that month. October is the month for planting bulbs. Therefore bulb varieties, preparation of the soil, planting and winter protection should be studied. It is not necessary to go far for a speaker. Garden club members themselves can prepare these topics from books and bulletins available. We suggest the following books.

The Book of Bulbs by F. F. Rockwell.

Bulbs for American Gardens by Wister.

How to Grow Lilies by Quint.

Spring Flowering Bulbs by Thayer.

The Bulb Book by Wayside Gardens, Mentor, Ohio.

Bulletins may be obtained from the U. S. Department of Agriculture, Farmers' Bulletin Department, Washington, D. C., as follows:

Bulletin No. 1331, The Madonna Lily.

No. 1459, The Regal Lily.

U. S. Dept. of Agriculture circular No. 122, Daffodils.

The above books or other books on bulbs may be obtained from the Free Traveling Library, State Capitol Annex, Madison.

Book reports and book reviews should become an important part of our garden club programs.

PROGRAM

Wisconsin Garden Club Federation

NINTH ANNUAL CONVENTION

Hotel Loraine, Madison — October 13-14, 1936

BOARD OF MANAGERS MEETING

The Board of Managers of the Federation will meet at 9:30 a. m. to 12 M. in the Colonial Room.

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

MAIN PROGRAM—CRYSTAL BALL ROOM

TUESDAY, OCTOBER 13

9:30 a. m. Two minute reports by garden club delegates on worthwhile accomplishments of garden clubs during the past year. Crystal Ball Room.

Reports of standing committee chairmen. 5 minutes each.

Five minute reports by district chairmen on worthwhile accomplishments in districts.

11:40 a. m. How our garden club and its auxiliaries are organized. Mrs. Philip G. Stratton, Superior.

12:00 M. Luncheon at the Memorial Union, University of Wisconsin. Radio Station WHA broadcast at 1:15 to 1:30 p. m. of honorary recognition services, presentation of honorary recognition certificate by the Wisconsin Horticultural Society to an outstanding Wisconsin garden woman. Mrs. E. R. Durgin presiding. Presentation by M. S. Kellogg, President of the Horticultural Society.

A Life Time Garden and the Gardener. Prof. Franz Aust, Madison.

AFTERNOON PROGRAM

1:45 p. m. Return to hotel by driving through the Campus of the University of Wisconsin.

2:00 p. m. Demonstration of landscaping the home grounds and planning the flower border. (A surprise feature). Prof. O. I. Gregg, Michigan Horticulture Dept.

3:00 p. m. New developments in flower varieties. Prof. C. E. Wildon, Michigan Horticultural Dept.

3:45 p. m. Annual business meeting. Election of officers, Wisconsin Garden Club Federation. Pompeian Room.

THE BANQUET—CRYSTAL BALL ROOM

7:00 p. m. Music and entertainment by the Madison Garden Club and the Madison West Side Garden Club. Price $1.00.

A visit to some European Gardens, Mrs. Chas. Jahr, Elkhorn.

Original poems about garden flowers. L. J. Correthers, Rockford, Illinois.

Our Progress in Conservation. Jens Jensen, Ellison Bay, Wis.

WEDNESDAY, OCTOBER 14

Meeting in Crystal Ball Room

9:30 a. m. Suggestions for landscaping our highways, illustrated. Mrs. Leonard Wing, Madison. Landscape architect formerly of Ann Arbor, Mich.

10:15 a. m. New tulips and how to grow them. Mrs. Wm. Bowers, Milwaukee.

10:45 a. m. Before and after planting the home grounds, illustrated. Prof. O. I. Gregg, Michigan.

11:30 a. m. Practical hints on growing flowers. Prof. C. E. Wildon, Michigan.

12:00 M. Luncheon for all interested in junior garden club work. Mrs. Frank Quimby, Racine, Chairman. Colonial Room.

Luncheon for garden club presidents. Mrs. E. R. Durgin, presiding.

AFTERNOON PROGRAM

1:30. Wild Life in Wisconsin Forests, colored movie and lecture. Sam Campbell of River Forest, Illinois, and Three Lakes, Wis. (An outstanding lecture).

2:30 p. m. Color harmony in flower arrangement. Mrs. Ruth Randolph, Associate Professor Home Economics Dept., Madison.

3:15 p. m. Preview of a part of collection of colored slides on flower arrangement being prepared by the U. W. Bureau of Visual Instruction in cooperation with Federation Committee, Mrs. B. W. Wells and Mrs. Sam Post, Madison.

SOUTH CENTRAL DISTRICT HAS INTERESTING MEETING

THE South Central District of the Wisconsin Garden Club Federation met at the Library, Jefferson, Wednesday, September 16.

The following officers were elected for the coming year: Chairman, Mrs. H. J. Torrence, Whitewater; 1st vice-president, Mrs. H. C. Smith, Lake Geneva; 2nd vice-president, Mrs. W. Strohbusch, Jefferson; and Secretary-treasurer, Miss Nan Larson, Whitewater.

The speakers were Mr. W. A. Sisson of Rosendale who demonstrated the division of peonies and the proper trimming of peony roots, Mrs. Robert Alder of Elkhorn who spoke of her impressions of the International Horticultural Exposition at Chicago, and on forestry, Mr. Noel Thompson of Madison on insects and diseases of garden flowers. Mr. H. J. Rahmlow, Madison, spoke of gardening experiences of the season showing new varieties of flowers recommended for trial and their value to the garden.

BULBS FOR FALL PLANTING

Make your spring garden lovely with my splendid Holland grown Darwin, Cottage and Breeder tulips. Moderate prices. Send for list.

LOIS BOWERS

2563 N. Farwell Ave. Milwaukee

SAVE

YOUR TREES

Pruning — Cavity Treatment
Spraying — Cabling
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WISCONSIN TREE SERVICE

2333 N. Murray Ave. Milwaukee, Wis.

LAKESIDE 2907

Impressions Of European Gardens

By Mrs. Chas. Jahr

In Two Parts. Part I.

PUT on your seven league boots for a "Journey in Gardenland." I am to take you on a journey in Europe. Remember my impressions are those of a stranger in a foreign land and that in the short space of one summer it is impossible to delve deeply into the flora of any country, let alone seven.

As a rule the private gardens are not as easily seen as ours because every place, large or small, is either behind high walls or hedges, a custom carried on from the time such was needed for protection. Today they are needed for privacy in such densely populated countries.

In Naples

Our boat glides into the beautiful bay of Naples. The coloring of this scene is impossible to describe; it must be painted.

The parks in Naples, as you would expect, have tropical vegetation. Small Oleander trees in full bloom line the main business street; Magnolia trees are in bloom; climbing roses, rose trees, tea roses, roses of every variety are at their height of perfection.

We walk down the narrow streets, pass queer shops which seem to have no fronts, up the steep hills and we pass more walls. Stop, here is a beautiful grilled iron gateway. Pass inside and we are in a patio, a veritable fairyland made so by potted plants, palms and vines which seem to grow right up out of the stones. No, we look closely and we see a small area close to the roots which is not paved. Here Cobaea or Cathedral Bell is a new vine to me, the bud, the flower and the seed pod are interesting and showy. Here are huge hydrangea pink, blue and white in great profusion. The shape of the fig leaf, the greyish

foliage of the olive tree, the glossy green of the orange and lemon trees, each captivate us in turn. Now out into the country, see the bamboo grass along the ditches, the small orchards, vegetable gardens, and the tiny grain fields. The top of the grain field is golden but see the solid red nearer the base of stalks as the wind ripples the heads. It is none other than the poppy made famous by the poem "In Flander's Field." Look, it is wild everywhere and in such profusion.

Rome

In Rome we will view the Vatican garden from a second story window of the museums. It is a study mostly in green and white. Lebanon cedars in groups give strong accent lines. Right near the window is a huge Magnolia in full bloom. One has a great desire to stroll through the paths and enjoy the green grass which is lacking in most of Italy. Since paved areas are the common thing, in front of our hotel we find long rectangular beds of gloxinias between the sidewalk and the curb. Further up the street and not under the shade trees we find beds of the annual dahlia. This flower is almost as great a favorite for bedding in the public parks of Europe as is our common geranium.

Switzerland

Let us rest a moment at Lake Lugano just over the border in Switzerland. Our hotel is Eden, and Eden it is. Step through the french window on to the balcony. In front of us is the blue mountain lake. Across the lake rise the lofty mountains until their peaks are snow covered. Could we see back of the hotel we would see similar mountains. Below the window the rambler roses are a mass of pink. Here are banana trees, palm trees, wisteria vines that must be centuries old as their trunks are as thick as small tree trunks. Ride the cog train up the mountain side to the garden house. Look closely as you ascend and you will see what the little boy, who is selling them at the hotel, calls mountain violets. To me they look like tiny cyclamen.

Interlaken

Walk down the street in Interlaken, turn your head to the left and lift your eyes to the heavens. There in all its majesty is the Jung-Frau. Turn to the right and you enter a beautiful garden. Just inside the gates are stately pines and cedars. Flitting about are many friendly finches. As we stand drinking in the beauty of the fountain and many beds of colorful flowers, we hear a clock chime the hour. How would you like to tell the time of day by looking at a clock made of flowers? Here a short distance away is a unique clock the whole of which is made of growing plants. Tiny foliage plants and sempervivums have been cleverly designed to make this clock. Little gnomes had struck the hour.

We will fly through the little Swiss villages and take a hasty glimpse at their homes. Nearly everyone has its stack of neatly piled wood somewhere under a shelter. Their door-yards are mixtures of vegetables and flowers. See the lovely Madonna lilies in nearly every yard. The tree roses tower over the vegetables. Up the sides of houses are the walled fruit trees.

Here is a heavenly blue patch of something as we round the bend in the Black Forest. Why it is lupins. Those dainty blue flowers all along the roadside are scabiosas. The poppies of Flanders Fields are here too, but not in such quantities.

Germany

When asked by a German student what I was going to say about Germany I said, "Germany is like a beautiful patch-work quilt put together with the finest of seams and embroidered with french knots". I marvel at the luxuriant fields of grain, alfalfa, potatoes, sugar beets, and forests. Most of the fields are small, giving the patch-work quilt feeling. There are no fences, no broken lines, no weeds, and no waste land. The knots are the trees which line the

highways. Often they are fruit trees doing a double duty.

As we approach city after city the land adjoining the railroad tracks has been converted into tiny gardens. Most of them have a small summer or tool house covered with rambler roses. Here bloom flowers and grow vegetables for thousands of people.

Those interested in design, color harmony, plant material, garden accessories, how to stage a show, the history of horticulture, a school garden, a garden recreational area, in fact most anything about gardening, should plan to spend a long, long time in the Reich Garten Schau in Dresden.

JOURNEYS TO GARDEN-LAND

Talks Over Station WHA During October

October 6, Mrs. Robert Adler, Elkhorn. Topic, Swiss Gardens and Alpine Flowers.

October 13, Mrs. Carl E. Hoebel, Madison. Topic, The Sun Dial Garden.

October 20, H. J. Rahmlow, Madison. Topic, Garden Club Convention High Lights.

October 27, Prof. Franz Aust and Frederick Fuller. Program, Poetry and Music.

FOX RIVER VALLEY DISTRICT HAS SPLENDID MEETING

A VISIT to one of Wisconsin's most beautiful estates featured the annual meeting of the Fox River Valley District garden clubs held in the Memorial Building, Menasha City Park, in September.

The F. J. Sensenbrenner Estate of approximately 40 acres was acclaimed as one of the finest estates in Wisconsin. It is located on Lake Winnebago between Menasha and Appleton.

Other beautiful gardens visited were those of John Bergstrom and C. B. Clark of Neenah.

Officers of the District elected for the coming year were: Chairman, Miss Edna Robertson, Menasha; Vice-chairman, Mrs. H. A. Foeller, Green Bay; Secretary-treasurer, Miss Merle Rasmussen, Oshkosh.

NOMINATIONS FOR OFFICERS OF THE WISCONSIN GARDEN CLUB FEDERATION

THE nominating committee appointed to nominate candidates for offices in the Wisconsin Garden Club Federation for the election to be held on October 13, has nominated the following members.

For President: Mrs. Chester Thomas, Thiensville.

For First Vice-president: Mrs. J. Martin Johnson, Ripon; Mrs. Henry A. Foeller, Green Bay; Mrs. Louis J. Rohde, Plymouth.

For Second Vice-president: Mrs. Robert Alder, Elkhorn; Mrs. Sam Post, Madison; Mrs. H. J. Torrence, Whitewater.

For Secretary-Treasurer: Mrs. E. A. St. Clair, Wauwatosa.

Mrs. Chester Thomas is the present first vice-president of the Federation. She is well known as a garden club worker and for ability in the art of flower arrangement recently winning a number of first prizes at the International Horticultural Exposition in Chicago.

Mrs. J. Martin Johnson of Ripon is the present Second Vice-president of the Federation, and has been chairman of the Fox River Valley District for several years. She has also been president of her garden club at Ripon.

Mrs. Henry J. Foeller of Green Bay is the president of the Green Bay garden club, and an active worker in garden club circles. She is also Vice-chairman of the Fox River Valley District.

Mrs. Louis J. Rohde of Plymouth is Secretary of the Plymouth Garden Club, an active organization. Mrs. Rohde has done a great deal towards making the work of this club successful.

Mrs. Robert Alder of Elkhorn is well known for her talks on Plants of the Swiss Mountains and the Gardens of Switzerland. She is president of the Elkhorn Garden Club and a most enthusiastic worker.

Mrs. Sam Post of Madison is a former president of the Madison Garden Club and well known for her ability in arranging flowers and for her work with junior garden clubs. She is a member of the committee now preparing slides for the Federation on flower arrangement.

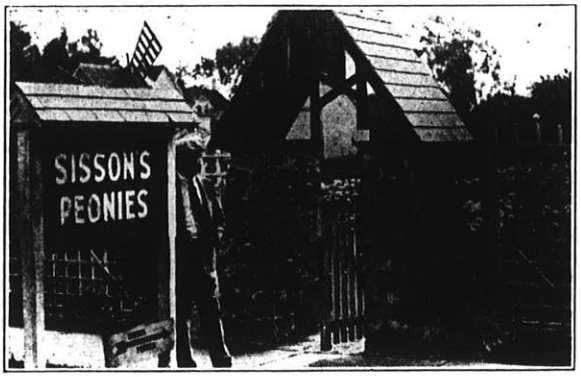
Mrs. H. J. Torrence of Whitewater is president of the Whitewater Garden Club and chairman of the Southern Wisconsin District of the Federation. She is doing a great deal to make the work of her club successful.

Our present Secretary-Treasurer, Mrs. E. A. St. Clair, is probably known to all garden clubs in the state because of her correspondence with them. She has been a most conscientious secretary and her services are greatly appreciated. She does a vast amount of work with but little compensation.

PLANTING PERENNIALS IN THE FALL

IN a number of magazines this fall we find a number of articles advising planting or division of perennials at this season of the year. While this may be a good practice in sections of the country with a mild winter climate, our experience in Wisconsin makes us rather skeptical about fall planting, at least of varieties not fully hardy.

We have tried it several times, only to find we had to plant most varieties over again the next spring. At best many varieties of perennials are not too hardy in our climate. If they have been growing in the garden and become well established, they have a much better chance of surviving than if just recently transplanted. This does not of course include such varieties as peonies and iris, which should be transplanted in the fall if possible, but it does mean varieties such as Columbine and those no more hardy.



October is the best time to plant and re-plant your peonies and the work can go on until freeze up.

Sisson's Peonies
ROSENDALE, WISCONSIN
Highways 23-26 Intersection

WAX

Let me work your wax into bee comb foundation. I use the latest design and most improved equipment. I sterilize and filter the wax, exert tons of pressure on my wax sheets making them the toughest and strongest possible, mill them with the true cell base and the highest possible cell wall. I have spared on expense in equipping my plant to enable me to offer you the best product at the lowest price.

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Kind of Foundation	Cost of Manufacturing Per Pound			
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Our prices include milling, papering and packing. You pay transportation charges both ways in addition.

I am also in the cash market for wax. Write for my prices and shipping tags before you dispose of your wax this year.

I also manufacture a complete line of soft white pine hives, supers, frames, etc. Write for my free catalogue.

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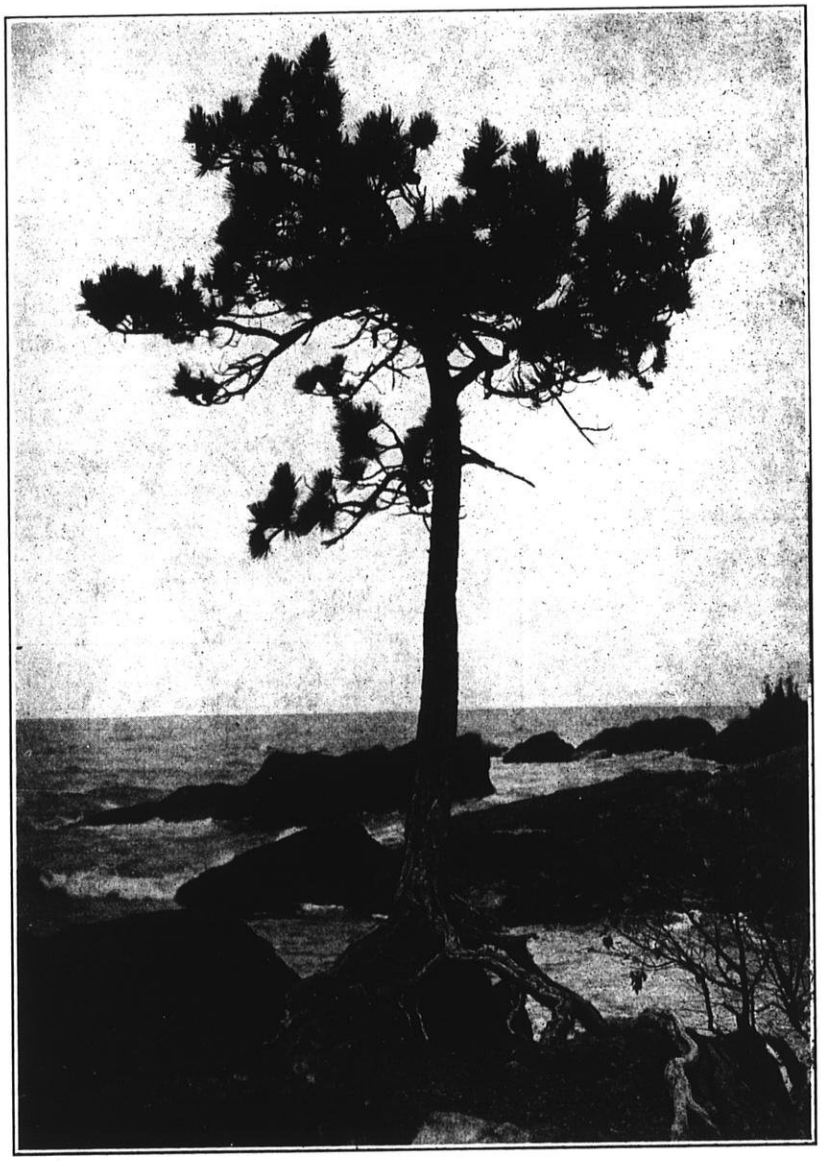

NOVEMBER, 1936

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Pruning Tools

Write for Prices

F. R. GIFFORD CO.
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Madison, Wisconsin

A farmer's son, just home from school, seemed to take pride in using college slang, and at the breakfast table called out: "Mother, chase the cow down this way!"

Mother was equal to the occasion, and remarked to her husband: "Give the poor calf some milk. Don't you hear him bawling for it?"

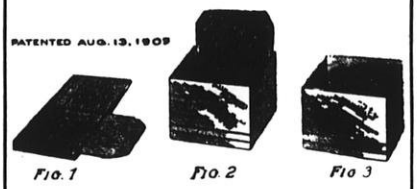

Fig. 1 Fig. 2 Fig 3

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Wisconsin Horticulture

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

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TABLE OF CONTENTS

	Page
Cost of Growing Apples	51
Nitrogen Does Not Effect Keeping Qualities of Apples	52
In the Orchard	53
Before Storing the Sprayer for the Winter	53
Humidity in Storing Apples	54
New Fruit Varieties	55
Strawberries at Warrens	56
New Raspberries from New York	56
Cost of Growing Strawberries Depends Upon Yield per Acre	56
Our Cranberry Crop	57
Horticultural News	58
Wisconsin's Most Beautiful Trees	59
Editorials	60
A. W. Lawrence Honored at Convention	61
Mrs. Emilie Louise Roloff Honored by Society	62
Garden Gossip	63
Comments of Judges Valuable at Flower Show	63
Gladiolus Society has Excellent Meeting and Program	64
A Natural Enemy of the Thrips	65
All-America Annuals Selected	66
Autumn is Jelly Time	67
Winter Protection of Foxgloves	67
State Garden Club Federation News	68
What the Officers Thought of the Convention	69
Films Available for Garden Club Programs	70
Impressions of European Gardens, Part 2	71

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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.

Cost of Growing Apples

C. W. Ellenwood, Ohio

THE cost of growing apples is dependent upon so many variable factors that any given data on this subject is capable of only very general application. Some of the very important factors on which orchard costs are based are original cost of land, location of site as regards freedom from fruit injury, general condition of soil, varieties, number of trees per acre, cultural practice, the type and degree of pruning, spray program, taxes, cost and efficiency of labor and, most important of all, **management.** The advantages in knowing something about the cost of growing a bushel of fruit from year to year are so obvious that one hardly needs to advance any reasons for keeping cost records.

We do not need to tell a group of fruit growers that large yields or even high quality necessarily mean profit. The first essential in determining growing costs is to know what is actually invested in the orchard. Where an orchard has been purchased after the trees are grown this information is readily available. However, in growing an orchard it is rather easy to overlook some of the investment charges. There is an old rule sometimes used in evaluating damaged trees which charges one dollar per tree for the first year and one dollar per year for each succeeding year until bearing age,

say ten years. We have never been able to discover any particular data which may have been used to support this old rule. We submit herewith a table of the growing costs of two 12-year old Ohio orchards set in 1922. It will be noted the average cost of growing these trees, excluding tax, interest on investment and supervision for the first 12 years was $9.30. If tax, interest on investment and supervision were added to the $9.30 the total cost would no doubt slightly exceed one dollar per year.

High Production Necessary

Production per acre or per tree has a greater influence on cost per bushel than any other factor. Whatever the status of total production of fruit in the country the fact still remains that low growing costs are predicated on a reasonably high average annual production. We do not suggest that quality be forgotten in production plans but

Growing Costs per Tree for the First 12 Years

	Total Cost First 12 Years	
	Orchard J 6.6 acres	Orchard K 4.2 acres
Tree	$ .35	$ .35
Planting	.12	.12
Cultivation and mowing	1.85	1.60
Pruning	.81	.70
Spraying	3.44	3.07
Rodent Protection	.15	.15
Fertilizer	.39	.39
Cover Crop Seed	.53	.08
Thinning	.35	.25
Picking	.77	.74
Grading and crate rental	1.20	1.19
Total cost per tree	9.96	8.64
Total growing costs for orchard excluding tax and interest	$3495.73	$1918.91
Value of fruit from orchard first 12 years	$4705.72	03141.11

generally speaking the growers in our state who make the most money are the growers who get the largest production per acre over a period of years. We have observed that a grower who produces less than an average of 250 bushels per acre over a period of years is pretty close to the marginal line.

If he is growing varieties which sell above the average market price, say Delicious and McIntosh, and growing high quality fruit he has a chance for profit even though his yield is as low as 200 bushels per acre. Peculiarly favorable locations as to markets or general growing conditions, advantageous labor supply, low overhead charges, and most important of all, alert management, are other factors which make it possible to show a profit on relatively low yields. It may be working the problem backwards but it is rather conservative business management to examine the selling price of fruit over a period of years on your market. Profit lies in keeping the growing costs under this average selling price and, of course, in selling his crop for more than the average.

What It Costs

From a rather large accumulation of data on growing costs extending over the past several years we shall consider only the results from two orchards for two succeeding years. Orchard A, consisting of ten or more varieties; and Orchard B, made up of two varieties, Stayman and Delicious (Table 2). These orchards are located about 100 miles apart with a considerable difference in land value and usually a differential in labor rates. Whatever disadvantage Orchard B may have under Orchard A in some of the items of cost would ordinarily be made up in being closer to market.

When one examines critically the detailed items of cost that go into the cost per bushel he must always keep in mind variety and markets. There are certain operations, as for instance, spraying and fertiliers, that Ohio fruit growers cannot safely neglect. Spraying usually is the largest item of cost and perhaps the one most frequently neglected in the interest of economy. When you analyze the detailed costs accounts as shown in the table you realize how difficult it is to reduce the cost of production by altering orchard operations. It is much easier to keep the costs low by keeping production per acre high.

Cost per Bushel for Growing Apples 1932-33

	Orchard A		Orchard B	
	1932	1933	1932	1933
Approximate yield per acre in bushels	350	350	400	300
Growing costs				
Pruning	$.023	$.026	$.030	$.060
Thinning	.013	.025	.028	.017
Mowing and cultivation	.018	.009	.070	.055
Fertilizer	.009	.022	.040	.040
Spraying	.061	.057	.094	.160
Management	.027	.023	.020	.026
Total growing costs	.151	.162	.282	.358
Harvesting costs				
Picking	.043	.045	.042	.051
Grading	.061	.051	.040	.036
Hauling	.030	.012	.020	.011
Depreciation	.007	.010	.023	.024
Management	.031	.028	.016	.020
Total harvesting costs	.172	.146	.141	.142
Total growing and harvest cost	.323	.308	.423	.500

NITROGEN DOES NOT EFFECT KEEPING QUALITIES OF APPLES

A REPORT from the Maryland Experiment Station is to the effect that nitrogen fertilization on fruit trees has had no direct influence on firmness or keeping quality. The results applied to fruits of similar size, maturity and color. The report states further.

"If differences in color, size or maturity are present as a result of any practice or condition of culture, they may make consequent changes in keeping quality as for example, large fruits have poorer keeping qualities than smaller fruits; highly colored fruits are markedly better than poorly colored fruits and both immature and overmature fruits have poor storage quality."

Nitrogen fertilizers may have an indirect effect on keeping quality because it delays maturity and so the fruits have to be picked a little later than when no nitrogen was used.

MANY GROWERS MAKE FALL APPLICATION OF NITROGEN

REPORTS indicated that a large number of Wisconsin apple growers applies nitrogen fertilizer to their orchards this fall.

There are no doubt a number of advantages to this practice. When such fertilizer as calcium cyanamid is used (and indications are that a number of growers used this material this fall) then it should be applied in the fall. There is danger that spring applications will be made too late due to bad weather or other conditions.

First Freshman: "I hear you got thrown out of school for calling the dean a fish."

Second Freshman: "I didn't call him a fish. I just said, 'That's our dean,' real fast."

In the Orchard

BEFORE STORING THE SPRAYER FOR THE WINTER

THE first precaution which spraying equipment engineers and operators suggest is thorough flushing of the tank, pump and hose fittings. This dissolves and carries out spray material which collects during actual spraying. After flushing, some operators fill the tank again, start the pump, and use clean water from the spray gun, at high pressure, to wash down the outside of the sprayer, which is generally caked with dirt and chemicals after a season of use.

It is imperative that all liquid be removed from tank, pump, and piping. All drain cocks should be removed and the pump operated for a minute or two in order to facilitate complete drainage. An added attention which sometimes prevents later inconvenience or bother is to oil all threads on drains before replacing.

Men who like to give their sprayer the best of care, paint the tank inside and out each year. This can be done in the fall, and will protect the boards from drying out during the idle months. No other attention need be given the tank, unless the hoops have become loose and require tightening.

After making sure that the pump is thoroughly drained, one of two things is generally done. The drain plugs are replaced and the pump filled with crankcase oil, which is left there during storage to prevent rust; or oil is simply pumped through. The latter treatment leaves an oil film over most of the inner parts. The plan followed will depend on whether or not any oil left in the pump will come in contact with rubber tubing susceptible to rotting. If the oil injures only packing and diaphrams the added insurance against rust is worth while, since these parts are usually replaced each spring.

Before calling the job done, all hose should be cleaned, rolled up, and stored in a dry place to prevent rotting and cracking. Spray rods and nozzles may be protected by pouring kerosene and then oil through them. As a last step, all outer moving parts may be put into shape for immediate use in an emergency by oiling or covering with hard-oil.

Service men acquainted with spraying equipment attribute most sprayer trouble to lack of proper care, and they find that damage resulting from improper storage often causes trouble the second or third season, after the machine has given perfect service the first year of its use.—From October Better Fruit.

FRUIT CROP ESTIMATE

IN the October Wisconsin Crop Reporting Service is the following estimate on the fruit crop for Wisconsin:

Fruit Crops Short

The estimates of fruit and vegetable production continued to show that rather short supplies exist for most items. Of the important vegetables only onions seem to be in large supply and low in price. The cabbage crop, which is important in Wisconsin, is rather short and has been moving at high prices.

Fruit production is generally below average and not much different from the earlier estimates. The total United States apple crop is now estimated at about 160 million bushels compared with 167 million bushels last year and a 5-year average of 161 million bushels. The peach crop, estimated at less than 44 million bushels, is more than 12 million bushels below average.

A TOUGH INDIVIDUAL

A FRUIT grower is a tough individual in the opinion of A. N. Pratt, editor of Tennessee Horticulture. "His first crop may be killed by frost, his second may be ruined by insects, another by hail or hurricane. And each time he draws his belt a little tighter and squares off for another year. A fruit grower is wrought by his own efforts into a tough individual. Brother, he's 'got to be' tough or he will cease to be a fruit grower."

Mr. Pratt remarks further that a county agent told him that fruit growers were usually found at home when he called, that they asked intelligent questions about their work, and usually kept better teams and equipment and were sturdier individuals than some other types of farmers.

NEW BULLETIN ON APPLE STORAGE TROUBLES

A BULLETIN entitled "Functional Diseases of the Apple in Storage" by Plagge, Maney and Pickett, published by the Iowa Experiment Station, Ames, Iowa, is of considerable value to fruit growers interested in such troubles as Jonathan spot, apple scald- Breakdown, Water core, Bitter pit, etc.

Humidity In Storing Apples

OF THE conditions affecting apples in storage, humidity is probably second in importance only to temperature. The amount of moisture present in the storage room atmosphere is usually expressed in terms of relative humidity, and for cold storage temperature (31°-32° F.) a relative humidity of 85 percent gives satisfactory results. With slightly higher temperatures, however, and with those such as ordinarily prevail in common storages, shriveling of apples will occur frequently, even with an 85 percent relative humidity. This is because the water holding capacity of the atmosphere is higher with the higher temperatures. In other words, the relative humidity alone does not give a complete picture of the conditions affecting the loss of moisture from storage products; temperature must also be considered. For example, when apples are stored at 40° F. with a relative humidity of 85 percent, the loss of moisture will be more rapid than at 32° F. with the same relative humidity. It is therefore particularly important to maintain a high relative humidity with temperatures higher than 31°-32° F. With a temperature of 36° F. we have found a relative humidity of 90 percent more satisfactory than one of 85 percent, while a relative humidity of only 80 percent resulted in visible shriveling.

In common storage houses in Iowa the relative humidity during the first 6 weeks of storage is unusually low (approximately 50-65 percent). The temperature of such storages for the same period is high 45°-55° F.). For this period in common storages, then, we have two unfavorable conditions, i.e., low humidity and high temperature. Maintaining the proper humidity of common storages is therefore of primary importance, especially during the earlier part of the storage season when high temperatures prevail. Common storages with earth floors usually have higher humidities than such storages with concrete.

The fruit grower and the storage warehouseman can readily determine from the condition of the fruit whether the humidity is satisfactory. When visible shriveling of fruit is noticeable, more moisture should be supplied. This can be done by placing sphagnum moss, sand or other absorbent material under false floors and keeping the materials moist. Sprinkling the walls and floors of storage rooms frequently with water will also help increase humidity. At freezing temperatures common salt can be mixed with absorbent material to prevent freezing. Relative humidity can be measured easily with the instruments designed for the purpose, but these for the most part are fragile, costly and require frequent standardization. When properly used, however, they give satisfactory results.

Apple varieties vary considerably in susceptibility to shriveling. The russet types and those sorts which are subject to spray injury are more liable to shrivel than the more waxy kinds. Golden Delicious is more apt to shrivel than most other commercial varieties. Specimens exhibiting spray injury usually shrivel worse than otherwise sound fruit.

—From Iowa bulletin No. 329 entitled "Functional Diseases of the Apple in Storage."

Old Lady (to street car motorman): "Please, Mr. Motorman, will I get a shock if I step on the track?"

Motorman: "No, lady. Not unless you put your other foot on the trolley wire."

CHAMPION APPLE PICKER

ROGER C. MOORE picking Baldwin apples in western Maryland, picked 276 bushels in one day in a contest. Writing in the September issue of the American Fruit Grower, Mr. Moore gives his formula. "Never make a false move. Never hurry. Begin with lower branches and work upwards to reduce dropping hazards."

Mr. Moore placed his ladder so that he could pick a tree in three or four setups, and on the last climbed into the top to gather the apples that could not be reached by the ladder.

The record was made several years ago. Since then Mr. Moore has been working in an office and concludes that this life forms an effective barrier to any attempt to beat his record.

DELICIOUS APPLE CONDEMNED

IN A season such as we have just had the Delicious apple comes in for a good deal of criticism. Said George MacLean, Madison, who planted 100 Delicious trees 20 years ago: "I won't plant another Delicious apple as long as I live, and wish I hadn't planted more than four or five 20 years ago."

There are several reasons. First, Mr. MacLean has lost over half his Delicious trees. They are fine up until about 12 years old and then they begin to go to pieces. Second, after a severe winter there is likely to be very little fruit as happened this year. It reaches bearing late and usually does not produce a heavy crop.

How About Herself?

Mrs.: "Did you notice the chinchilla coat on the lady in front of us in church, today?"

Mr.: "Er—no. Afraid I was dozing."

Mrs.: "Huh! A lot of good the service did you!"

New Fruit Varieties

THE KENDALL APPLE

G. H. Howe
New York Experiment Station

I AM happy to report that in our opinion Kendall has given a very good account of itself in 1936. In the middle of September, the New York Fruit Testing Association held its annual meeting at the Station. A large group of growers visited the Kendall tree and saw it in fruit as well as an exhibit of the apples in the auditorium. On every hand I heard favorable comments by the growers concerning the appearance of this apple and the sturdy vigor of the tree and its productiveness. Of course the apples were far from mature so that they were not ready for eating. They were, however, handsomely colored at the time of the meeting.

I have arrived at the conclusion after several years' observation that Kendall is going to be an annual bearer and I made that statement in my remarks concerning new apples at the Fruit Testing business meeting. Last year Kendall produced a heavy crop of apples. This year the tree bloomed again and bore a good crop of apples, not as heavy a yield as a year ago but plenty of fruit. Little or no thinning was required this year. The apples were well spaced on the tree and did not cluster. For the last four successive years the original tree of Kendall has been producing a crop of apples but a somewhat smaller crop in the alternate year. Still the yield has been satisfactory and I believe on orchard trees as they come into bearing there will be no question as to yield. I can not but think that the physiological activities of this original tree may have been considerably upset due to the heavy cutting back of the tree yearly for budding and grafting wood. I think that the new trees which will not be disturbed by cutting will prove to be good annual bearers. Kendall is a fine growing tree, one of the best in the nursery and a fast, vigorous grower after planting in the orchard. In our judgment Kendall is the latest keeping of the new McIntosh type apples and I shall watch this closely this year with fruit which has been picked at two different periods.

A HARDY CHERRY AT MINNESOTA

ONE of the interesting new fruits seen at the Minnesota Fruit Breeding Station this fall was a new hardy cherry No. 27 which suffered no winter injury and produced a good crop this year in spite of the severe winter which practically ruined the fruit crop in all parts of Wisconsin, even those protected sections such as Door County.

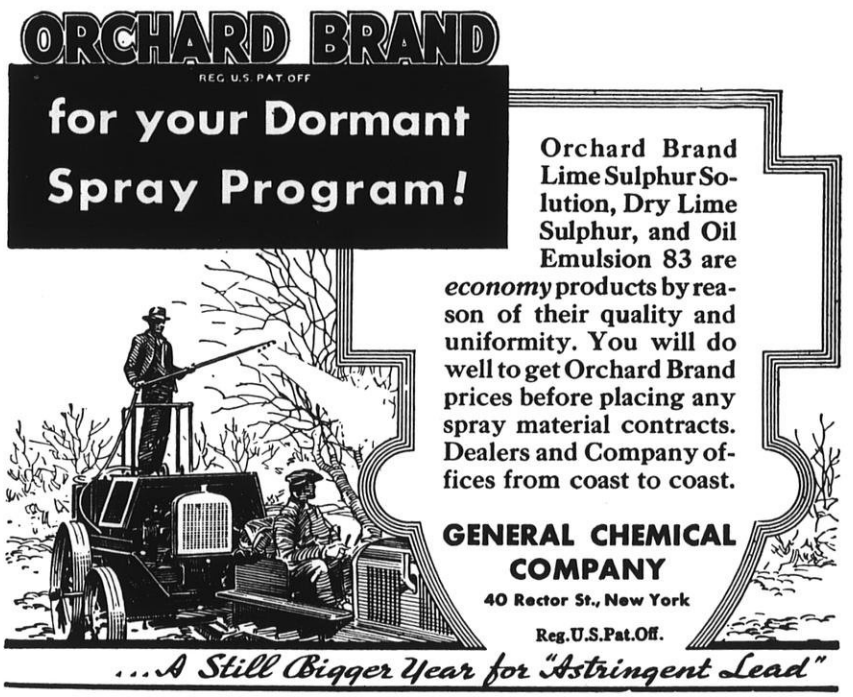
The quality of cherry No. 27 is said to be very good, equal to that of Montmorency.

This is a valuable new fruit. Cherries have not been successfully grown in many parts of Wisconsin or Minnesota, and if this new variety proves to be as good as it showed up this year, it will be a valuable addition to our fruit crop.

EMBER PLUM POPULAR IN MINNESOTA

ONE of the newer introductions of plums by the Minnesota Fruit Breeding Farm is the Ember plum, considered one of the best yet introduced by those in charge of the Fruit Breeding Farm.

The Ember plum is yellow with a reddish blush. It is of very high quality and ripens medium late—in mid-September. It is of large size and because of its high quality is becoming very popular with growers.



In the Berry Patch

STRAWBERRIES AT WARRENS

H. H. Harris

I WISH our members could see our variety strawberry beds where we have Grand Champion, Catskill, Dorsett, Fairfax, Redheart, Dunlap, Minnesota No. 3, Ambrosia and Clark's Seedling. Also some everbearing growing. All of the June bearing varieties have made exceptionally nice rows. I had to cut off a lot of runners to avoid having too many plants.

Everbearings began fruiting the latter part of July while it was still hot and dry. They did not set many runners.

Our main field was a ilttle late in making runners but the rows look nice now. Some growers are complaining of white grubs ruining their fields, but others say that the rows are well filled.

The outlook for a crop for next season is fair.

Variety Test

Beaver, Premier and Catskill fruited better this past season than our other varieties, and have made equally as good rows on the old beds. Our old bed looks nice but did not make many runner plants.

Winter Covering

I think most growers have or intend to get marsh hay for covering. We may use green cut rye that was cut just after blossoming and stacked as soon as cured. Some growers started covering with marsh hay the latter part of October. We stacked our old mulch after mowing the old bed, and will use that on the old field again.

We will cover our strawberry field as soon as the ground settles a little so that driving on the field will not cause too deep ruts.

On October 21st there were still lots of large green berries on Wayzata and Mastodon everbearings. We have had them on the table quite regularly since the rains came. We watered them three times by flowing water on directly from the pump—before we got the rain.

NEW RASPBERRIES FROM NEW YORK

THE June and Ontario varieties of raspberries are now the standard early red kind in New York State.

This year two new varieties are being introduced by the New York Experiment Station at Geneva. They are the result of crosses between Lloyd George and several American varieties.

Marcy, one of these new varieties, is named for Mount Marcy, the highest mountain in New York. It is a cross between Lloyd George and Newman. It is the largest red raspberry in the Station collection, being larger than Newburgh and weighing almost twice as much as Chief berries. It is long, conic in shape, medium red in color, and comes slightly dark when dead ripe. The quality is very good. The canes are tall, of great vigor and sturdy. They are fully hardy at Geneva.

Taylor was the first of the Lloyd George seedlings to be named and was introduced last year. It is a berry of large size, good color and excellent flavor.

Indian Summer

Indian Summer is the second of these crosses to be introduced this year and is an everbearing or rather a fall bearing variety. It produces a crop in early summer and then an autumn crop in September. The fall crop is borne on the tips of the new canes and continues to ripen until checked by frost. It has continued to ripen fruit after experiencing a temperature of 28° F. For those who want an autumn fruiting kind, this one may be of value. The berries are rather dark and soft to compete with spring bearing kinds.

A New Purple Raspberry

Sodus is a new purple raspberry introduced by the New York Station. It is a cross between the Dundee black raspberry and Newburgh red raspberry. It is large, firm, medium purple in color, free from crumbling and easy to pick. Plants are of great vigor resembling the black raspberry and bear heavy crops. It resisted extreme drought well this season. It is becoming very popular with growers.

Those interested in these new varieties should write for the catalog of the New York Fruit Testing Association , Geneva, New York.

COST OF GROWING STRAWBERRIES DEPENDS UPON YIELD PER ACRE

REGARDLESS of the price obtained for strawberries at harvest time, it will be impossible to make a profit if the yield per acre is low.

Tests made in Missouri, for instance, showed that with a yield of from 30 to 40 twenty-four quart crates per acre, the average cost per crate was $2.65. With a yield of 100 crates per acre the cost was $1.75 per crate, but if from 300 to 400 crates were produced, the cost per crate is relatively low. In this experiment the average cost of producing an acre of berries increased with the increase in the crop harvested, but the profitable acres were only those with high yields. All those with low yields were produced at a loss.

Factors Affecting Yields

The natural fertility of the soil is one of the most important factors affecting profitable

strawberry growing. On light sandy soil requiring a great deal of fertilizer or humus to insure a crop during a dry season, the cost will be high.

Another important factor will be the earliness of the producing runners. In an Ohio test it was found that runners rooted in June produced plants bearing 14 quarts per 100 plants. Those rooting in July produced only 6 quarts per 100 plants, while late setting runners as in September and October produced less than one quart per 100 plants. Vigorous plants set early, a good soil, with cultivation to control moisture and weeds are therefore essential.

WLD RASPBERRIES MAY SPREAD MOSAIC

WILD raspberries have been found to be an important source of mosaic infection in cultivated plantings of black raspberries, according to bulletin No. 665 of the New York Experiment Station. The bulletin concludes that in controlling mosaic one of the first steps should be the eradication of all wild raspberries within one thousand feet of the planting.

HARALSON APPLE POPULAR IN MINNESOTA

THE Haralson apple is becoming one of the most popular varieties for Minnesota. This can easily be seen when visiting orchardists in that state. On a recent trip we visited the Webster orchard at La Crescent and found a large number of Haralson trees loaded to capacity with fine looking red apples of this variety. Mr. Webster said due to its hardiness, earliness and heavy bearing, he considers it a very profitable variety, even though the price per bushel is less than he receives for varieties such as McIntosh.

Orchardists who are planting cooking apples might well consider the Haralson, especially as a competitor to N. W. Greening.

Haralson, however, is not a high quality apple and should not be planted in place of varieties such as McIntosh. In northern Wisconsin, however, where a hardy variety is desirable, it is probably one of the best.

OUR CRANBERRY CROP

THE value of last year's cranberry crop in Wisconsin was nearly a million dollars. More than 2600 acres of bogs are now planted to vines, utilizing thousands of acres of otherwise useless land needed by the industry for reservoirs, which is of benefit to the state.

Fruit harvest on the cranberry bogs of New England. This worker is gathering the fruit with a cranberry harvest rake. Photo courtesy American Cranberry Exchange. In Wisconsin berries are usually raked on water with a different type of rake.

This year for the first time, aeroplanes were used to apply dust materials to control insects. More than 20,000 tiny parasitic wasps have been secured from California by aeroplane for the purpose of determining their ability to control fireworm pests which have been serious in certain bogs this summer, according to E. L. Chambers, State Entomologist.

In this issue we show a picture of how the cranberries are harvested in the East with the use of a dry land cranberry harvest rig. In this way, upward of 100 barrels per acre will be harvested on many marshes this fall.

NOISE GUNS TO FRIGHTEN AWAY BIRDS

A "NOISE" gun for frightening birds away from the orchard has been perfected at the Michigan Experiment Station, according to Prof. V. R. Gardner. The gun is equipped with a chamber which fills with calcium carbide gas. This automatically explodes and refills. The gun makes a loud report which frightens birds from fruit trees.

Gas is formed in the chamber by means of water dripping on a small quantity of calcium carbide in the cartridge holder. It is said to cost very little to build the gun, while the saving from birds might be large.

The gun is the work of Profs. H. H. Cardinell and Joseph Stack. They experimented with the device for over a year.

FERTILIZERS FOR GRAPES

NITRATE of soda has produced more and better cane and leaf growth than has potash or phosphoric acid in tests conducted by the New York Experiment Station, Geneva. The results were reported in bulletin No. 671 entitled "A Twenty-Five Year Test of Commercial Fertilizers for Grapes."

Potash has proven beneficial when used with nitrogen but phosphorous has been of doubtful value except to improve the growth of green manure crops in the vineyard. Lime has actually depressed yields. Early spring applications are recommended for grapes in this test conducted on Dunkirk, gravelly loam soil.

HORTICULTURAL NEWS

A. F. Yeager, North Dakota

FROM apricots produced on the experimental plots this summer we made some very excellent preserves. At least, that was the verdict of those who tasted them. Twelve selections were made from the trees which we intend propagating next year for trial.

Each year for many years we have received samples of Solanum triflorum berries asking whether they were edible. Botanists have classed them as poisonous. However, we fed them to rabbits with no fatal results and finally this year when a good sized batch came in we decided to make a cooking test. Miss Berrigan, Experiment Station Home Economist, prepared preserves and sauce from them. Three of us sampled the products and while there was no apparent poisonous effects the cooked fruit had a decidedly unpleasant taste and produced a burning sensation in the throat for many hours after the sampling was done. Hence, while they may not be poisonous they certainly are not to be recommended as a preserving fruit.

According to work done at the Minnesota Experiment Station the difference between so-called acid tomatoes and the mild flavored ones lies not in the amount of acid, but in the amount of other substances. The mild flavored tomatoes have sugar and other things present which mask the acid flavor. This probably accounts for fruit left to ripen thoroughly on the vine having a sweet taste compared to that picked green and ripened inside.

According to the New York Experiment Station the popping quality of pop corn is entirely independent of its germinating ability. Fourteen year old popcorn popped as well as that not so old, even though it did not germinate.

In a good many cases Experiment Stations have found that applications of nitrate fertilizers in the fall are better than those made in the spring. Nitrogen is apparently taken into the plant during the winter months and is there ready to stimulate heavy vegetative growth when spring comes.

Asparagus seed may be gathered from the old plants if they are still standing in the field. If the fruits are crushed it is possible to wash out the pulp and thus secure practically clean seed. Spring planted seed will give fine plants which will be big enough to set out the spring following.

The U. S. Department of Agriculture says that tomatoes which ripen in too high temperatures are not as red as those which ripen at slightly lower temperatures. Hence, the tomatoes exposed to extremely hot sun may be less red than those on the shaded parts of a plant.

The seed of many new drought resistant plants have been brought back recently from Gobi Desert in Asia. Because of their ability to withstand drought in that region it is hoped they may be useful in the United States, especially in the Great Plains Area.

According to W. E. Whitehouse, the Office of Foreign Seed and Plant Introduction has introduced over 6,000 soybean varieties from the Orient. These have been instrumental in the extension of the soybean crop of the United States from 50,000 acres in 1907 to 4,000,000 acres in 1932.

A quotation in the AGRONOMIC REVIEW says that it takes 400 years to build an inch of fertile soil. In the corn belt this is usually removed in from 10 to 50 years. It is such facts as this that are bringing about agitation for the conservation of our soil.

The Conard-Pyle Company of West Grove, Pennsylvania, has patented a rose which they call Tom Thumb which is supposed to be the smallest of all roses. A picture of this variety in FLORISTS EXCHANGE shows pot, plant and all, full of blooms, less than half the size of one's hand.

Carbon Dioxide which is breathed out by animals is the basic material from which plant tissue is constructed. Without this using up of carbon dioxide by plants all life would cease to exist in a short time. Burke and Lineweaver of the U. S. Department of Agriculture in studying how this work is done by plants have discovered many new facts about the chemistry of the process. Perhaps some day chemists will be able to actually produce carbohydrates in the laboratory in the same way that plants do today by using the energy of the sun.

We are now promised really satisfactory red delphiniums. Plant breeders have finally succeeded in making the necessary crosses. No doubt the new varieties will be anything but cheap for a while!—From North and South Dakota Horticulture.

Wisconsin's Most Beautiful Trees

Grignon Elm at Kaukauna Bids for Honors

SHOWN on this page is a picture of the beautiful large elm growing at the Grignon House in Kaukauna. This tree has a trunk circumference of 15 feet 7 inches, and the branches spread 104 feet.

We have been looking for the most beautiful tree in Wisconsin. No doubt this tree qualifies for competition in this class.

The mansion built by the Grignons in 1836-39 contains much of the original furniture and articles belonging to the first Grignons. The original Grignon house, a log house, is no longer standing.

Members are invited to visit Grignon House when in Kaukauna.

Elm at Grignon House, Kaukauna. It has a spread of 104 feet.

FORMOSA LILIES FROM SEED

MY FIRST attempt at raising Lilium philippinense formosanum from seed was so satisfactory that I am prompted to relate the experience for the benefit of those who, like myself, lack accurate information. I prepared a small seed bed on the north side and well under a large specimen lilac. The clay soil was acid in reaction and was thoroughly mixed with moist peat moss. After leveling and firming it, the seeds were planted on May 1 in rows one inch deep. The rows were spaced about six inches apart.

Following germination two weeks later, the bed was frequently watered and cultivated during the entire season. In November the bulblets were dug and stored in peat moss in a coal cellar, and replanted on May 1 the following year, two inches deep in soil similar to the seed bed but in three-quarters sun. The first lily, measuring eight inches in length, appeared the first week in August and others followed, but none quite as large as the first. The elapsed time from seed to bloom was almost exactly fifteen months.—E. A. Merritt, Washington, D. C., in October 1 Horticulture.

4 O'CLOCKS LIVE OVER WINTER

I HAVE had wonderful results this year with my 4 O'clocks in spite of the drought. They were so prolific and beautiful that I want to pass along my method to others.

I save my 4 O'clock roots every year and put them in a pail of dirt and in the spring plant them at the time I set out dahlias. The plants on these roots are big and strong and loaded with blossoms. They are no more trouble than dahlias and I get many more blossoms than from plants grown from seed.—Mrs. A. C. Hollister, Mukwonago.

GRAHAM CRACKER CHERRY PIE

2 cups graham crackers, rolled fine (15 crackers)
1/3 cup melted butter

Add butter to graham cracker crumbs and mix thoroughly. Line a 9-inch pie tin with 1½ cups of this mixture, pressing into the shape of a crust with fingers. Fill with the following mixture:

2¾ cups drained, unsweetened cherries
¼ cup cherry juice
¾ cup sugar
2 tablespoons flour

Heat cherries and juice, add mixed flour and sugar. Cook one minute after it has thickened. Sprinkle remaining crumbs over filling and bake in moderate oven (350° F.) until nicely browned (about 30 minutes).—From bulletin "Everyday Uses for Cherries."

EDITORIALS

A VISIT TO MINNESOTA

A VERY profitable week-end was spent October 4-5 by the editor and Mrs. Rahmlow visiting in St. Paul. Sunday afternoon we enjoyed a trip through several Twin City Parks and beauty spots with Secretary and Mrs. R. S. Mackintosh of the Minnesota Horticultural Society, and that evening T. L. Aamodt, president of the Society, and Mrs. Aamodt joined us. We exchanged a good many notes for our mutual benefit.

Mr. Mackintosh ran several movie films taken during the past summer of flowers, fruits and vegetables. The Minnesota Horticultural Society has purchased a movie camera and projector. Both colored and uncolored films are being made of horticultural projects to be shown to affiliated organizations.

On Monday Prof W. H. Alderman, Chief of the Horticulture Department, was kind enough to take us to the Fruit Breeding Farm at Excelsior. Fortunately a special committee of the Horticultural Society met there that day on their annual visit of inspection of the Farm, so we had the opportunity of seeing and hearing about all the different phases of the work on the Farm in considerable detail. Items about the different fruits seen will be found in this issue.

Father: "Fancy a big boy like you being afraid to sleep in the dark."

Five-Year-Old: "It's all very well for you; you've got mother to look after you."

HORTICULTURAL CONVENTIONS

November 11-13. Iowa State Horticultural Society Annual Convention, Iowa State College, Ames, Iowa.

November 18-19. South Dakota Horticultural Society Annual Convention, Clark, S. D.

December 1-3. Michigan State Horticultural Society Annual Convention and Apple Show. Grand Rapids, Michigan.

December 8-10. American Pomological Society, 52nd Annual Convention in joint session with Virginia Horticultural Society convention. Roanoke, Virginia.

EXPERIENCE WITH ENGLISH WALNUTS AND BOYSENBERRIES

MR. George G. Curtis, Merrill, Wisconsin, writes that he obtained a 50 percent germination on the English walnut seeds purchased through the Society last spring, but he thinks that if he had watered regularly he would have had much better results.

Mr. Curtis planted 10 Boysenberry plants last spring. These arrived April 1st from California, and had to be stored over a month before they could be planted. However, 9 plants are growing and made the most vigorous growth and are the thorniest of any berry he has seen.

PLANT TESTING COMMITTEE WANTS SUGGESTIONS

THE Plant Testing Committee of the Wisconsin Horticultural Society will meet within a month to prepare a list of new varieties of flowers, shrubs and trees for trial by members during 1937.

Several problems face the committee. They are not quite sure as to just what type of material our members would like to try out. Should the list contain varieties known to be quite hardy and quite satisfactory in advance, or should we try the more unknown varieties which have been found to have considerable merit in other places?

What type of plant material is in greatest demand—perennial, shrubs or trees?

Shall we continue to submit the list to Wisconsin nurserymen for bids and give the lowest bidder the contract to supply the material to all those who cooperate, or should we simply publish the list recommended and allow our members to purchase it wherever they can?

Any suggestions members may have relative to this work should be sent to the office of the Society and will be presented for consideration to the committee.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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Vol. XII NOVEMBER, 1936 No. 11

Prof. H. F. Wilson Honored

THE honorary recognition certificate of the Wisconsin Beekeepers Association was awarded to Prof. H. F. Wilson, Chief of the Entomology Department of the Wisconsin College of Agriculture at our 58th Annual Convention.

Prof. Wilson was given this honor because of his valuable services to the beekeeping industry of Wisconsin and the nation in the field of research, teaching and extension. As a teacher he has helped to train College graduates who have carried on the work in other states and for the Federal Government. In the field of research he has conducted and supervised experiments which have been of great value to the practical beekeeper.

In extension work he has conducted and spoken at hundreds of beekeepers meetings bringing to them important facts to help them in their work.

Prof. Wilson was born at Del Norte, Colorado, April 14, 1883, of English parentage, tracing back to Colonial days. He received his early education at Victor, Colorado. He graduated from Colorado Agricultural College in entomology and horticulture in 1907. He then worked with the inspection service in the State of Illinois and entered the graduate school at Illinois in the fall of 1907. He worked for the U. S. Bureau of Entomology until 1910 when he went to Oregon Agricultural College as research assistant in entomology. He received his Master's degree at Oregon in 1913 and was appointed to the position of Professor of Entomology. In 1915 he was appointed Professor of Entomology at the Wisconsin College of Agriculture.

Prof. H. F. Wilson

Prof. Wilson was an active and guiding spirit in the establishment of the Miller Memorial Beekeeping Library, in raising money for its endowment and in securing books, journals and pamphlets for it. He bought many books and pamphlets on foreign markets and secured the Colonel H. J. O. Walker collection from England in 1930. Through the generosity of the late S. L. Odegard of Madison, a personal friend, this collection was purchased and donated to the Library. It contained 1,157 volumes.

Because of Prof. Wilson's great enthusiasm for the American Honey Institute he has very materially contributed to its success and continuance by being chairman of the Finance Committee.

Research

Many authorities agree that some of the most important beekeeping research work in the country has been done at Wisconsin under Prof. Wilson's direction. Some of the problems investigated were: Winter Protection for the Honey Bee Colony; Causes of Dysentery among Honey Bees; Study of the Causes of the Fermentation of Honey; Mechanics of Digestion of Pollen by the Adult Honey Bee; The Relation of Undigested Parts to Dysentery of Bees; Studies of the Secretion of Wax by the Honey Bee.

At the present time a survey is being conducted of the beekeeping industry of Wisconsin with a view toward including it as one of the more important minor agricultural pursuits in the diversified farm program. Another is the relative desirability of the top entrance as compared with the bottom entrance of the bee hive.

The various types of honey samples are being tested for the dextrose and levulose sugar content, to see what effect the variations in these materials have on the use of honey in commercial products.

Approximately 500 students have been trained in beekeeping at the College during the time Prof. Wilson has been with us.

The Certificate

The beautiful certificate presented to Prof. Wilson during the banquet at the 58th annual convention of the Wisconsin Beekeepers Association at the Hotel Retlaw, Fond du Lac, October 29th, reads as follows:

"The Wisconsin State Beekeepers Association Recognizing the eminent services of Harley F. Wilson as a leader in the field of apiculture and for his contribution to the welfare of the beekeeper through research, teaching and extension, presents this Testimonial upon the recommendation of the Executive Committees of the State Beekeepers Association, and with the approval of the Board of Managers."

The cut of Prof. H. F. Wilson was loaned us through the courtesy of the A. I. Root Co.

THE CONVENTION

WE GO to press before the annual convention at Fond du Lac is in progress. Therefore we cannot report until our next issue what took place. However, everyone is anticipating a large crowd and a good time. We will have some interesting things to report in our next issue.

WISCONSIN BEEKEEPERS HAVE A GOOD SEASON

H. F. Wilson

ALTHOUGH there may be some beekeepers in the State who did not secure a satisfactory crop in 1936, the majority enjoyed an unusually good harvest, and in one fairly large section the average surplus ran from 175 to 200 pounds per colony. And best of all, most of these beekeepers have already sold their honey. New pieces of furniture for the parlor, and equipment for the kitchen are very much in evidence! It is unnecessary to mention that these beekeepers are feeling quite happy with the results of their summer effort, and are making plans now for 1937.

The flavor of Wisconsin honey this year was never better, and the body is unusually heavy. The prize story of the season comes from Green Bay, where Mr. Myron Frisque reported securing 500 pounds of honey from one colony of bees. From 62 colonies, Mr. Frisque reports 12,300 pounds of surplus honey, so the older beekeepers will have to look to their laurels, for I predict that Mr. Frisque is going to be one of our very best beekeepers. A picture of his home yard is shown in this issue of Wisconsin Beekeeping.

Prospects for clover are very good, and with favorable climatic conditions, our Wisconsin Beekeepers should have an excellent crop in 1937. It will be interesting to watch future developments in surplus crops from sweet clover and alfalfa. Our beekeepers should be warned that when we return to what is generally considered a normal Wisconsin climate, practically no honey may be expected from alfalfa, and very little from sweet clover north of the line running across the State from Madison to Port Washington. During the drought years, we have had almost a complete change of honey flora, and the plants that have been producing a large crop during that period are not likely to produce crops with increased amounts of rainfall. The sweet clover and also alfalfa were secreting nectar up to September 1, and this in a way accounts for the unusually large surplus production. With a normal honey production period from July 15 to August 1, such large average crops cannot be expected.

If you still have your honey crop on hand, do not become alarmed and sell it at the first offer unless that offer is 7 cents a pound, or better, because before the next season comes around there is going to be considerable demand for honey.

INSULATION FOR BEE HIVES

IN THE October issue of Wisconsin Horticulture we gave a table showing the insulation values of various materials. From this it can be seen that a sheet of insulite, celotex or similar material one inch thick will keep out the cold to the same degree as will a concrete wall 27 inches thick, or a piece of hardwood 3 inches thick, or from 9 to 18 inches of building brick. Two inches of sawdust or planer shavings if carefully placed and not packed down or allowed to get damp would have about the same value as one inch of insulating board.

For this reason a number of beekeepers are placing a sheet of insulite on top of their hives for wintering outdoors. The problem is to keep the insulating material dry. If it is allowed to get damp it loses its insulation value. Therefore unless a satisfactory paint for waterproofing is found, it is best to have the insulating board on top of the inner cover to keep it dry.

Radio is like a baby: It always does the cutest things after the company has gone.

HONEY WANTED

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

LOW RAILROAD RATE TO SAN ANTONIO

THE Chicago, Milwaukee , St. Paul railroad is offering some low round trip rates from Wisconsin points to San Antonio for the National Beekeepers convention.

For example, there is a round trip rate good for 8 days, called "Week-End Special" and fares from Madison to San Antonio are $30.06; from Milwaukee, $30.71; from Green Bay, $32.32.

There is a rate good for 30 days in coach only with fares as follows: Madison, $37.80; Milwaukee, $38.90; Green Bay, $41.30; La Crosse, $39.15.

NOTICE!

The following new retail prices cancel our 1936 catalog prices on Tin Containers.

Fresh stock of tin containers and the pails have the new **pure tin** solder feature.

2½ lb. cans, per reship. case of 24	$1.13
2½ lb. cans, per carton of 100	3.90
5 lb. pail, per reship case, 12	1.03
5 lb. pails, per carton of 50	3.50
10 lb. pails, per reship. case, 6	.82
10 lb. pails, per carton of 50	5.05
60 lb. cans, in bulk, each	.34
60 lb. cans, per case of 2 cans	1.00

F. O. B. Boyd, Wisconsin

Orders of $50.00—5% discount.
Orders of $100.00—10% discount.

For a complete list of glass and paper honey containers, refer to our 1936 catalog.

AUGUST LOTZ, CO.
Boyd, Wisconsin

ON TO SAN ANTONIO

Arlene Weidenkopf

MR. and Mrs. Wm. Michaelsen, Arkansas, Wisconsin, have purchased a new trailer, and have been "breaking it in" with weekend fishing excursions. They plan to drive to San Antonio, Texas, for the International Beekeepers' Conference, and then will probably sojourn in the southern and western states for several months.

* * *

Mr. Adolph R. Moesch, Bird Harbor Apiary, Bonduel, Wisconsin, has written that he and three or four beekeepers from his vicinity, one of whom is Mr. Radloff, or Cecil, may drive to the San Antonio convention. In case the preliminary plans for the trip—including driving his car and taking the other passengers—fall through, Mr. Moesch will probably make the trip by train. He suggests that beekeepers and their friends who attend the International Beekeepers' Conference pin a little piece of yellow ribbon to the left lapel of their coat, so that they may be easily recognizable en route to fellow beekeepers!

* * *

We are told that Mr. and Mrs. A. J. Schultz of Ripon will be at the San Antonio meeting; Mrs. Schultz is Chairman of the Wisconsin Ladies' Auxiliary to the American Honey Institute. There have been few state and national meetings that the Schultzs have missed, and we hope that more beekeepers and their friends from Fond du Lac County will attend the meeting.

* * *

Mr. Joseph Garre, Aniwa, Marathon County, would like to share expenses with some beekeeper planning to attend the meeting at San Antonio. If you have room in your car write Mr. Garre.

ARE YOU GOING TO SAN ANTONIO?

SEVERAL Wisconsin beekeepers are planning to attend the annual meeting of the American Honey Producers League at San Antonio, November 23-25. It has been suggested by Miss Arlene Weidenkopf, National Secretary, that Wisconsin beekeepers write this office if they are planning to go down by auto and if they have any room for extra passengers. Those who would like to ride and share expenses should also write in and perhaps groups can be brought together, to the advantage of all concerned.

Bus fares are quite reasonable. The round trip fare from Madison is $35.05.

PROTECTING BEES FROM MICE

IF MICE can get into the entrance of a bee hive packed outdoors during the winter, they seem to prefer it to any other location and will build a large nest by cutting holes into combs and will raise a batch of young by spring.

In order to prevent the entrances from clogging up during the winter many beekeepers prefer to leave the entrance the same width as during the summer—that is about 7/8 inch wide. A satisfactory way of closing it is to saw a strip about 3/4 to 1 inch shorter than the width of the entrance. The opening then is to one side so that drafts of air will not blow directly upon the bees when they cluster on the center frames.

An easy way to guard against mice is to take some one-half inch mesh wire screen or hardware cloth and with a tin shears cut a little strip about 2 inches long and as wide as the opening. Place this in front of the hole and fasten it on the hive with a thumb tack. It is quickly done and easily removed.

Tin Pails—Glass Jars—Labels

Members: Look up our prices on tin containers and labels in the August and September issues of Wisconsin Beekeeping.

Send your money with order to:

Mrs. Millie Francis, Rec. Secy.
Wisconsin Beekeepers Assn.
Route 4, Box 608, West Allis, Wis.

Extracted Honey Wanted

Send Samples and Quote Price

WALTER GEIGER
325 W. Vine St. Milwaukee, Wis.

BEEKEEPERS

Let us quote you our prices for working wax into foundation. We will make special prices for quantity lots of 300 lbs. or more.

Our foundation is made by our own process. It is tough and under the most severe tests has been proven to be everything that we claim for it. It is readily accepted by the bees. Give the bees our foundation and be assured of good combs that you will be proud to own.

We carry a full line of beekeepers supplies and can serve you promptly.

Write for prices and estimates on anything you may need in the line of beekeeping supplies.

Gus Dittmer Company
Augusta, Wisconsin

Drive Foul Brood From Wisconsin

The Big Campaign Will Start in 1937

BEEKEEPERS at meetings held during the past year have unanimously expressed themselves in favor of getting down to business and driving foul brood from every section of Wisconsin. We are paying taxes of 10c per colony on our bees to help do this. That amounts to a lot for a man with from 500 to 800 colonies. In spite of paying this high tax, every year many beekeepers lose entire yards of bees due to a source of infection close by. How long can we let this sort of thing go on?

The present program of spending a small amount of money each year in counties where the county boards happen to be willing to vote a little money will never get us anywhere. In fact, every year someone is being wiped out at great loss.

The Program

To accomplish what we are setting out to do will not be easy. It will take the cooperation and help of every beekeeper. Here are the steps necessary as we see them.

1. The Department of Entomology should make a careful survey and estimate of the amount of money which will be required annually for a certain number of years to rid each county of foul brood. This should not be a guess but a fairly accurate figure based on the estimated amount of foul brood in the county, the number of beekeepers and the number of inspectors available.

2. The total figure arrived at should be presented to county, district and state association members for approval at meetings this fall. We should then obtain the approval of the Commissioners of Agriculture.

The next step would be to convince our state assemblymen and senators who will be elected this coming November, that this program is necessary for the salvation of an important agricultural industry—one that brings a great deal of revenue to the state. Figures on the amount of honey produced are given in this issue.

The Legislature meets in January. By that time we must have our plans well laid. Every member in the Legislature should be contacted by beekeepers in his district. We must have facts and figures and common sense arguments if we are to persuade them that our cause is just.

Mr. H. Hodgson of Waukesha who has been doing a great deal to promote this program, states that he is of the opinion that we need $50,000 per year for the next two years. He may be right. His guess is as good as ours. However, we must have plenty of facts to present to the Finance Committee, the Budget Director and the members of the Legislature before we will get it.

THE HONEY MARKET

THE Federal Crop Reporting Service reports prices in Chicago for Oct. 15th as follows: Illinois, Michigan and Wisconsin, mixed clovers, white, mostly 7½¢; few higher; few 7¼¢.

In the summary it stated: "The movement of honey to market continues with unprecedented activity and no other season has ever seen the honey crop disposed of so rapidly at the start of the season. There is little export demand for extracted honey but comb has recently been shipped in considerable volume to England. With new products containing honey being developed requiring a large volume of honey, many beekeepers are anticipating a further increase in demand next year and are making plans to expand the number of their colonies.

PAINT FOR BEE HIVES

ALUMINUM paint has been found more durable than ordinary paint, according to experts at the Forest Products Laboratories, Madison. In discussing the matter of painting bee hives, the opinion was given that two coats of aluminum paint would be superior to any other paint, and aluminum paint would be valuable for reflecting heat in mid-summer.

In case roofing paper is used for covers, as some beekeepers do, aluminum paint will cover the roofing paper while ordinary paint will soak in, leaving it a muddy color and also peal off.

The question was asked if it would be wise to paint the inside of the hives with either aluminum or common paint. The opinion was that it would be satisfactory if the paint was allowed to dry for a long period of time —about six months. Otherwise there is slow evaporation for some time after painting has been done and gasses are given off. Some of these gasses may be objectionable to the bees especially when they are confined to the hives in the winter time when there is but little circulation of air.

NOTES FROM AN INSPECTOR

NOTE: "Rain today. I pity some of those colonies of bees I have seen with the back of the hive lower than the front. I have raised and poured a half gallon of water out of some of them."

This is a note from an Indiana inspector in their Association bulletin. We wonder if such things happen in Wisconsin.

NOTICE

Eleanor N. Simmer, 9607 Beverly Avenue, Chicago, Illinois, would like to share expenses driving to San Antonio for the National convention. Anyone having room in auto please write her direct.

A. W. Lawrence Honored at Convention

THE honorary recognition certificate of the Wisconsin Horticultural Society was presented this year to one of Wisconsin's leading fruit growers and exponent of co-operative marketing—Mr. Augustus W. Lawrence of Sturgeon Bay.

Presented at the annual banquet of the Society on the evening of November 4th, 1936, the certificate states: "The Wisconsin Horticultural Society recognizing the eminent services of Augustus W. Lawrence for his contribution to the success of co-operative marketing and to the development of the fruit growing industry of Door County, presents this Certificate . . ."

Mr. Lawrence was born in 1875 at Sturgeon Boy and has resided there ever since. His family came to Wisconsin from Maine.

He has owned and operated farms since 1896 but came into possession of his first orchard in 1902. About 1909 his attention was turned to the promotion and development of the fruit industry in Door County. His activities in supplying nursery stock and planting large acreages for others under contract together with the promotion work incidental to such activities played a large part in the inception of fruit growing in Door County. With Mr. D. E. Bingham as associate he planted about 3,000 acres of the first commercial orchards in Door County. He furnished large quantities of trees to the present Martin Orchard Company and to the Reynolds orchard.

During this time he planted extensively for himself and operated a number of other orchards. In 1909 he organized the first corporation for growing fruit in Door County. One hundred sixty acres of land were acquired by the corporation of which 25 acres were planted to apples, and 40 to cherries in the spring of 1910. It was called the Sturgeon Bay Orchard and Nursery Company.

In addition he was interested in the planting and operation of the Ellison Bay Orchard Company and the Peninsula Fruit Company. In 1915 he became interested in dairying and in the next ten years he developed an outstanding herd of Guernsey cattle. He has been interested in co-operative marketing since 1906, and before the organization of the present Co-operative, was always helpful and influential in marketing the products of the fruit industry.

He was a leader in the organization of the Door County Fruit Growers Co-operative, and is a staunch advocate of the theory of co-operative marketing. He has been president almost continuously of what is considered to be one of the most successful co-operatives in the state—the Door County Fruit Growers Co-operative.

He has had wide experience in the handling of large orchards and for many years has given freely of his knowledge of fruit growing to others in the county and the entire industry has benefited from his experience and ability through his management of the Co-operative Association.

SOME BRIGHT DAYS IN THE PAST

THERE have been some bright days in the orchard history of Door County. Looking only at the past three or four years of low prices, and this year's crop failure, gives a rather discouraging outlook, but let us look back a little further.

On April 11, 1914, the Country Gentleman published an article entitled "From Prophecy to Profits" telling of the success and profits made by Mr. A. W. Lawrence on a small cherry orchard planted by his father. The article started in part: "During the last nine years this little orchard —its actual size, figured by one hundred trees to the acre, is five and a half acres—has yielded 21,487 crates of cherries and has returned to its owner a net revenue of $21,218.30. In 1912 it netter $3,350.85—an average net return of $609.24 an acre.

"In 1911 this orchard produced 2,194 crates of fruit with an average net return of $388.82 an acre. In ten years the orchard hasn't failed t give a crop. The lowest yield was 518 crates the first year of the ten and the seventh after the orchard was set out. The highest was 3,447 crates in 1909."

Due to the business failure of his father, Mr. A. W. Lawrence, Jr., received the property with an incumbrance of $18,000 against it in debts, although $10,000 would have been a good price for the land and its buildings at that time.

Mr. Lawrence tried to divide up the property and sell it off in city lots. However, the orchard began doing well so he changed his mind and in 1914 he had paid off every cent of the $18,000 debt left by his father's failure, and owned a beautiful home and several automobiles.

The article credits the beginning of fruit growing in Door County to Mr. Arthur L. Hatch and Prof. E. S. Goff to a visit in Sturgeon Bay in 1892 when Prof. Goff was seeking a site suitable for carrying on experiments in fruit growing. In 1893 Mr. Hatch moved to Door County after disposing of his holdings in Richland County, and began orcharding in earnest.

EVERYDAY USES FOR CHERRIES

A SPECIAL circular entitled "Everyday Uses for Cherries" is available free of charge to anyone in Wisconsin from the College of Agriculture, Madison, Wisconsin. Simply drop a postcard for the bulletin and you will receive a large number of excellent recipes for the use of cherries.

The roar of Niagara Falls has been broadcast by radio, thus providing a honeymoon for every home.

Mrs. Emilie Roloff Honored by Society

THE honorary recognition certificate of the Wisconsin Horticultural Society was presented this year to an outstanding woman gardener. The presentation was made during the annual convention of the Wisconsin Garden Club Federation at Madison, October 13.

The services took place in connection with a luncheon and was broadcast over Station WHA at 1:15 p. m. The services consisted of an introductory talk by Mrs. E. R. Durgin, president of the Federation, who introduced Mr. M. S. Kellogg of Janesville, president of the Society. Mr. Kellogg then told briefly of Mrs. Roloff's work as a gardener, and introduced Prof. Franz Aust of the Horticulture Department who spoke on "A Life Time Garden and the Gardener."

Mr. and Mrs. Roloff reside at Mendota Beach, near Madison. Mrs. Roloff is not only an outstanding gardener, but is an inspiring teacher as well, inspiring hundreds each year for a love of trees and flowers as they visit her garden. During the winter months it is her pleasure to paint pictures of her garden and the beauty spots she knows. As a lover of birds she keeps a record each year of the different kinds that visit her grounds—over 100 annually.

Mrs. Roloff was born in 1867 near Madison in a log cabin built by her pioneer grandparents Johann and Juliana Toepfer, when they immigrated to territorial Wisconsin from Germany. In 1868 they moved to the Otto Toepfer farm just west of Madison on what is now Normandale hospital. In this home environment she developed a love for beauty and Nature and in the conservation of wild flowers and birds. People drove many miles to visit the Toepfer deer park and to see the domesticated Canadian geese. The golden robin or Baltimore Oriole and the firebird or scarlet tanager are among her earliest recollection of regular summer bird residents in the trees around her home. As a child her first wild flower garden consisted of six violet plants, two shooting stars, and a lone yellow ladyslipper. It was a small garden but was loved as sincerely and deeply as were her larger gardens in later years.

Mrs. Emilie Louise Roloff

This small wild flower garden was the outcome of an incident she has never forgotten. Sixty years ago her father taught her not to pick wild flowers when she came home one day with a handful of wilted violets for mother; and he taught her how much better it was to have them growing in a garden of her own where people might enjoy them.

In 1891 she married Edward Roloff of Madison and moved to the city. Here she was very active in literary and study groups and in the study of art. In 1910 Mr. and Mrs. Roloff joined a group of garden enthusiasts in reorganizing what may be the oldest horticultural society in the middle-West, the Madison Horticultural Society originally organized in 1847. They then automatically became members of the Wisconsin Horticultural Society. In 1915 the lure of the land tempted the Roloffs to establish their permanent home at Mendota Beach where they have lived ever since, and where they have developed a most beautiful garden and grounds with stately trees. Here Mrs. Roloff has grown 110 varieties of wild flowers, 58 varieties of iris, 35 of tulips, and 20 varieties of lilies and many other perennials and annuals. She has painted and given away to her friends almost 200 landscapes. She has taught school children in her neighborhood about birds and wild flowers and has given freely of her knowledge of gardening to everyone who visits her.

In 1912 and 1913 Mrs. Roloff was secretary of the Madison Horticultural Society and in 1914 and 1915 she was its president.

The honorary recognition certificate reads as follows: "The Wisconsin State Horticultural Society recognizing the eminent services of Emilie Louise Roloff in inspiring others in an enduring love of plants and birds, and for her sympathetic understanding of God's great out-of-doors, presents this Testimonial upon the recommendation of the Executive Committee and approval of the Board of Directors."

ORCHID COLLECTION GOES TO MITCHELL PARK

THE famous collection of orchids of Mrs. A. O. Trostel, Sr., of Milwaukee has been donated to Mitchell Park because of the razing of the Trostel home and greenhouses. The collection contains 900 orchids and is a valuable contribution to Milwaukee's present collection of over 4,000.

A rather stout schoolmistress was talking about birds and their habits.

"Now," she said, "at home I have a canary, and it can do something I cannot do. I wonder if any of you know just what that thing is?"

Little Eric raised his hand.

"I know, teacher," he said. "Take a bath in a saucer!"

Garden Gossip

SOME beautiful specimens of Lilium philippinense formosanum were brought to the annual convention by the Rasmussen Nursery of Oshkosh. This new lily which blooms in September and early October is really finding a place in our gardens. Large flowered, a lovely white color, and blooming in a season when most lilies are gone, this is a variety of real interest and we hope to be able to report that it is quite hardy everywhere in this state.

Prof. Franz Aust stated at the convention that the new hybrid early blooming Chrysanthemums which have been grown for three years in the Horticulture gardens at the College of Agriculture, will be released for distribution by the Federal Government this coming spring. Those who attended the convention were very much interested in the exhibit of about 20 of these varieties, and in seeing them in the gardens. They made a wonderful showing, coming in all ranges of color and blooming profusely.

According to weather records for the vicinity of Madison at least, we can expect heavy frosts from the 5th to the 15th of November. By that time then the semi-hardy varieties in our gardens should be well covered for winter. A mixture of old tops of annuals and perennials, clean straw or marsh hay and leaves make an excellent covering material. Due to the high price of marsh hay and straw this year we will no doubt take advantage of everything we can get such as leaves and old tops. However, these dead tops should be carefully burned in spring and the ground dug up around the plants to cover possible diseased leaves, though this year due to the dry weather there was much less disease on our plants.

IN "Horticulture" we read that if Heavenly Blue Morning Glories ran all to vines and had no flowers, the trouble is that the soil was too rich. If morning glories are given a place in the full sun with the roots in gravelly or stony soil they will bloom all summer. If the soil is very rich, add up to 50 percent coal ashes. The new Heavenly Blue improved variety is much less likely to run to vine, and blooms earlier, and on cloudy days will remain open all day.

In the new Garden Encyclopedia there is a description as to how to grow squash of enormous size. Thread a length of yarn or wicking through the step of a young squash. Put the other end in a jar of water. Using a Hubbard or other winter variety the squash will grow to vast proportions.

Cotoneaster soongarica again attracted a great deal of attention this fall when it was in fruit. The beautiful, large red berries almost as large as cherries, make this shrub a beautiful variety for the garden.—H. J. Rahmlow.

Apple Marmalade

Pare the apples, put through a meat chopper, and use 1½ pounds of sugar to 3 pounds of fruit. Cook slowly until stiff enough not to run when placed on a cold saucer as a test. Spices, as cinnamon, cloves, ginger, may be added to suit taste.

A can of grated pineapple added to the apples give a delicious flavor.

Pour into hot glasses or jars and seal.

COMMENTS OF JUDGES VALUABLE AT FLOWER SHOW

THE new method of judging flower shows which is being so generally adopted in Wisconsin—shall we call it the "Wisconsin system"—is proving very valuable if properly conducted.

One problem remains however, for making it effective and educational, and that is to secure competent judges who will follow out the plan of writing their comments fully and in an understandable way on each card, especially on such exhibits as tables, shadow boxes and arrangements.

To be educational, such comments should consist of: first, a statement of any good qualities which the exhibits may possess. This may be: mention of any fundamental principle correctly carried out; beauty of material; excellence of material used, or appropriateness. Second, unless the exhibit received the highest rating and has no faults, comments or suggestions for improvement should be made. This is especially desirable on all exhibits rating under excellent.

We have noticed at all flower shows that the visitors and exhibitors alike eagerly read every comment made by judges on the entry tag. When judges fail to carry out this important feature a great deal of the value of the show is lost.

The next step for our judges to study is how to properly make these comments. They should not be made so as to offend, but to be helpful.

Villager to Editor: "Do you think you boosted circulation by giving a year's subscription for the best peck of potatoes raised in the country?"

Editor: "Maybe not, but at least I got four barrels of samples."

Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

Walter C. Krueger, Oconomowoc, President
B. A. Robinson, Kenosha, Vice-Pres.
H. J. Rahmlow, Madison, Cor. Sec.

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

Regional Vice-Presidents
Karl Timm, Markesan
F. P. Thomas, Kenosha
G. A. Barrer, Cudahy
M. J. Rahn, Green Bay

GLADIOLUS SOCIETY HAS EXCELLENT MEETING AND PROGRAM

COULD the members of the Gladiolus Society have foreseen the interesting program which was presented at the meeting at the Oconomowoc High School on Saturday, October 10, very few would have missed it.

President Krueger is to be complimented upon this splendid meeting which is bound to start a new era in the work of the Society.

Suggest Annual Meeting in Late Fall

At the business meeting it was suggested that the annual meeting and election of officers be held in connection with a program as a one-day convention of the Society late in September or October. At this time there might still be seedlings or varieties in bloom which might be shown to members. The forenoon could be devoted to a business meeting and election, the afternoon to a program of value to gladiolus growers. This would draw a crowd especially if an out-of-state speaker who could give a valuable talk was on the program.

A committee to revise the constitution was appointed by the president with instructions to present this matter for consideration at the next meeting.

The speakers were President Walter C. Krueger, Oconomowoc, Mr. Noel Thompson, Madison, Dr. G. H. Scheer of Sheboygan, and Edwin Ristow of Oshkosh. Papers as presented by these

speakers will be published in early issues.

Timing Blooms

President Krueger stated that he has been able to time his blooms for shows quite successfully. A little water will hasten the blooms several days, an application of nitrogen will delay blooms three or four days, and of course they can be held in cold storage for several weeks if picked at the right time. A temperature of 41° F. is best for storage, said Mr. Krueger. If stored colder the flowers will fade, and if above that they will build up rather rapidly.

Mr. Krueger said he digs his bulbs early because they are freer from disease at that time. He uses phosphate fertilizer in mid-season, and builds up his soil with organic fertilizers.

Parasites Will Not Entirely Control Thrips

Mr. Noel Thompson of the State Entomology Department Madison, stated that thrip injury was not severe in any part of Wisconsin this year, and that the reason was hard to explain. Some growers think that the extreme heat killed the thrips either in the egg or younger stages and the parasite mentioned in another article on this page may have had some beneficial effects.

Mr. Thompson however is of the opinion that we should not rely upon parasites. These insects which will destroy thrips build up rapidly and become numerous when the thrip population is large. When they kill off the thrips however, the parasites also die from lack of food and then thrips can come back. Mr. Thompson thinks that thrips may winter over in the the soil if there is plenty of snow so the soil does not freeze as happened last year.

Use Naphthalene Flakes

Growers brought out that we should urge everyone who grows gladiolus to add naphthalene flakes to their bulbs this fall shortly after digging. If this is done it will help greatly to control thrips next year.

Some Fine Seedlings Exhibited

Dr. G. H. Scheer of Sheboygan exhibited a large number of seedlings of his own origination. Some of them unusually fine in color, in size of florets and length of spikes. He gave his experiences with some of the new varieties this year which will be published in a later issue.

He: "I'm thinking of asking some girl to marry me. What do you think of the idea?"

She: "It's a great idea, if you ask me."

A Natural Enemy of the Thrips

FOR the past two years it has been feared that gladiolus culture in the United States was doomed, due to the damage done by gladiolus thrips. While reasonably good control was possible with the common brown sugar and Paris green treatment, the fact that most gardeners did not spray meant constant reinfestation from outside sources, and the difficulty of keeping even a small planting free from thrips seemed too great an effort for the results obtained.

A new predatory bug has been observed this year and may prove to be a deadly natural enemy of this destructive insect, making artificial controls unnecessary. This insect has been identified by Dr. McMillan as Triphleps insidiosus, the common insidious flowerbug. To the uninitiated, this insect resembles the chinchbug, with which it often associates in the field. It is entirely beneficial, since it feeds on a wide range of insect species. It has proved to be the mortal enemy of the hop louse, the onion thrips, and many similar insects.

Only this morning I observed this insect attack aphids and gladiolus thrips. The victim is punctured by the sharp bill of the flowerbug, and is sucked dry. Two or three of these bloodthirsty creatures cleaned up a stalk of gladiolus in short order.

Leonard Vaughan of Chicago, who has just returned from California, where he studied the gladiolus plantings of that state, says that on the west coast, T. insidiosus has almost completely eliminated the thrips as an adverse factor.

This insect apparently winters over as an adult, and begins to lay eggs in spring when the average temperature reaches 60 degrees. Ie would be well, therefore, where the control of thrips is important, to avoid burning hedge rows in the fall, to delay spraying until after the middle of June, and to watch for the adult insects before spraying gladiolus plantings for thrips—R. M. Carleton, Western Springs, Ill., in Oct. 1 Horticulture.

NEXT GLADIOLUS SHOW MAY BE HELD AT OSHKOSH

BY VOTE of the Board of Directors of the Wisconsin Gladiolus Society at the meeting held at Oconomowoc on October 10, it was decided to hold the next Wisconsin Gladiolus Show at Oshkosh if the Board could make suitable arrangements and find a suitable hall in that city. It was felt that the show should go to the north central part of the state because it has not been there for a number of years. No doubt a very successful show can be held in this section because the Fox River Valley has a large number of gladiolus fans who will no doubt attend and exhibit.

CHRYSANTHEMUM SHOW AT MITCHELL PARK CONSERVATORY

AN invitation has been extended to all members of the Wisconsin Horticultural Society by Mr. C. W. Davidson, superintendent of Mitchell Park Conservatory, Milwaukee, to visit the annual chrysanthemum show at Mitchell Park which opened November first and continues throughout this month. Mr. Davidson states: "I believe we will have one of the finest shows we have ever had. Our collection now is probably the largest to be found anywhere. We have nearly 1300 named varieties of chrysanthemums. While not all varieties are on display at one time, all will be displayed some time during the show."

KOREAN CHERRY — A SHRUB PRODUCING FRUIT

A NEW ornamental shrub, the Korean cherry, also called Prunus Japonica, is being tested by the Minnesota Fruit Breeding Farm at Excelsior, and looks very promising. According to Prof. W. H. Alderman, Chief of the Horticulture Department, this variety was sent to the Station by Dr. Darrow of the U. S. Department of Agriculture some years ago. Seeds were planted and of course a great variation in the quality of the fruit is shown in the seedlings. Selections are now being made of the shrubs bearing the best quality fruit.

Some of the cherries are almost equal to our sour cherries such as Montmorency in quality. The shrub grows 3 to 5 feet tall and is ornamental, so can be used on the home grounds for ornamental planting. Some of the cherries were almost as large as the Early Richmond cherry. This appears to be a very promising new shrub, one that has utility as well as ornamental value.

Four Leading Hardy Perennials

for Fall Planting

Delphiniums, Gold Medal Hybrids. Grown in mixtures, light blue to darkest blue.

Columbine, Hybrids, mixed colors.

Platycodon, Balloon-flower, mostly blue, some white in mixture.

Pentstemon, Grandiflorus, Lavender Queen. Lavender color, flowers like Digitalis, but larger.

Prices—While they last, 2 of any 3, or six plants, 65c; 3 of each, or 12 plants, $1.25; 6 each, or 24 plants, $2.40.

With every order for 12, three Coreopsis (yellow daisy) free. All 2-year plants, postpaid. Catalog free.

SWEDBERG NURSERY

Battle Lake, Minnesota.

All-America Annuals Selected

SELECTION of the all-America annuals for 1937 has been announced by the chairman of the American Seed Trade Association committee, Mr. W. Ray Hastings, Atlanta, Ga.

The new annuals are the best of the new varieties tried out in 1936 and sufficient seed is available so that they can be recommended to the public.

New Marigold—Crown of Gold

This variety won the gold medal and the only one on which six or more judges registered first choice. It is the first marifold with odorless foliage and it has short curled, quilled petals in the center, and a collar of flat guard petals on the outside. The color is orange. The flowers are about 2½ inches across. It grows about 2½ feet tall, with sparse foliage, and is early blooming.

New Zinnia—Star Dust

Zinnia Star Dust received an award of merit. It is of the Fantasy type and a clear, golden yellow.

Snapdragon—Celestial

A new rust-resistant Antirrhinum, Celestial, won an award of merit. It is salmon rose colored, and a Majestic-type variety. It comes in a popular shade of pink and is suitable for cutting or outdoor growing.

A New Cornflower

Cornflower Jubilee Gem was also given an award of merit. It is a dwarf variety growing ten to fifteen feet tall and has double, cornflower-blue flowers.

Verbena Floradale Beauty was given special mention. It is of the Beauty of Oxford type, is large-flowered and comes in rose shades, with salmon rose predominating. By some it is considered superior to Beauty of Oxford.

Petunia Burgundy. Winner of special mention. It is large-flowered with 3½-inch blooms in shades of purple or carmine, with white throat and tube with violet veins.

Larkspur White King—Special Mention. A giant Imperial variety, growing four feet tall with large, double, pure white flowers. It is of upright-branching habit, similar to Carmine King.

Iceland Poppy Yellow Wonder. Special mention. This is a giant yellow variety, extra large, strong grower. The color is rich and worthy of attention.

Three varieties received mention. They are Marigold All-Double Striped, a dwarf French type, of brown and gold color. Snapdragon White Spire which has white flowers on good spikes, and Silver Lilac petunia, a dwarf, double, giant fringed, of which there is however insufficient seed this year.

We recommend these varieties for trial by our members. Our interest in gardening is increased if we try something new each year instead of keeping on with the old, though of course it does not mean that we should discontinue all other varieties, but rather that we should try in a small way some of the newer kinds each year.

L. H. Flint of United States Department of Agriculture found that lettuce seed which had been soaked in water and then exposed to illumination of a Mazda lamp or sunlight was very greatly stimulated in its germination. Further tests showed that the red, orange and yellow light rays were stimulating whereas violet, blue and green had a tendency to check germination. Such treated seeds which were dried were found to retain their extra vigor for several weeks.

TREAT GLADIOLUS BULBS WITH NAPTHALENE FLAKES

EVEN though thrips were not as bad on our gladiolus this year as during the past two years, this does not mean that they were not present, or that they might not ruin the flowers next year. It may be that the extreme heat of last July and August reduced the thrip population.

In digging the gladiolus bulbs this fall they should be treated with naphthalene flakes shortly after they are dug. A good way is to place a variety, if only a few of each are grown, in a paper bag. Add naphthalene flakes at the rate of about a tablespoonful to 25 bulbs. Roll down the bag tightly and place in winter storage. They may be left that way until almost spring, but the flakes should be removed before warm weather which is likely to injure the new growth.

The flakes will kill all old adult thrips and eggs so the bulbs will be clean next spring. Moth balls are made of naphthalene, but the flakes are better for this purpose.

JOURNEYS IN GARDENLAND

Station WHA, Madison

HOMEMAKER'S GARDEN CLUB OF THE AIR

Tuesdays, 10-10:45 a. m.

November 3. Through the Cranberry Marshes. Miss Stella Patton.

November 10. Gardens of the Orient. Mrs. F. C. Middleton.

November 24. Mystery Flowers of Woods and Meadow. Dorothy Miller, Rollin H. Denniston.

December 1. Tree Flowers of the Woods. Prof. Franz Aust.

December 8. The Romance of Herb and Garden Lore. Dorothy Miller.

December 15. Gardening for the Birds. Mrs. Leonard Wing.

December 22. Lighting Christmas Pathways. Sadie McNulty.

December 28. Studying Flowers via the Camera. J. E. Hansen, Bureau of Visual Instruction.

Autumn Is Jelly Time

LONG shelves loaded with jellies and preserves had their place beside the potato bins and apple barrels in the old fashioned cellar. Cellars aren't as important now as they used to be but fruit jellies are just as tempting as ever. The summer fruits — strawberries, raspberries and black berries are already in the jelly glasses and now is the time for apple jellies, jellies made from the juicy crisp Fall apples, rich in pectin to make a strong jelly and full of flavor.

Apple Jelly

Apple jelly may be made from parings and cores of tart apples used in other canning. Discard all faulty parts. Cover well with water and cook until fruit is quite done. Strain twice. Add ¾ cup sugar to 1 cup of boiling juice. When it reaches the jelly stage skim and pour at once into hot jelly glasses.

Apple Sauce Jelly

3 dozen apples
2 ounces stick cinnamon
Juice of 3 lemons
Sugar

Wash apples, cut in quarters. Put in kettle, add cold water to come nearly to top of apples. Cook slowly until apples are soft. Drain in a sterilized bag. Add lemon juice to extracted juice and cinnamon tied in cheesecloth. Boil twenty minutes and remove spice. Measure, add equal quantity of sugar and boil until syrup falls in heavy drops from spoon. Pour into hot jelly glasses.

Apple Mint Jelly

1 cup apple juice
1 cup mint leaves (packed tightly)
¾ cup sugar
1 cup boiling water

Pour boiling water over mint leaves and allow to steep one hour. Press the juice from the leaves and add 2 tablespoons of this extract to apple juice and sugar. Let boil until the syrup jellies. If desired, tint with green vegetable coloring. Pour into hot jelly glasses.

WINTER PROTECTION OF FOXGLOVES

LOVERS of foxgloves who do not have the time or facilities for wintering the plants in a coldframe may find my method helpful. Plants in the open suffer from ice and snow which rot the crowns. Yet too much protective covering over the crowns often smother the plants.

I place a berry basket over the smaller plants and, sometimes, over the center of larger ones, putting a stone on each basket to prevent its being carried away by the wind. A peach basket will serve for very large clumps, but as they are rather unsightly, I simply gather in the foliage of such plants and tie it loosely with raffia, much as one does in blanching cauliflower. The centers of the plants will be found somewhat bleached when the covering is removed, but they soon regain their rich green covering.

I have seldom lost a plant by either method and have carried over large clumps for several successive years. As the plants usually do not winterkill until late February or early March, protection need not be given until late in the season before the heavy snows.—By Harriet Pulver, Torrington, Conn., in October 1 Horticulture.

Lady (phoning music store proprietor: "I have just had my radio installed and it is working fine, but the orchestra in Cincinnati is playing too fast. Is there any way that I can slow it down?"

CAN YOU ANSWER THESE QUESTIONS?

HERE are a few questions which will no doubt evoke some discussion at your garden club meeting.

1. Does the sap of the maple tree, used for making maple syrup in the spring, come up from the roots, or down from the branches?

2. We wound a tree by cutting off a branch and it heals over. Does the material for healing come from the roots?

3. If about six inches of bark is removed from a tree all around the trunk in the spring, wil. the tree die the first year? If not, why?

4. If we plant one thousand apple seeds taken from Wealthy apples, will the trees that grow from these seeds produce Wealthy apples? If not, why?

5. A gardener has two bittersweet vines. Both are healthy and growing well. One produces berries in large numbers each year and the other produces none. Why?

6. Nurseryman receives an order for one thousand McIntosh apple trees. He cannot buy them from other nurseries so he must grow them himself. How does he proceed?

If there is any disagreement as to the correct answers to these questions, the Wisconsin Horticultural Society will be glad to give the answers on request.

SAVE
YOUR TREES
Pruning — Cavity Treatment
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WISCONSIN TREE SERVICE
2333 N. Murray Ave. Milwaukee, Wis.
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STATE GARDEN CLUB FEDERATION NEWS

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Mrs. Chas. Jahr, Hon. President
Elkhorn
H. J. Rahmlow, Cor. Secretary
Madison
Mrs. E. A. St. Clair, Rec. Secretary
2418 N. 65th St., Wauwatosa
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Thiensville.
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Ripon

CONVENTION PROGRAM MAKES A HIT

"THE best program we have ever had," was the enthusiastic comment heard on every side at the close of the 9th annual convention of the Wisconsin Garden Club Federation at the Loraine Hotel, Mdison, in October. From beginning to end the program was packed with excellent and educational topics.

Prof. O. I. Gregg of Michigan introduced a new feature which surprised everyone. Using a large piece of cloth on a frame for a background, he built up a home grounds using pieces of flannel on which had been painted trees, shrubs and flowers. By simply laying the piece of painted flannel on the cloth background it stayed in place, and he showed how these ornamentals should be located in the garden around the house to make a beautiful picture.

Chemicals for Cut Flowers

Prof. C. E. Wildon of Michigan talked on practical things about the garden. He mentioned that at Michigan they have tested many kinds of chemicals to prolong the life of cut flowers including aspirin, and so far have not found a single thing that will do any good. Some chemicals even shorten the lasting qualities of the flowers. He even doubted if burning or sticking the ends of stems of dahlias in hot water had any beneficial effect.

Mrs. Leonard Wing of Madison gave an illustrated talk on highway beautification, emphasizing the need for better public sentiment so as to get rid of ugly

filling stations and so that ugly cuts along the highways might be seeded and planted. She said that we will probably never be able to get entirely rid of the billboards, and that this might not even be desirable, but that the use of billboards should be restricted or zoned so as not to mar the beauty of the landscape.

At the banquet Mr. Chas. Jahr gave a very interesting account of her visit to European gardens.

Mrs. E. L. Sevringhaus, president of the West Side Garden Club, Madison, read a number of flower poems by L. J. Correthers of Rockford, while Mrs. Dorothy Miller of the State Historical Society told some interesting things about folk lore. Mrs. C. A. Sakrison, Madison, sang beautifully. The banquet closed with three reels of talking movies from the Bureau of Visual Instruction, flowers at work, roots at work, and rural scenes in Vienna.

Mrs. Wm. Bowers, former president of the Federation, gave an excellent talk on new tulips and how to grow them. Miss Margaret March-Mount of the Federal Forestry Department gave an interesting talk at Mrs. Frank Quimby's luncheon for those interested in junior work.

One of the outstanding features of the entire program was a talk on conservation and the showing of colored films on wild animals in northern Wisconsin by Sam Campbell of Three Lakes.

The meeting closed with a talk by Mrs. Ruth Randolph on color harmony in flower arrangement, and the preview of the new colored slides on flower arrangement prepared by the Bureau of Visual Instruction. The lecture was given by Mrs. B. W. Wells and Mrs. Sam Post of Madison.

Summer Tour to Parks Discussed

At the Board of Managers and business meeting of the Federation, the question of the summer meeting was discussed and it was voted to ask the Board to work out such a program. This might include a two-day trip to some important park or beauty spot in Wisconsin where geologists or lecturers might conduct the group on tours of exploration and sight-seeing with overnight camping in a tourist camp; in fact, a regular outdoor affair. If held on a Saturday and Sunday it might be a very fine vacation trip.

NEW LILY VERY POPULAR

THE new lily Philippinense formosanum recommended for trial by our Plant Testing Committee last year is creating a bit of excitement among garden club members. Those who tried it this year are quite thrilled with it. It blossems late—in September, and the flowers are unusually large, a beautiful white, and from good sized bulbs a large number of flowers are produced on each stem.

NEW OFFICERS ELECTED

MRS. Chester Thomas, Thiensville, first vice-president of the Federation, was elected president to succeed Mrs. E. R. Durgin of Racine, who becomes the honorary president.

Mrs. J. M. Johnson of Ripon, second vice-president for the past year, was elected first vice-president, and Mrs. Robert Alder of Elkhorn was elected second vice-president. Mrs. E. A. St. Clair of Wauwatosa was retained as recording secretary-treasurer, and H. J. Rahmlow, secretary of the Horticultural Society, remains corresponding secretary as provided in the constitution.

One could not help but notice the promptness and efficiency with which the program and business meetings were conducted this year. Mrs. Durgin as president has been a most efficient presiding officer.

Mrs. Chester Thomas, the new president, is well known among garden club members as she is one of the outstanding exhibitors of flowers in the state, her arrangements winning prizes wherever shown.

Mrs. J. M. Johnson of Ripon has been chairman of the Fox River Valley District, and Mrs. Robert Alder has been first vice-chairman of the Southern Wisconsin district of the Federation. They have therefore had considerable experience in organization work, flower shows, and in conducting meetings. Mrs. Alder has given a number of talks on gardens and native flowers of Switzerland.

Endorse Election By Mail

At the business meeting of the Federation the proposed change in the constitution which will be voted at the annual meeting of the Wisconsin Horticultural Society this fall to elect officers of the Society by mail, was unanimously endorsed at the annual business meeting of the Federation.

What the Officers Thought of the Convention

ABOUT a week after the convention, when the officers had recovered from the strain, each was asked to make a short statement as to their opinion about the meeting. Here are some of their statements:

Honorary President Mrs. E. R. Durgin, Racine. "It seemed to be the unanimous opinion of all that the program for our 1936 convention was one of the best we have ever had. With such an excellent program there is some question as to why the attendance wasn't a great deal larger.

"Our thanks to those who attended for their promptness at the various sessions, and for their words of praise. They mean much to those who are responsible for the convention."

Mrs. Chester Thomas, Thiensville, new president. "It was a grand convention. I was deeply impressed by the manner in which Prof. Aust paid tribute to Mrs. Emilie Roloff for her accomplishments in gardening.

"As a member of the committee calling on Mrs. Roloff to present the honorary recognition certificate of the Horticultural Society, and becoming acquainted with this dear woman who has done so much to inspire others with a love for gardening, I will remember the visit for a long time as a touching and beautiful occasion."

Mrs. J. Martin Johnson, Ripon, new first vice-president. "I was impressed with the great enthusiasm everyone expressed in regard to the convention program. The speakers gave us what we could carry home and use in connection with our own problems. After Mr. Sam Campbell's talk and movies I am sure no one will do any hunting. I have heard reports from two clubs recently and they felt it was the best convention we have ever had. We missed the fruit growers attending past conventions."

Mrs. E. A. St. Clair, Wauwatosa, recording secretary-treasurer. "If only every child could have heard Mr. Campbell and seen his movies there would be fewer huntsmen. Mrs. Jahr's talk on European gardens was friendly as well as instructive. Professors Gregg and Wildon of Michigan gave us much of value for our gardens. I wish Mr. Correthers could have heard his poems read by Mrs. E. L. Sevringhaus."

Mrs. Chas. Jahr, Elkhorn, past honorary president. "I always look forward to the friendly and honest-to-goodness greetings of my garden friends at the fall convention and I had such a good time at the last one. The interesting program surely had something for everyone."

Mrs. Robert Alder, Elkhorn, newly elected second vice-president, writes: "The convention as a whole was a great success. The fine reports of the garden club presidents and district chairmen proved that there is a great deal of work done during the year. I do think the Federation has a right to be proud of its accomplishments during the past year.

"Mrs. Quimby's enthusiasm for junior garden club work and reforestation took me off my feet. Her fine suggestions were inspiring.

"The honorary recognition presentation to Mrs. Roloff won many a gardener's heart."

"Mr. Campbell's words and pictures were so beautiful they will remain in my memory forever. Mrs. Leonard Wing's suggestions for landscaping our highways and Mrs. Wm. Bowers' talk on planting old and new tulips were grand."

Films Available for Garden Club Programs

THREE excellent motion picture films, two of them on plant life relating to the functions of flowers and the functions of roots of plants, and a rural scene in Vienna were shown at the close of the banquet at the annual convention of the Federation. These films are available from the Bureau of Visual Instruction, University of Wisconsin, Madison.

Both silent and sound films are available. In every community projectors are now owned by individuals or schools and silent films at least could be shown at garden club meetings. To cover expenses, if the club treasury is not at high tide, we suggest passing the hat to collect enough money to pay the cost of renting the films.

Films From Wisconsin Conservation Department

In addition to those available from the Bureau of Visual Instruction, the Wisconsin Conservation Department, State Capitol, Madison, has some very interesting films. A list will be sent on application.

The list includes such films as the following:: New Forests on Idle Acres; Three Rivers of Wisconsin; Wild Geese; Game Birds of Many Nations (colored). The above are in 16 mm films. There are some on 35 mm film including Amik the Beaver; Horicon Marsh; Moon Lake Refuge; Out-of-doors in Wisconsin; Selective Logging; Wild Life in Land O' Lakes; Winter Logging in Wisconsin; Wisconsin Water Fowl.

Colored Lantern Slides

The Conservation Commission also has a number of sets of colored lantern slides including sets on spring wild flowers, early summer flowers, mid-summer flowers, autumn wild flowers, identification of forest trees in Wisconsin, old and new forests in northern Wisconsin, Wisconsin's future forest, Wisconsin State Parks.

These films and slides are free except for payment of transportation both ways. The 16mm films will be sent by mail if 15c is sent to pay postage. Otherwise all ships are express collect.

Reserve slides and films early for your meeting.

THE FLOWER SHOW AT THE CONVENTION

TWELVE shadow boxes were exhibited at the annual convention of the Federation, all of them very interesting, some of them outstanding as flower pictures. Those who have seen flower shows in other states are of the opinion that Wisconsin garden club members need not take second place to any group in the manner of arrangement of flowers.

Due to the high standard set at this show, only the very best received a blue ribbon.

Shadow Boxes

Harvest scene using fruit or vegetables, or both. West Side Garden Club, Madison, blue or excellent; Elm Grove Garden Club, pink or fair.

Autumn picture using any type of horticultural material excepting fruit or vegetables. City Club, Milwaukee, blue or excellent; Madison Garden Club, blue or excellent; City Club, Milwaukee, red or very good; West Side Garden Club, Madison, white or good.

Arrangement of hardy garden grown chrysanthemums. Sum-Mer-Del Garden Club, white or good.

Dinner Tables

Thanksgiving dinner table. City Club, Milwaukee, blue or excellent; West Side Garden Club, Madison, red or very good; Madison Garden Club, pink or fair.

Artistic Arrangements

Arrangement any type of horticultural material appropriate for Thanksgiving. Sum-Mer-Del Garden Club, blue or excellent; West Side Garden Club, red or very good.

Arrangement of hardy grown chrysanthemums. Blue Mound Garden Club, Wauwatosa, blue or excellent; Madison Garden Club, red or very good.

SLIDES ON FLOWER ARRANGEMENT READY

A BEAUTIFU new set of colored slides on flower arrangement is now ready for Wisconsin garden clubs, and anyone else who may wish to see them. A fine lecture on flower arrangement accompanies the slides.

A special committee of the Federation consisting of Mrs. B. W. Wells and Mrs. Sam Post, Madison, has been putting in many long hours this past summer arranging flowers and having them photographed and colored. This work was done by the Bureau of Visual Instruction of the Extension Division, University of Wisconsin, to whom orders for the slides must be sent. The rental price for the slides is $1.00, plus transportation.

There are 25 slides in the set covering arrangements of all kinds using flowers of spring, summer and fall. A preview of some of the slides was shown at the convention and met with the hearty approval of everyone present.

Place your order well in advance of the meeting.

MADISON DISTRICT HOLDS MEETING

FORTY-SEVEN members of the Madison District of the Wisconsin Garden Club Federation attended a luncheon meeting at Madison on October 19. An interesting program consisting of a talk by Mrs. S. Hanks on "The Garden at Mount Vernon," and movies taken in Europe presented by Mrs. B. H. Hibbard were presented.

Officers for the coming year elected at the meeting are as follows: Chairman, Mrs. Robt. E. Kartack, Baraboo; Vice-chairman, Mrs. M. H. Willing, Madison; Secretary-Treasurer, Mrs. H. S. Bostock, Madison.

Radio is still in its infancy. We can tell that by the noise it emits.

Impressions of European Gardens

By. Mrs. Chas. Jahr

Part 2.

Holland

We will just peek into the tulip country of Holland. The men are busy lifting the tulip bulbs. The fields are rather small and surrounded by hedges. Down through them are strips of growing grain to keep the sandy soil from shifting. Here is a bulb storage house. All the windows are open and we can see the bulbs drying on wooden racks.

Versailles, famous for the most extravagant court life ever known, is surrounded by gardens most beautiful. There are marvelous vistas of fountains, artificial lakes, great broad avenues between high straight trees. Close to the palace are many beautifully designed formal flower beds.

In the heart of the City of Paris we find the Tuileries. Many beds of flowers, fountains, artificial ponds, countless statues and long walks now shaded by grand old trees make it unique in beauty and tradition.

From the Tuilerie gardens we go to the air port, where Lindy landed, look back as we head for England. There is the Eifel Tower. Down below are the ripened grain fields and the green pastures. See that lovely estate and the garden built about the huge pool which is somewhat circular in shape.

England

Kensington gardens are the gardens at the birthplace of Queen Victoria and join Hyde Park. The Kew gardens were also at one time the gardens of a Royal residence. Whe I tell you that these gardens contain more than two hundred acres each you can realize that a complete description is impossible. In Kew gardens grow almost every known tree, plant, shrub and flower tastefully laid out and carefully labeled. Here I saw growing a wisteria vine that had been planted before America was settled by the Pilgrims. As you would expect, both of these gardens are like parks with many open spaces. Nowhere do you see the sign "Keep Off the Grass." The grass looks like velvet and one feels as though he shouldn't walk on it until he sees the children romping about and the older people strolling everywhere.

The flowers in all the gardens and parks at this time of the year are much the same as ours. But the climate of England is much more conducive to luxuriant growth and bloom.

London does not have many big apartments, but there are long, long rows of closely built homes. So every family has a tiny hedged in or walled in garden in front of its home and a long narrow one at the rear. The tiny gardens are generally formal in design but not as to planting. Many of them do not have any grass but just flowers and paths of gravel.

As we drive through the smaller villages we find the same thing true, so the entire streets are garden lined. We pass many buddleia bushes that tower over the hedges. One graceful bush we see so often is evidently a fuchia, for it is covered with tiny red fuchia flowers.

In Canterbury

We must not start for home without a cup of tea. Here in Canterbury is a quaint century old thatched two story home. For you who love antiques, this is a delightful place to get your tea and scones. The rest of us will start for the old Oast house. In case you don't know what an Oast house is I'll tell you, it is a silo like house used for drying hops.

We are a short distance out of Canterbury, the birthplace of the English speaking race. Look back, the shower has passed and there over the tree tops of Canterbury and the spires of Canterbury Cathedral is a beautiful rainbow.

Windmere Manor

Well let's hurry on. Here is Windmere Manor. We drive in the broad roadway, pass the artificial lake and stop just the other side of the natural hedge of hawthorne, follow the path through the gate in the brick wall and mount the steps to what was formerly the barn and Oast house. We won't stop in the lower tea rooms but will go up into the top of the Oast house. Careful, you don't bump your heads as you sit down. Sit by one of the windows so you can look out and see the gardens as you sip your tea. Here is another of these velvety lawns flanked by a perennial border on one side. Down through the middle of it runs a path with long rectangular beds of annuals. Clear at the end is a formal hedge of holly. Step through the opening. Running parallel with the holly hedge is a high brick wall leaving another long narrow garden of perennials. See those gorgeous tritomas, and right back of them a fig tree. Anemones, pink, lavender and white, are more than five feet tall and covered with bloom. Ivy in perfect condition, Virginia creeper that is turning slightly, and climbing rose bushes, trained fruit trees and trained box wood cover the brick wall. Go back through the pathways, through the natural cedar hedge to the manor. Here is a long bed of dahlias. Many gorgeous heads welcome us. Bordering the show type is a long row of the annual variety. Step into the doorway of the manor and look down the wide velvety lawn. Here we see hugh beech, chestnut, oak, sycamore and pine trees producing that most artistic and interesting effect so common in England, blending with the dark lebanon cedars, yew trees, holly trees both green and varigated, glossy boxwood and flowering shrubbery.

They tell us the time to really enjoy this picture is in spring.

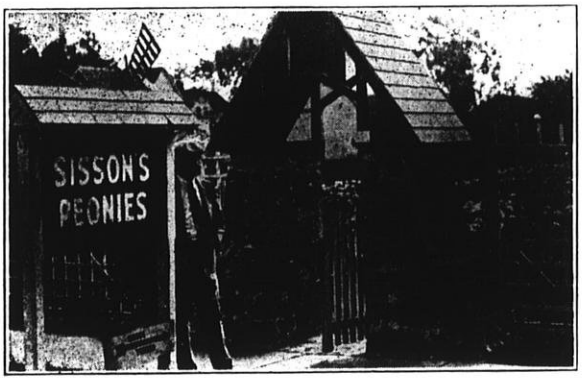
THE SPEAKERS FUND

THE excellent program presented at the annual convention was possible only because of the contributions of member clubs to the speakers fund.

In addition to the contribution given by garden clubs as listed below the Wisconsin Horticultural Society placed in their budget this year $20 for the summer convention and $25 for the annual convention to help pay the cost of speakers, as well as $25 for premiums for the flower show at the convention.

The following garden clubs have contributed the amounts stated up to the time we go to press:

Baraboo, $1; Cambridge, $1; City Club of Milwaukee, $2; Fox Point, $1; Hillcrest, $2; La Belle, Oconomowoc, $1; Ledgeview, Fond du Lac, $1; Madison, $3; Menomonee Falls, $1; Milwaukee P. O. Emp., $2; Oakfield, $1; Oshkosh H. S., $1; Plymouth, $2; Racine, $5; Ripon, $1; Shopiere, $1; Sum-Mer-Del, $1; Superior, $1; Waukesha Town, $1; Wausau, $1; Wisconsin Rapids, $1; Yard & Garden Club, Ripon, $2; Ceresco, Ripon, $1; Juneau Heights, $1; Whitewater, $1; Hawthorne, $1; Watertown, $1; Home & Garden, Ripon, $1; Omro Garden Club, $1; Wauwatosa, $5; Fort Atkinson, $2.



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DECEMBER, 1936

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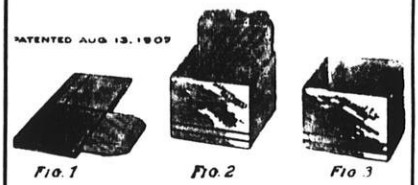

Fig. 1 Fig. 2 Fig. 3

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Wisconsin Horticulture

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TABLE OF CONTENTS

	Page
Small Wood Method of Pruning	75
Importance of Honey Bees	77
In the Orchard	78
The Apple Crop	79
Mulch in the Orchard	79
How Strawberries Grow	80
What Is Strawberry Black Root	81
Horticultural News	82
The Hydraulic Ram	82
Convention Fruit Show	83
Cracking of Tomatoes	83
Editorials	84
Constitution Amended	85
About the Home and Garden	86
Lilium Formosanum	87
Hardy Mums Tested	87
Experience With New Glads	88
Christmas Decoration Contests	90
Racine Club Plans Contest	91
Garden Club Federation News	92
How the Maple Tree Works	93
Garden Gossip	94

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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.

The Small Wood Method of Pruning

H. D. Hootman
Michigan Horticultural Society

THE small wood or "Thin Wood" method of pruning is based upon branch performance studies by G. L. Ricks and H. P. Gaston of the Michigan Agricultural Experiment Station of East Lansing, Michigan. This method of pruning bearing apple trees is discussed fully in Special Bulletin No. 265.

Observations and records were made over a three-year period, 1932, '33, and '34. It was thought that considerable differences might exist in the productiveness of the different types of wood which occur in bearing apple trees.

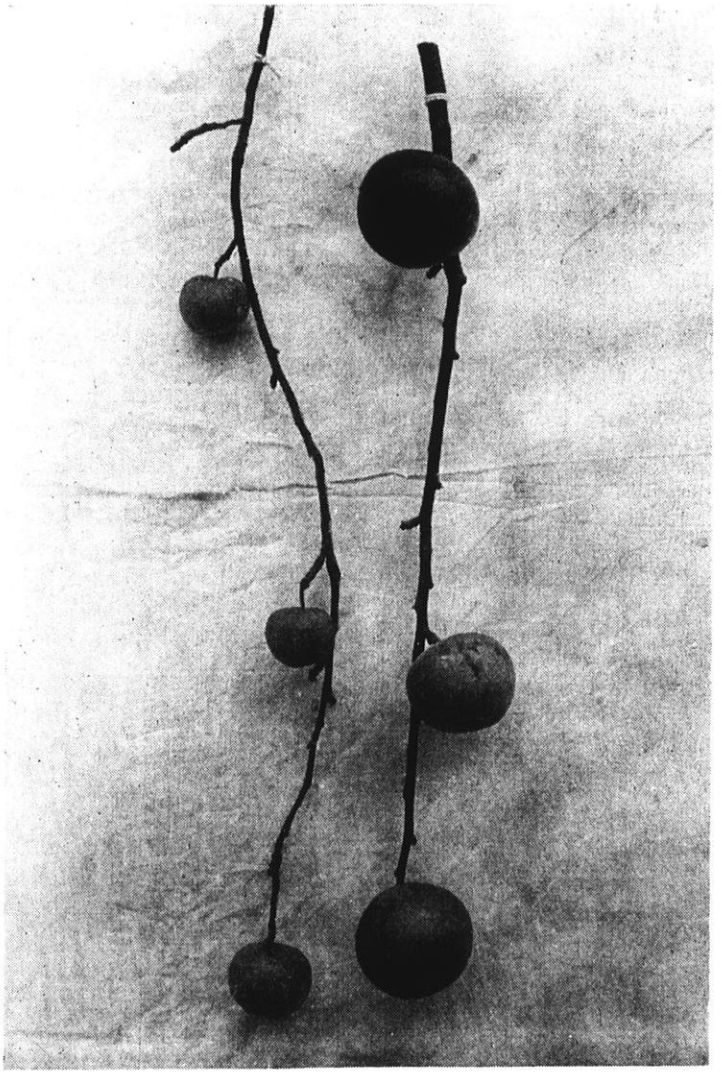
Branches were classified on the basis of the diameter of the branch at the point where the wood was four years old. Three classifications were made of all fruit bearing branches.

"Thin" wood branches were those whose four-year-old wood was less than 1/4 inches in diameter.

"Intermediate" branches were those whose four-year old wood was more than 1/4 to 3/8 inches in diameter.

"Thick" branches were those whose four-year-old wood was more than 3/8 inches in diameter.

In making these branch studies, records were taken from over 2,500 individual branches. At some time during the grow-



Pruning to Reduce the Number of Small Apples. The Thin Wood On Left Should Be Removed.

ing season a number of representative trees of a given variety were chosen in each of several orchards. From 12 to 14 branches of each of the three branch classes were selected, at random, and tagged in 1932, '33, and '34. Trees of eight standard varieties were included in the study.

At harvest time the apples from each of the previously marked branches were picked and the size and color of each apple was recorded together with their total number and aggregate weight in ounces. In addition to the fruit records the class, age and length of each of the branches were recorded.

The significant facts brought out by these branch performances studies were: First, the size of the individual apples tends to be directly proportionate to the diameter of the branches upon which they are borne.

Second, the number of apples borne by a given branch tends to be directly proportional to its diameter.

Third, the amount and shade of color present on the apples produced by a given branch tends to be directly proportional to the diameter of that branch.

It was found that in the average bearing tree 49 percent of the crop is produced by the "top", 36 percent by the "outside", and 15 percent by the "inside". Further, it was found that more than 60 percent of the total **returns** were derived from apples produced by the "top", 33 percent from apples produced by the "outside" and only 7 percent of the total returns from apples produced on the "inside".

These related facts were made the basis of a large number of pruning trials and resulted in the development of the "Thin Wood" method of pruning. This method of pruning consists in removing from the tree the "thin" relatively unproductive branches. These branches have the following characteristics:

Four Rules for "Thin Wood" Pruning

First, the four-year-old wood of these branches is less than ¼ inches in diameter.

Second, it makes comparatively short terminal growth.

Third, it tends to grow in a downward direction.

Fourth, it is most abundantly found in the lower and inner part of the tree.

The amount and character of wood to be removed can be determined by observing the amount and distribution of inferior fruit produced.

Benefits of "Thin Wood" Pruning

This method of pruning results in a decrease in the yield of inferior apples. It increases the average size and improves the color. It requires less time and is less costly than conventional methods in common use. It makes spraying easier and more effective. It makes harvesting easier and less expensive. It reduces sun scald on the scaffold branches compared to conventional methods. It results in fewer water sprouts and does not throw young trees out of bearing as other methods may do. It is adapted to bearing trees of all ages.

It is estimated that there are 14,000,000 square feet of area (about 350 acres) devoted to mushrooms in the United States.

COMMERCIAL EXHIBIT AT CONVENTION

THE Wisconsin Horticultural Society greatly appreciates the cooperation of a number of commercial firms who exhibited their products and had a representative in attendance at the annual convention and fruit show held at Sturgeon Bay on November 4-5. The following firms cooperated:

American Cyanamid Company, New York; Ansbacher-Siegle Corporation, New York; John Bean Manufacturing Company, Lansing, Michigan; Friend Manufacturing Company, South Bend, Indiana; General Chemical Company, New York; Grasselli Chemical Company, Cleveland, Ohio; Hardie Manufacturing Company, Hudson, Michigan; Niagara Sprayer & Chemical Co., Middleport, N. Y.; Pioneer Paper Stock Company, Chicago, Illinois.

A prune is a plum that will dry without fermenting.

FIGURES OF SUM

"John, dear, I'm to be in amateur theatricals. What will people say when I wear tights?"

"They'll probably say I married you for your money."

Importance of Honey Bees In Fruit Yields

H. D. Hootman, Michigan

Part I

IT is impossible to over estimate the importance of a knowledge of the pollination of fruit bloom. Without this knowledge the selection of varieties for planting and their arrangement in the orchard cannot be intelligently practiced. The cultivation of self-sterile varieties must constantly be attended by disappointment and loss when provision has not been made for cross-pollination to take place.

Many fruit growers have entertained a hazy impression that pollen is carried from one blossom to another or from one part of an orchard to another by the wind. This is not the case. Fruit pollen is moist. It is seldom, if ever, blown about by wind. Pollen transfer is carried on mainly by insects, especially honey-bees.

A Michigan fruit grower once said to me, "I never see any bees in my orchard and I always have apples". He would not be convinced that insects were responsible for the transfer of pollen until he had erected at his own expense an 18 foot cage around one of the McIntosh trees in his orchard. This cage was covered with muslin during the blossoming period to exclude all insects. He anxiously waited until the muslin could be removed to note the results. Just eight apples "set upon the tree within the cage; while other trees of equal size in the same row harvested from 12 to 15 bushels per tree. This grower now realized the importance of bees and has provided for 50 colonies to be placed in his orchard.

Requirements for Fruit Setting

In order to have a blossom develop into a fruit it is necessary that pollen come in contact with the sticky stigma. Here it germinates and grows down the pollen tube until it reaches and fuses with the ovary of the blossom which becomes fertilized. The young fruits when first formed have but a slight hold upon life. Unfavorable influences, no matter how slight, may cause them to perish. Fertilization gives the tiny fruit life and enables it to hold upon the parent plant through nourishment drawn to suplpy the developing embryo in the seeds. Thus complete fertilization of the blossoms usually betters the chances of the fruit sticking on the spur and developing instead of falling to the ground during the "June drop". When blossom fertilization takes place only on one side, with the accompanying development of seeds, a misshaped fruit often results.

Some varieties of fruit do not "set" well when pollinated with their own pollen. These varieties are termed "self-sterile". In such cases pollen of other varieties must be available to that cross-pollination can take place if profitable crops are to be harvested. There are other varieties that set fairly well when pollinated with their own pollen. Such varieties are "self-fertile". However, it has been observed that even self-fertile varieties produce better crops when interplanting is practiced.

Bees Excluded From Cherries

Several years ago, a wire screen cage was built around a Montmorency cherry tree in the Michigan State College orchard at East Lansing, to exclude all insects during the blossoming season. A severe freeze during April injured many of the cherry buds so that their development into fruit was impossible.

One warm sunny day during blossoming a man entered the cage and with a small brush pollinated the live blossoms on a single large limb—doing the work of the bee—distributing the pollen from the stamens to the sticky stigma. Forty-nine percent of the live blossoms on the hand pollinated limb set fruit, while the balance of the blossoms on the tree, subject only to wind pollination, set four percent of their live blossoms.

The sour cherry also appears to be a good honey plant. Honeybees have shown an inclination to work cherry blossoms in preference to apples. Although the Montmorency sour cherry is considered self-fertile — or capable of producing fruit when fertilized with the pollen produced on its own stamens—it has been demonstrated that sour cherry yields can be measurably increased by distributing colonies of bees through cherry orchards during the blossoming season.

(To be continued in next issue)

In the Orchard

JAP. WALNUT PROVES FAST GROWER IN CONNECTICUT TESTS

JAPANESE walnuts (Juglans sieboldiana) have far outdistanced their English cousins in a six-year race at the Agricultural Experiment Station farm at Mt. Carmel, Conn. Several of the Oriental hybrids were planted beside the English variety. They grew with unbelievable rapidity and today are thriving specimens almost 15 feet tall, Dr. Ralph Singleton reports. They are not only hardy, withstanding the severe temperatures of the past two winters, but they are fine shade trees, and produce good nuts.

English trees planted the same season have reached a height of about six feet.

The nuts of the Japanese variety resemble the English, but are half the size. They are smooth - shelled, heart - shaped, and the meats may be taken out in two sections. The trees at Mt. Carmel bore a crop after four years. — From American Hortigraphs and Agronomic Review.

FALL FERTILIZATION REDUCES WINTER INJURY IN OHIO

"WE have two five-acre apple orchards, with several varieties in each one. One has had fall application of cyanamid for four years. This orchard really has the poorest location. The other orchard has been spring-treated with another form of nitrogen. After the past winter, the most severe winter in recent years, you will find very little winter injury in the fall-treated orchard, and quite a bit in the other one."—From talk of Dr. J. H. Gourley, Ohio Experiment Station, at the Annual Orchard Day meeting.

NEW METHOD FOR ROOTING GRAPE CUTTINGS IS SUCCESSFUL

A NEW method of starting grape cuttings in a clay loam or other heavy soil has been used successfully by Dr. W. P. Duruz, Oregon Experiment Station, on an experimental grape planting at Oregon State College. Ordinarily it is impractical to plant the calloused grape cuttings directly into such soil, which is common in many parts of Oregon.

In this planting, a crow bar was used to make holes where the grapes were to be set, and the calloused cutting was held in the center of this hole while ordinary sand was sifted directly around it. By having the sand instead of clay next to the cutting, much better rooting took place because of drainage and areation supplied by the sand. Almost a 100 per cent stand was obtained by this method.

The whole process of propagating grapes is described by Dr. Duruz in a mimeographed circular, issued by the O. S. C. experiment station. He says that probably no other fruit is more easily grown than the grape, and that it can be readily propagated requires little space, and can be used as an ornamental as well as a fruit bearing vine. — From American Hortigraphs and Agronomic Review.

GOOD BLACK WALNUT

MR. Fred Kettler, Platteville, Wisconsin, has a small supply of excellent black walnut seeds available for sale to anyone wishing to plant walnuts for growing trees.

Mr. Kettler has won several prizes at our nut shows for his high quality walnuts. He also has some two-year old seedlings available.

WINTER INJURY TAKES ITS TOLL OF FRUIT TREES

MANY apple and cherry trees may again be lost this coming winter throughout the northern states. It is surprising to see the number of trees which are killed in some orchards while in a nearby orchard the trees may be in excellent condition without any loss.

The reason is that a severe winter may kill weakened trees or trees in poor condition. Mouse injury, borers, weakening from fire blight, loss of leaves due to scab or in case of cherries, from leaf spot, or any factor which weakens the condition of the tree makes it subject to winter injury. Poor soil, lack of fertilizers, pasturing the orchard heavily, and dry soils in late summer and fall are contributing causes.

It has been shown that nitrogen fertilizer applied in the fall keeps the leaves on the trees much longer and keeps them in a more vigorous condition.

PROPOSE ANOTHER COMMERCIAL GROWERS CONVENTION AT STURGEON BAY

SEVERAL fruit growers have expressed the desire that the Wisconsin Horticultural Society sponsor another convention for commercial fruit growers at Sturgeon Bay in the fall of 1937. At least four of the commercial exhibitors of fruit growers machinery and supplies have stated that they will be glad to exhibit again if such a meeting is held.

While the attendance at the very educational progroms at the convention at Sturgeon Bay on November 4-5 were not as large as was anticipated due to the large number of growers in that section of the state, never-

theless there were over 125 registrations.

The combination of an educational program on fruit growing, apple exhibits, and an industrial show should prove sufficiently popular to bring fruit growers to the meeting from all parts of the state.

The Wisconsin Horticultural Society would like the opinion of growers as to the feasibility of this plan.

THE APPLE CROP

THE State and Federal Crop Reporting service estimates the Wisconsin apple crop on November 1st at 1,100,000 bushels.

In 1935 the November estimate was 2,520,000. The five-year average is 1,801,000 bushels.

The cherry crop was estimated at 1,700 tons compared to 6,050 tons in 1935, an average of 6,583 tons, for five years, 1928-32.

The cabbage crop is very short this year being estimated at 91,800 tons as compared to 138,500 tons in 1935, and a five-year average of 142,700 tons.

There was a big crop of onions, 408,000 bushels, as compared to 322,000 bushels last year.

Potatoes recovered somewhat from the drought of mid-summer. The crop is estimated this year at 20,240,000 bushels, compared to 23,534,000 last year.

TOMATOES SET IN POST HOLES THRIVE DESPITE DRY WEATHER

BY setting tomato plants in post holes, with the tops almost a foot below the ground, Mrs. James Mizer, of near Boise City, Cimarron County, Okla., succeeded in securing thrifty plants despite dry weather, according to the Oklahoma Agricultural News Service. The deep planting allows the tomatoes to make better root growth, Mrs. Mizer reports.—From American Hortigraphs.

Mulch In the Orchard

IN the vicinity of Bayfield orchards may be found on a type of coarse, sandy soil. In earlier days these orchards were cultivated with the result that the humus has practically entirely disappeared. The trees have not been making a very good growth and even though 20 years old are not large. Quack grass growing between the tree rows often did not reach more than 6 or 8 inches in height. This allows the sun to shine on the sandy soil which together with the wind, was very drying.

On the advice of the editor several growers applied ammonium sulphate at the rate of 300 to 400 pounds per acre between the tree rows and also under the trees to within three feet of the tree trunks. This gave a vigorous growth of quack grass and some clover which was not cut, but allowed to go down as a mulch.

This year several such orchards were examined and where the trees were large and provided some shade, it was found that even during a very dry season the soil was fairly moist where it had been shaded by the trees and by a layer of about an inch of grass mulch. With this system it is probably necessary however, to make an annual application of nitrogen fertilizer. A fall application has been recommended. Lime might also prove beneficial to provide a good growth of grass between the rows.

Cyanamid might be equally as beneficial as any other nitrogen fertilizer because it contains about 70% of lime. There is little danger of this sandy soil becoming sod bound.

Bartlett is still the great money pear, not only in total value but also in price per unit. Anjou make a surprisingly good comparative showing, with Bose coming third, followed by Comice, Winter Nellis and Hardy.

In the Berry Patch

HOW STRAWBERRIES GROW

THE roots of the strawberry plant spread out close to the surface of the soil and do not penetrate very deeply. Therefore the soil should be reasonably rich in organic matter in order to absorb and hold moisture well. The everbearing varieties do better on soils richer than those necessary for spring bearing varieties.

In studies made of the roots and habits of the strawberry plant in England, it was found that 90% of the total root system of the strawberry plant is present in the uppermost six inches of the soil. Seventy-three percent was found in the first three inches. However there are roots going downward penetrating the first foot and even the second foot of soil. It is important to have a good soil type which will allow as many roots as possible to go down deeply in order that the plants may survive a dry period especially during the picking season. The medium light soils seem to do best for strawberries.

Acid Soils

The strawberry has not been found to be particularly sensitive to soil reaction. In Michigan both wild and cultivated plants were found growing vigorously on acid, neutral and alkaline soils. In most cases the soil was somewhat acid in reaction and in North Carolina slightly acid soils testing pH 5.8 to 6.5 was the most desirable. However, strong acidity such as pH 4 was found to be harmful.

Humus

Since medium light soils are used a great deal in Wisconsin for strawberries, and since such soils lose their humus more rapidly than heavier soils, the problem of a humus suply for strawberries becomes very important. This is especially true because the majority of the roots are found in the top 6 inches of soil where they are easily dried out during a dry hot spell. Manure and cover crops must be used probably more than commercial fertilizers. A program of plowing under crops such as legumes or rye where sufficient manure is not available should be seriously considered.

We believe that strawberry and raspberry growers should seriously consider getting a water supply at hand for their fruit crop for coming seasons. While this is difficult in many cases, since about four to six years out of ten are dry years, it may pay to move the fruit plantation near a water supply or provide a well or other source of water near at hand.

Mr. Wm. Nelson of Oshkosh successfully used the canvas hose on his tomato crop this year. The hose was made by the Madison Tent and Awning Company, and untreated, cost about 5c per foot. However, it will be well to treat the canvas so that it will last longer.

The host is laid along the rows of the plants and water pumped into it. Water soaks through the canvas slowly and directly into the soil without loss by evaporation. As soon as enough water has been applied the hose is moved to another row.

TRUE PATRIOT

"George Washington was a great man."

"He must have been," said Mr. Dustin Stax, "to transact so much big political business with so few brass bands."

WISCONSIN HAS GOOD CRANBERRY CROP

CRANBERRY growers in Wisconsin reported a total output of about 59,000 barrels, compared with 81,000 barrels last year, according to the Wisconsin Crop Reporting Service.

Wisconsin growers have been slowly increasing their cranberry acreage in recent years, and it is estimated that there are now 2,300 acres of producing marshes in the state. Although the acreage is somewhat larger than a year ago, the heat and drought this summer damaged what earlier in the season promised to be a record crop. Wisconsin is one of the few states in the nation producing cranberries commercially, and is third in output. Massachusetts ranks first and New Jersey second.

MUSHROOMS GROW IN COMPOST OF ALFALFA AND STRAW

MUSHROOM spawn grows best in a compost made of alfalfa and straw according to workers at the New Jersey Experiment Station. In studies made it was found that a balance between cereal straw and a plant material in a green state makes an ideal mixture for mushroom compost.

In an experiment using horse manure and other combinations, it was found that spawn grew best on the alfalfa-straw composts, composed of 60% of straw and 40% of dry alfalfa hay.

Ammonium phosphate was added to the mixture at the rate of five parts to each 100 parts of straw used in the compost. After watering the compost was allowed to decompose for 44 days, being turned at frequent intervals.

What Is Strawberry Black Root?

IS BLACK root of strawberries caused by fungus diseases, or is it caused by other factors such as early freezing in the fall or excessive heat or drought in mid-summer?

Here in Wisconsin we have seen enough evidence to prove that the work of Dr. R. H. Roberts is correct in that heavy freezing of unprotected plants early in the fall will cause black root and black crown the following spring, and that plants covered to protect them from this early freezing come through uninjured.

It has also been fairly well established that on light soils a dry, hot spell in mid-summer may cause black root. So far too, no fungus has been found which can be said to be the **cause** of this trouble.

From other states, however, we get conflicting information. A recent article in the Country Gentleman advised covering strawberry plants with a mulch "after the ground is frozen." The writer was from Ohio. Are conditions in that state different?

Called Disease in Indiana

In the November issue of Hoosier Horticulture is the following article which indicates that "black root" is considered to be a disease in several states at least.

"Strawberry growers in Colorado have been advised by George Beach at the Colorado State College Experiment Station, to use very special care in selecting plants of exceptional vigor for protection against strawberry root rot or black root disease.

"Only the most vigorous plants should be used, and these should be planted on ground that is known to be well-drained, in excellent physical condition, and above average fertility.

"The disease has also been causing much damage in Indiana and the point of selecting the plants with special care should not be taken lightly.

"Poor soil and poorly drained soil are common causes of disease. Fertilized and mulched fields usually show less damage. Overcrowding in the rows should not be permitted. Clean, vigorous roots should not be trimmed.

"The disease usually is first evident in wet spots that are low in available plant food. It then may spread to higher ground. Once the disease has started in a patch control is difficult. One or more of a dozen fungi cause root rot. Roots of old plants which may have turned black naturally should not be confused with diseased roots."

A Problem

It is our opinion that scientists, possibly those with the Federal Government, should get busy on this problem and coordinate the work between the states so as to come to some definite conclusion. The statement that "one or more of a dozen fungi cause root rot" is open to question, but no doubt can be **definitely proven** by scientists. We know that fungi are present everywhere and immediately attack a plant or root which has been injured or weakened from other causes. **Are these fungi the cause of the trouble,** or do they only attack the roots after they were injured from some other cause? Strawberry growers would like to know.

"Father, when I graduate I'm going to follow my literary bent and write for money."

"Well, son, you ought to be successful. That's all you've been doing since you left home to go to school!"

TIMELY TOPICS FROM MINNESOTA

Many fruit trees last spring put out leaves and blossoms, which later withered and died. This was particularly noticeable in branches on the south side of the trees. The late summer or fall is a good time to remove such branches where it is possible to tell just how much of the tree is dead. The pruning cuts should be covered with a good white lead paint to prevent decay.

Try marketing the large sized, fancy grade of plums in small containers. The three quart till baskets and the round half peck baskets are good types to use.

Most of the up-to-date Minnesota growers have discovered that it pays to ring face the bushel basket pack of No. 1 grade apples. The Perfection Ring Packer is very satisfactory for this work.

One of the most striking statements made by Professor Yeager during the recent Horticultural Short Course had reference to the roots of trees and how they grow. Under prairie conditions roots do not penetrate a great depth but extend laterally far beyond the limits of the outermost branches. In evergreens the roots may not extend horizontally much more than half the height of the tree. This might be remembered when applying water to trees and shrubs this coming summer.—By Professors Alderman, Sando and Hutchins in The Minnesota Horticulturist.

Father: "It's simply awful how close these young people sit in a rumble seat."

Wife (smiling): "Yes, I remember how you used to hate the old hammock because it had such a wicked way of pushing us so close together."

Horticultural News

A. F. Yeager, North Dakota

A CORRESPONDENT asks how hybrid lilacs are reproduced. These may be increased in one of two ways, either by grafting on roots of other plants, such as ash or privet, or if the plants are on their own roots and produce suckers, these suckers may be transplanted and will be true to name.

The Missouri Agricultural Experiment Station reports that cod liver oil contains from 2 to 5 times as much arsenic as is permitted on fruit offered for sale. This is mentioned not to show that cod liver oil is unhealthful but to indicate that under present conditions one need not worry about eating apples which are offered for sale on the general market, even though they have been sprayed many times with ansenical sprays.

According to Diehl and Wright of the Bureau of Plant Industry, the average freezing point for apple fruits is 28.5° F.

The United States is not the only country where the consumption of potatoes is gradually falling. The American Potato Journal states that the consumption in Australia has receded from 4.36 bushels per person before 1890 down to 2.15 bushels per person since 1928.

It is quqite probable that one of the next steps in the distribution of perishable products will be the movement across the equator from the northern to the southern hemisphere and the reverse. Midsummer products would thus be available in the midst of our winters, and our products available to the peoples at the south end of the world during the time when they are not now available there.

The Theory and Practice of Silviculture, by F. S. Baker, published by the McGraw Hill Book Company, is a good book for anyone interested in forestry.—From November North and South Dakota Horticulture.

PRICE SPREADS BETWEEN FARMER AND CONSUMER

A REPORT has been issued by the Bureau of Agricultural Economics, U. S. Department of Agriculture, on "Price Spreads Between Farmer and Consumer." The report gives some interesting information. For example, it says that on cabbage, the farm value was 7 cents per pound, the retail price 4c, or the farmer received 18 percent of the retail price.

In the case of potatoes the farm value was .8, retail price 1.9, or the farmer received 42 percent of the retail value.

Mr. Paul Work writing in the Market Growers Journal for October 15, makes these interesting observations.

"Results of this sort are of great value and contribute largely to our understanding of marketing. For one thing, they tell us that the spread between farm and retail means little. To say that the farmer gets 66 percent of the retail price of eggs, and only 11 percent of the price of canned sweet corn does not tell us what degree of robbery is practiced. That was the old idea. One farm paper wept for years over the fact that the farmer gets only a third of the consumers dollar. There could easily be a situation where the farmer would make good money and the rest would go broke if the farmer got 20 percent of the housewife's dollar. That would mean simply that processing, packing, and distribution are costly. A change to a farm value of 20 percent of retail for eggs would ruin the farmer, and for soda crackers, would enrich those privileged to grow for the purpose.

"Some say the distributor gets too much. Maybe his costs are too high, but his profit per bottle is rather small. It would be interesting to know the farmer's share on a quart of ginger ale or a fifty cent tube of shaving soap. Also, try it on a quart of whiskey.

"For all foods studied, the farmer received over fifty percent of the consumer dollar between 1913 and 1920, and less than fifty percent since. Low was reached at about thirty-three percent in 1932, and in 1935 it had advanced to about forty percent. The margin seems to follow closely the Bureau of Labor Statistics index of hourly earnings of wage workers, not including agriculture.

"Changes in profits, efficiency, and cost of processing, packing and other items would also have a bearing."

THE HYDRAULIC RAM

A NEW bulletin entitled "The Hydraulic Ram" has just been issued by Michigan State College, East Lansing, Michigan, and will be of interest to anyone having a flowing well, spring or stream which can be used as a source of power for operating a hydraulic ram.

The necessary requirements are a constant supply of water with a minimum flow of two gallons per minute with a fall of not less than two feet, and facilities for draining the waste water away from the ram. Ordinary sizes of rams cost from $15 to $75 and will operate 24 hours a day as long as the supply of water is adequate.

The new bulletin described the installation and gives all necessary information in regard to the rams.

Winners At Convention Fruit Show

Sturgeon Bay, November 4-5

INDIVIDUAL GROWERS DISPLAY

1st, A. K. Bassett, Baraboo; 2nd, D. E. Bingham, Sturgeon Bay; 3rd, Henry Dvorak, Casco; 4th, John M. Miles, Sturgeon Bay.

EDUCATIONAL DISPLAY OF MARKET CONTAINERS FOR APPLES

1st, D. E. Bingham; 2nd, A. K. Bassett; 3rd, M. W. Miller, Sturgeon Bay; 4th, Henry Dvorak.

TRAYS

Ben Davis: 1st, A. K. Bassett; 2nd, D. E. Bingham.

Gano: 1st, D. E. Bingham.

Golden Russet: 1st, A. K. Bassett.

Northern Spy: 1st, A. K. Bassett; 2nd, D. E. Bingham.

Salome: 1st, D. E. Bingham.

Jonathan: 1st, A. K. Bassett; 2nd, D. E. Bingham; 3rd, W. O. Brown, Sturgeon Bay.

Golden Delicious: 1st, A. K. Bassett; 2nd, D. E. Bingham.

Grimes Golden: 1st, A. K. Bassett; 2nd, D. E. Bingham; 3rd, Murphy Farms, c/o Alric Erickson, Egg Harbor.

Snow: 1st, A. K. Bassett; 2nd, D. E. Bingham; 3rd, W. O. Brown.

McIntosh: 1st, A. K. Bassett; 2nd, Henry Dvorak; 3rd, D. E. Bingham; 4th, W. O. Brown.

Delicious, Red or Starking: 1st, A. K. Bassett; 2nd, Henry Dvorak; 3rd, W. O. Brown; 4th, D. E. Bingham.

N. W. Greening: 1st, A. K. Bassett; 2nd, D. E. Bingham; 3rd, W. O. Brown; 4th, Henry Dvorak.

Wealthy: 1st, A. K. Bassett; 2nd, Highland Orchard, Sturgeon Bay; 3rd, D. E. Bingham; 4th, W. O. Brown.

PLATES OF 5 APPLES

Ben Davis: 1st, A. K. Bassett; 3rd, E. R. Barden; 4th, Dawson Bros., Franksville.

Gano: 1st, Ed. Stoeber, Madison; 2nd, D. E. Bingham; 4th, A. K. Bassett; 5th, Cedric Mann, Sturgeon Bay.

Grimes Golden: 1st, Murphy Farms; 2nd, Ed. Stoeber; 3rd, A. K. Bassett; 4th, D. E. Bingham.

Golden Russet: 1st, A. K. Bassett; 2nd, John Smithwick, Casco; 3rd, Nick Jacobs, Sawyer; 4th, Highland Orchard.

Jonathan: 1st, Elroy Honadel, Hales Corners; 2nd, A. K. Bassett; 3rd, W. O. Brown; 4th, Squier Orchard, Sturgeon Bay; 5th, D. E. Bingham.

Cortland: 1st, C. W. Aeppler, Oconomowoc; 2nd, Fieldhouse Nurseries, Dodgeville; 3rd, W. J. Platten, Green Bay; 4th, Highland Orchard; 5th, Ostrem Bros., Sturgeon Bay.

Delicious: 1st, A. K. Bassett; 2nd, O. L. Peterson, Sturgeon Bay; 3rd, MacLean Bros., Madison; 4th, Ed. Stoeber; 5th, Nick Jacobs.

Northern Spy: 1st, A. K. Bassett; 2nd, Ed. Stoeber; 3rd, Dawson Bros.; 4th, D. E. Bingham; 5th, Nick Jacobs.

Salome: 1st, D. E. Bingham; 2nd, A. K. Bassett.

Westfield: 1st, A. K. Bassett; 2nd, D. E. Bingham.

Tolman Sweet: 1st, A. K. Bassett; 2nd, W. O. Brown; 3rd, D. E. Bingham; 4th, Ostrem Bros.; 5th, Nick Jacobs, Sawyer.

Windsor: 1st, A. K. Bassett; 2nd, D. E. Bingham; 3rd, Nick Jacobs; 4th, Ralph Irwin, Lancaster; 5th, W. O. Brown.

Golden Delicious: 1st, Elroy Honadel; 2nd, A. K. Bassett; 3rd, Ed. Stoeber; 4th, Will Platten; 5th, D. E. Bingham.

Snow: 1st, Ed. Stoeber; 2nd, A. K. Bassett; 3rd, D. E. Bingham; 4th, Ralph Irwin; 5th, W. O. Brown.

McIntosh: 1st, A. K. Bassett; 2nd, Ralph Irwin; 3rd, Ed. Stoeber; 4th, D. E. Bingham; 5th, Will Platten.

N. W. Greenings: 1st, Ed. Stoeber; 2nd, W. O. Brown; 3rd, A. K. Bassett; 4th, Nick Jacobs; 5th, John Smithwick.

Wealthy: 1st, A. K. Bassett; 2nd, D. E. Bingham; 3rd, J. E. Paulson, Manitowoc; 4th, Nick Jacobs; 5th, Ostrem Bros.

Any other variety: 1st, A. K. Bassett; 2nd, A. K. Bassett; 3rd, Squier Orchard; 4th, Ed. Stoeber; 5th, Squier Orchard.

Haralson: 1st, Fieldhouse Nursery; 2nd, E. R. Barden; 3rd, Ralph Irwin; 4th, W. J. Platten.

Macoun: 1st, C. W. Aeppler; 2nd, A. K. Bassett.

Orleans: 1st, C. W. Aeppler; 2nd, A. K. Bassett.

Newfane: 1st, C. W. Aeppler; 2nd, A. K. Bassett.

SEEDLINGS

1st, O. L. Peterson, Sturgeon Bay; 2nd, Dawson Bros., Franksville; 3rd, Dawson Bros.; 4th, Dawson Bros.

NEW BULLETIN ON POULTRY HOUSES AVAILABLE

A NEW bulletin entitled "The Wisconsin Straw Loft Poultry House" has just been issued by the Wisconsin College of Agriculture. The bulletin describes in considerable detail how to build one of these very practical poultry houses used so much in this state.

AN APPLE FOR EVERY PURPOSE

AN apple for every purpose! Here is a trumpet note for apple growers. Let us plant apples to eat out of hand, to bake, for pies, sauces, preserves, desserts, to can and dry, and for ciders and vinegars; apples for every taste—sweet, sour, sharp, mild, and all the flavors between; firm, crisp apples for children to munch, tender-fleshed apples for the sick, the aged and toothless; apples of every color—red, scarlet, crimson, striped, blushed, golden, russet; apples for summer, autumn, winter, that every one may have an apple every day in the year; apples with all the delectable aromas that perfume this fruit; apples of all sizes, from the biggest down to the little Lady, not forgetting crabs; apples on standard trees and dwarf trees, and on stocks to suit all soils and climates; apples for shade and for fragrant spring blossoms ladened with sweets for bees; apple trees under which children may play and maidens and their lovers may sit.

In the years since the Garden of Eden, ten thousand kinds of apples have been bred. In the aeons between now and the Millennium, a million times as many more kinds will be bred in search of a perfect apple for every purpose—a never-ending task for breeders of apples.—U. P. Hedrick from the program for Western New York's Apple Blossom Festival.

CRACKING OF TOMATOES

CRACKING of tomatoes seems to be a problem of proper moisture control, according to recent investigations on the subject. Any means that will even up the water supply on the soil should help. If there is dry weather slowing up the growth preceding ripening and then rainfall, the interior tissues of the tomatoes grow faster than the skin and cracking results.

Irrigation early in the season, building up humus, and perhaps the use of straw or other mulch on the soil would help. Some varieties crack more than others. Earliana is very susceptible as is Marglobe and Break O' Day. King Humbert is relatively free. Picking tomatoes in the pink stage will help reduce the trouble.

EDITORIALS

NEW OFFICERS ELECTED

MR. Karl Reynolds of Sturgeon Bay was elected President, and Mr. R. L. Marken of Kenosha Vice-president of the Wisconsin Horticultural Society at the annual business meeting and election of officers held at Sturgeon Bay on November 5th.

Mr. Reynolds has been vice-president for the past two years and Mr. Marken a member of the Board of Directors. Both are well acquainted with the affairs of the Society and capable of carrying on its affairs to the best advantage.

Mr. E. L. Chambers, Madison, was re-elected treasurer, and Mr. H. J. Rahmlow, Madison, Secretary.

As members of the Board of Directors for three years, the following were elected: Mr. R. E. Harris of Warrens, Mr. Nick Jacobs of Sawyer, Mr. W. A. Toole of Baraboo. Mr. Harris is a well known strawberry grower and Vice-president of the Warrens Fruit Growers Association. Mr. Jacobs is a prominent grower of apples, cherries and strawberries. Mr. W. A. Toole of Baraboo is well known to our members as a prominent nurseryman and an authority on perennials, native and rock garden plants.

Affiliated Organization Presidents on Board of Directors

Mrs. Chester Thomas, Thiensville, newly elected president of the Wisconsin Garden Club Federation becomes a member of the Board by virtue of her office.

The Wisconsin Beekeepers Association, an affiliated organization, requested membership on the Board. Their request was granted by unanimous vote at the convention, and Mr. Arthur Schultz, Ripon, president of the Beekeepers Association becomes a member of the Board, by virtue of his office.

WISCONSIN WINS HIGHEST HONORS IN FRUIT

THE highest honors in the fruit exhibit awarded at the International Horticultural Exposition held in the International Amphitheatre, Chicago, September 12-20, went to the Wisconsin Orchards, Inc., of Gays Mills.

The exhibit was made by Harold Roberts son of Prof. R. H. Roberts. Harold deserves a great deal of credit for his winnings which comprise 27 awards including 13 blue ribbons. Orchardists from 14 states competed.

The award consisted of a sterling silver pitcher, properly engraved.

Another Wisconsin exhibitor, Mr. A. K. Bassett of Baraboo, was a close second in competing for this trophy. He had 11 first prizes in fruits.

OSHKOSH EXTENDS INVITATION FOR NEXT ANNUAL MEETING

THE Wisconsin Horticultural Society has been invited to hold its next annual meeting in the City of Oshkosh. Mr. N. A. Rasmussen extended the invitation at the annual meeting at Sturgeon Bay on November 5.

It has been suggested that this meeting take the form of a general horticultural meeting, the program to cover topcis on all phases of horticulture.

It has been some years since a general horticultural program has been held by the Society, and such a session may again prove popular and bring together many horticulturists who favor this type of meeting.

This plan does not mean that the Society will not continue to sponsor and assist its affiliated organizations in holding specialized meetings and programs. We would like to hear from members in regard to their opinion as to the type of program they would like, if the plan of holding a general horticultural convention is adopted by the Board of Directors.

Few farm crops of today bear any very close relationship to those of 50 years ago. Were a farmer of today forced to go back for one year to the varieties grown by his father or grandfather, he would have a real appreciation of the work being done by plant scientists.—The Corn Belt Farm Dailies.

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. Millie Francis, West Allis, R. 4, Box 608, Recording Secretary-Treasurer

DISTRICT CHAIRMEN

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

Vol. XII | DECEMBER, 1936 | No. 12

A Successful Convention

"WE had a wonderful time" was frequently heard at the conclusion of the 58th annual convention of the Wisconsin Beekeepers Association at Fond du Lac October 29-30.

It was one of the most friendly conventions we have ever attended. The beekeepers were genuinely glad to see each other and so interested were they in visiting it was difficult to get them in to the programs.

The program was splendid. Prof. F. B. Paddock and Dr. O. W. Park of Ames, Iowa, gave us some wonderful talks full of information. Our own beekeepers on the program surprised the members. The talk on How I Raise a Young Queen in Each Colony and Top Entrance Wintering by H. A. Schaefer of Osseo created a little excitement and many beekeepers asked him for more information after the meeting.

Mr. Leonard Otto of Forest Junction told how he keeps 400 colonies of bees in one yard. His was a very interesting paper indeed, and will be published in part in the next issue of this magazine. Portions of the talks given will be found in this and coming issues.

Mrs. Malitta Jensen, representing the American Honey Institute, helped the Woman's Auxiliary conduct a very successful meeting. The ladies were very enthusiastic about the plans for the Auxiliary meeting. They are planning a booth at the Wisconsin State Fair next year. Mrs. Andrew Stevens of Stockbridge acted as chairman and Mrs. Arthur Schultz of Ripon as secretary.

Honey Nut Bread Contest

Winners of the honey nut bread contest were as follows: 1st prize, Mrs. Walter Diehnelt, Menomonee Falls; 2nd prize, Mrs. Frank Greeler of Neillsville; 3rd prize, Mrs. Newton Boggs of Viroqua; 4th prize, Mrs. Harold Knight of Dalton; 5th prize, Mrs. August Kersten of Kaukauna. A large number of excellent samples were shown.

The Fond du Lac Beekeepers Association with Mr. Wm. Sass acting as master of ceremonies presented a very fine program following the banquet. The dance afterwards attracted a great many more beekeepers and their wives than we anticipated.

HOW FAR WILL BEES TRAVEL?

MR. Leonard Otto of Forest Junction speaking at the Beekeepers meeting made the statement that many years ago his father introduced the first Yellow Italian bees into his community. The only other bees in the country at that time were black bees. One day three beekeepers, including his uncle, followed the Italians for seven miles down a mud creek and found them working on the clover at that distance from the home yard. This is very surprising indeed.

CONSTITUTION OF STATE BEEKEEPERS ASSOCIATION AMENDED

AN important amendment to the constitution of the Wisconsin Beekeepers Association was offered at the annual convention by the Board of Managers. It provides for a consolidation of the office of recording secretary and treasurer, and places the chairman of each organized district on the Board of Directors. The revised section reads as follows:

"The officers of this Association shall be: President, First Vice-President, Correcsponding Secretary, and Recording Secretary-Treasurer. These officers together with the chairman of each organized district of the State Beekeepers Association shall constitute the Executive Committee."

Organization of Districts

A new article was added to the constitution as Article II, Section 2, and reads as follows: "The Wisconsin Beekeepers Association shall organize districts of the State Association wherever practical. Application for the organization of any new districts shall be referred to the Executive Board for approval. If such approval is granted the District may be organized. Each district should consist of ten or more paid up members to qualify."

WE NEED QUEENS SUITABLE TO OUR LOCALITY

Convention Notes from Talk of Prof. F. B. Paddock

"WE MUST breed queens which will furnish bees to meet our own conditions," said Prof. F. B. Paddock at the annual convention of the Wisconsin Beekeepers Association. Southern queen breeders may select breeding queens which do well under their conditions in the South, but will these same queens perform equally as well in the honey producing areas of the North, asked Prof. Paddock. The original Italian bees were much darker than many now on the market. We have changed them in color. Will they do as well in Wisconsin as in Wyoming?

The plan suggested was that if each beekeeper improve his own stock to the point where he is sure he has a strain of bees that meets his conditions perfectly, he may then be able to have some queen breeder furnish him with queens of his own selection.

The beekeeping industry today is getting into the hands of the commercial beekeepers, continued Prof. Paddock. Twenty-five years ago honey was largely produced by small side-liners, but today good roads, migratory beekeeping, better machinery, is having its effect.

Bees Valuable in the Orchard

At a recent horticultural meeting in Iowa the president of the Iowa Horticultural Society made this statement, that 50 colonies of bees which he placed in his orchard during the blooming period made him a profit of $5,000 because of increased setting of the fruit. Beekeeping therefore has a definite relationship to horticulture.

Prof. Paddock gave the advice that we must be more careful with out expenditures with such expensive items as large extractors, but instead we must prepare more and better supers and frames to take care of the honey crop when it comes. The late Dr. Miller once made the statement that he anticipated six supers of honey, but always prepared seven, which is an excellent policy.

STRONG COLONIES LIGHT THIS FALL

IN SPITE of the good fall honey flow it looks as if many strong colonies may be short of stores. Several leading beekeepers have stated that they were surprised on returning to their yards the first part of November to find strong colonies were much lighter than they anticipated.

Mr. A. J. Schultz of Ripon said that he had to feed one yard twice.

Evidently the heavy brood rearing this fall forced the surplus honey into the supers. Large numbers of young bees hatched out and when the fall flow was over these began to eat the stores. Some beekeepers have said after cold weather set in: "There may be more starvation this winter than anticipated."

THE MARKET

THE Federal Bureau of Agricultural Economics gives the following market report for Chicago as of November 15.

Comb honey, demand moderate, market steady. Sales to retailers, cellophane wrapepd, fancy, heavy weight, $3.25 to $3.50; unwrapped, $2.50 to $2.75.

Extracted, supply moderate, demand light for light amber, slow for white, market slightly weaker. Middle-Western mixed clovers, white honey, 7¼ to 7½ cents; light amber, 6½ to 7 cents; 5 lb. pails white honey, 45-50 cents per pail to retailers.

Beeswax, dealers paying 21 to 23 cents delivered Chicago.

HONEY WANTED

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

WISCONSIN BEEKEEPERS ASSOCIATION RECOGNIZED BY THE HORTICULTURAL SOCIETY

A resolution adopted by the Wisconsin Beekeepers Association requesting that the Beekeepers Association be given representation on the Board of Directors of the Wisconsin Horticultural Society was presented at the annual convention of the Society.

This resolution was unanimously adopted by the Wisconsin Horticultural Society and Mr. A. J. Schultz president of the Beekeepers Association is now a member of our Board of Directors.

Merry Christmas

from

August Lotz Company

of Boyd, Wisconsin

- Wishing you a lasting and memorable Holiday Season.
- Endeavoring to convey to all of our friends through this cheery greeting a message of thanks and appreciation for the business you have given us during the last year and the years before.
- We are here to serve you. May we have your loyalty for years to come.

How Nectar Evaporates

DR. O. W. PARK of Ames, Iowa, gave a most interesting discussion at the annual convention on the evaporation of nectar and the process of ripening honey. Much to our surprise he stated that during dry summer weather nectar will evaporate in from three to five days to a concentration of 80%. To test this fresh nectar or sugar syrup at a known concentration was placed in frames surrounded by a screen of wire so that the bees could not touch the frame. In five days time this thin solution had evaporated to a concentration of 80% by the bees fanning air over it.

During dry warm weather therefore, honey may ripen very quickly and be ready to extract even though not fully sealed. In fact, if the weather turns damp the nectar may absorb moisture and be less concentrated even though left in a hive for a much longer time.

No Evaporation During Flight

Elaborate experiments were performed by Dr. Park and his assistants to determine whether or not the nectar from flowers was partially ripened while the bees were flying to the hives. They discovered that evaporation does not occur during flight. In fact, there is evidence that when the nectar is concentrated there is a slight addition of moisture between the flowers and the hive. They tested it by feeding the bees sugar syrup of a known concentration at a distance of one-half mile from the hive.

On reaching the hive the field bees transfer the nectar to one of the younger hive bees. In all cases observed, said Dr. Park, there was not a single instance of the field bees depositing the nectar directly in the cell. These younger bees hold a drop of nectar on their tongue and pass it back and forth to the honey stomach several times. In this way there is an evaporation of about 15% of the moisture. When deposited in the comb the nectar is concentrated from 50 to 65%.

Nectar May Be Concentrated

The nectar from flowers is not nearly as thin as one would imagine. In the morning, said Dr. Park, it may contain only 15% sugar, but on a dry hot day it may reach a concentration of from 40 to 75% during the afternoon, the average being probably from 40 to 60%.

HEAT DARKENS HONEY

ALLOWING honey to remain heated too long will darken it, was the statement of Prof. H. F. Wilson at the annual convention of the Wisconsin Beekeepers Association.

Prof. Wilson stated that occasionally a beekeeper will submit a sample of honey for sale which is white in color. On receiving the shipment the buyer may complain that many cans were much darker than the original sample. The beekeeper is at a loss to understand this.

The cause, according to Prof. Wilson, may be that the honey was heated to the desired temperature of 160° to prevent granulation and then large quantities in 60 lb. cans stacked close together. The honey in the center of the pile would remain hot for a long time with the result that it became darker than the cans outside which cooled rapidly.

Honey placed in sunlight may darken, not from the action of the light (which has a bleaching effect), but because in the sunlight the temperature will be raised, causing it to darken.

Granulation of honey takes place most rapidly at temperatures of 55 to 65 degrees. At freezing or below freezing temperatures there is very little granulation.

Tin Pails—Glass Jars—Labels

Members: Look up our prices on tin containers and labels in the August and September issues of Wisconsin Beekeeping.

Send your money with order to:

Mrs. Millie Francis, Rec. Secy.
Wisconsin Beekeepers Assn.
Route 4, Box 608, West Allis, Wis.

MANY FROM WISCONSIN AT SAN ANTONIO

WE would guess that almost 20 beekeepers from Wisconsin attended the meeting of the American Honey Producers League at San Antonio, Texas, in November. Mr. and Mrs. A. J. Schultz sent a card on Nov. 27 saying they were having a fine time.

We Wish You,

Our Beekeeping Friends,

A Most Joyous

Holiday Season

We wish to thank our beekeeping friends for the business given us the past season.

We hope that 1936 has been kind to all of you, and that we may again do business with you the coming year.

Gus Dittmer Company

Augusta, Wisconsin

A New Honey Strainer

A NEW honey strainer has been developed by the Ontario Experiment Station at the request of the Ontario Beekeepers Association. The Association felt that a better type of strainer was needed to prepare honey for market. Packers have experienced trouble with honey that is not well cleaned. When such honey is heated for bottling or processing it darkens in color and the flavor is spoiled. This would not happen if the honey were strained properly. Heating honey that contains foreign material impairs its quality, according to members of the Association.

Kind of Strainer Wanted

Five things were kept in mind. First a strainer must be able to take at least one day's run of extracting without clogging.

Second it must clean honey much better than any kind of strainer commonly used.

Third, the cost must be low.

Fourth, it should strain cold honey because heating before straining may spoil the texture and flavor.

Fifth, it must be easily drained and cleaned.

New Strainer

The new strainer consists of a series of four wire screens, cylindrical in shape and setting one inside the other in a honey tank. The screens for a 1,000 pound tank were 30 inches high. The inside screen is 14 inches in diameter and has a mesh of 12 to the inch. The second is 18 inches in diameter and has 30 mesh per inch. The third is 22 inches in diameter and has 50 mesh per inch. The outside screen is 26 inches in diameter, with 80 mesh per inch.

Each cylinder has a galvanized iron bottom with a screen hole about 8 inches in diameter to help in draining. At the top of each screen is a metal collar of 8 inches for both strength and to give pressure. This collar projects above the tank.

This strainer handled 9½ tons of cold honey before the screens clogged. A wooden float was used in the center screen so that the honey did not churn when flowing from the extractor.

The strainer was described in detail in the Canadian Bee Journal for November published at Oshawa, Ontario, Canada.

WAX MOTH STOPS FOUL BROOD IN SOUTH

"AS soon as a colony dies in Texas, the wax moth destroys the comb, sometimes within a week, and since very few bees dies with any honey in the hives it is easy to see how foul brood is eradicated without the beekeeper's help," writes H. W. Beaver in the Pennsylvania Beekeeper.

Mr. Beaver visited in Texas and several other southern states and found the wax moth very serious. He states that they found much drone comb in weak colonies. This condition puzzled them until they learned that the moth is so bad at all times of the year that as soon as the combs are not occupied the moths take possession and eat the comb. When the bees build up again — behold the drone comb! This is probably the reason why there is so little American foul brood in Texas.

HONEY ADULTERATORS FINED

THE Federal Food and Drug Administration reports that a Brooklyn, New York concern known as the Silver Label Product Company was fined $2,374 in Federal Court for selling adulterated honey the latter part of 1935.

Thirteen shipments were received and analysis showed adulteration with liquified "invert" sugar.

SAUK COUNTY BEEKEEPERS MEET

SEVENTY-FIVE beekeepers, their friends and relatives met for the last meeting of the season at the A. L. Kleeber home, Reedsburg, on November 5. The evening was devoted to a social good time and the program consisted of music and entertainment.

These meetings are always enjoyed by the beekeepers and their families and help to get them better acquainted so they can work out their mutual problems to the best advantage. Mr. James Gwin of the Bureau of Markets, Madison, attended, and Mr. A. L. Kleeber presided.

THERE SHOULD BE MORE SWEET CLOVER PASTURES

MANY farmers would have greatly profited this dry season if they had had sweet clover for pasture. In many sections of the state, notably the Fox River Valley, farmers discovered the value of sweet clover during the dry years just preceding 1935. Driving along the highway, we were impressed with the large number of sweet clover fields for pasture and alfalfa for hay in this section.

The Wisconsin College of Agriculture, Madison, has published a bulletin entitled "Renovating Blue Grass Pastures" which every farmer should read. It tells how to improve these pastures by discing in the spring and sowing biennial sweet clover.

The sweet clover furnishes pasture when all the other grasses have gone. The bulletin states "Sweet clover is the strongest repellant of egg-laying June beetles and ranks highest to resistance to drought. Alfalfa is next and red clover third."

Constitution of Horticultural Society Amended

ONE of the principal matters of business coming before the annual meeting of the Wisconsin Horticultural Society at Sturgeon Bay on November 5th was the adoption of proposed amendments to the constitution. At the convention in 1935 it was voted that the Executive Committee should study the constitution and make proposals for amendments. These proposals were approved by the Board of Directors and introduced for adoption at the annual meeting.

In addition to clarifying the wording of the old constitution, which was adopted many years ago, shortening it considerably, the most important changes adopted were as follows.

1. The Executive Committee of the Society shall consist of the president, vice-president, secretary and treasurer.

2. The Board of Directors shall consist of the Executive Committee, nine additional members each to be selected for a term of three years, the chairman of the Department of Horticulture of the College of Agriculture, and duly elected representatives of state-wide affiliated organizations representing a major division of horticulture.

3. Amendments. The constitution and by-laws may be amended at any annual meeting of the Society by a two-thirds vote of all members present. All proposed amendments shall be presented to the Board of Directors for approval, and upon a two-thirds vote in favor of such amendment shall be presented to the Society for adoption.

4. It was decided to try out the method of voting by mail for the officers and members of the Board of Directors during 1937. Due to the large membership of the Society and the large number of affiliated organizations throughout the state it was felt that this would give such membership the best possible chance to vote. Therefore the following amendments relating to a nominating committee and election were adopted.

The president with the approval of the Board of Directors shall annually appoint a nominating committee of three members. Such appointments shall be published in the official magazine not less than two months preceding the annual election. The committee shall nominate not less than two candidates for each vacancy on the Board of Directors, indicating which director each group of candidates is to succeed. All nominations shall be published in the official magazine at least one month preceding the time set for the election.

Election of Officers

The election shall be by ballot. Each ballot shall contain the names of all nominees and one blank line for each vacancy for additional nominations by the members. A plurality of all votes cast shall decide an election. In case of a tie the Board of Directors shall make a selection.

The election of officers and directors shall be done by mail in such manner as the Board of Directors may direct.

INTERNATIONAL HORTICULTURAL EXPOSITION SEPTEMBER 18-26, 1937

THE announcement has just been made that the second International Horticultural Exposition will be held at the International Amphitheatre, Stock Yards, Chicago, on September 18-26, 1937. The show is now being organized and anyone having suggestions for the premium list or other matters should send them to Mr. M. S. Parkhurst, General Manager.

PICKING, GRADING AND PACKING WISCONSIN APPLES SHOWN IN MOTION PICTURE FILM

A SPLENDID motion picture film on the subject of picking, grading and packing Wisconsin apples was presented for the first time at the annual convention of the Wisconsin Horticultural Society at Sturgeon Bay on November 4, by President elect Karl Reynolds of Sturgeon Bay.

Mr. Reynolds traveled over 1,500 miles covering all the fruit sections of Wisconsin in making this picture. It shows views of orchards in different sections of the state, different types of containers for picking; all the different types of graders, from commercial to home-made, being used by growers, and various packing methods. In addition there are a number of beautiful views of different localities and an interesting story in full color of children who were refused apples in an orchard, then went home to mother with their tale of woe, who then makes a luscious apple pie.

The picture contains almost one thousand feet of film and will be presented at the meetings of affiliated organizations of the Wisconsin Horticultural Society during the coming month.

WHY NOT?

Sandy joined a golf club and was told by the professional that if his name was on his golf balls and they were lost, they would be returned to him when found.

"Good," said the Scot, "put my name on this ball."

The pro did so.

"Would you also put M .D. after it?" said the new member. "I'm a doctor."

The pro obeyed.

"There's just one more thing," went on the Scot. "Can ye squeeze 'Hours 10 to 3' on as well?"

About the Home and Garden

MRS. C. E. STRONG

NEW BULBS AND PLANTS FOR THE WINDOW GARDEN

THERE are many interesting bulbs that will grow very well in our sunny windows. How many of you have ever tried the new hybrid Freesias? They come in many shades—from the delicate pastels to the deeper orange, red and rose. We do not need to store them away for weeks to root—just plant the bulbs in good soil, water well and place in a sunny window. It is really amazing how soon they will flower. Freesias also grow readily from seed, blooming in about six months. I could hardly believe this until I tried a package of seed. Of course the bulbs were small and there were one one or two flowers on each stem—but it was quite exciting to watch each cluster develop.

Lachenalias are a little known bulb, but they are as easily grown as the Freesia. They are also grown easily from seed and bloom in about six months.

We are well acquainted with the bulb called Star of Bethlehem, a hardy bulb for the garden—but how many have tried the near relatives, Ornithogalums Aureaum, golden yellow, and Arabicum, creamy white with a black center? The flower clusters of these tender varieties last for several months.

Pink, black and yellow Callas are easy to grow and sure to bloom, asking only plenty of moisture.

Streptocarpus Hybrids, Cape Primrose, make interesting pot plants. Their Gloxinia-like flowers are long lasting and come in many colors. You can grow them from seed quite easily. They form a bulb that can be kept

over from year to year, just as the Gloxinia is kept—in a warm dry place.

Try Morning Glories Indoors

If you regret seeing Jack Frost taking your Heavenly Blue morning glories—plant two or three seeds in a small flower pot, using ground that is not very rich. They will germinate readily, and bloom when they are only about ten or twelve inches high or just as soon as the pots are filled with roots; so be sure to use small pots. If you plant seeds every month or six weeks you will have plenty of the blue beauties all winter.

A Pomegranate plant makes a brilliant spot of color with its waxy scarlet fuschia-like blossoms, and its golden red fruit. It is as easy to grow as a Geranium.

A Good Fruit

Do you know that Carica Papaya, the Florida Pawpaw is very easy to grow from seed—and that it is quite likely to bear fruit the second year? The foliage is large and graceful, the flowers white and very sweet, the fruit angular melon shaped, very good eating.

Guavas also grow readily from seed—and while they do not bear fruit quite so soon, their glossy green foliage is attractive and when the snowy white flowers come—followed by either red or yellow fruits, you will think it was well worth waiting for. A mixture of leaf mold, sand and very fine peat makes a good planting soil for the bulbs and plants mentioned, also for sowing seeds. For a fertilizer, use bonemeal for bulbs and plants. Seeds do not need any fertilizer in the soil.

If any one is anxious to try the bulbs and plants mentioned—and does not know where bulbs and seeds may be procured, I will gladly give them addresses.

I am sure you will be more than pleased if you try any or all of these bulbs and plants in your winter garden.

Chrysanthemums That Bloom Early

Chrysanthemums that bloom early in the vicinity of Milwaukee have been a real desire. Not just a few blossoms before that cold freeze sweeps down from the North, but at least six weeks of a mass of bloom—something you and the passerby will really enjoy. There are at least seven hardy early blooming Mums that will do this — bloom profusely from the last week of August into the last weeks of October. The plants are hardy and so are the flowers. You know of course that some hardy plants have such tender blooms that the first light frost will brown and wither it.

Azaleamum and Glory of Seven Oaks are the first to bloom, followed closely by Carrie, Flashlight and Argenteulis. A lovely pink variety still waiting a name, and Barbara Cumings were next. Ten plants of each of these seven varieties will satisfy almost anyone's desire for a mass of color.

There are many other varieties that will bloom before freezing —but none so far as I know that give such a mass of bloom for so long a time.

A Garden Club member, also a Mum enthusiast, tells me to add Irene, a good white pompon variety, to this list. So that gives us eight early blooming Mums for this vicinity.

LILIUM FORMOSANUM

THE late-flowering form of the valuable formosanum lily, discovered by the well known collector, E. H. Wilson, on mountains in the island of Formosa, is the most valuable acquisition in the lily field in years. In Great Britain the dwarf and earlier-flowering form is much in favor, but for many sections in this country the late sort is far better. The bulbs of the two types are identical in appearance, but while the Price, or dwarf form blooms from mid-July until mid-August and does not exceed two to two and one-half feet high, the late form easily grows four to seven feet high, and the writer has seen plants twelve feet high with sturdy stalks each carrying many flowers and needing no support.

October 18 plants of this lily were still flowering splendidly outdoors, after even spring plantings of speciosum rubrum had passed.

The name philippinense formosanum is still used by the bulk of those offering this lily. However, there is no sense in continuing the philippinense part, as this lily has never been found in the Phillipines and has no connection with that country.— From the Florists' Review.

CORRECTION

"Your dress is too short."

"I don't think so."

"Then you must be in it too far."

HARDY MUMS TESTED AT MINNESOTA

THE hardy Chrysanthemums Pluie d 'Argend, (also called Azaleamum) and Elena have given the best results in early blooming at the Minnesota Experiment Station where tests have been made during past years.

Several of the U. S. Department of Agriculture varieties have also given good account of themselves.

Pluie d'Argend appears to be one of the best for Minnesota conditions, according to reports. It makes good plants, blooms the early part of August and continues to bloom for several weeks. Elena was one of the earliest—a pinkish-white.

The Koreans while making a good growth, have failed miserably in flowering unless brought indoors and grown in the greenhouse. Barbara Cummings had not opened by October 3rd, which is too late for Northern conditions, while the Japanese Mountain Chrysanthemum has at no time paid for the trouble of growing it.

HOW TO CONTROL MICE IN THE HOME

AT this time of year mice make a scramble to get into cellars and buildings. The small, cheap spring trap is probably the most effective way of catching them. But if this is not effective, a poison bait can be used if it can be kept away from other animals and human beings. A good poison is to use four parts of peanut butter and one part of Barium carbonate which is a tasteless poison. A bait station can be made by rolling a piece of tar paper or roofing paper, or even tin, into a tube about one and one-half inches in diameter and placing the bait in the center where the mice can get at it.

THE SILVERLEAF BUFFALO BERRY

ONE of the gifts of the northern plains country to ornamental and fruit gardening is the so-called buffalo berry, **Shepherdia aregentea.** It is native from Minnesota and Nebraska to near the northern limit of settlement in the prarie provinces of Canada. It is thus well adapted to drought, heat in summer, cold in winter, and is usually found on light and poor soil.

It transplants with difficulty, and this is perhaps the reason why it is not cultivated more abundantly. However, interest in it is awakening, if I may judge from the amount of seed I have collected this year for various persons. Some say that it should be grown from seed in the place where it is to remain, but young shrubs will transplant, even in relatively dry soils.

This large shrub, or small tree, has silvery foliage and is thus of distinct value for color effects. It is taller, much more silvery in leaf, and has more usable fruit than the related species canadensis of still wider distribution.

The fruit is red or amber, and occurs in dense clusters. It makes a delicious jelly. The name, according to Dr. N. E. Hansen, came from the custom of eating the berries as a sauce with buffalo meat in the early days. The chief obstacle to its wider use as a fruit plant is the slowness of collecting the berries among the long thorns. The fruit varies in size and quality, and perhaps eventually improvement work will give us a large, sweet-fruited strain without the thorns. — Percy H. Wright, Wilkie, Sask., Canada, in Horticulture.

The National Flower and Garden show will be held in the Milwaukee Auditorium April 10-18.

Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

Walter C. Krueger, Oconomowoc, President
B. A. Robinson, Kenosha, Vice-Pres.
H. J. Rahmlow, Madison, Cor. Sec.

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

Regional Vice-Presidents
Karl Timm, Markesan

F. P. Thomas, Kenosha
G. A. Barrer, Cudahy
M. J. Rahn, Green Bay

Experiences With Some New Gladiolus

Dr. Geo. H. Scheer, Sheboygan

MY interest in gladiolus has been, for some time, centered mainly upon the breeding angle. This makes it almost necessary to get the newest varieties as soon as they can be obtained as one must have them for comparison with the new seedlings. There may also be an occasional one among them promising for breeding purposes.

New Zealand Varieties

I cannot but feel that I have been the "victim" on a majority of these. It seems that gladiolus novelties are still being sold, not so much on merit, as on pure bally-hoo. I believe that this is especially true of the loudly heralded New Zealand varieties—how and why our antipodean friends conceived the notion that their originations lead the world today is one dark, deep mystery to me. Their fetish seems to be either gigantic florets or long spikes with many open and in trying to achieve these ends they seem to lose sight of color almost entirely. The result is that many of their new ones present weird combinations of clashing color, streaks, and blotches.

The New Yellows

Among the yellows, **Desert Gold** looks very promising, with good spikes and fine substance and placement, though the color is rather light; **Jonquil** was one of the deepest yellows, of the prim type but has good substance. **Dox** has large florets but the color is quite light and it is

not equal in substance to some of the older ones—both **Gate of Heaven** and **Gloria Mundi,** one of the older Pfitzer sorts which never became very popular, excel it in depth of color and substance. **Golden Cup** has fine, deep color but is not very large. **Royal Gold,** one of Pfitzer's 1936 novelties, looked very ordinary as it bloomed from bulblets and is rather light.

The Blues

Among the blues, none of the newer varieties seem to approach some of the older in color. **Allegro** and **Max Reger** are both fine light medium blues, of clean blue lavender, Max Reger having a conspicuous blotch of deeper blue. Another, lighter than the above two, is Grafin Livia and Chotek, also with deeper blotches but of rather pleasing lavender tint. Among the deep blues, **Pelegrina** is unquestionably still the bluest, but it throws very weak spikes. **Blue Admiral** though not as blue, gives better spikes. **Vienna Woods,** with more red in its make-up than either of the last two, appeals to me because of the shape of its florets which are of a rather wide bat-wing type. **Robert Burns** as it bloomed for me from bulbets had much more red in it than either of the preceding. **Milford** was a disappointment. Had expected to see one that is really blue but it did not begin to approach Max Reger in color. For color alone, both **Kempenfeldt Blue** and **Lane's True Blue** are appealing but both throw entirely too many crooked spikes and the placement leaves too much to be desired. **Champlain** is very similar to **Heavenly Blue** in color though possibly a little deeper. **Rudolph Serkin** is a bluish purple, rather than a blue, and has wonderful, velvety substance. **Blue Herald, P's Blaue Schoenheit, Harold Logan,** and **Mrs. E. A. Rides** did not impress me at all.

The Whites

There is a newcomer among the whites that will bear watching and that is **Maunga,** one of the few meritorious new ones from down under-it is a milk white without marks, has very large florets of fine substance, well placed on a fine spike, the

only criticism being that the spike appeared somewhat short. **Star of Bethlehem** is, without doubt, one of the best whites and it is purely a matter of personal taste as to whether it or **Maid of Orleans** is to be preferred. **Matterhorn,** P's 1936 white, bloomed from bulbet and did not appear the equal of either of the last two. An older white, not very well known, **Mrs. Ray P. Chase,** did extraordinarily well and deserves to be more generally grown. **Polar Ice** is very similar to **Albatross** and, like that variety is very apt to come poorly faced. **Dr. Durr** at it best is very fine but it seems to be difficult to grow it at its best. **Queen Louise,** now quite old, has never been extensively grown, but it throws magnificent spikes with 10-12 open and is one of the very finest whites.

Some Good Reds

A few of the new reds need mention. **Ninth Symphony** is a rather light red with a Phipps type of spike with many open and is rather showy. **Kassel** has glorious color, a brilliant scarlet, and large florets but for me it opened only four or five. The same description will fit **Southern Cross** fairly well. **Alzalea** is a new one with large rounded florets of Triumph type but much deeper — it also opens only a small number. Paul Grampel, a light red, (P. 1936) was not impressive. **Conny, Makenu, Toa** and several others, are all very similar to Triumph and not much improvement on that sterling old variety. **Sultan** and **Tosca are** two dark reds on the crimson rather than the scarlet order, and **Aenne Rahmstorff** also falls into this class. **Red Pirate** is another different red. It is a soft crimson with just a suggestion of rose in it.

Pinks

Gladys Clegg is charming apricot pink with a garnet red blotch —but it opened only three for me. **Dr. McKillop** is a lavender much like **Dr. Moody,** but if anything, more flaked and splashed. Gertrude Swenson was a severe disappointment as its florets are small and the color is a washed out light reddish magenta. P's **Masterpiece** (1936) and **Sarasate,** also of this year, did not impress me at all favorably. **Mrs. Finnie** is a deep smoky salmon red with steel flaking—rather odd.

To summarize, the write found few among the new ones that impressed him as outstanding, though no doubt many will disagree with him on this point.

EXPERIENCES WITH NEWER VARIETIES

AMONG the newer glads of U. S. origination, New Era would easily rate among the tops, a glad of pale pink coloring and showing the utmost in frilling. It makes tall spikes with perfect placement of florets. Maxwelton is a typical Picardy in spike and florets, but of old rose color. This was a bit disappointing in its increase. Paradise is a wide open Gloriana, and Early Peach what the name would indicate. Pruitt's glads all have the essential length of spike.

If Olive Marie Brown, from Indian Hollow Farms, possessed this quality it might well lead in the deep yellow class, as it opens the entire spike at once—excellent for decorative work. Alayne has a very beautiful rose pink color but is short of spike in dry weather. Ellis' Wings of Song is the last word in a pale pink frilled beauty. H. J. Nitchman gave us several fine ones in his 1936 releases. Beowulf, his new lavender, may replace Minuet, at least commercially, as it propagates like Picardy.

Raquel is an excellent cream, and there are few good ones in this class. The Bounty is a rival to Koehl and Sowden. Lady Marie vied with Gladys Clegg for earliness; it should make one of the finest of commercials. Pure Gold describes itself, another tall yellow in a class that has always been weak.—From price list of Harold E. Janes, Whitewater, Wis.

GLADIOLUS PRICE LIST

THE 1937 price list of Harold E. Janes of Whitewater, Wisconsin, entitled "Gladiolus of Distinction" has just been received. It lists all of the leading varieties. We would like to publish the names of all Wisconsin growers who issue price lists.

High Rating Varieties

In his catalog Mr. Janes states: "Picardy, Margaret Fulton, Mildred Louise, Lotus and Sweetheart still rate high among the stars in my glad firmament. Among others of recent introduction which were most satisfactory this season I would mention Smiling, Maestro, J. S. Bach, Ben Hur, Star of Bethlehem, Mrs. E. J. Heaton, Miss Alameda, Queen Helen II., Southern Cross, Red Admiral, Blue Admiral, St. Lawrence, Vienna Woods and Sonatine."

The Child's Health Today
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NATION'S HEALTH TOMORROW

The National, State and Local Tuberculosis Associations of the United States

Christmas Decoration Contests

LAKE GENEVA CHRISTMAS FESTIVAL DECEMBER 12

THE Lake Geneva Town and Country Garden Club will sponsor an annual Christmas festival at Horticultural Hall, Lake Geneva, Saturday afternoon and evening, December 12.

Mrs. H. L. MacDonald who so admirably directed the Community Christmas decorations in the city last year has again accepted the task for this year. Each member of the club will do something special in the way of decorating their homes for the Christmas season. These decorations were complimented and admired by all who saw them last year.

One of the outstanding attractions this year will be a profusion of bowls of paper white narcissus which were planted under the direction of Mrs. Chas. Kaye by practically every member of the garden club. The bulbs were planted so as to be in bloom by December 12th during the Festival—Mrs. Frederick H. Taggart.

Christmas Lighting by Wm. Heth, Wauwautosa

THE JEFFERSON CHRISTMAS DECORATION CONTEST

THE Jefferson Garden Club will again sponsor a Christmas Decoration contest. It will be held somewhat similar to that of last year when a very successful contest was staged. The classes last year were as follows:

1. Inside decorations, visible from the outside.
2. Decorations of living tree and shrubs.
3. Other outside decorations.

The judging was done on the basis of the following score card:

A. Appropriatness of material _____ 20 points
B. Originality or distinction _____30 points
C. General effects from lighting _____50 points

Comments of a Judge

Mr. E. H. Miles of Fort Atkinson, who for two years was one of the judges of the Jefferson contest, makes the following comments.

"From a community standpoint, the contest was a huge success. It interested scores of people in doing their 'bit' to see that Jefferson is one of the most attractive places in the state at Christmas time. It draws hundreds of people from nearby towns who go there to see the much talked about displays.

"In Class 1 the outstanding display was one where the whole living room had been given over to a clever arrangement of material to represent a desert, flocks, stable, manger, and the Star in the East.

"In Class 3 perhaps the cleverest one was where a strong floodlight was buried in a big snowbank near the street. This lighted up the display on the lawn and in the window. Mrs. Walter Strohbusch, one of the club's most active members, used this plan.

"The outstanding outdoor display was one where the house stood back some distance from the street and was about 20 feet above it. Indirect lighting showed the manger, Joseph, Mary and the Babe. The Star was high in a window and the camels and Wise Men were silhouetted against the scene."

Racine Garden Club Plans Lighting Contest

Margaret Teuscher, Racine

THE Racine Garden Club conducted a Christmas lighting contest last year which so impressed the citizens of Racine (not because we were so good, but because it was something they wanted) that we have met with the ultimate in cooperation this year.

We started out the 9th of November with a regular garden club meeting at the Woman's Club with Mr. William Heth, lighting engineer of Wauwautosa as the speaker on "Christmas Lighting, Outdoor and In." The meeting was open to the public.

Our committee has set up some rules and established eight classes of competition as listed below. We hope to give three prizes in each class, first $10; second $5; third $1.

We have sent letters describing our contest to all the service clubs in town asking their cooperation on prizes. We have had excellent response from the Woman's Club, Downtown Business Men's Club, Local Gas and Electric Company.

Our judges are all selected. There will be four, all from Milwaukee, an architect, an interior decorator, a lighting engineer, and a man who specialized in colored photography. We will pay their expenses. The committee is going to serve them dinner at the home of one member. The night upon which the judging will be done is kept secret.

Certain of our members are going to appear before clubs in town to describe the project and our chairman is now busy making out a schedule for this as requests come in from the clubs.

Our newspaper is giving us all the publicity we want. They are going to run an entry blank. Our local Gas and Electric Company is forwarding to our chairman excellent publicity material from the General Electric Company.

I don't think the Racine Garden Club has ever done anything in our community which has received as much favorable comment as our last year's contest. As the result, it is very easy to put one on this year.

Rules for Christmas Lighting Contest

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 21st.
3. Lights must be turned on December 24th and every succeeding night including December 31st from 6 until 9::30 p. m.

Classifiications

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 Wisemen," etc.
7. Display depicting the Christmas Spirit — (Santa Claus).
8. Business house or store window Christmas lighting display.

SCORE CARD FOR WINTER ARRANGEMENTS

TRY the following score card in judging your winter arrangements. It is suggested by Victor Ries of Ohio.

Artistic effect	20
Color harmony	20
Suitability and relation of container	20
Suitability and combination of materials	15
Distinction	15
Usefulness	10

CHRISTMAS DECORATION AT PLYMOUTH

A. C. Erbstoeszer

WE will again have a Christmas decoration contest as we have had for the past four years. Our most outstanding decorations last year were Christmas settings on the lawn, comprising groups such as the Three Wise Men. We also had some beautiful tree decorations.

We offer ten prizes consisting of articles such as table lamps, thermometers, vases and candle sticks which are exhibited in downtown windows. The local Electric Utility puts on a large display for the city which is very beautiful.

AMERICAN ROCK GARDEN SOCIETY ANNUAL EXHIBIT

A NATIONAL Rock Garden Exhibition will be held in the American Museum of Natural History, New York City, May 14-16, 1937 by the American Rock Garden Society cooperating with the Horticulture Society of New York.

The schedule of classes may be obtained from Mrs. Dorothy E. Hansell, 1270 Sixth Avenue, New York City.

The fourth annual meeting of the American Rock Garden Society will take place on the second day of the exhibition, May 15.

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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

FOR YOUR DECEMBER GARDEN CLUB MEETING

ASK for a report from members on their experiences during the season in growing the new varieties recommended for trial in Wisconsin by the plant testing committee. Appoint someone to take notes and send these notes to the Wisconsin Horticultural Society, 1532 University Avenue, Madison Wisconsin. Definite results will be published in the magazine.

Ask the members if they have grown new varieties of flowers or shrubs which have proved desirable. If any are found, send this information to the Society for publication.

Have you sent in reservations for the new slides on flower arrangement with lecture, for one of your club meetings? Send reservations to the Bureau of Visual Instruction, 1204 W. Johnson St., Madison, Wis. The rental fee is $1 plus transportation.

The slides with lecture on Modern Arrangements prepared by the Wisconsin Garden Club Federation are available. Every Wisconsin club should see it. Make reservations with the Wisconsin Horticultural Society. The fee is $1 plus transportation.

Don't worry about an outside speaker for your programs during the winter months. Select the topics in which your members are most interested, then write the Free Traveling Library, State Capitol, Madison, and ask them to send you any available books on this subject. A committee of your members can prepare a very interesting program by making book reviews.

Let us all help make our community beautiful during the Christmas season. We can prepare articles for local newspapers suggesting ways and means of preparing outdoor Christmas trees and other types of decorations. Let us have our indoor Christmas tree in front of a window facing the street where it may be seen by the passersby at night.

QUESTIONS FOR DECEMBER CLUB MEETINGS

WERE you able to answer the questions in our November issue? It will be interesting to have the botany teacher in local high schools discuss the answers to these questions in detail.

The following questions will be of interest for the December meetings of garden clubs.

1. How can you tell a Juniper from a Hemlock?
2. What are the best evergreens for hedges in Wisconsin?
3. How and when would you prune evergreens?
4. What kinds of evergreens would you use for foundation planting around the house, and where would you place the different types?
5. What is meant by stratification?
6. Name the parts of a flower.
7. Of what use are the leaves to a plant?
8. How can the moisture in the soil be transported up the trunk of a tree 100 feet high?

FLOWER NAMES—WHAT THEY MEAN

LATIN and Greek names are used to describe flower varieties so that they may be understood in any part of the world. This month we give another list of common names and what they mean in our language.

Dioica—dual; **dealbata**—whitish; **dissitiflora**—profusely blooming.

Elatior—tall; **elegans**—ornamental; **excelsior**—stately.

floribunda—floriferous; **fragilis**—fragile; **frutescens**—shrubby; **flore pleno**—double flowered; **flammula**—flaming red.

Grandiflora—large flowered; **grandis**—great; **gracilis**—slender; **glaucum**—grayish; **gymnocarpa**—smooth seeded; **globosa**—globular.

Humilis—low, humble; **hispida**—shaggy; **hybridum**—mongrel.
Incana—grayish; **insignis**—remarkable.

Luminosa—luminous; **latifolia**—broad leaved; **lutea**—yellow; **longifolia**—long leaved; **lanceolata**—lance shaped.

BOARD MET DECEMBER 1

THE Board of Directors of the Federation met in Milwaukee on December 1st to appoint committees for 1937 and to make plans for the year's activities.

THE SPEAKERS FUND

CONTRIBUTIONS to the speakers fund of the Wisconsin Garden Club Federation, in adition to those listed in our November issue, are as follows: Fond du Lac Community Garden Club, $1; Menasha Garden Club, $1; Milwaukee County Horticultural Society, $5; Sheboygan Garden Club, $2.

The Wisconsin Horticultural Society donated $20.00 to the fund for the summer meeting from which there was a balance of $7.50, and also gave $25 toward the program of the convention in October.

Mrs. E. A. St. Clair, recording secretary-treasurer, states that there is at present a deficit of $13.72 in the speakers fund as a result of expenses incurred for speakers at the annual convention.

Contributions from any club not having helped this fund will therefore be greatly appreciated.

WISCONSIN WINS HIGHEST HONORS IN FLOWERS AT EXPOSITION

MR. Chester Harrison, of Waldo Sheboygan County, was the largest exhibitor in the amateur flower classes at the International Horticultural Exposition, Chicago, September 12-20. He was also the leading winner of top ribbons and prizes consisting of 49 firsts, 15 seconds as well as the aster, zinnia and gladiolus championship, and the gladiolus and aster sweepstakes.

Robinsons Have Best Perennial

The best perennial of the show was a Wisconsin grown delphinium exhibited by Robinson's Gardens, Kenosha. It was winner of the silver cup offered by Mrs. Louis E. Laflin, Lake Forest, Illinois, for the outstanding perennial. Mr. B. A. Robinson is president of the Kenosha Horticultural Society.

How the Maple Tree Works

Answers to Questions in November Issue

IN THE November issue of Wisconsin Horticulture we suggested the question—"Does the sap of the maple tree come up from the roots or down from the branches in the spring?"

As a result many inquiries have been received for the answer to this and several other questions asked. The answer to the question about the maple tree is based on experimental and scientific work done largely in Vermont.

How the Maple Tree Works

As is well known by all students of botany, the plant takes only raw materials such as soil moisture and soluble minerals from the soil. These are transported up the stem to the leaves.

The function of the green leaves is to manufacture food products, using the carbonaceous gas absorbed from the air together with food materials from the soil which are changed over into food products with the aid of sunlight acting upon the chlorophyl of the leaves. Every grain of starch in the world is so manufactured.

When the warmer weather of late winter comes, enzymes act upon the starch and change it over into soluble sugars. When the temperature rises to from 35 to 40 degrees it is called "good sap weather."

The Vermont tests indicated that the sugar manufactured by the leaves the previous July to September is stored as insoluble starch products in the living cells of the sap wood. The storage begins at the surface and as the amount increases it passes deeper into the wood. When the trees were tapped to a total depth of six inches it was found that by far the most sap came from the first depth of 1½ inches, which was also the sweetest, and four-fifths of the total sugar obtained came from the outer three inches of the hole.

Tests in Vermont proved that the sap **flows from both directions** into the sap hole. During the first part of the season and in good bright weather the greatest flow is from above. On poor days or late in the season the chief flow is from below. Practically no flow comes from the sides, and no sap came up from the lower parts of the roots.

Steam pressure gauges attached to maple trees showed that from 11 a. m. to 8 p. m. trees produced a pressure as high as 22 pounds. During the middle of the night, however, this was reversed and there was a suction as high as 6 pounds, depending somewhat upon the temperature. The explanation is that sudden fluctuations of temperature from slightly below freezing to slightly above causes the living cells of the trees to become active and produce this action of bleeding or giving off sap. When the temperature dropped a suction was produced.

The sweetness of the sap depends somewhat upon the amount of water stored by the tree. It has been found that trees growing near creeks where there was plenty of moisture available had a rather "thin" sap, while in those growing on high land the sugar in the sap was more concentrated.

Water seems to be stored in

GARDEN CLUB TALKS

1. Color schemes for the garden.
2. Flower arrangement.
3. Christmas Decorations.

The above talks are illustrated with charts and real plant and flower materials. Write for information and fee.

MRS. JAMES JOHNSON
Box 184, Elm Grove, Wis.

the tree throughout the winter. Tests indicated that in December the maples contained 31% water and in the middle of March 36%. By April 28th it had reached 47%. Then as the buds expanded it fell to a summer condition of 25%. This water all comes from the soil.

Tests also indicated that the amount of sugar produced by a maple tree is influenced greatly by the leaf surface and the amount of sunlight available to the tree during the summer and fall months.

Question: Does the food product for healing a wound come from the roots?

Answer: As explained in the case of the maple tree, food products are all manufactured in the leaves.

When Does a Girdled Tree Die?

The third question. If about six inches of the bark is removed from the tree or around the trunk in the spring, will the tree die the first year?

Soluble mineral elements dissolved in the soil moisture are transported up the trunk of the tree through tubes on the **inside portion** of the vascular bundles called zylem. These are tubes which **remain in the trunk of the tree** after the bark is taken off.

Food products manufactured in the leaves are transported down the trunk of the tree through tubes in the **outer portion** of the vascular bundles known as phloem. These tubes are removed with the bark if it is taken off the tree. Therefore moisture from the soil continues to be transported up the trunk after the bark is removed. The tree continues to live and may produce a crop of leaves and even fruit. However, since food cannot be transported from the leaves downward across the break in the bark, the roots gradually starve. Depending upon the severity of the following winter and other physical conditions, the roots may die after the first year, which will cause the tree to die completely the second year. However, some trees live for two years, though they show signs of weakness the second season.

WISCONSIN FLOWER LORE WANTED

THE Folklore Section of the Federal Writers' Projects, Works Progress Administration, with an office at the State Historical Museum, at Madison, is engaged in collecting folklore and folk customs material throughout the State of Wisconsin for the use of the State and Federal governments.

In this important undertaking the Section will be pleased to have the assistance of the members and friends of the Wisconsin Horticultural Society in contributing data relating to the lore of flowers, herbs, shrubs and trees. It will be pleased to receive such original material on the significance and symbolism of flowers and trees, superstitions and beliefs concerning them, their former uses in household decoration, in home remedies, in confections, in perfumes and dyes, in the festivities of various nationalities, and in story, song, and poetry. Such contributions and communications may be directed to Mr. Charles E. Brown, director of this project, at the State Historical Museum. This flower lore the Section will preserve for future use in various ways. It is expected that some of it will be published for educational uses.

Airplanes carrying insect traps at an altitude of one-half mile have caught beetles closely related to the principal carrier of the Dutch elm disease.—Pennsylvania Department of Agriculture.

GARDEN GOSSIP

THE best way to protect roses for winter in Wisconsin is to cover them as much as possible with soil. Gardeners are doing this in several ways. Some are making a cone of tin or wood which is filled with dirt to a height of about 10 inches. The branches above this point may be cut off. Others try to bend the plant to the ground and cover it with soil. Additional protection of marsh hay or straw should be given in colder climates.

Half-hardy climbing roses must be laid down on the ground and covered with some type of material. Straw, marsh hay or the tops of plants in the gardens are satisfactory for covering.

There are probably two reasons why many people cannot grow plants indoors successfully during the winter time. The first is the presence of gas from cooking, and the second a too warm or dry an atmosphere. Experiments have shown that homes kept at a temperature of less than 70° F. have a much better chance of succeeding with house plants than those kept at a higher temperature. Many rooms are too dry for house plants. The air can be kept moist with some of the new types of humidifiers available on the market. There is probably little danger of overwatering plants in porous pots kept in the rather dry warm atmosphere of the average home. In fact, there is more danger of the roots touching the porous pots being injured from drought.

Too little light is also a common cause of failure, especially when accompanied with high temperatures.

Such plants as Sansevieria can however, be grown in any home during the winter time.

Is the seed available of sweet rocket?

Can you buy seed of hens-and-chickens?

PILGRIMAGE TO NATCHEZ, MISSISSIPPI

THE sixth annual showing of ante-bellum houses by the Pilgrimage Garden Club of Natchez, Mississippi, will be held next March 14-21st. At this tim Natchez will revive the spirit and charm of the civilization which reached the peak of its grandeur just prior to the War between the States. At this seasno of the year it will be springtime in Mississippi and her gardens will be in bloom with azaleas and camelia japonicas.

The doors of century-old mansions will be opened to the public and there will be guests from all parts of America. Full details may be obtained by writing Mrs. Balfour Miller, Natchez, Mississippi.

INTERNATIONAL PEACE GARDEN

DEVELOPMENT of the International Peace Garden located on the boundary between North Dakota and Manitoba, is progressing. The annual meeting of the voting members was held on September 7th in the officers quarters on the grounds of the garden, at which time officers and directors were elected. The title of the 888 acres of land located in North Dakota has been transferred to the State of North Dakota as trustee, and this together with approximately 1,300 acres in the Province of Manitoba may be used by the International Peace Garden, Inc., as long as it is used for the purpose of an International Garden.

Considerable work has been done by the CCC Camp located in the garden. Five thousand dollars will be spent in fencing the formal area on the Canadian side, and seven thousand dollars on highway development along the East side of the area. Contributions are being received each year by the officers, to help improve the garden.

GARDEN CLUB PROGRAM

CAN your club members answer the questions listed below? Here is an opportunity to satisfy their curiosity and to test their knowledge of gardening.

It is only by giving our members something really valuable and vital to do to stimulate thought and keep up the interest in the meetings that we can have successful garden clubs. Sometimes we can even stimulate the interest of members who really don't care much about gardening and make them valuable additions to our garden family.

Some of the questions listed here were suggested by Mr. Victor H. Ries, of Ohio, in his monthly News Letter. We suggest that club members be asked to answer these questions. If certain questions cannot be answered at the first meeting, a committee should be appointed to bring the answers to the next meeting.

What do you think of this plan? Shall we submit questions each month? Perhaps our members can send in questions. Here is the first list:

What color flowers do the various forms of lychnis have?

What is Digitalis purpurea monstrosa?

Does hardy candytuft come in any color other than white?

Are all rudbeckias yellow?

Are all campanulas blue?

Art all pinks pink?

Which meadrowrue has lavender flowers?

What bleeding-heart blooms all summer?

What is the name of a good early white phlox?

Art there salmon colored hollyhocks?

Does the monkshead come in other colors besides purple?

What varieties of shasta daisy are double?

Can you buy seeds of the coral lily, Lilium tenuifolium?

Are there yellow foxgloves?

LAWN CLIPPINGS FOR MULCHING IN THE GARDEN?

THE following question was sent in by Gordon Chromasta of West Allis: "Is it harmful to mulch annuals or perennials with lawn clippings?"

Lawn clippings could have no harmful effect either if dug into the soil or spread on top of the soil as a mulch. Green clippings are full of proteins and nitrogen products. Therefore they would not have the same effect as is sometimes obtained when straw or corn stalks are placed on the soil. Straw or corn stalks are high in celulose and very low in nitrogen. Therefore when molds attack them, these molds find insufficient protein or nitrogen in the material for their development, so they take it from the soil thereby robbing the plants of nitrogen.

Lawn clippings on the other hand, have sufficient nitrogen and protein, so that the mold would not need to take it from the soil. Since they decompose rapidly they would be valuable for fertilizer and also for spreading on top to conserve moisture.

CHICAGO FLOWER SHOW APRIL 3-11, 1937

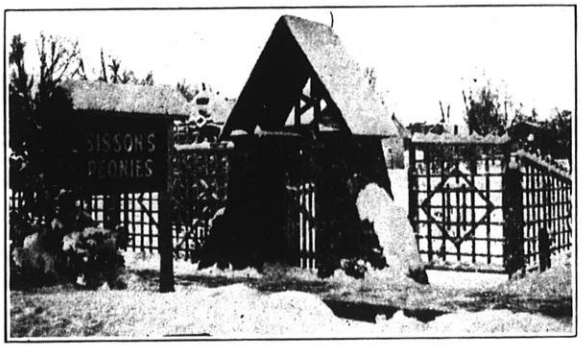
THE 11th annual Chicago Flower Show presented by the Garden Club of Illinois will be held at the Navy Pier, Chicago, this year from April 3 to 11, according to an announcement just made by Mrs. O. W. Dynes and Mrs. W. W. Shoemaker, co-chairmen of the show.

A total of 225,000 people visited the show last year, proving its popularity.

Voice (over telephone)—"Are you the game warden?"

Game Warden—"Yes ma'am."

Voice—"Well, I am so thankful that I have the right person at last! Would you mind suggesting somes games suitable for a children's party?"



Seasons Greetings To All

Sisson's Peonies
ROSENDALE, WISCONSIN
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WAX

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Kind of Foundation	Cost of Manufacturing Per Pound			
	10 lbs.	25 lbs.	50 lbs.	100 lbs. or more
Medium Brood	26c	23c	20c	14c
Thin Super	32c	28c	25c	21c

Our prices include milling, papering and packing. You pay transportation charges both ways in addition.

I am also in the cash market for wax. Write for my prices and shipping tags before you dispose of your wax this year.

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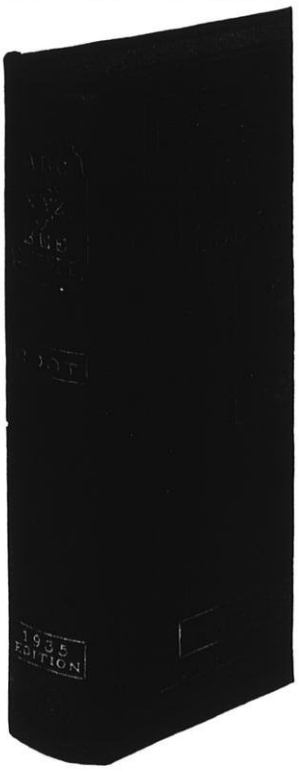

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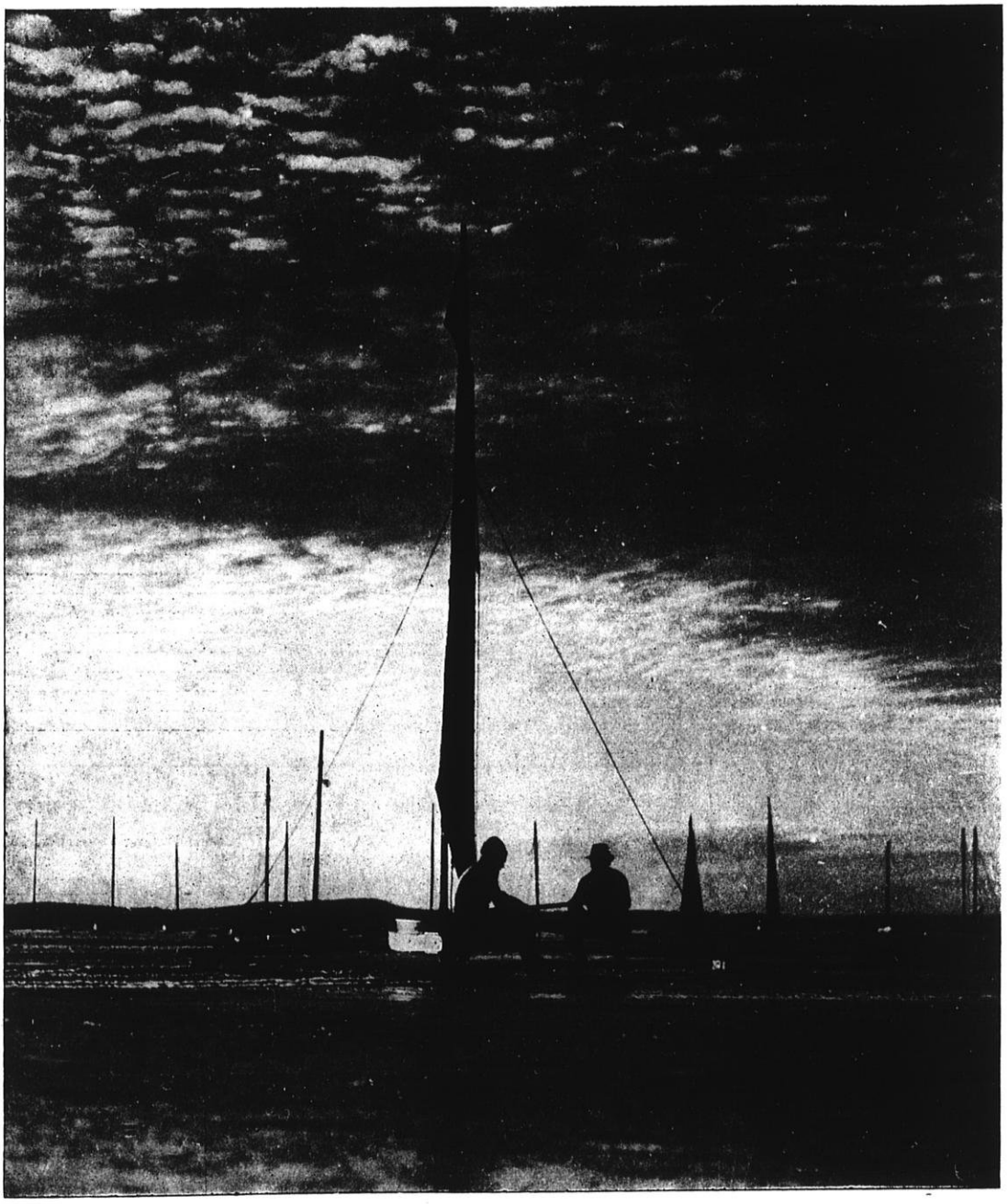

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NO BARGAIN

Lawyer to colored client: "Well, Hank, I can probably get you a divorce, but it will cost you $50."

Hank: "Fifty dollars, boss?"

Lawyer: "Yes, that includes court fees and other expenses."

Hank: "Well, boss, I guess I don't want no divorce. There ain't $50 difference between dem two wimmen."

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

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TABLE OF CONTENTS

	Page
Bees and Fruit Yields	99
The "Thin Wood" Method of Pruning	101
Sod Culture for Sour Cherries	101
Likes Cortland and Haralson	102
Orchard Contest Held In Milwaukee County	102
New Apple—Beacon Replaces Duchess in Minnesota	103
Value of Irrigation for Strawberries	104
What Is Strawberry Black Root	104
Cranberry Growers Have Interesting Meeting	105
Horticultural News	106
Honey Increases Haemoglobin	107
Editorials	108
Honey Production In Wisconsin	109
About the Home and Garden	110
Plant Testing	111
Favorite Gladiolus Varieties	112
Varieties for Plant Testing for 1937	114
State Garden Club Federation News	116
For Your Garden Club Program	116
Federation Committees for 1937	117
Gardening Books	119
Improved Columbines	119

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Subscription to Wisconsin Horticulture is obtained by membership in the Wisconsin State Horticulture Society for which annual dues are $1 per year or $1.50 for two years. Garden Clubs, Horticultural Societies, and other Horticultural Organizations are affiliated at a reduced membership rate.

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.

Bees and Fruit Yields

H. D. Hootman, Michigan

(Part II continued from Dec.)

Wind and Insect Pollination Compared

Several individual sour cherry trees in widely separated locations were screened during the blossoming season to exclude all insects.

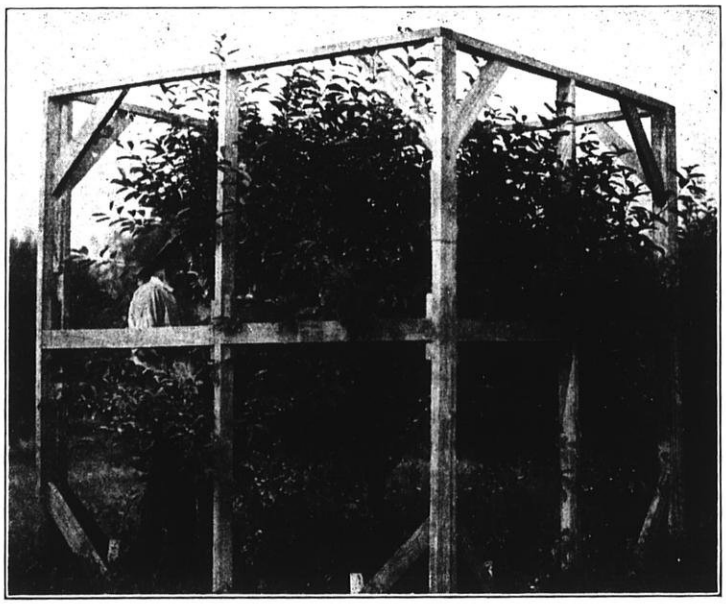
The results of all these tests, recorded in the following table, have indicated clearly the desirability of insect pollination.

Location of Tree	*Wind Pollination*	*Insect Pollination*
Grand Rapids	2¼ lbs.	44 lbs.
Hart	4 lbs.	44 lbs.
Traverse City	3½ lbs.	150-200 lbs.

Honey-Bees Increase Cherry Yields

In the W. R. Roach Company orchards located north of Hart, Michigan, 200 colonies of bees were distributed in 150 acres of apple and cherry orchards. Where the trees were very large, as many as three colonies were distributed on a single acre. In blocks where the trees were seven or eight years of age, only one colony to three or four acres of orchard were used. The colonies remained in the orchard eleven days. Weather conditions during this period were favorable for bees to work and in this limited time three tons of honey were gathered. Further, the cherry crop from these orchards totaled 265 tons.

It has long been known that flowers secrete nectar for the sake of attracting insects, but it is doubtful if the real value of the sour cherry as a honey plant has been appreciated by bee keepers. Sour cherries are generally not sprayed until after blossoming. This makes it possible for beekeepers to rent their colonies in concentrated cherry sections, gather the nectar flow available, and at the close of the blossoming period, move their colonies to other honey producing sections — thus eliminating the hazard of arsenical poisoning to the bees.



A sour cherry tree at the Graham Horticulture Experiment Station near Grand Rapids that was screened during the blossoming season to exclude insects.

Change in Apple Planting Practices

A big change has taken place in commercial fruit growing since our forefathers set out orchards to assure a supply of apples for the family's needs. These old home orchards were generally never more than two to four acres in extent and on this comparitively small area were planted a dozen different varieties but seldom more than ten or twelve trees of one kind. Under these conditions of orcharding a pollination problem

was unknown. In recent years fruit growing has become commercialized and the selection of varieties for planting has been largely determined by the market demand.

As a result it is not uncommon to find an orchard of 10, 20 and even some times as large as 60 acres that has been planted to a single variety such as McIntosh, Stayman, Winesap, R. I. Greening or Northern Spy, without considering the pollination question. Provision for cross-pollination should be made at the time an orchard is set out, by planting not more than four rows of a single variety together.

Making a Stubborn Orchard Bear

Several years ago there came to my attention a Northern Spy orchard located near Belding Michigan. Its owner informed me that the yield from the 11 acres set solid to Spies had never been over 1000 or 1500 bushels any season during the past eight years. Practically all apples had been harvested from the north side of the block where an old home orchard of mixed varieties stood close by.

It was thought that lack of insect activity was responsible for the unproductiveness of the south half of the orchard. A yard yard of 40 colonies of bees was established in the orchard, but this did not materially increase yields. Later "bouquets" of Ben Davis, Wagener, Wealthy and Tolman Sweet blossoms were placed in tubs of water in the bee yard. About 40 more half barrel tubs were filled with "bouquets" and scattered through the south side of the orchard. Bucket "bouquets" were hung in the trees. Six additional colonies of bees were moved into the orchard for the blossoming period and substantial "bouquets" placed about 10 feet in front of them. What were the results? "Bouquets" plus bees did the trick. A 5,200 bushel crop was harvested.

Feeling Between Neighbors

THE writer was once asked to visit a Northern Spy orchard where it was suspected that a pollination problem existed. In driving by the orchard it appeared as if a good crop was on the trees. Closer examination revealed that only the trees in the outside row around the orchard and for several rows on the north side, where Jonathans, Grimes and Baldwins joined them, were bearing satisfactorily. It was apparently a pollination problem, for the whole orchard had bloomed profusely. The crop on the outside row of trees was probably pollinated by bees or wild insects carrying pollen to the orchard from home orchards in the vicinity.

I recalled that while visiting a beekeeper's yard in this same neighborhood several months earlier, I had heard this particular fruit grower's pedigree read in no uncertain terms for spraying when the trees were in bloom. In truth, the fruit grower was quoted as not giving a D___ if there wasn't a bee within twenty miles of him. Here were two neighbors, a beekeeper and a fruit grower—at swords points with each other, instead of working harmoniously together.

A change has taken place in the attitude of these two men, because of a better understanding of each other's problems. This year at blossom time, spraying operations ceased, and for a cash consideration the beekeeper distributed a truck load of his bees in the fruit grower's orchard. Tubs of water were placed in front of the colonies, and kept filled with fresh bouquets of apple varieties that are known to effectively pollinate the Northern Spy. All this effort was not in vain for the crop the next year of 4400 bushels was the largest it had been in fifteen years. A good crop of apples was produced on all trees that blossomed in the orchard instead of as formerly—on the outside row and on trees located near the Jonathan, Grimes and Baldwins.

(To Be Concluded)

CATALOG OF NEW FRUITS

MEMBERS who are interested in testing new varieties of fruits should send for the catalog entitled "A Catalog of New Fruits," published by the New York State Fruit Testing Cooperative Association, Geneva, New York.

The catalog describes in detail the new varieties of apples, pears, cherries, plums, grapes, strawberries, gooseberries and other fruits put out by the New York Experiment Station and quotes prices.

The "Thin Wood" Method Of Pruning Bearing Apple Trees

ORCHARDISTS who are planning on doing any pruning on bearing apple trees will find bulletin No. 265 on the "Thin Wood" Method of Pruning Bearing Apple Trees by Ricks and Gaston, Michigan State College, East Lansing, Michigan, to be of considerable value because of the discussion, illustrations and tables given.

The following are some of the conclusions reached in experimental work conducted.

Where Are the Good Apples?

In the average bearing tree, 49 percent of the crop is produced by the "top," 36 percent by the "outside," and 15 percent by the "inside."

The predominating grades produced by the various divisions of the tree are as follows: top, U. S. Fancy; outside, U. S. No. 1; inside, U. S. Commercial.

The size of a given apple tends to be directly proportional to the diameter of the branch upon which it is borne.

The number of apples borne by a given branch tends to be directly proportional to the diameter of that branch.

The amount and shade or intensity of color present on the apples produced by a given branch tends to be directly proportional to the diameter of that branch.

More than 60 percent of the total returns are derived from apples produced by the top, 33 percent from apples produced by the outside, and 7 percent from apples produced by the inside.

These related facts have been made the basis of a series of pruning trials which included conventional pruning methods, and they have resulted in the development of the "Thin Wood" method of pruning.

What Is Thin Wood Pruning?

"Thin Wood" pruning consists in removing from the tree the "thin", relatively unproductive branches.

"Thin" wood has the following characteristics: (1) the four-year-old wood of these branches is less than two-eights inches in diameter; (2) it makes comparitively short terminal growth; (3) it tends to grow in a downward direction; (4) most of it is found in the lower and inner part of the tree.

The amount and character of wood to be removed can be determined by observing the amount and distribution of inferior fruit produced.

Results To Be Expected

"Thin Wood" pruning results in a substantial:

(1) Decrease in yield of inferior fruit, (2) increase in the average size of fruit, (3) improvement of the color grade, (4) increase in monetary returns. It: (5) requires less time and is less costly than the more conventional methods in common use, (6) makes spraying easier and more effective, (7) makes thinning easier and cheaper, (8) makes harvesting easier and less expensive, (9) reduces the sun scald hazard as compared to conventional methods, (10) results in fewer water sprouts and consequently less fire blight, (11) does not throw young trees out of bearing as may other methods, (12) is adapted to bearing trees of all ages, (13) makes several pickings less necessary, (14) minimizes frost hazards.

NATIONS DO THAT, TOO

Mother: "Boys, boys! Stop that this instant!"

Boys: "Aw, we're not fighting, we're just defending ourselves from each other."

SOD CULTURE FOR SOUR CHERRIES

THE stone fruits have always been regarded as sensitive to sod influence and therefore suitable for growing only under a clean cultivation or a clean-cultivation-cover crop system of management. The 14-year record of a block of Montmorency cherry trees set at the Graham Station, Michigan, in 1920 and maintained in sod from the start, in comparison with a similar block under cultivation, has recently been summarized and published (Mich. Agr. Exp. Sta. Quar.). Although the trees have not grown so rapidly, nor borne quite so heavily as those under cultivation, and although they have required somewhat larger quantities of commercial fertilizers, they have grown and yielded satisfactorily, and the total expense connected with their maintenance has been slightly less. The investigation indicates clearly that, although cultivation is to be preferred to sod culture where the slope is such that erosion is not a factor, sod culture is entirely practicable as a method of soil management in the cherry orchard. From observation it is evident that substantial portions of a comparatively large percentage of the cherry orchards in Michigan should be seeded down and maintained in sod.—From Michigan Experiment Station Report.

MOTION PICTURES ON HARVESTING APPLES TO BE SHOWN

THE new motion picture on Picking, Packing and Grading Wisconsin Apples will be shown at the annual meetings of each fruit growers association affiliated with the Horticultural Society this season.

The film shows methods and machinery used in harvesting and packing apples in Door County, Gay Mills, Baraboo, Oconomowoc and Oshkosh.

In the Orchard

MARINETTE COUNTY FRUIT GROWERS ASSOCIATION AFFILIATES WITH SOCIETY

THE Marinette County Fruit Growers Association was organized on December 1. The following officers were elected: President, Geo. Miller, Wausaukee; Vice-president, Adolph Feifarek, Peshtigo; Secretary-Treasurer, Eugene Wood, Peshtigo. The Association voted to affiliate with the Horticultural and the S. E. Fruit Growers Association.

Mr. Bruce L. Cartter, County Club Agent, and Mr. Conrad Kuehner, fruit specialist, Madison, cooperated in the organization of the Association.

A series of orchard school meetings will be held throughout the county from January 13-16.

The Wisconsin Horticultural Society takes pleasure in welcoming to membership this new fruit growers association, and wishes them a full measure of success during the new year.

LIKES CORTLAND AND HARALSON

"WE are greatly pleased with the Cortland and Haralson apples," writes Virgil Fieldhouse, Dodgeville. "If you have not tried the Haralson for cooking, try them some time. We prefer them to N. W. Greening. They are a trifle tart for eating although some like them."

Considering the hardiness of the Haralson trees throughout colder sections of Minnesota, their early and heavy production, we believe that the Haralson will eventually replace N. W. Greening as a cooking apple in Wisconsin. No doubt they will sell better because they are red in color. Such varieties as Cortland, however, can be used both as a cooking and eating apple, and for that reason may be preferred in the southern half of the state where hardiness is not a main consideration.

CHARACTERISTICS OF GOOD ORCHARD SOILS AND SITES

EXTENSIVE surveys of orchard soils and sites in Berrien, Oakland and Grand Traverse county areas indicate that the most important single factor in determining the value of a soil for fruit production in Michigan is its ability to supply moisture during extended drought. In general well-drained loamy soils, underlaid by till clay of gritty texture and relatively open structure, rank first. Sandy hardpans, waterlogged, imperfectly-drained subsoils, hard, impervious, underlying clay, and deep, dry sands all delay or prevent the penetration of roots to the underlying moist subsoil and contribute to poor growth and unsatisfactory production. Topography is of importance mainly as it influences erosion and the frostiness of the site. Orchards are seldom profitable when set on slopes already denuded of top soil and are frequently destroyed on steep slopes by subsequent erosion induced by cultivation. The hazard of spring frost damage is greatly reduced by selecting elevated sites where the heavy, chilled air has an opportunity to settle into adjacent extensive areas of lower ground. The best orchard sites, where profits are most likely to be obtained, are those on broad ridge or upland plains bordering depressions.—From Michigan Experiment Station Report.

ORCHARD CONTEST HELD IN MILWAUKEE COUNTY

R. B. Pallett, County Agent

A COUNTY orchard contest was sponsored again this year by the Milwaukee County Fruit Growers Association. This is the second year that the Association has used this project as an encouragement for the complete management of orchards within the county. Eighteen orchards entered this year, including two spray rings. First place spray ring was the Oakwood Road group with Ed Schmidt, R. 1, South Milwaukee, as secretary. Second place was won by the Lake Spray Ring.

The Score Card

	Points
Orchard clean-up	60
Pruning	130
Fertilizing	150
Sod mulch or cultivation	60
Livestock out of orchard	50
Varieties	50
Spray program	100
Record of spray dates and cost	60
Grade of fruit produced	300
Apple thinning	40
Total Points Allowed	1000

Individual winners were as follows: 1st, Hy. Mahr, Caledonia; 2nd, Otto Sorgel, Milwaukee; 3rd, Oscar Conrad, West Allis; 4th, A. J. Meyer, Hales Corners; 5th, E. & H. Gruettner; 6th, T. Hartl, Milwaukee; 7th, Paul A. Schmelter.

Two silver plaques were awarded to the winners, one for spray ring and the other for individual. The score card was prepared by C. L. Kuehner, Madison; Will Steel, Pewaukee; Guy Hales, Port Washington, and C. L. Fluke, Madison.

NEW BULLETIN ON CODLING MOTH CONTROL IN MICHIGAN

A NEW bulletin entitled "Insecticide Experiments on Codling Moth in Michigan, 1929-1935" has just been issued by Michigan State College, East Lansing, Michigan.

Among other things it discusses the spray residue situation in a comprehensive manner, giving the amount of residue on apples sprayed in various ways.

The following are some of the conclusions reached in these experiments as summarized in the bulletin.

Climatic conditions especially favored the spring brood moths from 1929 to 1934, inclusive.

It is shown that flight of adult moths may be expected to occur throughout the summer season, since low temperatures are seldom limiting factors.

The great variation of lateness of moth flight in the fall is indicated, which emphasizes need of yearly observations to determine the number of spray applications for the summer brood.

Lead, zinc, and calcium arsenate are discussed. They rate in effectiveness in the order named.

The lead arsenate-oil combination was the most effective spray, but with this treatment residue removal is greatly complicated.

It is shown that fruit sprayed with lead arsenate after June 15 usually has an excess residue.

CALCIUM CYANAMID AS AN ORCHARD FERTILIZER

WITHIN the last few years calcium cyanamid has been used by a good many fruit growers as an orchard fertilizer. In the dry season of 1934 its use was attended by considerable burning of leaves and premature defoliation. A field survey showed that injury was most severe in the lighter soils and where application had been delayed until after growth had started in the spring. Extensive field trials in 1935 showed that by making applications in early fall all beneficial effects of the fertilizer can be obtained without incurring any danger of foliage injury and that if the application is made real early in the spring no harmful effects are likely to follow, even in light soils.—From Michigan Experiment Station Report.

RACINE COUNTY FRUIT GROWERS MEET

ABOUT 60 fruit growers and their wives of Racine County met at Rochester December 10th. The Association reported 189 members during 1936.

Officers elected for 1937 are: President, Charles Patterson, Franksville; Vice-president, William Verhulst, Franksville; Secretary-Treasurer, Lyman Skewes, Union Grove.

The Association purchased through the Southeastern Association during 1936, 5,415 gallons of lime sulphur; 5,776 lbs. arsenate of lead; 25 tons of ammonium sulphate, and 12½ tons of Aero cyanamid, in addition to other items such as fruit trees. The total volume of business was $3,700.

Prof. C. L. Fluke, Madison, showed slides and gave a talk on the various insects which growers have to contend with in growing apples.

Mr. C. L. Kuehner, with the aid of pictures, emphasized good air drainage for orchard sites, the necessity of allowing at least 30 feet between apple trees when planting, and other interesting information.

Mr. H. J. Rahmlow, Madison, showed and explained the new movie film taken by the Horticultural Society on picking, packing and grading apples in Wisconsin which created a great deal of interest.

NEW APPLE—BEACON REPLACES DUCHESS IN MINNESOTA

AN excellent quality early apple was named Beacon by the Minnesota Fruit Breeding Farm last year, and according to reports, is meeting with favor by Minnesota growers. The following article appeared in the November issue of the Minnesota Horticulturist:

"The Beacon apple was introduced last year. This is a deep red apple ripening a few days after Duchess but is of **better quality** and **keeps a month longer.** On account of its **high color** and better keeping qualities it will eventually displace the Duchess and fill the gap between the summer and late fall varieties. It will be of valuable commercial variety because of its early annual bearing habit, uniform size and good quality and high color."

We would recommend that Wisconsin orchardists who want an apple of the Duchess season try out the Beacon which may be obtained from Minnesota nurserymen or no doubt Wisconsin nurserymen can obtain it for our members.

TORTURE

"Talk about torture!"

"Yes?"

"Nothing worse than sitting in a barber's chair with your mouth full of lather watching the boy trying to give another customer your hat."

We Offer the Following for Spring

New Wonder Lily Philippinense Formosanum, 25c each; 3 for 65c
New Ember, Yellow Plums
New Beacon Apple No. 423
New, No. 790 apple
New, No. 1007 Apple

And many other new and standard varieties.

SWEDBERG NURSERIES
Battle Lake, Minn.

In the Berry Patch

VALUE OF IRRIGATION FOR STRAWBERRIES

A PORTION of the program for fruit growers in connection with the annual convention of the Minnesota Horticultural Society was devoted to irrigation of small fruits. The following article appeared in the November issue of the Minnesota Horticulturist, presenting the information given by the speakers on this subject.

"The program on irrigation proved to be of unusual interest. Mr. Beyer Aune, who is superintendent of a government field station in South Dakota where irrigation methods are studied, discussed surface irrigation. His talk emphasized the fact that economical surface irrigation requires **adequate ditching, leveling,** and regulation of the amount of water that enters at the head of each row. He showed how the water could be regulated by small flumes constructed of ordinary wood lath. Some soils, he said, would not be adapted for surface irrigation, particularly where shallow soil would prevent leveling operations by exposing the subsoil.

Profit From Irrigation

"W. R. Morton of Robbinsdale presented some very practical advice on the irrigation of strawberries. He showed that spring frosts, excessive June rains, and other hazards may at times completely offset the benefits derived from irrigation. His cost of irrigation, including interest and depreciation, amounted to $38.00 per acre for 1935 and 1936, or $19.00 per acre per year. His income in 1936 from plants set in 1935 amounted to $1,005.00 per acre, and he credited a large share of this return to the fact that he was able to irrigate his crop during the drouth periods.

Pumps

"Many growers who expect to pump water from a lake, stream, or other supply within 25 feet of the surface do not appreciate the importance of obtaining just the right pump for their needs. Most of this shallow pumping for irrigation is done by centrifugal pumps. There are many types of these pumps. For instance there are open vane and closed vane pumps. The closed vane pumps are commonly used, but their efficiency drops rapidly if the water is full of dirt or grit. The open vane type is made especially for pumping water that is not clean, and portable units are available weighing only 61 pounds including the gasoline engine with a capacity of 8,000 gallons per hour. This type of pump would be ideal for surface irrigation where the water contains considerable solid material, but it will not pump against sufficial pressure for overhead irrigation."

FALL FERTILIZERS FOR STRAWBERRIES BEST IN VIRGINIA

EXPERIMENTS at the Virginia Truck Experiment Station have shown that properly spacing strawberry plants and the application of fertilizer **in the fall** resulted in larger yields of better quality berries than were obtained by applying fertilizer in the spring or by not thinning.

Plots fertilized in the fall yielded 230 crates per acre, while those fertilized in the spring produced 196 crates.

Spring fertilization of unthinned plants proved either detrimental or of slight value. In thinning it was aimed to reduce the stand of plants to about six inches apart.

WHAT IS STRAWBERRY BLACK ROOT?

C. H. Beaver, Eau Claire

WE read in papers and magazines including the December issue of Wisconsin Horticulture, that scientists in different states do not agree as to whether black root and crown of strawberries is an ill or an ache.

During the past 20 years we have tested almost every variety of strawberries offered together with thousands of seedlings produced on our own farm. During this time we have had many strawberry plants afflicted with this trouble and after setting them in restricted areas for observation, found that with good soil and growing weather, by the middle of summer the plants would recover sufficiently to do well. With us this trouble occurs as follows:

In October there may be a warm spell with rain and plants take on moisture. Later the wind may turn to the northwest and the temperature drop to 20 or lower. The soil freezes to a depth of from one to three inches and the plants are damaged. After a thaw one may dig up a plant here and there, cut through them lengthwise and if the temperature was low enough there will be browning of the crown where the roots are attached. The more severe the freezing, the darker the color, and the farther it extends down the roots and up into the crowns.

If the mulch is removed early in the spring and good weather prevails, plants will recover considerably by the first part of May. If the freezing has been severe the plants may grow in the field, but may not grow when transplanted.

EXPERIENCES WITH STRAWBERRY BLACK ROOT

"OUR observations have always led me to be confident that strawberry black root was caused by winter injury," writes Virgil Fieldhouse, Dodgeville. "One year when our rows were raised somewhat above the paths between, and were running east and west, the plants on the south side of each row had black root, while on the north side they were healthy. Would disease act that way?

"Another year the roots were black up to one inch below the crown and below that they were normal.

"By watering and covering early we find that we are avoiding much damage."

Note: It has of course been observed many times that when plants effected with black root and crown are planted, the resulting runners and young plants are healthy and when covered properly, remain healthy during the next year. If the trouble were caused by disease, we would naturally consider that the disease would spread to the young plants immediately.

PLOW DESIGNER WHITTLED MODELS FROM POTATOES

THE plow invented by Jethro Wood in 1814—with mouldplate, share, and landside cast separately — forecast modern plows. But Wood had great difficulty in getting workmen to mold his plows as he wanted them. He was taunted with being a "whittling Yankee" because he whittled away bushels of potatoes before he had a miniature model plow that suited him. Seward, Lincoln's Secretary of State, said, "No citizen has conferred greater benefits on his country . . . none has been more inadequately rewarded."

CRANBERRY GROWERS HAVE INTERESTING MEETING

THE annual meeting of the Wisconsin Cranberry Growers Association and the Cranberry Sales Company was held at Wisconsin Rapids December 16 and was the best attended in years.

Prof. Asher Hobson, economist of the Wisconsin College of Agriculture, was the speaker. He talked on agricultural cooperation, outlining the history of cooperative marketing and stating that the Wisconsin cranberry growers have one of the most successful cooperative marketing organizations in the country.

Mr. E. L. Chambers, State Entomologist, spoke on insects and diseases of cranberries which was illustrated with moving pictures.

Mr. A. U. Chaney of New York, Secretary of the American Cranberry Growers Exchange, was present in spite of poor health. Mr. C. M. Chaney, his brother, who has been helping him a great deal, was also present.

Mr. Herman Gebhardt of Black River Falls was re-elected president, and Miss Clare Smith was re-elected secretary of the Association

The Cranberry Sales Company elected Mr. A. E. Bennett, Wisconsin Rapids, president; Mr. Albert Hedler, Phillips, vice-president, and Mr. Guy O. Babcock, Wisconsin Rapids, treasurer. Mr. V. Goldsworthy is manager. Directors are Mr. C. Treat, Millston; Mr. O. O. Potter, Warrens; C. L. Lewis, Beaver Brook, and Mr. Joe Bissig, Wisconsin Rapids.

A resolution was passed asking the Conservation Commission to help out with the muskrat problem. These animals are undermining the dams and leting water out, causing great damage.

The Association again affiliated with the Wisconsin Horticultural Society.

Despite ideal conditions for sanding, the attendance was excellent, 160 being present at the banquet at which County Agent Lathrop was toastmaster.

Prices this year were the highest for a good crop in the history of the Association. Prices in 1921 were slightly higher due to a small crop. Cranberries were reported as being all sold for this year.

LIKES EMBER PLUM

"THE Ember plum, formerly No. 83 from Minnesota, of which variety we have a large tree ten years old, bore very heavily this year," writes Virgil Fieldhouse of Dodgeville. "By watering the tree regularly, we kept the fruit from cracking. It is the mildest plum we have ever canned. It bears as regularly as any other variety, when planted near Hawkeye and De Soto."

The Ember is a yellowish plum with a blush, and is now considered one of the best put out by the Minnesota Fruit Breeding Farm.

Mr. Fieldhouse states that the Elliott plum is very large and has a true apricot flavor.

"The Ember and Eliott are favorites because of their mildness. We may grub out the Golden Rod variety."

ATTEND FARM AND HOME WEEK

Wisconsin College of Agriculture February 1-5

THE Wisconsin College of Agriculture will present its usual excellent program for farmers and homemakers the first week in February. This year there will be a special program for beekeepers and one forenoon will be devoted to talks on the home grounds in connection with the homemakers department.

Write the Wisconsin College of Agriculture, Madison, for a complete program.

Horticultural News

A. F. Yeager, North Dakota

IN 1934 New York City erected as an outdoor Christmas tree a fir 70 feet in height. Did you ever hear of a bigger one?

The idea of the living Christmas tree is claimed to have originated with Mrs. B. C. Miller of Crete, Nebraska, in 1923.

The Redman red elder is one of the most attractive plants to be found on the experimental grounds at Morden, Manitoba. It originated at that place and while you probably cannot get it from nurseries at the present, it is quite likely to be available as soon as stocks can be increased.

Perhaps there may be cactus fans in our membership. If so, they might be interested in knowing that the Cactus and Succulent Society of America has its headquarters at Pasadena, California, with Boyd L. Sloan as secretary.

While horticultural plants propagated by cuttings may be patented the same as inventions, there is the same difficulty as there is with inventions in "cashing in" afterward. Selling a new variety so as to make it profitable requires a large, well organized concern or else a great deal of money spent in advertising.

W. E. Burge and G. C. Wickwire of the University of Illinois have made use of the sensitive plant which drops its leaves parallel to the stem when disturbed and raises them again later into the former position in an attempt to determine whether the plants get "tired" and whether their "muscles" can be developed. Of course, plants do not actually have muscles like those found in animals. The result shows that by loading the leaves with weights and gradually increasing the amount of weight that the plants could be made to do 41% more work than "unexercised" leaves and they did not become "tired" so quickly.

W. M. Stanley at the Rockefeller Institute has obtained a dry crystallin material which he thinks is the actual substance causing mosaic in tobacco. There has long been disagreement among scientists as to whether virus diseases are due to living or non-living things. We may be nearing a solution to the problem.

Dry ice is coming to be used more and more in the shipment of plant materials requiring refrigeration. Dry ice is solid carbon dioxide, the temperature of which is far below zero. Florists is using this material for shipping flowers have learned that damage will result if the dry ice touches the flowers or leaves. The Florists Exchange states that the difficulty is overcome by wrapping the necessary quantity of dry ice in several layers of watersoaked newspaper before placing it in the cardboard carton in which the flowers are to be packed.

The Garden Dictionary, a 900 page volume, has recently been issued by Hoghton Mifflin Company.

Ordinary buckthorn acts as an alternate host for oats rust. However, another buckthorn, Rhamnus dahurica, is said to be highly resistant to this.

Boyce Thompson Institute has found that it is possible to construct a specially insulated greenhouse 8 by 19 feet in size, heated entirely by sunlight and Mazda lamps, which will grow plants twice as well as the average greenhouse. Heating during the coldest weather required 18 kilowatt hours per day. If electricity were cheap enough such a method might be practical. Under the circumstances, it is merely interesting.

The day lilies (Hermerocallis) have received considerable attention at the hands of plant breeders in recent years. Many new improved varieties are said to have been produced. What few hybrid varieties I have observed have seemed to me to be rather shy bloomers compared with their parents. I wonder if any of our members have had personal experience.

Both neon and sodium vapor lamps are found by the Boyce Thompson Institute to be more efficient in producing additional growth in plants than the Mazda lamp.

Interesting things are being discovered these days with respect to the necessity for exposure to light in order for seed to germinate. For instance, the Florida Experiment Station has found that tobacco seed must be exposed to light after being wet if it is to germinate. Air dry seeds are not sensitive to light. By using a photographic shutter they found that 1-100 second exposure to light was enough to greatly improve germination. Exposure to moonlight for 15 minutes caused a high percentage of germination.—From the December North and South Dakota Horticulture.

Prospect: "What's the cash price of this car?

Salesman (surprised): "W-why-I don't think it has a cash price."

APHIDS ATTRACTED BY COLORED SPRAYS

APPARENTLY aphids are attracted to sprayed plants because of the increased intensity of light reflected from sprayed surfaces, according to tests made by J. B. Moore of the Geneva, N. Y. Experiment Station. Working with potatoes, Mr. Moore found that aphids tend to increase in numbers on plants sprayed with bordeaux. By dyeing lead arsenate-lime mixture, for use on cabbage worms a black color, he found that he could reduce the aphid infestation on the cabbage. The black dust evidently did not reflect the light as intensely as the uncolored lead arsenate dust and therefore the aphid infestation was reduced.

It is believed that the results obtained in these experiments may lead to the coloring of insecticides on crops infested with aphids.

TRY ELSHOLTZIA STAUNTONII NEXT YEAR

PROMINENT among that root hardy group of plants, known to botanists as sub-shrubs and to the nurserymen as "die back" shrubs, is Elsholtzia Stauntonii. This north China plant is hardy enough to bring to northern gardens a representative of a genus which in other species ranges as far south as Java and Abyssinia.

Its garden value lies in its habit of lighting up a planting in early autumn with its dense, one-sided, terminal spikes of lilac-purple. Its ability to flower each year, after being cut to the ground during the previous winter, is somewhat in its favor. Here is a thing which can be grown without danger of encroachment in an herbaceous border or may be tucked into the bays of a shrubbery to perform after many woody plants have lost their greatest appeal.—From December Gardeners' Chronicle, by George Graves.

Honey Increases Haemoglobin

Haemoglobin Is the Essential Part of the Red Corpuscles In the Blood

Dr. Henri Dorval—Montreal

ON November 27, 1935, I asked the principal of a school to select the 15 or 20 most pale and anemic of his children.

Fifteen pupils took two teaspoonsful of non-heated honey (15 grammes) in the forenoon, and as much in the afternoon on school days up to March 10, 1936. Two pupils served as witnesses and did not eat any.

Results: In 11 of the 14 children who ate the honey, the haemoglobin increased from 8 1/3 to 25 per cent. This increase is considerable because if we succeed in restoring to the blood its normal quantity of haemoglobin, it will be noted that chlorosis (paleness), anemia (deficiency of the blood) and their resulting discomforts, will disappear in many cases.

The witnesses varied only three per cent, and since they had not even moistened their lips with honey, they remained below the mean rate of improvement. Nine of these young men were suffering from headaches; five no longer suffer or very seldom do. The two witnesses who abstained remain with their trouble. One who suffered from chronic constipation is much improved.

Weighed in November and then in March, 11 of the 15 pupils showed increases of 5 to 12 pounds. The two who abstained gained only 1½ to 3 pounds. The complexion of all these youths was completely changed; from pallor it became quite rosy; telltale circles beneath the eyes have disappeared. All admit that they are much stronger, less fatigued at the end of their school day or after play.

In cases of new-born babes, we have replaced sugar in the milk by honey. Many of these babes walked at nine months of age, showed considerable life, and their teething was considerably facilitated. — From December Gleanings in Bee Culture.

HEDGES WHICH NEED NO CLIPPING

THE dwarf ninebark, Physocarpus monogynus, makes an admirable low hedge, but it is very likely to grow taller than two feet. Rehder gives its height as one meter, and in fairly good soil this shrub will usually reach somewhat over four feet. Branches five feet are not uncommon. The occasional pruning of a branch here and there, however, easily restrains the growth to an even mass three and one-half or four feet high. In addition to its graceful branches and attractive leaves, this ninebark possesses much of the bill wing, moulded character which makes boxwood such a general favorite.

Similar to the lower species discussed above, but larger in every way and of more rounded and massive growth, this shrub makes an impressive hedge about five feet high and six feet through, with no obligation to clippers or pruning shears.—Ben Blackburn, New Brunswick, N. J., in Horticulture.

NURSERYMEN ELECTED GOVERNORS

GEORGE D. AIKEN, proprietor of the Aiken Nursery, Putney, Vermont, was elected Governor of Vermont at the last election.

Mr. Lloyd C. Stark, manager of the Stark Nurseries, Louisiana, Missouri, was elected Governor of Missouri.

Martin P. Davey, head of the Davey Tree Expert Company, was re-elected to the Governorship of Ohio.

EDITORIALS

WE WISH YOU A PROSPEROUS NEW YEAR

WE sincerely hope that 1937 will be both a happy and prosperous year for all of our members. May the winter be mild so as not to injure our trees and plants; may we not have the extreme heat and drought of last summer to discourage us in our efforts.

1936 was a prosperous year for many branches of agriculture. Dairymen, potato growers, cranberry growers and others, in most cases obtained fair crops and good prices. Not so however, with the growers of apples, cherries, strawberries, raspberries and even flowers. The cherry crop was ruined; the apple crop was cut short; strawberries and raspberries suffered from heat and drought. Fortunately we can forget the past and look forward with hopes and expectations to the future. Otherwise life would be dull indeed.

We know that all of our members are looking forward to good crops for 1937. May our expectations be fulfilled.

HEAVY MULCH FOR PERENNIALS

PERENNIALS should have from 6 to 8 inches of mulch covering if they are to be properly protected for cold winters, is the recommendation of Canadian authorities, according to the Minnesota Horticulturist for November. We are getting over the notion that the purpose of mulch is simply to prevent heaving and thawing. Semi-hardy perennials are actually killed by extremely low temperatures. Heavy mulching protects them from cold. In Wisconsin temperature records indicated that under a heavy mulch when outside temperatures were 15 below zero, the temperature under the mulch was 29 degrees above zero.

HORTICULTURAL MEETINGS

January 12-14. Indiana Horticultural Society convention, LaFayette, Ind.

January 12-15. New York State Horticultural Society convention, Rochester, N. Y.

January 25-29. Ohio State Horticultural Society convention, Columbus, Ohio.

February 3-5. Illinois State Horticultural Society convention, Fruit Exchange Bldg., Carbondale, Illinois.

"Aunt Harriet, if you had your life to live over again, what would you do?"

"I'd get married before I had sense enough to decide to stay an old maid."

BEEKEEPERS AND FRUIT GROWERS HAVE MUCH IN COMMON

IN recent issues of Wisconsin Horticulture have appeared articles by Secretary Hootman of the Michigan Horticultural Society on the value of bees for pollinating fruit trees.

The new soil conservation program will require increased production of clover. Bees are important for the production of clover seed.

So far Wisconsin orchardists have been fortunate in that there are enough bees in and surrounding their orchard so that they have not found it necessary to go to the expense of hiring bees brought in. This is being done in many states at a cost of from $2.50 and $4.00 per colony, one colony being required for each acre of orchard.

Wisconsin fruit growers should reach a helping hand to the beekeepers who have a serious problem facing them. American foul brood is a serious disease of the young brood of bees. It is as serious as tuberculosis or Bang's disease ever was for dairy cattle. Beekeepers have been fighting the disease for many years, but have never adopted the program of statewide clean up as has been done in the case of dairy cattle. Consequently the disease has never been cleaned up.

Now the beekeepers have decided that the time has come to drive the disease from the state and keep it out. It is the only practical way. A large appropriation is required—not large

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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Vol. XIII JANUARY, 1937 No. 1

The International Beekeeping Conference

C. W. Schaefer, Madison

THE International Beekeeping Conference held at San Antonio, Texas, was the largest ever held. Manufacturers, producers, shippers, buyers and consumers met and together made history in the convention halls of beekeeping. Nearly 600 registered during the meetings.

The conference will be remembered for many of its features by those of us who attended, but there are three significant impressions which most of us are carrying home.

First, and not easily forgotten was the thrill of meeting and talking with many of the men and women who we knew on the printed pages.

The second and most outstanding highlight of the convention was the exhibition of honeys from all parts of the world. We were given an opportunity not only to see but to taste honeys from 33 foreign countries. Besides that, honeys from every state in the union were on display. In all it was the largest collection of honeys ever exhibited anywhere. Credit for spending countless hours in getting together this display goes to Arlene Weidenkopf, former Secretary of the American Honey Producers' League.

In the convention halls we were deeply impressed with the vigorous spirit surrounding the meetings. All present seemed to have enjoyed a successful season. No one was worried about moving his crop. In fact we felt that because the beekeepers had sold their crop they came to San Antonio to praise the work of the American Honey Institute for creating a larger consumer demand for honey. Because of this predominating spirit the biggest message we bring back from the convention is to "Support the Institute, for the demand for honey sells your honey." May we all do our part toward better honey years in the future.

FROM OUR PRESIDENT

MR. and Mrs. A. J. Schultz of Ripon attended the convention at San Antonio and on their return Mr. Schultz writes: "We certainly had a fine time and saw a great deal of country. Some might be very pleasant to live in, but others—I don't know.

"The meeting at San Antonio was well attended and we met many of our old friends as well as making some new ones.

"Our bees are in good condition, with snow fences around each yard to catch what snow there is. Honey has been moving quite rapidly in a retail way but more is now being offered to us by producers than earlier in the season."

A parking space is where you leave the car to have those little dents made in the fenders.

SUCCESSFUL NATIONAL HONEY COOKERY CONTEST HELD

WISCONSIN had a total of 30 entries in the third National Honey Cookery Contest held at San Antonio. Twelve of the entries were in the fruit and nut bread, nine entries in fruit butters, and nine in fruit and nut candies.

Mrs. George Stowell of Barron won first prize on honey fruit butter. Her plum butter was reported to be very delicious.

Miss Emmathene Chafin, Elkhorn, won ninth place in honey fruit and nut bread.

California, Indiana and Illinois had the largest number of winners.

Ladies Organize

Ladies present at the convention were Mrs. Arthur Schultz of Ripon, Mrs. H. Schaeffer, Osseo, and Mrs. Wm. Michaelson, Arkansaw, Wisconsin. In all 80 ladies attended the meeting. Most of them expressed a desire to organize a Ladies Auxiliary to plan and build programs of special interest at National Conventions for the women who might attend.

Ten states including Wisconsin have already organized state auxiliaries.

Mrs. Ethel Krebs, Sacramento, California, was elected national auxiliary chairman, and Mrs. Florence Bennett, Birkenfeld, Oregon, national secretary-treasurer.

Any lady wishing to be listed in the National Ladies Auxiliary Directory should send dues of 25c to Mrs. Florence Bennett.

FOUL BROOD CONTROL

THE campaign is on.

The Wisconsin Beekeepers Association has gone on record favoring a large state appropriation to wipe out foul brood in Wisconsin.

The Commissioners of Agriculture and Markets have indicated their willingness to cooperate by requesting an increase of $2,000 per year in their budget for this work.

However, $8,000 per year will not be enough to make a clean-up. It will simply carry on the work as has been done in the past. The result will be that foul brood may come in behind the inspectors almost as fast as they go forward.

Shall we ask the Legislature for a large appropriation to actually "get somewhere," or shall we continue with a small appropriation as we have been doing. The answer is up to the members of the Legislature and the beekeepers of Wisconsin.

Present plans are as follows. When the Legislature meets in January a bill will be introduced requesting a large appropriation (the exact amount has not yet been decided upon).

The bill will pass or fail, depending upon the vote of the members of the Assembly and Senate.

Assemblymen and Senators vote according to the demands of the people back in their home district. Therefore it is up to the beekeepers to influence their vote. Every beekeeper should get in touch with his Senator and Assemblyman informing him of the value of the honey industry to the state and that it is as important to eradicate foul brood as it was to eradicate tuberculosis or Bang's disease from dairy cattle.

Bees in southern Wisconsin had a good flight on Christmas day. Has it ever happened before?

The Bees May Be At Rest, But Not the Beekeeper

IF the bees are wintering well the mind of the beekeeper is at rest. He can turn his attention to the many things that must be done before spring.

One prominent beekeeper sorts all his frames, taking out any that have drone comb or which are unsuitable for best brood rearing, placing them in a hive which is painted a special color. These bodies are only used for extracted honey. A very good idea.

Have you noticed that during December the sale of honey drops off. We notice this especially with comb honey. Just before the holidays candy evidently supplants honey and buying for Christmas seems to drive the thoughts of buying honey from the minds of consumers. Can we overcome this, or shall we simply accept it and push honey sales when consumers are in the mood for it? Later in the winter there is a definite pick up in interest in honey.

The Indiana Beekeepers Association issues an interesting mimeographed circular each month. In the December number we find the statement that inspectors run across many explanations for the cause of foul brood by older beekeepers. Here are some of the causes they give as their observations:

1. "Spray poison kills the brood. Remedy: It takes poison to kill poison, so put a little poison in their drinking water."

2. "The cause of A. F. B. is the patent hives. The slats are too close together. Remedy: Use boxes or home made hives."

3. "The cause is dead bees. Place a small piece of peach tree gum inside the hive and the trouble will disappear."

4. "The cause is the miller or weevil so place the hives in the chicken yard where the chickens can eat the millers."

Oh, well, there are probably a lot more. The sad thing though is that many times these folks will not believe the facts discovevered by science, but persist in figuring out things for themselves, with such results. They are the ones who wont come to meetings or join the associations.

We have heard just as queer ideas expressed by dairy farmers about their livestock however, so it happens in all lines.

California beekeepers are having a desperate problem in sections where crops are dusted by aeroplane to control insects. It will never become as serious here because of diversified crops.

Comb Honey

A Symbol of Purity, Sweetness and Wholesomeness

In 1936 some of you responded to the insistent demand for more comb honey, but the market is still short. To make 1937 your comb honey year means bigger profits for you. Take advantage of this golden opportunity while the prices are high.

Is it always luck when you harvest a record honey crop? We think not. The beekeeper who most often harvests the high average has his bee supplies nailed and painted and his old equipment in good condition before the honey flow begins.

Are you ready? If you need new equipment, write to us for prices. We have a complete stock of supplies that we are proud to sell and that are a real pleasure to assemble. When you are preparing your comb honey equipment remember that

LOTZ SECTIONS add the final touch to a product deserving the best . . . COMB HONEY.

August Lotz Company

Boyd, Wisconsin

NATIONAL OFFICERS ELECTED

THE American Honey Producers League elected Chas. A. Reese of Columbus, Ohio, president, Geo. J. Abrams of 2432 Pennsylvania Ave., Washington, D. C., as secretary, and Oscar H. Schmidt of Bay City, Michigan, as vice-president.

The next annual convention of the League will be held at Washington, D. C.

Mr. Russell H. Kelty of East Lansing, Michigan, was re-elected president of the American Honey Producers League, and Mr. L. C. Dadant of Hamilton, Illinois, was chosen as secretary.

DIAGNOSING BEE DISEASES IN THE APIARY

A NEW bulletin has just been issued by the United States Department of Agriculture, Washington, D. C., entitled "Diagnosing Bee Diseases in the Apiary."

The bulletin is an excellent one and should be obtained by all beekeepers for future use in diagnosing bee diseases because all the known diseases are described. In this issue will be found an article from this bulletin on Nosema Disease.

The bulletin may be obtained by writing the Superintendent of Documents, Washington, D. C., and enclosing 5c, or by writing your Congressman or U. S. Senator.

Beekeepers Short Course

Farm and Home Week — University of Wisconsin
Madison—February 2-3-4, 1937

TUESDAY, FEBRUARY 2

9:00 a. m.	Registration.
10:00 a. m.	Address—A. J. Schultz, President, Wisconsin State Beekeepers Association.
10:15 a. m.	Welcome to Beekeepers—Warren Clark, Asst. Director of Extension.
10:30 a. m.	Is a Commercial Beekeepers Organization Desirable? H. F. Wilson.
11:00 a. m.	Attend general Farm and Home Week Program.
1:30 p. m.	General Program.
2:30 p. m.	Influence of pollen reserves on the spring colony. Dr. C. L. Farrer, Laramie, Wyoming.
3:00 p. m.	The results of the 1936 survey of Wisconsin Beekeeping. P. E. McNall, Madison.
3:30 p. m.	Feeding water and pollen in the spring. C. W. Schaefer, Madison.

WEDNESDAY, FEBRUARY 3

9:00 a. m.	Beekeeping in the Red River Valley. H. A. Schaefer, Osseo.
9:30 a. m.	What is being done with the State Marketing and Grading Law. James Gwin, Madison.
10:00 a. m.	Two queen versus single queen colony management. Dr. C. L. Farrer, Laramie, Wyoming.
11:00 a. m.	General Assembly.
1:30 p. m.	General Assembly.
2:30 p. m.	Top vs. bottom entrance for wintering. H. A. Schaefer, Osseo.
3:00 p. m.	Talk by outside speaker.
3:30 p. m.	Visit to the new honey laboratory and a demonstration of how recipes are tested. Miss Mercedes Cranston.

THURSDAY, FEBRUARY 4

9:00 a. m.	Plans for bee disease eradication in 1937. C. D. Adams or E. L. Chambers, Madison.
9:30 o. m.	Influence of colony population on honey production. Dr. C. L. Farrer, Laramie, Wyoming.
10:00 a. m.	Demonstration—artificial insemination of queen bees. Harry Laidlaw, Madison.
	Program—Auspices Department of Entomology, Wisconsin College of Agriculture.

Tin Pails—Glass Jars—Labels

Members: Look up our prices on tin containers and labels in the August and September issues of Wisconsin Beekeeping.

Send your money with order to:

Mrs. Millie Francis, Rec. Secy.
Wisconsin Beekeepers Assn.
Route 4, Box 608, West Allis, Wis.

FOR SALE

Used 10 frame and 8 frame hive bodies, bottoms and covers. Also some comb honey supers. Half price. All factory made. Disease free. E. L. White, Fort Atkinson, Wisconsin.

HONEY WANTED

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

We Wish You,

Our Beekeeping Friends,

A Prosperous

New Year

We wish to thank our beekeeping friends for the business given us the past season.

We hope that 1936 has been kind to all of you, and that we may again do business with you the coming year.

Gus Dittmer Company
Augusta, Wisconsin

Nosema Disease of Bees

Cause

NOSEMA disease is caused by a minute, single-celled animal parasite known as **Nosema apis.** Adult workers, drones, and queens are affected. Spores of N. apis enter the body of the adult bee with food or water. They germinate within the stomach and attack the tissues which line the stomach or mid-intestine, with varying harmful effects.

Importance

Nosema disease is wide-spread and under conditions favorable for its spread causes extensive losses of adult bees. When accompanied by dysentery brought on by long winter confinement, the disease may spread rapidly within infected colonies and result in the death of the colonies late in the winter or in the spring; or heavy losses from Nosema disease may continue for weeks after the bees have been flying freely and dysentery has subsided. Infected bees usually perform their normal duties until they are too weak to continue. The shortened life of infected bees weakens or kills the colony.

Symptoms Shown By the Colony

The first noticeable symptoms shown by a colony heavily infected by **Nosema apis** are increasing restlessness of the bees and a weakening of the colony. When only a small number of bees are infected, the loss may be so gradual that it is not noticed. At other times the death rate among adult bees is very high, and the colony dwindles rapidly. The queen usually is among the last handful of bees to die. Nosema disease may appear annually at about the same time. During any time of year, however, colonies with bees infected by N. apis may be found that show no noticeable loss.

Symptoms Shown By Infected Bees

In the individual bee the symptom most commonly observed is inability to fly more than a few yards without alighting. Many bees will be seen crawling on the ground, on the bottom board, at the entrance, and on the top of frames when the cover is removed. Sometimes infected bees crawl actively long distances from the hive, or they may crawl up on blades of grass in an effort to fly. At times they collect in small groups on the ground in front of the hive.

It is mostly the older workers that are killed, although drones, queens, and young workers may be attacked. At times the disease seems to be aggravated by periods of cold, damp weather, particularly in the spring when the bees cannot fly freely.

The legs of affected bees may be dragged along in crawling, as if paralyzed; and the rear wings may be unhooked from the front wings and held at abnormal angles. Such bees are capable of only feeble fanning with the wings. The abdomen is often distended with feces and may appear shining or greasy.—From U. S. Circular No. 392 entitled "Diagnosing Bee Diseases in the Apiary."

GOOD BEESWAX IN DEMAND

AT THE National Convention Mr. Frank M. Todd of California discussed beeswax and its relation to industry. He pointed out the type of wax necessary in the manufacture of cosmetics and parmaceuticals. For these products extremely white wax is needed. In striving to bleach native wax to the necessary clarity chemicals are sometimes used, which take away certain necessary oils. He explained that one of the reasons of the heavy importation of certain foreign waxes, particularly African, was because these are naturally white and acceptable to this type of industry without clarification by chemical action. Mr. Todd pointed out the fact that the relative price of beeswax compared to honey is still on the upgrade, and described beeswax as one of the more important products of the apiary.—From the Beekeepers Item for December.

BEEKEEPING BOOKS MAY BE BORROWED FROM FREE TRAVELING LIBRARY

BEEKEEPERS may obtain books from the Free Traveling Library, State Capitol, Madison, free of charge, for a period of three weeks, paying only the return postage.

This Library is one of the finest in the country, containing books on all subjects. There is a long list of books on beekeeping, including the following:

Queen Rearing Simplified, Jay Smith.

A. B. C. and X. Y. Z. of Beekeeping, Root.

The Dadant System of Beekeeping, C. P. Dadant.

Langstroth on the Hive and Honey Bee, L. L. Langstroth.

Fifty Years Among the Bees, Dr. C. C. Miller.

We especially wish to recommend the last book by Dr. Miller for winter reading for all the beekeepers. It is most interesting and has many valuable pointers. Just drop a card to the Library at the address given.

WANTED! NAMES OF COUNTY ASSOCIATION OFFICERS

IN the March issue of Wisconsin Beekeeping we will publish the names of all county association officers for 1937. This will serve as a directory for the year. We suggest all associations elect officers before February 15.

as in the case of dairy cattle where millions were required, but probably from $20,000 to $50,000 per year for several years.

Beekeepers now pay a tax of 10 cents per colony. One-half goes to the state, and one-half to the county. The idea was to provide funds for disease clean up. Many counties, however, do not appropriate anything, but keep the money received in their treasury.

During the coming session of the Legislature beekeepers will request an appropriation large enough to start this program of cleaning up the state. Will the fruit growers help them?

Wisconsin produces from 7 and as high as 17 million pounds of honey annually. This is a substantial income to the state. The value of bees for pollination is still greater.

Ask your State Assemblyman or Senator to consider these facts.

HORTICULTURAL TOPICS

Farm and Home Week

Wisconsin College of Agriculture, February 1-5

On Homemaker's Program

Tuesday, Feb. 2, 9-10 a. m. Care of our trees, illustrated, by Prof. F. A. Aust and Prof. G. Wm. Longenecker.

10:00 a. m. How to plant the home grounds, illustrated, by L. G. Holmes.

Feb. 2, 2:30 p. m. Improvements of vegetable crops by G. H. Rieman, illustrated with movies showing field operations. Program in the Agricultural Auditorium.

Program for Potato Growers

Wednesday, Feb. 3, in Horticulture Building.

8:30-9:30 a. m. Inspection of exhibits.

9:30-10:45 a. m. Breeding better varieties of potatoes, by Dr. F. A. Krantz, University of Minnesota.

3:00 p. m. Seed improvements.

FLOWER NAMES—WHAT THEY MEAN

Monstrosa—unusual; maxima—largest; major—large, great; multiflora — many flowered; montana—home on the hillsides; minimum—smallest; microphlylla—small leaved.

Nana — dwarf; noctiflora — night blooming; nigrescens — blackish; nudicaulus — smooth-stalked; neglectus—overlooked; nemorosa—home in rocky soil.

Ovatus—egg shaped; officinalis—medicinal.

Paniculata — irregularly branched; persicifolia — peach leaved; procumbens — trailing; pungens—sharp, pungent; plumaris — tasseled, feather-like; pompon—beautiful; palustris—from swamps; pumillum—little; pyramidalis—pyramid like; patens—open.

NEWS

THE Wisconsin State Fair ranks third in the nation in attendance for 1936, among 38 states, according to the announcement of the Department of Agriculture and Markets. Only Minnesota and California topped Wisconsin in attendance. Each of these ran slightly over 600,000, while the Wisconsin attendance reached 429,446.

A news letter lauding the uses of honey in the diet was released by the Wisconsin Department of Agriculture and Markets under the signature of Chas. L. Hill, Chairman, during December.

Mr. Hill pointed out that honey is composed largely of simple sugars that can be easily assimilated by the body, that it can be used on hot cakes and biscuits, in preparation of many kinds of baked goods, and in cooking.

HONEY PRODUCTION IN WISCONSIN

WISCONSIN produced over 7½ million pounds of honey this year, according to the estimate of the U. S. Department of Agriculture, Bureau of Agricultural Economics. The total production for the United States was a little over 158 million pounds.

California leads the nation this year with a production of a little over 22 million pounds, while Ohio is second with 10 million, Michigan third with 9 million, and Wisconsin fourth.

We give a table of the estimate for honey production in Wisconsin during the past seven years. These estimates are higher than the census reports, and we believe justly so. Inspectors find that the census lists less than three-fourths of the bees in a county that they find when they are on inspection work, and actually try to find all of them. As a result, of course, the production estimates are proportionately higher.

Honey Production in Wisconsin

	No. of Colonies	Average Per Colony Pounds	Production Pounds
1929	167,000	114	19,038,000
1930	165,000	71	11,715,000
1931	148,500	35	5,197,500
1932	145,000	40	5,800,000
1933	130,000	40	5,200,000
1934	130,000	50	6,500,000
1935	140,000	55	7,700,000

About the Home and Garden

MRS. C. E. STRONG

A HAPPY NEW YEAR

HERE we are with a brand NEW YEAR before us. What are we going to do with it?

We read in every household magazine that we must plan our work if we expect to do the many things necessary to run a house properly, and give us time for pleasure. We know this is true, so why cannot we plan also to do some of the work we agreed to do, as member of garden clubs? Usually at first we are all enthusiasm—then we begin to be careless—not that we are not interested—just that it is easier to let some one else do things—it's easier for them, we say. Is it? Perhaps we wait until the last week before we start working on the little talk we were supposed to give to the club. Things we didn't expect come up; there is not time to think things over; we feel uncomfortable; we know we are not doing the subject justice—deep down in our hearts we know we could have done much better if we had made a leisurely list of notes.

Are you planning to help with any of the civic projects this year? Are you definitely planning to give so much of your time on certain days? Think what a nice comfortable feeling the chairman will have when you tell her that you will be able to do certain work on certain days.

Are you doing anything to help interest the children of your community in Horticulture (do you know I like that word, it is so all embracing—trees, grass, fruits, flowers, vegetables, everything that grows in the garden). Even one day a month would be a great help to some one who has charge of this work. Perhaps you might even do something a

bit different. Tell stories about gardens to the small children at the school playgrounds, as did a former teacher in one city.

With this brand new year ahead of us, we surely ought to plan so wisely that it will be the happiest, and most helpful year we have ever known.

THAT PLANT TESTING COMMITTEE

IT is a pleasure and a privilege to meet with that group of people who constitute the plant testing committee. They are all interested in trying out new plants—finding out if they are worth while, hardy in their vicinity, etc. They do not always agree in the worthwhileness of some plant or shrub — why should they? But they disagree amicably. "Well, perhaps in your vicinity it may be all right." And that is settled. The one thing we are all thinking about is—we want other gardeners to have that same pleasure we are having.

The wonderful thing about this plant testing game is, you just remember the nice things when you read of new seeds or plants—you have enjoyed the beauty of blossom or graceful sweep of branch. There is no room for regrets, at least there isn't in my case. I can smile at all the failures, even at those wonderful striped asters that were tended so carefully one whole summer. The seeds were described in a catalog as coming from Europe (they did come in a foreign package) and were to be striped in rose, lavender, and red with white. The size was enormous and very, very double. When they bloomed they were all a very dull purple, and semi-double, and I DO NOT LIKE PURPLE ASTERS.

Perhaps there are gardeners who want to be sure that every plant they grow in their garden will be exactly as expected, lovely no doubt, but what a lot of pleasure they are missing.

Do you know what I am most wishfully hoping? It is that every garden club in the state will have this year, at least one member who will try out some of the newer plants, shrubs or bulbs, keeping a record as to hardiness, season of bloom, growth, in fact everything to be noted about a plant, copies of these records to be sent to Wisconsin Horticulture. If there isn't anything on the list that appeals to you—why just hunt up some new things all by yourself. Every single plant tester in the state will enjoy hearing what you have to tell them.

I am hoping you will be so interested in something that has given you pleasure in growth and in bloom that you will want to come to the plant testers meetings and tell all about it. Even one real enthusiastic plant tester will wake up a garden club that is suffering from inertia.

Fall Asters

If you are interested in fall blooming perennials, you will

like all the Asters mentioned in the list. **Luteus Hybrid** is a particular favorite of mine, it is as dainty as Gypsophila.

Lilium cernuum is a dainty lavender—pink lily, about the same type as Tennuifolium. So far it has proven hardy with me.

A Good Iris

The Vesper Iris, Dichotoma, is a favorite of mine, blooming as it does so late in the season. I try to be in the vicinity when its blossoms pop open, flooding the air with its perfume. It took me some time to discover that it simply will not tolerate a wet spot.

I fell in love with **Sidalcia, Rose Queen,** when I saw it in bloom at Lake Geneva some years ago. However after growing it in my own garden for a number of years, I decided that its blooming period was too short. However it is worth trying.

Tritoma Hybrids. Most I confess are showy. The coloring is lovely in some of the newer kinds —but they do not appeal to me enough to both digging them up and storing for the winter. They have not proven hardy with me.

Try This Rose

Dr. Eckener Rose is a very fine flower. Nothing could be more exquisite than one of its long sweet scented pink buds.

Excellent Climber

If I had a brick or stone house, or even a stone wall, I should immediately buy **Hydrangea petiolaris.** In or out of bloom, it is distinctive. Do not mistake me, it will grow on a trellis as well as on a wall—but it seems to be so at home on the wall.

Vitex Macrophylla. I am sure you all know this dainty shrub is a favorite of mine. It will likely freeze to the ground, but do not worry, it comes up strongly in the spring. Even if it never blossomed, the foliage alone would make it worth while. If you grow it from seed, you will need to weed out the plants, as some are likely to be rather a washed out lavender. Vitex makes a lovely background for yellow or pink Chrysanthemums.

A group of Vitex with **Kerria Japonica Flore Pleno,** is another combination that will appeal to you. Both will bloom at the same time. Both the single and double Kerrias are distinctive during the winter, because of their vivid green stems.

ASTER FRIKARTI

ASTER Frikarti seems to have become one of the most popular of garden flowers. At least, I see it mentioned very frequently and find garden makers often discussing it. Many amateurs seem to think that Wonder of Staft is a synonym for frikarti, but this is a mistake. Ray M. Koon, who is at the head of the experiment station conducted by the state at Waltham, Mass., has given me some very interesting information which clarifies the whole situation. According to Mr. Koon, Carl Frikart, a nurseryman of Stafa, Switzerland, grew a number of A. thomsoni. This was in 1924. He found them so superior to the type that he designated them as A. frikarti. The following year, he named and introduced four of these seedlings as the varieties Wunder von Stafa, Eiger, Monch and Yungfrau. There are, therefore, four varieties of the frikarti form. Three of them are varying shades of violet, but Yungfrau is rosy lilac.

It is Wonder of Stafa, to use the English translation, which has become the most popular of the four varieties, at least in this country. To be completely accurate, one should say that this plant is A. frikarti var. Wonder of Stafa. However, the name frikarti alone does fairly well so long as only one variety is in commerce. Incidentally, Stafa is pronounced with the first "a" short, as in "staff." The Roving Gardener in Horticulture.

PLANT TESTING

THE article on plant testing in the November issue of Wisconsin Horticulture prompts me to write of my endeavors in that direction, not with the thought of giving suggestions, but rather to show that I am still in garden work and appreciate the fact that my name in still on the list of life members.

On my 60-foot frontage corner lot I have as shade trees: maple, catalpa, and acacia, all grown from seed by myself, as well as peach trees and native plum trees, the latter bearing large red fruit, very much appreciated for the woodsy tang of jam derived from them.

During October I visited in the dunes district of southern Michigan when the trees were beginning to put on their autumn colors and found several varieties we do not find in southeastern Wisconsin. I brought home some seeds of the blue gum, as I could not find a tree small enough to dig up without violating the rules of The Prairie Club in regard to picking what Nature designed to grow. Have planted some of the seeds in a box down celler and will test the others in the garden next spring.

These trees, if they grow, will add greatly to our autumn colors.—Mrs. Henrietta J. Fratt, Burlington, Wis.

Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

Walter C. Krueger, Oconomowoc, President
B. A. Robinson, Kenosha, Vice-Pres.
H. J. Rahmlow, Madison, Cor. Sec.

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

Regional Vice-Presidents
Karl Timm, Markesan

F. P. Thomas, Kenosha
G. A. Barrer, Cudahy
M. J. Rahn, Green Bay

Favorite Gladiolus Varieties

Wisconsin Growers Symposium

THE BEST GLADS

PICARDY is still considered the best gladiolus of all varieties by an overwhelming majority of the members of the Wisconsin Gladiolus Society.

During December we sent requests to a large number of the members asking them to give us the names of their favorite varieties in the different leading color classes, and also to state the name of the one best variety.

As the best variety, Picardy had no strong competitors. However the following varieties received one vote each as the best variety: New Era, Pfitzer's Masterpiece, Star of Bethlehem, Miss New Zealand, Morocco, Olive Goodrich.

The Best Whites

Maid of Orleans led the field as the best white gladiolus, followed however closely by **Star of Bethlehem.** In third place was **Albatross.** Mammoth White and Queen Louise were preferred by several, and the following were mentioned: Invincible, Mrs. Ray P. Chase, Bob White, Polar Ice.

The Yellows

Golden Chimes led the field in the yellows, but only by a narrow margin. It was followed very closely by **Golden Dream** and **Golden Goddes** in the order named.

There seemed to be considerable difference of opinion as to the best yellow. Golden Cup was in fourth place, Gate of Heaven and Canberra were next, and the following varieties each received

one vote as the best yellow: Gloria Mundi, Ruffled Beauty, Goldstaub, Cadillac, and Fahnen Tunker. The following varieties each received one vote as the second best yellow: Desert Gold, Golden Lancer, Miss Bloomington, Golden Fleece.

The Pinks

Picardy of course was also given the first place among the pinks by a very large margin. However, it was by no means unanimous, and the following varieties each received one vote as the best pink: New Era, Sonatine, Pfitzer's Masterpiece, W. H. Phipps.

As a choice for second best pinks, Mildred Louise received the second highest number of votes and the following received one vote each for second best: Giant Nymph, Frank McCoy, Pearl of California, Oregon, Mrs. Leon Douglas, Christabel, Betty Nuthall, Debonair, Mrs. P. W. Sisson, Margaret Fulton, Coronation.

Commander Koehl Still Best Red

Commander Koehl had very little competition as the best red. **Tip Top** was second with three votes for first place, and one for second place. **Dr. F. E. Bennett** ranked third.

The following varieties all received favorable votes: Red Phipps, Flaming Meteor, Kassel, Del Roy, Ababa, Wurtembergia, Aflame, James Fitz James, Red Lory, Red Giant, J. S. Bach, Erica Morini, Pfitzer's Triumph, Crimson Glow.

Minuet Best Lavender

Minuet received practically all the votes for first place as the best lavender. Only one member voted for another variety—**Lavender Delight,** for first place.

Dr. Moody received the largest number of votes for second place, with Berty Snow in third place. The following varieties received one vote each: Jane Addams, Beautiful Ohio, Krimhilde, Alayne, Jubilee, Royal Lavender, Libelle, Ave Maria.

Smokies

Bagdad and **Mother Machree** were practically tied for first place in the smokies, showing the popularity for these two varieties. Vagabond Prince, Jalna, Sword of Mahomet and Marmora were mentioned.

Any Other Color

The votes were not heavy in varieties of any other color, but the following varieties received mention: Our Selection, Mrs. Ray P. Chase, Blue Wonder, Vagabond Prince, Max Reger,

Valesta, Troubador, Pelegrina, Morocco, Hinemoa, Smiling Maestro, Edith Robson.

It is possible we should have included the blues in a separate class.

Selection by J. H. Heberling

Mr. J. H. Heberling, Easton, Illinois, one of our members and well known grower, made a selection which did not follow the majority of Wisconsin members. Since Mr. Heberling is an authority on glads, we are giving his selections as he made them.

Best Gladiolus, New Era. Major Bowes also very good.

Best White: Maid of Orleans (mid-season; 2nd, Polar Ice (early).

Best Yellow: Golden Chimes; 2nd, Golden Lancer.

Best Pink: New Era; 2nd, Sonatine and Christabel.

Best Red: Flaming Meteor; 2nd, Ababa.

Best Lavender: Minuet; 2nd, Beautiful Ohio.

Best Smoky: Sword of Mahomet.

Any other color: Max Reger, Smiling Maestro and Milford.

Mr. Chester Harrison of Waldo who was the largest winner at the International Horticultural Exposition at Chicago, made the following selections:

Best Gladiolus: Picardy.

Best White: Albatross; 2nd, Maid of Orleans.

Best Yellow: Golden Cup; 2nd, Golden Chimes.

Best Pink: Picardy; 2nd, Debonair.

Best Red: Wurtembergia; 2nd, Aflame.

Best Lavender: Minuet; 2nd, Dr. Moody.

Best Smoky: Bagdad and Mother Machree.

Any other color: Hinemoa.

Customer in drug store (on Sunday morning): "Please give me change for a dime."

Druggist: "Here you are. I hope you enjoy the sermon."

WHAT WOULD YOU LIKE TO KNOW ABOUT GLADIOLUS

THE response to our questionnaire about the leading gladiolus varieties was excellent. In almost every case replies were received by return mail. This would indicate that there is considerable interest in varieties.

What other questions would you like to have discussed by the members? Send us suggestions and we will be glad to send out questionnaires to have such questions answered and discussed. In other words, if you were to meet some of the leading gladiolus growers of Wisconsin, what would you talk to them about? What questions would you ask them? Write us.

STORAGE OF DAHLIA BULBS

THE ideal storage conditions for dahlia bulbs is a temperature range of from 36 to 42 degrees F. with a fair amount of moisture in the air, according to the Minnesota Dahlia Society.

Conditions suitable for storing potatoes will store dahlias satisfactorily. They emphasize that if one has a good method do not change it because someone suggests a different method. If the tubers shrivel, sprinkle the material in which they are stored. If they become moldy, they should be exposed to the air and dried, and then put back into peat which is a good storage material.

Salesman (to farmer): "Look how she shines and listen to this horn."

Farmer: "Say, my old cow can make a noise like that—and give milk besides."

AMARYLLIS BULBS

Five Hybrid Amaryllis bulbs 2¾ inches in diameter, mixed colors, with cultural instructions, for $1.00 postpaid. Claire Limberg Nursery, Plymouth, Wisconsin.

LILIUM CERNUUM IS WORTH TRYING

THERE are several easy-to-grow lilies that are suitable and desirable for the rock garden. One of the best, though least known, is Lilium cernuum, from Korea, dwarf in habit (fifteen to twenty inches), with grass-like foliage and cluster of nodding miniature Turk's-Cap flowers of soft wine-purple, spotted lilac.

Like the rest of the Lily family, the sharp drainage of the rock garden suits admirably. It will grow in full sun. When planted among Begonia Evansiana (hardy, summer-flowering Begonia), one small spot will do double duty since the Lily blooms about May 26-June 12 in Piedmont, Virginia, just as the pink-green leaves of the Begonia are showing, while later the showy foliage of the Begonia hides the seed pods.

Lilium cernuum is said to be short lived, but is easily grown from seeds, particularly if fresh, treatment being the same as for ordinary perennials. Bailey does not mention this lily, but it can be bought in this country.—By Violet Walker, Virginia, in December Gardeners' Chronicle.

Varieties For Plant Testing

Committee Prepares List for 1937

THE plant testing committee met in Milwaukee early in December to make recommendations based on their experiences and observations of new varieties of trees, shrubs and ornamentals for trial and planting during the coming year.

First of all, all varieties recommended during the past six years were carefully gone over. These varieties were divided into two groups—the first group are varieties which have been found to be satisfactory in Wisconsin—desirable because they are both ornamental and hardy. The second group are those which are desirable but which require further trial for various reasons. A number of the varieties were crossed from the list because they have not proven to be entirely satisfactory. The above lists will be published in our February issue.

New Varieties

The committee then selected a list of new varieties for testing during the coming year. Several varieties were chosen from the list of past years because they are either unusually good or deserve further trial. The list is published on this page.

Members of the committee have given a description of their experiences with the various varieties listed as given below.

New English Walnut

During the past two years the Wisconsin Horticultural Society has distributed seed of a new English walnut obtained from the Carpathian Mountains of Poland, by Rev. P. C. Crath of Toronto, Ontario, Canada. It is the first variety of English walnut to withstand the winters of our climate. The trees will be suitable for planting where large shade trees are desired. Seed will be available from the Horticultural Society this coming February and March and in the spring about 200 two-year old trees will be available from the Society, depending upon how they come through the present winter.

VARIETIES FOR TESTING—1937 LIST

Trees

Carpathian English Walnut
Malus sargentii

Shrubs

Lonicera Syringantha
Viburnum sieboldi
Vitex macrophylla
Elsholtzia Stauntonii (Mint shrub)

Climber

Hydrangea petiolaris

Roses

Dr. Eckener, Hybrid rugosa
Rost Springtime (Apple blossom rose)

Perennials

Lilium cernuum
Tritoma hybrids
Aster — Frikarti; Madame Carroy; Luteus Hybrid; Aster Amellus "King George"
Dianthus Rose Dawn
Aquilegia—Crimson Star
Vesper Iris—Dichotoma
Chrysanthemum White Swan
Sidalcea—Rose Queen

The following descriptions of varieties were furnished by Prof. G. Wm. Longenecker, Madison, Mr. W. A. Dustrude, Hartland, Miss Merle Rasmussen, Oshkosh, and Mr. W. A. Toole, Baraboo.

Malus Sargenti

In bulletin Vol. 11, No. 6 of the Morton Arboretum: "The only apple which is shrubby in form in the Sargent Crabapple, M. sargenti, an unusual species discovered along the borders of the salt marshes of Hokkaido, the most northerly island of Japan, by the man whose memory its name perpetuates, Prof. C. S. Sargent. Being dwarf (to 7 ft.), with rigid, wide spreading, often spinescent branches, the lower ones almost prostrate on the ground. It is perfectly fitted for planting on slopes and banks. Most other Crabapples are in full bloom when the pale pink buds of the Sargent Crab begin to open. Of purest white after expanding, the umbellike clusters of saucer shaped flowers are produced in great profusion. Prominent anthers add a brilliant touch of gold to their centers. The flowers are followed in September by masses of small, berry-like wine colored fruits covered with a slight bloom. These are long persistent. Later in autumn the deep green foliage assumes brilliant tints of yellow and orange."

Lonicera Syringantha

Lonicera syringantha or Lilac Honeysuckle is a graceful shrub growing from 7 to 9 feet in height. Its leaves are from oval to oblong and about an inch long. Its flowers are pinkish or lilac, about a half inch long borne in pairs in late May and early June. It is highly prized because of these fragrant flowers. The shrub came from China.

Viburnum Sieboldi—Siebold Viburnum

Shrub growing from 7 to 10 feet in height. Leaves are a dark glossy green above and lighter and somewhat hairy underneath.

Has attractive creamy white panicles of flowers 3 to 4 inches wide. In late spring or early summer. Following the flowers there are clusters of oblong fruits which change from pink to bluish-black. The shrub is

useful as specimens. Taller screens or background plantings.

Vitex Macrophylla

Vitex macrophylla is a broad leaved form of the chaste-tree or hemp tree. It is a grayish hairy shrub or small tree to ten feet. The leaves are grayish beneath and dark green above and have a strong aromatic odor.

It is a valuable addition to our shrubs because it flowers in late summer or early autumn. The flowers are lilac or lavender and are borne in dense clusters arranged in spikes which are from 5 to 7 inches long.

Elsholtzia Stuantoni, Mintshrub

Named for J. S. Elsholtz, a Berlin botanist. N. China. Introduced 1905.

A half-woody plant of the mint family this shrub has the nature of the Buddleia; grows about two and one-half feet high. The entire shrub is sweetly scented; the leaves are aromatic. The flowers are produced in large, showy panicle spikes about three to four inches long; lavender-pink to rose; late summer to frost; profuse blooming. This shrubby perennial is valuable in the landscape planting; in the perennial border; excellent for cutting; flowering season most desirable. Culture: herbaceous character, well drained soil; sunshine for good flowers; protect with some covering in winter; prune well back in spring as it may kill practically to ground.

Hydrangea Petiolaris

Climbing Hydrangea. Seibold and Zuccarini. Japan and China, introduced 1875.

A handsome climber clinging firmly to walls and tree trunks, conspicuous in early summer with large white flower clusters. The stem is woody and is picturesque in winter, clinging tightly to stone and brickwork by innumerable aerial roots, hugging a wall like ivy and requiring no trellis. The large, glossy foliage is superbly green and seemingly impervious to insect or fungous attacks. In June and July a lacy mantle of flowers overspreads the whole plant and exhales a dainty fragrance that pervades the whole garden. The flowers appear in broad, flat clusters of exquisite daintiness. Culture: somewhat slow growing when young but rapid after established; does well on the east where there is not too much sun in early spring; protect young plants the first several winters. If planted at the base of the house where soil is naturally poor prepare a planting area to a depth of two feet and add well rotted manure. This climber is very deep rooted and will do much better in well drained soil that has been enriched.

Roe Dr. Eckener

Use same description as last year. Might add as cultural note: Rugosa hybrid for border or rose bed; prune back in spring as flowers on new wood. Not bothered by insects or fungous. Sunny position, good drainage, and any rose fertilizer such as bonemeal in spring.

Rose Springtime

The Appleblossom Rose. Howard and Smith, 1935. This rose has the exquisite pink shade of appleblossoms; the color is blended lighter at the center of the flower and deeper to outer edge of petals. Elegant sprays of semi-double, cup-shaped blossoms. For cutting makes a beautiful display; graceful arching stems in the garden. Fragrant.

Lilium Cernuum

A daintly little lily from Korea, very similar to the Tenuifolium in form except that the flowers are pale pink with wine-purple spots. Flowers are of the turkscap type and are deliciously fragrant; blooming in late June and July over considerable period; about 2 ft. in height; the stems are slender but rigid with grass-like foliage. Excellent in sun or partial shade. Culture: plant 4 to 5 inches deep—stem rooting type of growth; good drainage; protect as other lily bulbs for winter.

Tritoma Hybrids

Variations of the Old Red Hot Poker, in color from white through sulphur, primrose and yellow, pink and rose. From Wallace, from William Pfitzer—the Tritoma hybridizer and others.

Tower of Gold

Rich golden yellow; tall. Late August to frost.

Tucky

Rose and yellow; medium height. August.

Quartiniana

Strong growing; orange-red changing to yellow. June.

Mt. Etna

Vigorous, free flowering; glowing red; large spikes. July to frost.

Miniature Hybrids

A distinct species; attractive flowers smaller in size than the older type, decidedly more graceful and dainty, and with a much greater range of colors and shadings. Clear reds, pinks, yellow, salmon and other soft shades with combinations of these colors. The flower stems are slender and are splendid for cutting; bloom late June to frost. Culture: perennial bed; sunny location; tender perennial.

Early Flowering Hybrids

A strain of early flowering Tritomas with a wide range of bright and unusual colors, including pale and deep yellow, orange, salmon, pink and deep red. Large, individual blooms; 3 ft. height.

Aster Frikarti, Wonder of Stafa

This free flowering, long blooming Aster originated in Switzerland several years ago. The flowers are of good size 2-3 inches in diameter, blue with yellow disk. The growth is rather more open than the Amellus type of aster. It forms no seed and because of its free flowering

(Continued on page 118)

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 CLUB OFFICERS FOR 1937

HAS your garden club elected officers for 1937? It is the suggestion of the officers of the Wisconsin Garden Club Federation that all clubs provide in their constitutions for the election of officers during or before January of each year.

The reason for this is that we will publish in the April issue of Wisconsin Horticulture a complete list of all officers for 1937. This issue of the magazine serves as a directory throughout the year for addresses of officers. **We will include this year the regular meeting date of each club.**

The Federation officers would prefer that all clubs elect officers in November or December, the new officers to take over their duties in January. We could then publish the new list in either the February or March issues of the magazine.

Club Secretaries—please send in the names of your club officers **and meeting** date as soon as possible.

WELCOME

WE take pleasure this month in welcoming to membership in the Wisconsin Garden Club Federation and the Wisconsin Horticultural Society, the Green Tree Garden Club of Milwaukee, and the Hales Corners Garden Club. Both clubs made application and were voted to membership by the Board of Directors at their meeting on December 1st.

GARDEN CLUB AUXILIARIES

INTEREST in garden club auxiliaries has increased since Mrs. P. G. Stratton of Superior talked at the annual convention of the Federation on how the Superior Garden Club and its auxiliaries are organized. In this northern city there are 170 members in five auxiliaries.

Officers of the larger garden clubs are finding it very difficult to keep up the interest and provide satisfactory programs month after month, and year after year, for large groups. One of the difficulties, of course, is that when for example, a program on flower arrangement is planned, a certain number of the members do not care for this type of program. Others like it very much. The male members of the club will want a program on growing gladiolus or dahlias. Many of the ladies are not interested. Some decide to study botany, birds, wild flowers. Others prefer landscaping.

The solution to the problem is for groups with similar interests to form auxiliaries. These smaller groups can meet in homes. The meeting can be of a semi-social nature. So in addition to a program entirely to the liking of the group, they will enjoy getting together in a social way.

Some members have frowned upon serving tea or having a good social time in connection with the meeting. It has been our observation, however, that the clubs whose members thoroughly enjoy getting together are those who combine business with pleasure.

Of course the entire group should meet from time to time, especially when some prominent out-of-town speaker can appear on the program, or when a flower show is being planned. All the auxiliaries should combine for civic activities, flower shows and important meetings.

Try it out in your town. Face the truth. Do not keep on swimming against the current of underlying principles governing human nature. Above all, let us not allow our club members to drop out for lack of interest thereby losing ground already gained.

FOR YOUR GARDEN CLUB PROGRAM

MRS. Chas. Jahr, Elkhorn, former president of the Wisconsin Garden Club Federation, has a wonderful colored moving picture taken of gardens in France, England and Germany, taken while Mr. and Mrs. Jahr were visiting Europe this past summer.

Mrs. Jahr stated that she will be glad to show this film and lecture on gardens for a very modest fee. We suggest garden clubs get in touch with Mrs. Jahr. Address: Mrs. Chas. Jahr, 312 No. Broad St., Elkhorn, Wis.

Three excellent moving pictures on **Yellowstone Park, Glacier National Park** and **Yosemite** Park are available from the Bureau of Visual Instruction, University of Wisconsin, Madison. The rental fee is $1 plus transportation for each film.

Free Films Available

Several excellent moving picture films are available for the payment of postage only as follows: **Distillation of Attar of Rose in Bulgaria;** a trip to the valley of roses. Typical Bulgarian Village scenes. Growing and picking roses with method of distillation.

The Flower Industry in Southern France. A trip to various sections of France showing extensive cultivation of jasmine, roses, etc., and the study of the process by which their natural perfume is obtained.

Manufacture of essential oils, aromatics, and essences in Germany. Shows the modern manufacturing methods of producing oils from flowering plants in Germany.

Producing essential oils in Spain. A trip to the interior of Spain, showing the method of distillation of Spanish oils from plants such as rosemary, thyme, sage, etc.

Production of Oil of Lavender, in Southern France.

Production of Oils in Egypt. Views of Alexandria and Cairo, its mosques and its bazaars. Extensive jasmine fields and the method of manufacture of oils from flowers.

Send 15 cents postage for each of these free films ordered. Reservations should be made well in advance of your meeting.

All these films are of the narrow width—16 m.m.

When Noah sailed the waters blue
He had his troubles, same as you,
For forty days he drove the Ark
Before he found a place to park.

1937 Federation Committees

Conservation and Highway Beautification

THIS committee will consider ways and means of garden club participation in the conservation program for Wisconsin, help improve the billboard situation, and create interest in more beautiful highways.

Mr. E. L. White, R. 2, Jefferson, Chm.; Mrs. Harry Macdonald, Lake Geneva; Mrs. C. J. Hughes, 1024 N. 17th St., Superior; Mrs. P. G. Stratton, 303 E. 5th St., Superior; Mrs. Geo. Carpenter, 233—9th St., Baraboo; Mrs. Chas. Jahr, 312 No. Broad St., Elkhorn.

Visiting Garden Committee

This committee will prepare a list of gardens, estates, parks and beauty spots in every section of Wisconsin which will be published and made available to all who may wish to visit them.

Miss Alma Hoffman, 1002 N. 21st St., Milwaukee, Chm.; Mrs. Ida Watkins, 515 Broad St., Menasha; Mrs. Walter Dakin, 2519 Kendall Ave., Madison; Mrs. Harold Seaman, Sta. F, R. 9, Box 629, Milwaukee.

Speakers Bureau

This committee will compile a list of all available garden club speakers in every community. This list will be made available to garden clubs so they may choose speakers for their programs from nearby towns.

Mrs. R. C. Schissler, 2148 N. 74th St., Wauwatosa.

Historian

To compile the history of the activities of the Wisconsin Garden Club Federation for present and future use.

Mrs. C. E. Strong, 2157 So. 87th St., West Allis.

Junior Garden Clubs

To prepare material to help organized clubs conduct their work and to promote and assist in the organization of new clubs.

Mrs. Frank Quimby, 934 Hayes Ave., Racine, Junior Forests; Miss Mary Lowerre, Delafield, Junior Garden Clubs, Co-chairmen.

Garden Club Organization

To promote and assist in the organization of new garden clubs in sections of the state in which the committee members reside, and to give information on the work of the Federation and Horticultural Society to organized clubs not yet affiliated.

Mrs. J. M. Johnson, 529 Woodside Ave., Ripon, Chm.; all District Chairmen, Vice-chairmen and secretary-treasurers. Complete list will be published in the March magazine.

National Council Bulletin Reporter

To send in brief reports of the work of the Wisconsin Federation to the National Council Bulletin.

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

State Federation Publicity

To give to leading newspapers news of the work of the Wisconsin Federation.

Mrs. Clarence James, 1849 E. Fox Lane, Milwaukee.

Lantern Slides

To prepare new lantern slides on flower arrangement and other topics.

Mrs. B. W. Wells, 2526 Gregory St., Madison; Mrs. Sam Post, Shorewood, Madison, Co-chairmen.

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GARDEN CLUBS TO PARTICIPATE IN NATIONAL FLOWER SHOW

THE Wisconsin Garden Club Federation will have an important part in the 18th National Garden and Flower Show to be held at the Milwaukee Auditorium April 10-18.

Mrs. R. R. Hibbard, Wauwatosa, is chairman of the garden club section of the show, and has been working for several months on the plans which have now been completed. Forming the Executive Committee with Mrs. Hibbard are: Mrs. Chester Thomas, Thiensville; Mrs. E. R. Durgin, Racine; Mrs. H. E. Freudenberg, Wauwatosa; Mrs. E. A. St. Clair, Wauwatosa.

15 Gardens Planned

Space has been provided for a total of 15 little gardens, 15x11 feet. The following are the classes for gardens:

1. A garden containing a water feature—pool, fountain, etc.
2. A dooryard garden featuring the door such as front entrance yards, side gardens, service yards.
3. A terrace.

$25.00 will be given for each garden exhibited.

Niches

Interesting classes of niches have been planned. The niches run in size 48x36x27 inches and 30x24x18 inches.

Tables

Another feature of the show will be the dinner tables, size 3x6 feet. $3 will be allowed each table exhibit. The following are the classes:

1. Table of Nations.
2. Period tables.
3. Bridge luncheon tables.
4. Formal dinner table.

All are to be set for 6.

New showings are made on Monday, Wednesday and Friday. Schedules may be obtained by writing Mrs. R. R. Hibbard, 7034 Aetna Court, Wauwatosa.

Varieties For Plant Testing

(Continued from page 115)

habit, makes little basal growth so is hard to divide and slow to increase. Its chief value is its long flowering period, starting to flower in late July, continuing through August well into September. Height 18-30 inches depending on culture and weather. Personally my experience is not extensive enough to know how hardy it is.

Aster Madame Carroy

A medium dwarf aster 15-24 inches in height, blue with small yellow center. Looks like a dwarf form of the Aster Novi Belgi type. Better blue than the recently introduced dwarf hybrid types but not so dwarf or compact in growth.

Aster Luteus Hybrid

Classed as more closely related to Golden Rod then Aster. Many small straw yellow starry flowers set on gracefully arching branches. Late August, early September. Good for cut flowers. Medium height.

Aster Amellus King George

A good fall aster of the European type represented earlier by the Alpine Aster. Comes fairly true from good strains of seed. Dark Blue, yellow disk.

Dianthus Rose Dawn

Another of the Kellogg, Three Rivers, Michigan, tribe. I question wisdom of including this on the strength of the single flower produced by Mrs. St. Clair unless you have had further experiences. Have never seen it myself.

Aquilegia Crimson Star

A beautiful addition to the garden. Good strains of seed reproduce this fine long spurred hybrid well. Spurs and outer part of flower clear crimson, center white. All aquilegias cross and mix easily and source of seed is important. It is listed in some European catalogs as of A. coerulea origin which would indicate acid soil and shade as desirable.

Vesper Iris Dichotoma

A curious late flowering Iris starting to flower in late July and continuing for a month or more.

The light lilac flowers appear on much branched stems, opening about 2 p. m. and withering soon after sunset but followed by new ones the next day. Sun and well drained soil. Easily grown from seed. Interesting garden plant but too weak in color for landscape effect except in special situations. Hardy perennial.

Chrysanthemum (Shasta Daisy) White Swan

Looks like a white double Pyrethrum in flower. Growth is vigorous and of the type of the single Chrysanthemum leucanthemum. July. Easily increased by division. I think it is hardy but my experience is limited.

Sidalcea—Rose Queen

A very attractive perennial with graceful slender 2 to 3 feet spikes of hollyhock-like flowers. These flowers are pink and are produced at the same time the Delphinium is in bloom and combine well with the lighter blue types. It likes a sunny situation and fairly good soil. If the flower spikes are cut back after blooming, it will produce another crop of flowers.

AN EXCELLENT NATURE MAGAZINE

NATURE Magazine, published by the American Nature Association, is an excellent magazine for those interested in this subject. It not only contains many valuable articles on wild life and nature, but a large number of wonderful photographs of nature subjects. Anyone interested write the American Nature Association, 1214 Sixteenth Street, N. W., Washington, D. C. Subscription rates are $3.00 for one year, or $5.00 for two years.

GARDENING BOOKS FROM FREE TRAVELING LIBRARY

NOW is a good time to read a few books on gardening. The following books may be obtained from the Free Traveling Library, State Capitol, Madison, for a period of three weeks. Only the return postage need be paid. In addition to the few listed here there are many more books available on landscaping, town and city planting, parks, roses, and on various flowers such as dahlias, gladiolus, etc. Just drop a card to the Library for what you want.

The Living Garden, Salisbury
Garden Encyclopedia, Seymour
Gardeners How Book, Sherlock
Shakespeare's Garden, Singleton
Garden Clubs, Speller
Climbing Roses, Stevens
Day Lilies, Stout
What Happens in My Garden, Wilder
Arrangement of Flowers, Hine
Book of Perennials, Hottes
Book of Annuals, Hottes
Colour Schemes for the Flower Garden
Old Gardens of Italy, Le Blond
Informal Gardens, Ortloff
Delphinium, Phillips
Garden Pools, L. & S. Ramsey
Simple Guide to Rock Gardening, Cotter
Lilies and Their Cultivation, Craig
Gardening with Herbs, Fox
West-American Alpines, Gabrielson
American Rock Gardens, Hamblin
Gardens of Japan, Harada
Peonies and The Little Garden, Harding
Dish Gardening, Beard
Herbs and the Earth, Beston
How to Arrange Flowers, Biddle

CHICAGO FLOWER ARRANGEMENT SCHOOL

THE annual flower arrangement school of the Garden Club of Illinois will be held in the Palmer House, Chicago, February 8-9.

Miss Alice Carson, Greenwich, Connecticut, will lecture on the following topics: February 8, 2 p. m. Principles of Flower Arrangement. February 9, 10:30 a. m. Relationship Between Flowers and Container. 2 p. m. Table Centerpieces.

Improved Columbines

W. A. Dustrude, Hartland

IN recent years there has been a great improvement in the size of flower and spurs of the aquilegia or columbine by crossing the native species. There is also a wider range of colors and some have been "fixed" by rigid selection so that seed will come almost 100% true.

Crimson Star

One of the best of the newer varieties, "Crimson Star," which was introduced by an American specialist. The flowers are large with long spurs and rich deep crimson with white petals. There is apt to be some burning or fading of color in the hot sun but when grown in part shade the blossoms keep their rich color to the end of the blossoming period. The plants are robust, even in growth and do well on rather heavy soil.

Another variety which later has been brought to the attention of flower enthusiasts is "Aquilegia Longissima" which is a native of Arizona and Texas. The outstanding characteristics are the long spurs which under favorable conditions will grow 4 or 5 inches long. Although the delicate pale yellow color is not outstanding this variety has great possibilities as a parent plant for hybridizing. It does best in part shade where the roots have access to plenty of moisture.

One of our best American species is Aquilegia Caerulea, or commonly called the Rocky Mountain Columbine; with long spurs of lavender blue and blossoms of bright blue and white. When grown in full son it does not develop as well as the hybrids, but like other mountain types it will grow to perfection in part shade in soil mixed with peat moss or leaf mold. All aquilegias, in order to thrive well must have good drainage and plenty of moisture, especially during the period of bloom.

For those who like the short spurred varieties "Aquilegia Pyrenaico" is of recent introduction and very choice. The flowers are medium sized and deep blue on stems averaging 12 inches tall.

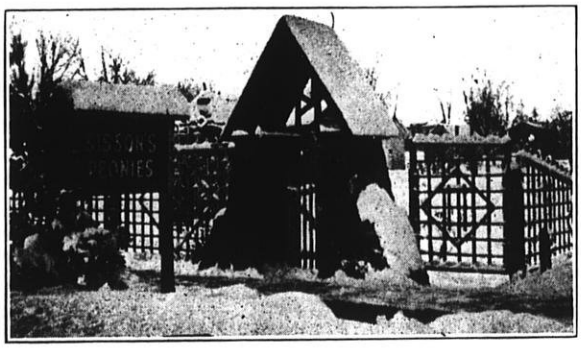
If a good mixture of color is wanted, one may select any of the following strains: Dobbies Imperial Hybrids, Mrs. Scott Elliott Strain, or Rainbow Blend.

Because of this wide color range, the grace and airiness of the blossoms and foliage, the adaptability to sun or shade, we can well consider the Aquilegias as one of our most beautiful and useful perennials.

FLOWER ARRANGEMENT SLIDES SHOULD BE BOOKED EARLY

WE hope all Wisconsin garden clubs will show the new slides on flower arrangement at their club meetings during the coming year. In order that your club may not be disappointed in having these slides, we suggest that you book them early. Send your bookings to the Bureau of Visual Instruction, 1204 W. Johnson St., Madison, Wisconsin, enclosing one dollar for rental. We suggest that clubs give their meeting dates for two or three months to avoid correspondence in case the slides are not available on one particular date.

Clubs that have not yet seen the slides and heard the lecture on Modern Japanese Arrangement should make this a part of their program. Bookings for this set should be sent to the Wisconsin Horticultural Society. The rental is also one dollar.



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The 1300 Hoffman Frames arrived O. K. and I was well pleased with them. The quality is as good as frames I have purchased from other companies costing almost twice this amount.
—M. K. S.

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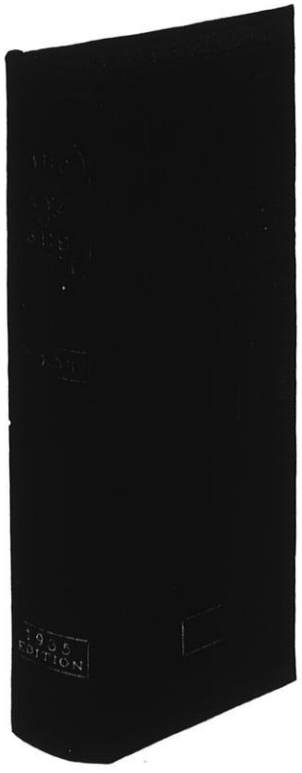

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FEBRUARY, 1937

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A young boy, undergoing an examination for position, came across the question, "What is the distance of the earth from the sun?" He wrote his answer as follows: "I am unable to state accurately, but I don't believe the sun is near enough to interfere with a proper performance of my duties if I get this clerkship."

He got it.

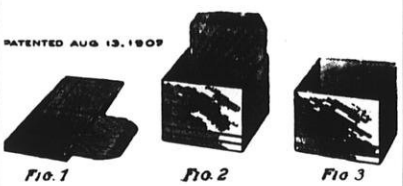

Fig. 1 Fig. 2 Fig 3

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

Established 1910

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TABLE OF CONTENTS

	Page
Apple Varieties	123
An Efficient Method for Harvesting Apples	124
In the Orchard	126
Ozaukee County Orchard Improvement Contest	126
Beacon, An Excellent Early Apple	127
What Strawberry Varieties Shall We Plant in 1937	128
Green Manures for Strawberries	129
Unproductive Bud Spots of the Montmorency Cherry	129
Horticultural News	130
The Soil Conservation Program for Orchards	130
The Story of Johnny Appleseed	131
Editorials	132
Carpathian English Walnuts Again Available	132
National Cherry Week Feb. 15-22	133
About the Home and Garden	134
New Vegetable Varieties	135
My Favorite Glads	136
Comments On Gladiolus Variety Symposium	137
Thrips Again	137
In the Flower Garden	138
Mary Geddes Iris Wins Dykes Gold Medal	139
State Garden Club Federation News	140
Federation Financial Report	141
The Hardy Amaryllis	142
Experience With New Annuals	143

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Subscription to Wisconsin Horticulture is obtained by membership in the Wisconsin State Horticulture Society for which annual dues are $1 per year or $1.50 for two years. Garden Clubs, Horticultural Societies, and other Horticultural Organizations are affiliated at a reduced membership rate.

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.

Apple Varieties

IT certainly looks as if the new varieties of apples introduced during the last ten years are gaining in popularity. Already some of them have replaced standard varieties in new orchards.

Melba Best Early Apple

Melba has now replaced the standard early varieties such as Yellow Transparent. Combining hardiness, red color, excellent quality with good productivity, it is being recommended to Wisconsin orchardists wherever an early variety is required. Of course we know that there is not the strong market demand for early apples that there is for late apples, and so only a few trees are being planted in our orchards.

Early McIntosh is probably a runner-up to Melba and farther South may be preferred to Melba because it reaches a good size and has excellent quality. It comes on about five days later and seems to run rather flat in northern sections.

Beacon Replaces Duchess

In Minnesota Beacon is replacing Duchess as a summer apple. The tree is hardy, the apples have excellent red color, and it is productive. This variety is described more fully elsewhere in this issue. It is said to keep much longer than Duchess which is important.

Milton Competes With Wealthy

It will probably be some time before Wealthy is replaced as a Wisconsin apple. In New York State, however, Milton is a strong competitor. It comes about a week earlier than Wealthy. It is beautifully colored and has excellent quality. G. H. Howe of the New York Experiment Station writes that "When the tree or grafts first commence to bear, the fruit sometimes is uneven and awkward in shape. This fault becomes less noticeable as the tree assumes its bearing stride. The quality of Milton is unsurpassed for table and culinary purposes."

McIntosh Still Popular

McIntosh is probably gaining in popularity as a Wisconsin apple in its season. It is the one apple that will probably not be replaced for a long time, and is an illustration of what high quality in a variety will do. The McIntosh has been known for over 125 years, but it is only in the last 20 years that it has become really appreciated in Wisconsin.

Late Varieties

Cortland is becoming increasingly popular. Older plantings in Wisconsin are doing well, and the owners begin to speak highly of the variety. A cross of McIntosh and Ben Davis, it does not have quite the high quality of McIntosh, but is both a cooking and an eating apple. The variety is over 30 years old and has been widely planted in New York State. It is already listed in Market Quotations.

Haralson is replacing N. W. Greening in northern sections. Haralson is a good producer, very hardy, a red apple, and keeps all winter. It lacks quality but is equal to N. W. Greening and others of that type. Orchardists who are thinking of planting N. W. Greening will do well to look into the merits of Haralson further.

The Kendall

"The pride and joy of all these apples of the McIntosh tribe, is Kendall," writes Prof. G. H. Howe of the New York Experiment Station, in Farm Research. "Barring none, Kendall is the

handsomest in appearance. It combines uniform size with a most beautiful red color. The tree is sturdy, well framed, and annually productive. Kendall retains its attractive finish and the crispness and juciness, and the flesh clear until spring in storage, and when removed from storage it holds up in good condition much longer than does McIntosh. Its future is awaited with a great deal of interest."

Kendall is a McIntosh cross ripening from about 10 days to two weeks later than McIntosh and is being recommended for trial in Wisconsin.

Delicious Crosses

If we continue to have winters such as that of a year ago, Delicious will no doubt lose the popularity it has had in Wisconsin. However, with better weather conditions, the red sports of Delicious such as Starking and the new varieties Orleans and Newfane, will no doubt be continued in our orchard due to their quality. Orleans has withstood the weather conditions the best and looks promising.

There is a big demand for Delicious apples. Where they can be grown successfully they are profitable. However, not many sections of Wisconsin are suitable for this variety.

Number 1007 On Trial

Minnesota No. 1007 is a very promising variety, but has not yet been introduced. It is red in color, the tree is very hardy, productive, and the fruit keeps well. Its quality is excellent and distinctive. It is a variety we are recommending for trial on a small scale so as to determine its value in Wisconsin. Anyone interested should write the Horticultural Society.

Clerk: "Could you raise my salary next week, sir?"

Boss: "Well, I've managed to do it for the past three years, so I think it'll be possible next week."

An Efficient Method For Harvesting Apples

Theo. Bakke, Gays Mills

WE think we have an ideal system of harvesting apples. Our system has been used the past three or four years and is no longer an experiment with us. We have used practically every known system and know that we have considerably decreased harvesting costs. After all, that is the one big item in handling any kind of fruit. Furthermore, we have reduced the percentage of lower grades of fruit and increased the number of U. S. No. 1 apples. That is very important because it is the No. 1 fruit that brings the money. Lower grades never did and never will bring in much more than harvesting costs, except occasionally like 1936 when lower grades brought good prices.

The motion picture film made by President Karl Reynolds for the Society on Picking, Packing and Grading Apples in Wisconsin, shows the methods used by a number of Wisconsin growers.

These growers were asked to give their opinion of the method they are using. Most of them complied and their statements will be published in Wisconsin Horticulture.

Mr. Theo. Bakke is Superintendent of the Kickapoo Development Company at Gays Mills, operating a number of large orchards.

The Picking Crew

All of our apples are picked into 14 quart galvanized pails having half inch holes punched in the bottoms to discourage being taken away by pickers and others. A crew of eight to ten pickers comprise a picking crew which is supervised by an apple picking supervisor. The apples are brought to a packing table placed conveniently in the orchard so that pickers can supply it without carrying too far.

The packing table is made of boards 12 feet long and 5 feet wide. It is placed on "Saw Horses" not too high from the ground so that packers do not have to do very much reaching in placing the apples in the forms.

The Packing Crew

Each packing crew consists of a packing supervisor, three or four packers (usually women) and a basket turner. The apples are packed directly into the forms, each packer doing her own facing. When the form is filled the basket turner takes it from the table and turns it, placing the pad and cover on the basket and piles the baskets in such a way that they can be counted or checked without trouble.

The truckers then come along and haul away the packed baskets to either refrigerator car on track or to the headquarters shed.

The U. S. No. 1 grade is packed first. Lower grades are placed in another basket set on the table in front of the packer and these are again graded and packed and culls thrown out. We usually make three grades which include the number ones. Our No. 3 grade is what we would class a serviceable apple which would be too good to class as a cull and not good enough to make the second grade.

Each basket packed contains the packer's number which helps us in checking and inspecting from time to time to be sure that we are getting satisfactory packs. Each packer is given a sheet of packing instructions. These rules specify what is to go into U. S. No. 1 packs, their tolerances, etc. Our lower grade packs. Each packer is given a we are just as particular with these as with the No. 1 pack.

Honest Grades

Regarding grades, we make minimum packs, for instance 2 inch, 2½ inch and other minimum sizes we wish to make. We have found that buyers prefer minimum packs, well faced (not all the small apples in the bottom of the basket and nice large ones on top), so we strive to make each face represent the pack. This means that the buyer gets an honest pack and that is what every grower should work for. After all he is out to build up his own business. We do not believe in or practice any kind of pack that will deceive the buyer. We established our reputation long ago and have been able to hold buyers from year to year because of our method of picking and putting up what we think is a very satisfactory basket of apples.

System Cuts Cost

Our skidding and hauling costs have been about cut in two by this system because we have eliminated double and treble handling costs. We usually contract all hauling because we find that we can have the apples hauled locally or long distance cheaper than having our own trucks do this. We only have a few trucks which we use to supply packing crews with baskets and paper supplies or assist crews to move from one location to another.

All Piece Work

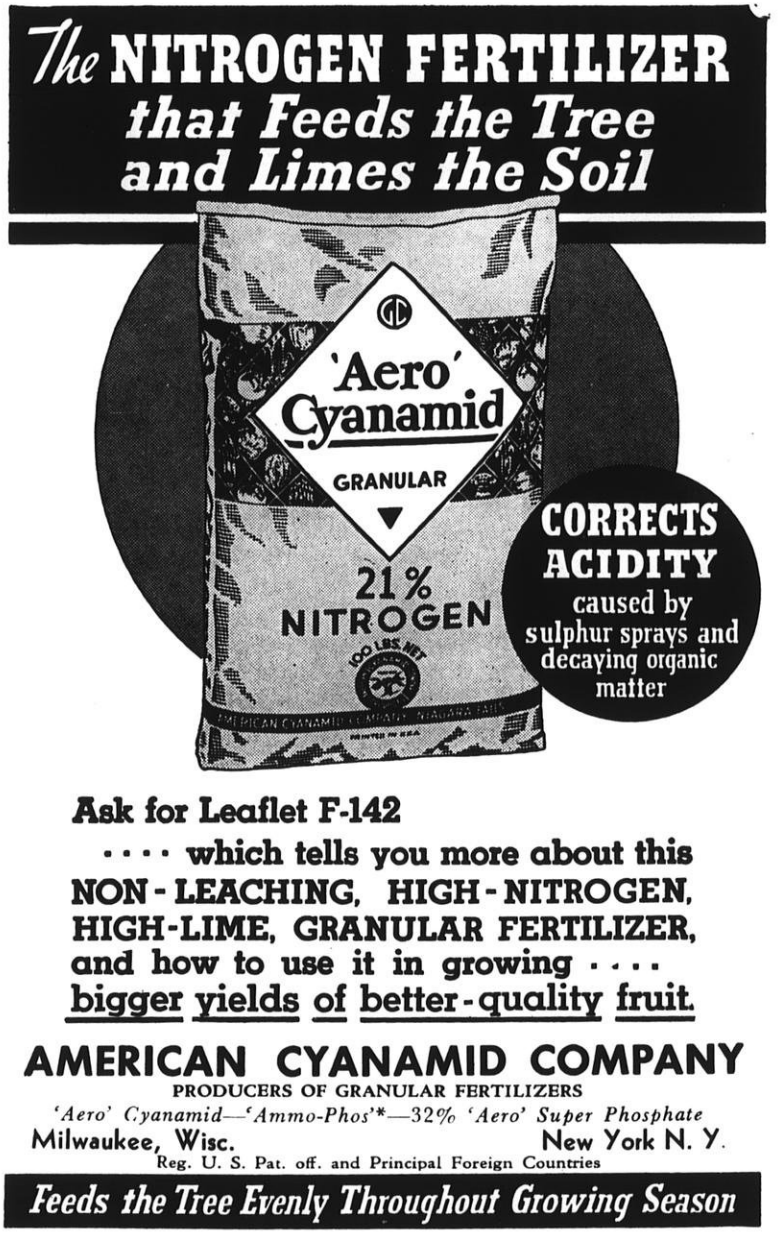
All picking and packing and basket turning is on a piece basis, making it possible for us to know at all times what it is costing us to harvest apples. A form is filled out daily by the packing supervisor which is checked and audited. We also have a system of perpetual inventory of all fruit packed so we know at all times how much we have on hand without taking daily inventory. We also use this method in keeping a record of baskets and supplies.

We have found that this system works and has reduced the lower grades of apples. Before we adopted this system we kept the cider mill going full blast.

SUCCESS BY MULCHING THE ORCHARD

"I HAVE thirteen acres of newly planted orchard, and have practiced mulching all of my young trees. A five and one-half acre plot, which was planted in the spring of 1935, seeded down to alfalfa that year and mulched with straw the same fall, made a growth of one to two and one-half feet during the past summer. We had no rain and the alfalfa dried up, but the soil directly under the straw mulch all around the trees remained moist.

"I find the articles in Wisconsin Horticulture very helpful. I believe an implement show in connection with the convention is a fine idea."—Gilbert Pieper, Oakfield.



In the Orchard

BEN DAVIS APPLE NOT PROFITABLE IN THE EAST

"BEN DAVIS ranked high in yield but was lowest of the twelve most important varieties in money return from an acre," is the report just issued by the Federal Government in a Bureau of Agricultural Economics Survey, of commercial apple production in Virginia and other eastern states. The study covers the four years 1931-34.

York Imperial was at the top in yield and money return in these states. The yields of trees ten years old or over, were for York Imperial 159 bushels per acre, or 4.2 bushels per tree, as contrasted with Winesaps, 68 bushels per acre, or 1.8 bushels per tree. There was considerable variation in yield in different orchards in different sections of the states.

While Ben Davis was near the top of the list in yield, it was at the bottom in money income which was only $37.86 per acre, gross returns.

Yellow Transparent and Delicious were near the bottom of the list in yield.

ORCHARDISTS USE BAIT FOR MOUSE CONTROL

CONSIDERABLE more poisoned oats bait for control of mice in orchards is being used this season by Wisconsin fruit growers, than ever before. Since last August the Wisconsin Horticultural Society has sent out 1,465 pounds of the bait to growers. This was obtained from the Federal Bureau of Biological Survey from their mixing plant in Pocatello, Idaho.

Danger of mouse injury is not yet over. When other sources of feed become short mice will attack the trees. Poisoned oats bait is probably the most effective control measure.

The Society handles the oats at cost. Prices are: 10 pounds for $1.20; 25 pounds for $2.50.

COUNTY FRUIT GROWERS ASSOCIATIONS MEET

THE annual meetings of the Waukesha County, Milwaukee, Ozaukee and Washington County Fruit Growers Associations were held in January. All the meetings were well attended and an interesting program presented.

The motion picture film on picking, grading and packing apples in Wisconsin was shown and methods discussed by H. J. Rahmlow, Secretary of the Horticultural Society. Growers were keenly interested in the different graders and packers shown.

C. L. Kuehner gave an interesting discussion on orchard problems. C. L. Fluke, Entomologist, discussed insects at the Waukesha meeting. Mr. Peter Swartz, Waukesha, gave an interesting talk on orcharding at the Milwaukee meeting, while Mr. Lester Tans, Waukesha, reported a very successful year for the Southeastern Fruit Growers Association.

A list of the officers of all county fruit growers associations will be published in our March issue.

OZAUKEE COUNTY ORCHARD IMPROVEMENT CONTEST

C. C. Gilman, Port Washington

FRUIT production in Ozaukee County has become quite an important phase of its agriculture. The 1935 census shows there were 1401 farms in the county that had a total of 1624 acres of fruit orchard, exclusive of farms with a few scattering trees. This is an increase of about 444 acres on 309 farms since 1930. Growers are constantly becoming more conscious of the necessity of producing fruit of good quality and a persistent effort is made in that direction.

The Ozaukee County Fruit Growers' Association was organized a few years ago for the purpose of improving orchard practices and coordinating the industry in the county. At their last annual meeting they voted to hold an orchard improvement contest this year as a means of stimulating further interest in better orchard practices. Anyone wishing to take part could do so by making application.

Ten growers entered the contest. Mr. Kuehner, fruit specialist of the college, and the County Agent visited each of their orchards once during the summer and then at harvest time their orchards judged by a committee consisting of Dr. R. H. Roberts, Madison; R. L. Marken, a commercial grower of Kenosha County, and Kurt Wiegand, a farm orchardist of Manitowoc County. It took one entire day to inspect these orchards and the fruit. The growers were scored in accordance with a score card that was prepared for that purpose. The contest was won by Fred Frenz of Cedarburg, who had a score of 947 out of a possible 1000.

The contest was effective in bringing to the attention of the growers the particular features in which their practices could be improved. Considerable credit must be given C. L. Kuehner for his assistance in making it a success.

Customer: "Are these eggs strictly fresh?"

Grocer (to his clerk): "Feel those eggs, George, and see if they're cool enough to sell yet."

Beacon, An Excellent Early Apple

BEACON is being recommended by the Minnesota Horticulture Department as a superior early apple to replace Duchess. Wisconsin growers who need an apple in the Duchess season may do well to try this variety which has proven to be superior to Duchess in many ways.

The following description of the Beacon is furnished us by Prof. W. H. Alderman, Chief, Minnesota Division of Horticulture.

"Beacon or No. 423 soon attracted attention, but it was a late summer variety and, unfortunately, there seemed to be too many apples of that season already grown in Minnesota. For that reason, it was thought best to exercise special care in the testing of this variety and to introduce it only in the event it should clearly prove to possess outstanding merit. The passage of time and widespread trials begun in 1925 have demonstrated this to be the case. It is hardy enough to withstand the vicissitudes of northern Minnesota winters. Its solid red color and dependable productivity adapt it to commercial production in the apple regions of this state.

"It ripens only three or four days later than Duchess and it is distinctly superior to that variety in color, quality, and ability to stand up under market conditions. It will keep in good condition for a month after harvest without cold storage. Excellent culinary qualities combined with its other good features, would seem to insure for it a place in both home and commercial orchards in this and probably other northern states.

"The name selected is especially appropriate because the tree, laden with ripened fruits, stands forth like a beacon glowing with color and brightness.

"The variety is characterized by a vigorous and productive tree of upright spreading habits. The fruit is medium in size, round but varying from slightly oblate to slightly conic; color an attractive deep red over the entire fruit; dots prominent; stem medium in length and thickness, adhering well to the tree; cavity medium deep and flaring; basin medium, slightly wrinkled; calyx closed, calyx tube funnel shaped; flesh yellowing, texture medium fine grained, medium tough; juicy, skin thick, tough; flavor mild, sub-acid; quality good; season late summer corresponding to that of Duchess but extending over a much longer period."

Beacon trees may be obtained by contacting Wisconsin nurserymen or from Minnesota nurserymen, especially those advertising in the magazine.

Our 1937 Fruit Book

Describes Best Varieties to Plant

Copy Free—Write Today

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Minnesota Fruit Growers Service Company

787 Eustis St. St. Paul, Minn.

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We Offer the Following for Spring

New Wonder Lily Philippinense Formosanum, 25c each; 3 for 65c
New Ember, Yellow Plums
New Beacon Apple No. 423
New, No. 790 Apple
New, No. 1007 Apple

And many other new and standard varieties.

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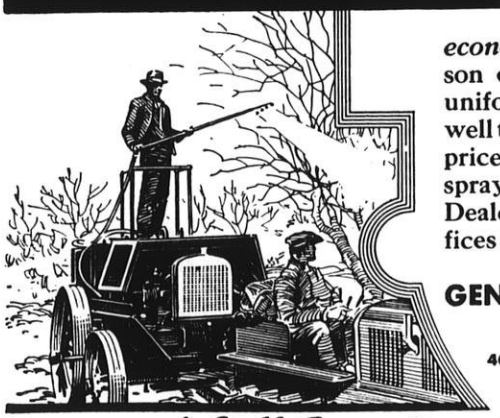

Orchard Brand Lime Sulphur Solution, Dry Lime Sulphur, and Oil Emulsion 83 are *economy* products by reason of their quality and uniformity. You will do well to get Orchard Brand prices before placing any spray material contracts. Dealers and Company offices from coast to coast.

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40 Rector St., New York
Reg. U.S. Pat. Off.

...A Still Bigger Year for "Astringent Lead"

In the Berry Patch

What Strawberry Varieties Shall We Plant In 1937

IN the lighter soil sections, especially at Warrens, Sparta, Alma Center and Tomah, the Beaver is still very popular. Last year at the annual strawberry day held at Warrens in June, Mr. Larsen, the chief inspector, was asked the question, "What percentage of the berries brought in by the growers are of the Beaver variety?" He answered, "About 95 per cent." This shows the trend during the last five years in this section toward this variety which, however, has not been successful in all sections of the state.

In the Bayfield section the Beaver is gaining in popularity, but the newer varieties, Dorsett and Fairfax, created some interest there last year due to their heavy production and good size.

In the Door County section many varieties are being grown, and it is obvious that the growers have not tried out the newer varieties to an extent where the best have become popular and are being planted to the exclusion of other varieties as is the case in the two other sections of the state named.

Premier

Premier is a grand old variety. It is a sure cropper and where Beaver has not done well, especially on the heavier soils, it is probably preferred by growers today. It is widely adapted and in planting Premier one is playing safe. It is not a heavy plant maker. This may be the reason why on rich, heavy soil, it does not set plants too thick, and consequently will produce berries of large size. However, other varieties may out-yield it under some conditions.

Dorsett

Dorsett became popular last year. The W. F. Allen Company, Salisbury, Maryland, extensive plant growers, states that Dorsett is the most profitable early berry they have ever grown. Under favorable conditions it excells Premier in productiveness, size, beauty and profit, but is not as widely adapted. Dorsett is a light colored berry and should ship well. It is smooth and firm.

Standard Wisconsin Varieties

Premier
Beaver

Very Promising Varieties Recommended for Further Trial

Dorsett
Fairfax

Very Promising New Variety for Trial

Catskill

Fairfax

Fairfax is the highest quality berry of all mentioned here. It is very productive, the berries are large and beautiful but become quite dark when fully ripe. For home garden or local trade, it should bring repeat orders due to its quality.

Because of its dark color when fully ripe, growers have not yet determined whether it will be a good shipper, so there is some question in regard to planting large acrages for distant marketing. The plants of both Dorsett and Fairfax are unusually large and vigorous, having large leaves and long stems.

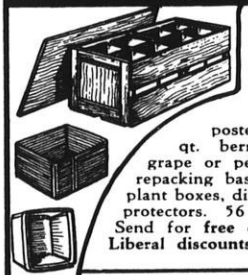
Catskill

Catskill was tried by several growers for the first time last year, and Mr. H. H. Harris, Warrens, was very enthusiastic about this variety, stating that it produced a larger crop than any variety he had. Catskill was originated by the New York Experiment Station, Geneva, New York, and is a cross of Marshall and Premier. The plant is unusually vigorous and the berries are large. The berries are borne on strong, rather long fruiting stalks. It is a mid-season variety and promises to out-yield any variety we have grown if adapted to different sections of Wisconsin. We recommend Catskill for wide trial in Wisconsin this season. In fact, the Wisconsin Horticultural Society will pay one-half of the cost of 50 plants of Catskill to any member who wishes to try this variety. Due to the fact that plants of this variety are not available locally, they must be shipped in from the East, so postage is high. The Wisconsin Horticultural Society will have sent to any member, 50 Catskill plants on receipt of 35c. The Society will pay the balance. They will be sent by parcel post.

TO PREVENT SUNSCALD

THE Dominion Experiment Station at Morden, Manitoba, recommends for the prevention of sunscald on tree trunks: whitewashing the trunks; wrapping with light colored building paper; or shading the south side with boards, brush, or corn stalks.—From The Minnesota Horticulturist.

Berry Boxes and Crates



SAVE at Sheboygan on your box and crate needs. Check our made up or K. D. berry boxes, crates. Be posted on our American qt. berry baskets, Climax grape or peach baskets, till or repacking baskets, pansy baskets, plant boxes, dirt bands, veneer tree protectors. 56 years in business. Send for free circular with prices. Liberal discounts on early orders.

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GREEN MANURES FOR STRAWBERRIES

AS an aid in preparing the land for strawberries, green manures are about as satisfactory as applications of stable manure although possibly results are not as quick. Clover, beans, peas, lespedeza and other legumes are fine. Oats, wheat, rye, millet are also good. Legumes are preferred if a heavy crop can be grown. However, the nitrogen creating advantages of legumes may be offset by the heavy growth possible with non-legumes under some conditions.

A heavy growth of ordinary field corn sowed broadcast and plowed under green when the growth was from three to five feet in height has given fine results in a few cases and is worth considering. Rank growth of weeds and grass if plowed under green are also valuable in adding humus and retaining moisture.

Use Rye

Soil preparation for strawberry plants starts so early in the spring that winter cover crops should be selected which make a large amount of growth in the fall and if possible have a fairly large root growth. For this purpose we have found nothing better than rye planted early. We have used rye to precede strawberries more than any other green manure crop. It has been found desirable, where large fields are planted, to disc the rye sod before plowing in order to get the ground in finer condition for the strawberry plants. —From Allen's Book of Berries, 1937.

Strawberry Plants

Strawberry plants. Heavily mulched plants from a fine row. Not affected by drought. Beaver, Premier, Fairfax, Dorsett and Clark's Seedlings. John Jensen, Warrens, Wisconsin.

UNPRODUCTIVE BUD SPORTS OF THE MONTMORENCY CHERRY

A STUDY has been made of a number of barren, semi-barren and relatively unproductive forms of the Montmorency cherry. Barrenness or low productivity has been found due to or associated with: (1) A failure to form either flower or leaf buds visible to the naked eye in positions where flower buds are usually differeniated; (2) the formation of leaf buds in positions where flower buds are usually found; (3) marked susceptibility of dormant flower buds to injury from low temperature; (4) marked susceptibility to injury from less severe temperatures while in an early post-dormant condition; (5) marked susceptibility of flower buds or opening flowers to spring frost; (6) poor fruit setting. Field surveys indicate that all of these unproductive variants are of common occurrence, either as limb or whole tree sports, in the commercial orchards of the state; propagation tests indicate that they constitute true intra-varietal strains that result in a considerable reduction in yield. The obvious remedy for the situation consists in starting out with stock that is known to have been propagated from normally productive types.—From Michigan Experiment Station Report.

Strawberry and Raspberry Plants

Latham and St. Regis Raspberry Plants. Twice inspected. Free of Mosaic. **Strawberries:** Fairfax, Dorsett, Beaver, Senator Dunlap. Write for special prices for February. Mt. Vernon Nursery, Viola, Wisconsin.

Fruit Farm Bargain

Operating since 1920. 22A. overhead irrigation 7A. berries. Price $3300.00. Small down payment will handle. Must sell due to health.

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Horticultural News

A. F. Yeager, North Dakota

A CORRESPONDENT asks how the new varieties of potatoes, Chippewa and Golden, came out in trials carried in 1935. Practically every one reported favorably on Chippewa, but no one in North Dakota gave a favorable comment on Golden. It seems to be too late and not adapted to our conditions.

By making use of wild species of potatoes, from which our cultivated varieties have probably sprung, plant breeders think that it may be possible to produce potato varieties that may be immune to many of the common diseases and which may be able to withstand several degrees of freezing without injury.

Chinese cabbage is not a true cabbage but comes more nearly being a mustard.

Cabbage Varieties is the name of Special Bulletin 249 of the Michigan Agricultural Experiment Station. For one who wishes a thorough discussion of cabbage varieties and their important differences this bulletin is of great value.

A book of considerable value to any one who has already had some work in plant breeding is entitled **The Genetics of Garden Plants,** published by the Macmillan Company. It would be much better for the beginner to first read a more simple book as **The Introduction to Genetics,** by Walter, and published by the same company.

Farmer's Bulletin No. 1726 is entitled **Treatment and Care of Tree wounds.** This is a virtual gold mine of information on the treatment of cavities in trees, strengthening of tree trunks, and on the causes of such conditions in plants. As in the case with all Farmers' Bulletins, it may be procured free from your Senator or Representative at Washington, D. C., or from the U. S. Department of Agriculture.

In a study of the natural reproduction of forests in Vermont it was found that in every case more young trees survived where the soil was not disturbed than where it was spaded and limed.

Mr. Denny of the Boyce-Thompson Institute has found that plants manufacture Ethyln gas in their own tissues, hence, the process of gassing fruits to hasten the ripening process (recently developed by scientists) is nothing new after all. Nature has been practicing the same thing without our knowing it for ages. We certainly cannot call such a process an "unnatural" one at least.—From January North and South Dakota Horticulture.

THE SOIL CONSERVATION PROGRAM FOR COMMERCIAL ORCHARDS

THE 1937 Soil Conservation program provides for the payment of grants to operators of commercial orchards for certain soil building or soil conserving practices.

A soil building allowance of $1.90 per acre may be earned by approved soil building practices in commercial orchards on any farm qualifying.

Each orchardist should consult his county agent for details. In general, however, the amounts paid for seeding adapted legumes on any farm, are as follows: Alfalfa, $2.50 per acre; Red Clover and White Clover, $2.00 per acre; Alsike, Mammoth Clover and Lespedeza, $1.50 per acre; Sweet Clover, Vetch, $1.00 per acre; mixtures are also provided for.

Practices Applicable to Commercial Orchards

Winter Cover Crops—Incorporation into the soil by plowing or discing between March 1, 1937, and June 30, 1937, inclusive, of a good vegetative growth of any of the following winter cover crops: Rye, oats, barley, buckwheat, annual grasses, annual legumes, or mixtures of any of these—$1.00 per acre. Provided: Such crop has attained at least sixty days' growth and is not pastured or harvested for grain or hay.

Seedings of Winter Cover Crops—Seedings after May 1, 1937, of any of the winter cover crops listed above except soybeans and cowpeas—50c per acre. Provided: (1) There is a good vegetative growth of such crops on such land on the date as of which final inspection of the farm is made for the purpose of determining performance.

Seeding Soybeans or Cowpeas—Seeding, after May 1, 1937, soybeans and cowpeas at the normal rate—$1.50 per acre. Provided: There is a good vegetative growth of such crop on such land on the date as of which final inspection of the farm is made for the purpose of determining performance which is not pasturned or otherwise taken from the land.

Mulching—Application of mulching materials, other than manure—$1.00 per ton (air-dry weight). Provided: (1) Not less than three and not more than five tons per acre are applied; and (2) all materials produced on such land from interplanted crops are left thereon.

"What's the row over at the carnival?"

"A fake dentist sold the fire-eater a set of celluloid teeth."

The Story of Johnny Appleseed

JONATHAN CHAPMAN, a pioneer grower of apple trees in Ohio, and Indiana, never walked with the great saints of the Roman calendar, St. Francis, St. Michael or St. Paul, yet he has traits like them.

Though Johnny Appleseed loved to read aloud at night from the Bible and the loose leaves of Swedenborg which he carried in the bosom of his shirt, he loved even better still to grow apple trees. For forty years apples were as dear to him as the birds to St. Francis. Had he been content to keep the apple to himself, he would have been no saint, but just such another sour old man as the one who said, "There's nothing to life but picking up apples in the fall to store down cellar, and then throwing them out rotten in the spring." If there had been but one apple in Ohio, Johnny would have divided it with the first child he met and then have planted the seeds left in the core. It was all a mistake, he said, to blame the harmless apple for Adam and Eve's fall. When the Lord meant apple, he said apple; eleven times in the Bible he had called the apple by its name, but not once in those first chapters of Genesis. The tree of knowledge of good and evil was no apple tree! He boasted that there were more than a thousand kinds of apples, and that sometimes a tree could live one hundred twenty years and still bear fruit.

The pioneer children, who could eat anything from acorns to raw turnips, but who were born too early to taste the McIntosh Red's pink flesh brimming with juice like a melon, had to hammer these wild apples on their elbows or on the nearest stone-wall to start the bitter sweet juice, tart as a green persimmon, astringent like the quince. Yet it had a gust and sprightliness which they liked, even if it puckered their mouths too tight for even a whistle. Every housekeeper knows that apples too hard and sharp to eat raw without eyes watering make good pies, apple butter and cider.

Much has been written about Jonathan Chapman (Johnny Appleseed). An excellent history of this well known character was published in the November, 1936, issue of the Bulletin of The Garden Club of America, written by Mrs. Robert W. Huntington of the Hartford (Conn.) Garden Club. Her article comprised 12 pages of interesting material. We give here only a small portion of it.

Boon to Settlers

Johnny Appleseed brought the settlers their one luxury. To plant apple seeds for them by the open spots along river banks, before they had smoked and hacked out their clearing from the dark forest, what a simple, almost silly idea! Yet nobody had thought of it before Johnny. No one else had time or imagination enough, or even the heart to bother with such small seeds or seedlings, what with fighting Indians, chopping trees, hunting and fishing. Backwoods diet was sparse. There was no salt to flavor mush without trekking a hundred miles; no molasses to sweeten it unless one could float down to New Orleans. Meals were of fish and game, wild berries and such plants as grew along the river banks for humble "greens," crowfoot, cow's glory, creese, poke, puccoon, sissle, and wild turnip, until the first corn and pumpkins ripened. With the fall of the leaf there would have been little to vary this coarse diet without Johnny's apples. Johnny worshipped apples and he could have done worse. Apples and good living, even godly living, go together.

Here Comes Johnny

One morning in the spring of 1801, in Licking County, one Isaac Sledden, who was working near his cabin, saw a traveler riding up the trail on horseback. For the two days the stranger stayed with the Sleddens he would talk of nothing but planting apple trees, so that other settlers coming up Licking Creek would find something to eat, ready and ripening, beside wild game and fish. Both of his saddlebacks were full of appleseeds which he had gathered the fall before from cider presses in New York and western Pennsylvania. If Isaac Sledden would let him, he proposed to plant some of these out there in the clearing. Isaac was willing enough, since it cost him nothing and since Johnny did the work, and Mrs. Sledden came out to watch the stranger hoe the soil and cover the seeds with brush. Five years later on the banks of the Ohio River below Steubenville another settler has recorded his first sight of a scantily dressed boatman in ragged trousers with a tin pan on his head, a hatchet and a corn cutter at hand, dropping downstream in a queer craft, two Indian dugouts lashed together and loaded with bags of appleseeds.

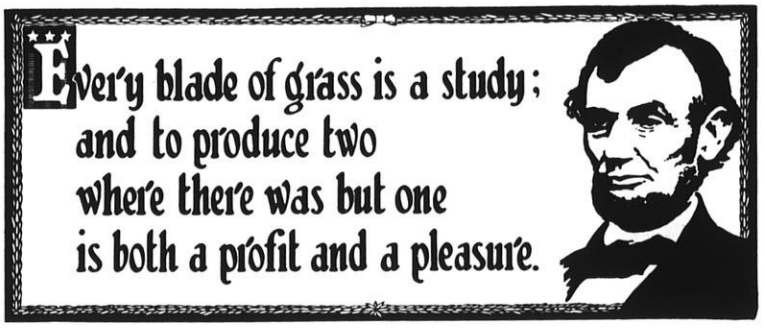
(To be continued in March issue)

NEW BULLETIN DESCRIBING WISCONSIN AVAILABLE

A BEAUTIFUL new bulletin containing 245 pictures of Wisconsin is being distributed by the Department of Agriculture and Markets, State Capitol, Madison, to anyone upon request.

The bulletin contains chapters on history, Indians, agriculture, dairying, fishing, mining, recreation, etc.

EDITORIALS



CARPATHIAN ENGLISH WALNUTS AGAIN AVAILABLE

ANOTHER shipment of Carpathian English walnuts from the Mountains of Poland and the Ukraine has been received by the Ontario Nut Growers Association from Rev. P. C. Crath of Toronto, who has spent the fall and winter in the Carpathians making selections of nuts from the hardiest trees and having the highest quality. Rev. Crath has also been looking for fruit varieties of high quality which are hardy, for trial in America.

Last year the Society distributed to members and others 350 pounds of English walnut seed from the Carpathians. Orders were received from all of the northern states and even in the West and Southwest. Due to the heat and drought of last summer, some cooperators did not have good results. Others reported very good results. Prof. A. F. Yeager of North Dakota reported 43 trees from 50 seeds sent him.

English walnuts are planted in the spring. Unlike the black walnut they need not be planted in the fall so as to be frozen during the winter. Instead, the English walnut may be stored in a basement suitable for vegetables and then when all danger of frost is over the seeds are soaked for from five to seven days in water and planted two inches deep. The first year it is best to plant the seeds in a garden about one foot apart in rows so they can be cultivated. They may be left in rows for one or two years, after which they are transplanted to their permanent locations.

Since the trees become quite large, it is best to set them from 40 to 50 feet apart. They will form good shade trees and while they grow slowly at first, after they are four or five years old, will grow very fast.

Prices For 1937

Prices for seeds for 1937 will be the same as last year as follows:

9 nuts for $1.00.
1 lb. for $4.00.

These prices are postpaid. The reason for the rather high price is that the expenses of Rev. P. C. Crath for making the trip to the Carpathian Mountains and selecting the nuts from hardy trees that have withstood temperatures of from 30 to 40 below zero, must be paid from the receipts of the nuts. If four or five good trees are obtained from one dollar's worth of seed, the cost per tree will nevertheless be reasonable.

Two Year Old Walnut Trees Available

A trial planting of the Carpathian English walnuts was made two years ago by the Wisconsin Horticultural Society in cooperation with the College of Agriculture, Horticulture Department. About 300 trees are available from this planting and will be sold only to members of the Wisconsin Horticultural Society, at $1.00 per tree. These seedlings average about 18 inches in height. The growth last years was not what it should have been due to the dry weather.

BEESWAX FOR WATER-PROOFING SHOES

I OIL the welt and soles of my shoes with a mixture of equal parts of beeswax and chicken fat. The mixture is applied quite warm, and the shoes are kept near the heat until two or three applications are soaked in, taking care that the leather is not overheated in the process. I find that beeswax with some mild fat penetrates the leather more quickly. I wore the same shoes last winter during five days of snow, and my feet remained dry. —Brother Stephen Babek, Subiaco, Arkansas, in Gleanings in Bee Culture.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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Vol. XIII FEBRUARY, 1937 No. 2

What We Learned At The National Meeting

Mrs. H. A. Schaefer

WHY should the ladies attend the National Beekeepers meeting? There are many reasons.

First of all, we had a very good vacation which was interesting and educational. The scenery was so different than what we had expected to see, that words cannot express our pleasant reactions for each change of scenery as we drove South. The change, from ice and snow at home, to the sunshine, flowers, palm trees, and citrus groves in southern Texas, was wonderful.

At the meeting one of the main features was the exhibit of all the different colors and flavors, of honey from this and foreign countries. After sampling, we found it true there is a great difference in grade and flavor, making it necessary to use care in the selection of honey to fit the recipe or vice versa.

Then the contest for honey baking and other foods containing honey gave the ladies new ideas and recipes. A honey nut bread keeps fresh much longer and is more tasty than any made with sugar. We learned one thing of great importance in mailing honey nut bread or cake and that is to wrap the food in cellophane rather than in waxed or oiled paper for if there is any chance for ants to get into these packages during shipping they will chew through the wax or oil paper, but not through the cellophane.

There were several kinds of home made candy made with honey that were very good. One kind, "Honey Fruit Lollipops," was a very healthy sweet, containing ground dried fruits such as dates, figs, etc., mixed with honey formed into little balls and rolled in ground nut meats, or cut into little bars. They were rich in appearance as well as tasty. Fruit butters made with honey were very good, and should be healthier than butters made with sugar. Some ladies gave suggestions for serving honey in different ways at parties.

HOW I MADE THE PRIZE WINNING PLUM BUTTER

Mrs. Geo. Stowell, Barron

I HAVE always done quite a lot of experimenting with honey in cooking and canning. I almost always use honey for canning peaches, also some kinds of jam, but I had never tried making fruit butters with honey.

This fall a neighbor gave me a pan of delicious plums so I thought I would try some for plum butter using our best grade of white clover honey. I used a shallow aluminum pan, stirring with a wooden spoon. I used my oil stove oven for cooking as it

(Continued on page 6)

THE FOUL BROOD APPROPRIATION

ARRANGEMENTS are being made as we go to press, to have a bill introduced before the Legislature asking for an appropriation of $31,175 annually for the next two years to begin the program for eradication of foul brood from the state of Wisconsin. This amount was arrived at by alloting to each county in the state a minimum requirement for efficient work. The bill may be introduced into the Assembly in the near future and will come up before the Committee on Agriculture for hearing. Beekeepers will receive letters of instruction as to how to help obtain the passage of this bill.

If the bill receives a favorable vote when presented to the Assembly it will be referred to the Joint Finance Committee for a hearing. The officers of the State Association will be asked to appear before this committee to present their reasons for wanting this amount. If the Finance Committee acts favorably, it must then pass both the Senate and Assembly. To get a favorable vote from a majority of both Houses will mean that beekeepers must contact both their Assemblymen and Senators before the bill comes to a vote, asking them to vote for passage of the bill. Unless beekeepers do this, it is almost certain that the bill will fail to pass especially in view of the many large requests for funds this year now facing the Legislature.

IMPORTANCE OF POLLEN FOR SPRING BROOD REARING

SUFFICIENCY of pollen is the major cause of weak colonies, according to the report of the Federal Bureau of Entomology. The report states further: "In the orange-growing territory in California bees rapidly depleted their artificially supplied reserves. In some localities, however, as in the deciduous-fruit areas, there is apparently a sufficient field surplus for short periods to permit pollen-reserve storage. Laboratory and field tests strongly emphasize that surviving populations of overwintered colonies are directly proportional to the quantity of pollen stored in the fall, provided all other colony requirements are adequate. Preliminary studies indicate that package bees may be established at such a time prior to the active season as honey and pollen reserves can be provided in sufficient quantities to sustain a colony until a field supply is available."

SUPERSEDURE OF QUEENS IN PACKAGES

"A CONSIDERABLE variation has been found between the stocks of different shippers, indicating that an important part of the problem of supersedure may rest with the conditions affecting the production of queens," is the report of the Federal Bureau of Entomology in their study of supersedure of queens shipped in packages.

While it is entirely possible that supersedure may be caused by the way the bees and queens are handled by northern beekeepers, it has, nevertheless, been our opinion that since, during certain seasons, there is such widespread supersedure, this would indicate that the trouble lies with the queen breeder. We also know that queens produced and mated during cold, wet weather are likely to be poor and superseded.

A SPRING HONEY WEEK, APRIL 19-24

THE First Spring Honey Week has been set for April 19-24 by the American Honey Institute, according to Mrs. Malitta Jensen. There are still millions of pounds of honey available for market this spring, largely in the hands of the packers. Producers and packers should join together in promoting a honey week program. Mrs. Jensen states: "One of these years there will be a bumper crop. If before that occurs the ground work for a concentrated effort in the spring and fall can be laid and the producers and packers can be made to realize that the Institute's work will create a market that will absorb the above normal crop, flooded fall markets and price cutting will be lessened."

A program is now ready. Special broadcasts will be mimeographed and newspaper stories and other material will be sent to members free.

IMPURITIES IN BEESWAX

THE most common soluble impurities in beeswax are apparently pollen components, iron stains, and propolis, according to the report of the Federal Bureau of Entomology. Waxes having appreciable quantities of propolis can be bleached only with difficulty. Crude waxes could well be graded according to the class of impurities present rather than their chemical constants.

THE TRIP TO SAN ANTONIO

WISCONSIN was well represented by some 20 beekeepers at the National Meeting at San Antonio. Some of us went to see Old Mexico. I was as far as Monterey. This city has a population of about 155,000 and is surrounded by huge mountains. They have a church there built in 1695. The people there treated the Americans very nicely.—Adolph Moesch, Bonduel.

HOW I MADE THE PRIZE WINNING PLUM BUTTER

(Continued from page 5)

has a heat indicator and I could keep an even temperature. I used the recipe sent out by the American Honey Institute. The finished product was so good I decided to send a jar to the National Honey Cookery Contest. I was surely pleased when I received word I had won first prize.

I wish to thank the Honey Institute very much for the nice prizes I received in the contest.

Plum Butter Recipe

Cover plums with cold water. Cook slowly until well done. Put through the colander. Measure and to each cup of pulp allow ½ cup honey. Cook very slowly until thick and clear. Preserve in sterilized jars.

The plums used were a red, sweet variety.

Our 1937

CATALOG

is Now Ready for You

Order safely and wisely where the merchandise is backed by this guarantee of satisfaction:

"On receipt of any shipment of goods that does not completely satisfy, notify us. It is to our mutual benefit to have unsatisfactory goods returned. In such cases we will refund the price of the goods plus all transportation charges."

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If you have not received your copy of our 1937 catalog, a request on a postcard will bring it to you free.

August Lotz Company

Boyd, Wisconsin

FOUL BROOD ORGANISM NOT KILLED BY BOILING

THE organism causing American foul brood was found to possess a remarkable resistance to heat in research work done by the Federal Bureau of Entomology and published in the Report of the Chief of the Bureau for 1936. The report states:

"Spores of this organism were viable in culture after having been boiled in water for four hours. This is contrary to the belief that boiling in water for a few minutes kills the spores. They were also viable after having been subjected to dry heat at 100°C. (212°F.), for five days.

Black Bees Not Resistant

"Colonies of Caucasian, Carniolan, common black, and Italian bees, inoculated with European foul brood all became infected. Pure Caucasian bees, however, cleaned out the disease more quickly than did the other races. Common black bees were the least active in doing so."

GOOD OPEN FEEDER

ALL who have used open feeders have been distressed by the number of drowned bees, which seems invariably to occur with any feeder having a large exposed syrup surface. A. Namur, in the November Apiculture Belge, suggests that bees can safely be fed in an open dish with sloping sides—of the shape of a flowerpot saucer—provided it has a lid which obliges them to **walk,** not **fly,** in. He makes a wooden disc, slightly larger than the top of the feeding dish, and nails two pieces of wood on to one side, in the form of a T, extending to the edges. These provide a good bee-space—but no more—around the top of the dish to serve as an entrance for the bees.—From The Bee World.

HONEY WANTED

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

Be Prepared

for the coming season by sending us your wax to be worked into foundation at lowest possible prices. Dittmer's Foundation is used by successful beekeepers everywhere. Give it a trial and be convinced of its superiority. It is made by a process all our own and in a way the bees like best.

Our sections are the finest on the market and made by one of the largest manufacturers of sections in the country.

Send us a list of supplies you may need and we will quote you prices.

We carry a full line of supplies.

GUS DITTMER COMPANY

Augusta, Wisconsin

These dealers are ready to supply your beekeeping needs with Lewis Beeware & Dadant's Foundation. Place your order well enough in advance to insure delivery as you need it.

If you have not received a copy of our booklet "A Hobby That Pays," write Watertown. It's free.

Support the American Honey Institute.

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Watertown, Wisconsin

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G. B. Lewis Company, Watertown, Wis.

400 Colonies In One Yard

Leonard Otto, Forest Junction

HOW I keep 400 swarms of bees in one yard is the topic assigned to me, and I ought to be at home with the subject. Four hundred swarms of bees all in one yard is a wonderful sight to behold, especially during a honey flow. Still more wonderful is the sight as it was one early June day not so long ago after a prolonged dreary spell when one noon practically all the colonies took advantage of the much waited for sunshine at the same time. Approximately 7,000,000 young bees were on the wing and these together with the older bees, which must also be counted by the millions, slightly dimmed the sun as they flew about over the apiary. This was a truly remarkable sight and was witnessed only once in a career thus far spent with bees. Nowhere in all the information that I have been able to learn of another place where so many bees have been kept in one yard over such a long period of time by a commercial honey producer. If we try to comprehend the countless millions of drops of nectar that were carried by bees through the air to this plot of ground we are overwhelmed.

Not A Sideline

Aside from the pleasure derived therefrom I keep bees for a living. Lest there be any misunderstanding, let me say that I do nothing else to gain a livelihood for my family. The bees are my sole support as they were to my father before me. This being the case my apiary must be managed so as to get the best possible results, and when I speak of results I mean honey in the cans. I do not keep bees for an experiment. During this entire beekeeping career all bees were kept in this so-called home yard except for two years when bees were moved to an out yard 4 miles north. At the end of the second year's experience the plan was abandoned because it did not pay. It is reasonable for me to assume that all of you feel that 400 swarms of bees in one yard is far too many, or that if it is possible to profitably keep that number in one yard, my location must be most unusual and a beekeeper's paradise. It goes without saying that one swarm should do better than if you divide the territory between many. One swarm should do well most anywhere if from no other source than possibly through the back door of some nearby green house.

Location

When the geologists examined the soil in the extreme northern part of Calumet County, they found that much of it consists of what they term a superior clay loam. Whether or not clover grows especially well in this soil I do not know, but I do know that clover of all types is grown and is the only source of nectar. In my opinion the western part of Calumet County would be more suitable for clover because the soil contains more lime. If you are among those who think that my location is a paradise for a beekeeper it might be well for you to know how many have made an absolute failure of it right in the midst of this bed of clover.

How well I recall a man who had had some beekeeping experience, how he was going to show my father and others to keep bees, and how a few years later his equipment was rotting away under a small group of apple trees.

From the above you can easily guess that my contention is that my location is only average, and that I know of others like it some of which are better than my own. So much for location.

Placing Hives

It would without doubt be of interest to some of you to know how the hives are placed. They are not all in similar rows but are so placed than the rows are of different lengths and the hives face in various directions. The hives are painted red, white and yellow. These colors are alternated so that they run red white, yellow white, etc. This is done so that the beekeeper can easily remember a certain hive, but still more important so that the bees themselves can better distinguish their own homes. In beekeeping literature we are often taught that bees are color blind, but if you would have had the experience I had a few years ago you would never believe it. Bees, Italian bees, can distinguish color.

Editor's Note: This is a small portion of Mr. Otto's paper given at the State Convention in October.

NEW BULLETIN ON HONEY USES

"HONEY and Some of the Ways It May Be Used" is the title of a new bulletin just issued by the Dominion Experimental Farm, Bee Division, Ottawa, Canada. It is quite a large bulletin containing many recipes on breads and rolls, cakes and cookies, candies, pies, puddings, ice creams, muffins, and miscellaneous.

Friend: "Why have you given the general such a peculiar pose?"

Sculptor: "You see, it was started as an equestrian statue, and then the committee found they couldn't afford the horse."

HERMAN ULLSPERGER

WISCONSIN lost one of its leading horticulturists in the death of Herman Ullsperger, Sturgeon Bay, at a Madison Hospital, January 20. Mr. Ullsperger was well known as a fruit grower and exponent of Cooperative Marketing. He was formerly a member of the Board of Directors of the Wisconsin Horticultural Society.

CRANBERRIES AT $2.25 PER BUSHEL IN 1883

AN interesting postcard has been received from Ph. Henry Hartwig, Hartland, dated Tunnel City, Wis., August 30th, 1883. It is signed by J. E. Winship and states that orders will be received for cranberries at $2.25 per bushel.

TRY MINNESOTA NO. 1007 APPLE

THE Wisconsin Horticultural Society is recommending the Minnesota No. 1007 apple for trial in Wisconsin in a limited way, and will pay one-half of the cost of either one or two trees to the first 15 members who will send in their orders. The cost to the grower will be 40¢ per tree, the Society paying the balance.

1007 apple looks very promising. It is a red apple, the tree is very hardy and a good producer, the apples will keep until spring, and have an excellent flavor, entirely different from any apple now on the market but very pleasing. If it turns out to be as good as expected, it will probably become very popular in the future.

TRY BEACON APPLE AND CATSKILL STRAWBERRY

THE Wisconsin Horticultural Society will pay one-half the cost of one or two trees per member on a limited number of Beacon apple trees (see page 127 for description). See offer on page 128 on Catskill strawberry plants.

Betty Rine, Sturgeon Bay, who will represent Wisconsin in the National Cherry Pie Baking Contest at the Hotel Morrison, Chicago, as a feature of the close of National Cherry Week on Washington's birthday.

NATIONAL CHERRY WEEK FEBRUARY 15-22

Karl S. Reynolds, Sturgeon Bay

NATIONAL Cherry Week will again be celebrated this year. The dates selected are February 15-22. This is the biggest single promotion effort put behind the sale of Pitted Red Cherries, and is the 6th National Cherry Week, being held on the occasion of the 205th birthday anniversary of George Washington.

There will be the usual National Pie Baking Contest in Chicago, which will bring a great deal of publicity, and, of course, will result in a large movement of cherries. Although the 1936 crop was only 50% of normal for the nation, nevertheless we are anxious to have a strong buying movement continue so that the shelves will be completely clean, ready and eager for the 1937 crop.

Mr. W. W. Wilder of Clyde, Ohio, is acting as chairman this year. Mr. A. W. Lawrence and the writer are serving on his committee for the State of Wisconsin.

Wisconsin will be represented in the national contest at Chicago February 22nd by Miss Betty Rine, 17, of Sturgeon Bay. Miss Rine competed in the state contest last year, and has been training enthusiastically throughout the year in preparation for this year's contest.

Fruit Prospects Good

There does not seem to be any damage caused by the prolonged spell of mild weather. We really have not had much in the way of severe cold.

Special Offer

GLEANINGS IN BEE CULTURE

6 Months for 25c

Members of the Horticultural Society and the Wisconsin Beekeepers Association interested in beekeeping may wish to take advantage of a special offer to new subscribers by the A. I. Root Company, Medina, Ohio, of a 6 month subscription to Gleanings in Bee Culture for 25¢. Gleanings in Bee Culture and also the American Bee Journal published at Hamilton, Illinois, are the two leading bee journals in the country. Every beekeeper should read both of them.

WE THANK YOU

"THE articles in your magazine are in plain, every-day language and so are understandable and instructive. We appreciate the magazine very much," writes Mr. Fred S. Lienemann of Milwaukee in sending in his membership dues for the coming two years.

About the Home and Garden

MRS. C. E. STRONG

TO A SNOWDROP

Lone flower, hemmed in with snows, and white as they,
But hardier far, once more I see thee bend
Thy forehead, as if fearful to offend,
Like an unbidden guest; though day by day,
Storms, sallying from the mountain tops waylay
The rising sun, and on the plains descend;
Yet thou art welcome, welcome as a friend
Whose zeal outruns his promise!
—Wordsworth.

Flower Lore

THE Latin name, given to the snowdrop by Linnaus, is calanthus, meaning milk-flower. The family name is amaryllis. Its nicknames are numerous. In Germany it is called February flower, snow violet and naked maiden. In France, white-bell, bell-of-the-snow, winter bell, and snow-piercer. The English name, snow-drop, is said to have been derived from the German, and the drop refers to the long pendants which were worn, in their ears, by the women of the fifteenth and sixteenth centuries.

The popular Danish name for the flower is sommer gork, meaning summer fool. Hans Christian Anderson tells the story of the sommer gorrk, who, deceived by the bright sunshine and in a hurry to don her dainty spring gown, started from her warm home in the earth, and against the advice of her friends, forced her way through the snow, confident that she would eventually reach the summerland. Struggling for a time against the cold and snow, her delicate robes stained and dragged, she found no other flowers to keep her company and finally was beaten down by a storm of sleet and wind, while only a little distance to the southward, flooding the fields with sunshine, summer was drawing nearer and nearer every day to the perishing blossoms. The old story-teller likens to the sommer gorrk those noble souls, born into a world not yet prepared to receive them—the reformers, who are reviled and persecuted by their own generations but who are later held in honor—the poets, the scientists, and the statesmen who are only recognized by posterity. These, he says, are sommer gorrks. How many dreamers, like the snowdrops, are the prophets of the spring.

What to Choose

January and February are the in-between months—the time when we plan the garden, make out lists of seeds we want—finally decide on what we "just must have" both for cutting and for filling in—in the perennial border.

For the border, it is wise to choose lasting annuals, the sort that bloom for a long time, and with good foliage. Zinnias and Marigolds head this list—and you can work out pleasing color combinations with either one. Even the odor of the Marigolds have been changed in the past few years; we speak of them as being sweet scented now. While Zinnias are never called crude and coarse—even the giants are softly brilliant. In using the Zinnia as a filler in the border—remember to give each plant plenty of room—close planting is one of the principal reasons for mildewed foliage—and—if you transplant from the cold frame to the garden—set each plant deeply, they will send out roots along the stem, and be much stronger with added size and beauty of bloom.

If you really do not care for mixed bouquets, why try to grow very many varieties of annuals—especially if your space is limited? It is rather wise to grow in your cutting garden the varieties and colors you will enpoy arranging for your home. You can be quite individual you know, with your bouquets.

One flower loving friend likes tiny vases and bowls of wee flowers. The smallest of Zinnias, Marigolds, wee Roses and Violets are her favorites. The one who likes mixed bouquets best of all —naturally wants as many long stemmed annuals as the limited space permits. Each year she tries out one or two new kinds.

One very artistic person never has but one variety and color of flower in a room, and grows larkspur in white and blue (no purple), great fluffy white asters, rose and bronze zinnias, white, rose and clear yellow single dahlias. With a good perennial border, her flower arrangements are something to remember. One rainy day—a low bowl of brilliant scarlet Poppies sprawled over the mantel, a wide-mouthed glass vase on a dark polished table, held more Poppies, while a slender vase placed on a shelf before a mirror, held one large open blossom and

foliage, the blossom faced the mirror and was reflected back into the room. Every one said "OH," and forgot about the weather.

Have you noticed that catalogs are being sent out later than they were a few seasons ago? Is it possible the senders are trying to bridge the gap between that first enthusiastic reading and the actual sending for seeds and plants?

WISCONSIN NURSERYMEN'S CONVENTION

Republican Hotel, Milwaukee
Thursday, February 11

THE Wisconsin Nurserymen's Association will hold their regular annual meeting Thursday, February 11, at the Republican Hotel, Milwaukee. Beginning at 10 a. m. the members will hold the annual business meeting. The afternoon session beginning at 1::30 will be open to the public. There will be a dinner at 12 noon with an interesting program.

The afternoon program will be interesting as usual. The program will include a talk on evergreens by L. L. Kumlein of Dundee, Illinois; Our Wisconsin Arboretum by Prof. G. Wm. Longenecker, Madison; A Trip Through Wisconsin Orchards, with motion picture films and description by H. J. Rahmlow, Secretary Wisconsin Horticultural Society, who will also show a film on Plant Growth; and New Phases of Nursery Inspection by E. L. Chambers, Madison.

AUTHOR OF GARDEN DICTIONARY HONORED

THE Massachusetts Horticultural Society announces that its trustees have voted to award Norman Taylor, editor of the Garden Dictionary, the Society's gold medal for his work. This dictionary is considered to be the most notable horticultural book in late years.

NEW VEGETABLE VARIETIES

A COMMITTEE to select new varieties of vegetables called the All-America Council, has made the following selection for 1937: Awards of merit to Triumph of Prague Kohl Rabi, Dark Green No. 5 Bloomsdale Savoy spinach, and Moskov Market Pride cabbage which may be obtained from Sluis Bros., Enkhvizen, Holland; Asgrow Teton Pea and Asgrow King Pea from Associated Seed Growers, Inc., Hartford, Conn.; Winter Giant spinach and Summer Savoy spinnach from Zwaan and Van der Molen, Voorsburg, Holland; Fletcher Special tomato from Kilgore Seed Co., Plant City, Florida; Supreme Half Long carrot from Ferry Morse Seed Co., Detroit, Mich.; Claudia carrot from L. Clause, Inc., Bretigny-sur-Orge, France; Yellow Valencia onion from D. V. Burrell Seed Growers Co., Rocky Ford, Colorado.

THE NATIONAL AMARYLLIS SOCIETY

INTEREST in the Amaryllis has grown to such proportions that there is now a National Amaryllis Society. Mr. Wyndham Hayward, Winter Park, Florida, is secretary. Membership dues are $2.00 per year.

Many new and gorgeous varieties are now available and exhibits are being held each year by the Society. Bulbs are now available at moderate prices.

The flowering spikes of Amaryllis used as house plants develop in late winter. After they are through blooming the pots may be plunged into the soil in a somewhat shaded place in the garden in the spring. Later in the season they should be dried off somewhat and kept semi-dormant until forced into growth again in early winter.

THE EVERGREEN SEED BED

Allan Troemner, Friendship

HERE are a few suggestions that may be of interest to those who grow evergreens. In watering the seed beds, if one hasn't a special sprinkling system, I find it necessary, in order to keep the water from running off the bed, to make a lath wall around the margin of the seed bed. The lath will keep the water from running off. I force the lath down into the soil one-third or one-half of its width.

I find I can control damping off fungus by covering the seeds with clean sand instead of soil in planting. Later if damping off does get started, I promptly remove all the shade, stop watering, unless it is very dry, and sprinkle dry dust or sand over the beds.

In planting apple trees, I find that by planting them slanting toward the southwest, it helps to prevent sunscald.

Trees, Shrubs and Perennials
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Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

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M. J. Rahn, Green Bay

My Favorite Glads

Chester T. Harrison, Waldo

ONE evening about eight years ago while looking through a catalog, I noticed an advertisement of gladiolus bulbs. While I had never had any experience with glads there was something about the advertisement that attracted my attention, so I included two hundred mixed gladiolus bulbs in my order. When they came they were not what I expected them to be. However, I planted them and hoped. For some reason I was more interested in seeing what they were going to do than any other thing in the garden. The blooms from those bulbs that summer were so beautiful that I decided then and there to make raising glads my hobby.

From this group of unnamed varieties, I was attracted to a few which in my opinion were outstanding in color. This led me to find the true name of these varieties which I labeled, discarding the remainder. The following season my new purchases were all named varieties. In 1932 when the state gladiolus show was held at Kohler, I exhibited there and won a second and two third prize ribbons. My new ambition now was to win a blue ribbon. The blue ribbon was won two years later, in fact I won several that year at the state show at Hartford. Since that time I have shown gladiolus at every opportunity. I enjoy the competition, and like to visit with the exhibitors and the people who attend the shows.

Likes Symposium

In my few years of working with these flowers certain varieties have proven to be consistent winners. In connection with this, I wish to say that our Wisconsin symposium has been of great value to me. In fact, I believe greater than the National symposium, because it contains the glads that have proven good under our own growing and weather conditions. There is one suggestion I would make in regard to symposiums. In view of the fact that there are so many beautiful varieties of glads, I would make more color classes and also divide them up into exhibition and decorative types, because some people like the large while others like the smaller type flowers.

I now have about twenty thousand bulbs in one hundred fifteen varieties. I am giving my views as an exhibitor of the best variety in each color class. These that I have chosen have all been grown here in my garden and have been good each year in spite of the droughts and the hot weather that we have experienced.

Favorite Varieties

In the white class I am partial to **Albatross.** Some complain of many poor spikes, but here in Sheboygan County it has always done well. For dependability **Maid of Orleans** is outstanding, every bulb gives a beautiful spike, but for me it blooms too early for the shows. In the salmon pink class there is no doubt that **Picardy** has rightly earned the most popularity. If I could only have one variety in the garden I would choose **Picardy.**

Mildred Louise is gaining more popularity each year. I have made a light pink class in which I have placed the tall stately **Debonair** and the blotched pink variety, **Bleeding Heart. Commander Koehl** still holds the lead among the crimson reds, with **Bill Sowden** also a good one to grow.

One of the most prominent flowers in the garden is the large bright showy **Wuertembergia,** scarlet color, and the old reliable **Aflame** is still a winner. Among the dark reds, I still keep **Morocco** at the top. The black velvety buds were greatly admired by all visitors last summer.

I believe the purple class to be the weakest and have not replaced **Chas. Dickens** or **Paul Pfitzer** as yet. The violet class has been strengthened by **Blue Admiral,** although **Ave Marie** and **Veilchenblau** were both very good this past summer. Two of my favorite glads are in the buff class, **DUNA** a light color and **Wasaga** a little darker.

The old favorite **Minuet** still reigns supreme among the lavenders, although **Dr. Moody** is also popular. My choice of the smokies is the same as the recent Wisconsin symposium, namely **Bagdad** and **Mother Ma-**

chree. In the yellow class the newer **Golden Chimes** has the lead, although **Golden Cup** and **Golden Dream** are still winners. Most people like novelties and for mine I have the butterfly colored **Hinemoa.**

There are many other beautiful glads, many of which I have not had the opportunity to grow and so I am not able to judge their growing habits. After all, I only grow glads as a hobby and my work on them is all done during my leisure time.

I enjoy visitors and anyone is welcome to visit my garden at any time.

COMMENTS ON THE GLADIOLUS VARIETY SYMPOSIUM

IN the January issue of Wisconsin Horticulture we published a report of a large number of members of the Wisconsin Gladiolus Society stating their preference as to the leading varieties in color classes.

For this month we asked the officers of the Wisconsin Gladiolus Society to comment upon the results of the symposium, giving their opinions on the varieties listed. We will not have room to publish all the replies in this issue, but they will be continued in coming issues.

Comments by Frank P. Thomas, Kenosha

"I differ with the symposium on the best glad named, also on the pinks and reds, but agree on all other colors.

"If I could grow but one kind, it would be Gloriana.

"In pinks, Phyllis McQuestin would be first and Heritage second.

"In reds, Aflame first, Red Lory second.

"Milford and Blue Admiral grown from small bulbs, were very good last year.

"Robert the First was wonderful last year with ten open on a straight 23 bud spike, but was no good in '34 and '35.

"There is no doubt but that all of the popular varieties of today will soon be replaced by newer kinds; the yellow and blues within a few years, and the other colors later on.

"My ideal glad would have the color of Jane Addams, a spike like Robert the First, 10 or more six inch florets open, healthy bulbs and many easy growing bulblets."

From Arthur Strobel, Hartford

"The placings I believe represent the average taste for beauty and style in the gladiolus of today. There may be varieties more beautiful or even better but as yet unknown to the average grower or too temperamental to bother with. I noticed some of the varieties listed such as Mammoth White, Morocco, Mrs. Chase, Canberra, W. H. Phipps, Dr. Moody. All of these have very well known defects which occur everywhere and under all sorts of conditions.

"In regard to such new varieties as New Era, Sonatine, Ababa, Beautiful Ohio, these as yet are almost untried except under artificial cultural methods of watering, care, etc., and really should not be the basis of any symposium choice until tried and found good under average conditions.

"Too many varieties are only a lot of clever word pictures, concocted by well paid advertising agencies to lure the dollars out of unsuspecting and gullible glad fans. We have only to look over the catalogs of the last five years to bring this truth home more forcibly. Most of the highly touted super fancy price varieties are today truthfully known for what they really are, nothing but "ballyhoo.' "

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Catalog Free

THRIPS AGAIN

By Noel F. Thompson

EARLY last summer gladiolus thrips were abundant in many glad patches in Wisconsin where, late in the summer, very few if any could be found. Evidently the extreme heat and drought was too much for this insect. Just what the conditions were that caused the disappearance of the thrips, we do not know, but we attribute it to the extreme heat. We are, therefore, justified in assuming that thrips may, and probably will, be bad again next summer. It is up to each one of us to see that this insect does not pass the winter on our glads.

No matter how clean your flowers were last fall, a treatment with naphthalene flakes is a wise and very inexpensive precaution. A pound of naphthalene flakes may be purchased in the dime store for ten cents. This quantity is sufficient to treat about 1 ounce for 100 corms. Place the flakes with the corms in paper bags, fold over the opening and pack away for a month or more. Some time before spring, shake out what flakes remain among the corms and that is all there is to it.

If every grower would treat all his corms every winter, we would soon be rid of the thrips. Unfortunately some will not take this precaution. Let us be sure that we are not responsible for harboring this pest.

MR. G. A. Barrer, Regional vice-president of the Wisconsin Gladiolus Society, writes from Stamford, Connecticut, that he is working for the Air Reduction Sales Company, and may have to give up his glad hobby. However, he hopes to get back to Wisconsin, and especially the State Gladiolus Show occasionally.

In the Flower Garden

LILY CERNUUM

THE Lilac Lily is a most beautiful and interesting small flowered variety with nodding reflexed blossoms of the most alluring dainty lilac-rose spotted with wine-purple, the pollen is golden brown. No other Lily has just this coloring. To add to its charm it has a delicate fragrance. This lily is a Chinese specie and is similar in habit to the Coral Lily (L. tenuifolium). The foliage is grass-like and the eighteen to twenty-four inch flower stems are very wiry. This is a stem rooting type and should be planted about four inches deep; partial shade is satisfactory. If planted in the sunny border the roots should be shaded by some harmonious companion planting.—Merle Rasmussen, Oshkosh.

IRIS DICHOTOMA

THIS charming little Iris is often called the Vesper Iris from its diurnal unfolding, or August Iris from its month of flowering.

Distinctly different from other Iris are these dainty blossoms of jewel-like delicacy. The fragrant flowers are of curiously flattened shape, and have a pleasing variability of coloring, shading and marking. The petals are somewhat translucent, in color lavender with shaded markings, blotch or reticulation. The plant is very profuse blooming, the individual blooms beginning to open about mid-afternoon and being in full show by four o'clock. The two foot many branched flower stems rise from fan-shaped clusters of basal leaves. Foliage grows about twelve inches tall and is a pleasing light green.—Merle Rasmussen, Oshkosh.

PRACTICAL HINTS FOR GROWING FLOWERS

Convention Report by Mrs. H. J. Anderson, Racine Garden Club

PROF. C. E. Wildon of Michigan gave several helpful hints on flowers and gardening at the annual convention of the Federation.

He said that peat moss will improve all soils and could go on and sing the praises of peat moss by the hour. He did not recommend mucks however.

Some of his other recommendations were as follows: Roses should be wrapped in weather proof tar paper.

Slowly germinating seed should be planted in pots or flats and set out to freeze for three weeks. They can then be brought in and treated as other seed.

He is thoroughly convinced that **clean containers** are by far the most effective means of prolonging the life of cut flowers. Experiments have been carried on with a large number of chemicals including aspirin tablets, to determine if they would prolong the life of cut flowers, but they have never found anything that lives up to the claims made by some manufacturers. Salt is detrimental to the life of cut flowers and he did not believe in burning or searing the ends of flowers such as Oriental Poppies or dahlias.

He advised, however, cutting flowers very early in the morning or late in the afternoon and plunging them into water up to their necks. After leaving them for several hours in a cool darkened place, and then arranging them in clean vases, cutting the ends off while under water, they will last as long as any method yet devised.

BUY TUBEROUS ROOTED BEGONIAS THIS MONTH

FEBRUARY is a good month during which to buy the bulbs of Tuberous Rooted Begonias. Usually by March or April the bulbs are off the market unless available at retail stores. But to be sure to obtain some for this season, ask your retailer if he will have them later.

These bulbs should be planted in pots during March. Until the leaves come up they may be kept in the basement, but after that they should be given indirect light. The bulbs are planted level with the surface of the soil. The top of the bulb is somewhat concave and water should not be allowed to stand on the bulbs. The plants come up slowly, but will be sturdy plants when the weather is warm enough so they may be planted out in the garden.

They should be planted in a shady place where the direct sunlight of mid-summer will not shine on them. They make beautiful house plants.

These begonias come in a mixture of colors, both single and double. They bloom the entire season, until frost, and are at their best during the cooler parts of the spring and fall. For growing in complete shade they have no equal in beauty, the flowers resembling roses. The flowers are often 4 or 5 inches across.

THE AZALEA TRAIL

FOR those who wish to make a trip in March and early April, the Azalea Trail, Mobile, Alabama, will be found to be a glamorous spectacle of glowing color. Information and booklets may be obtained by writing the Azalea Trail, Mobile, Alabama.

Mary Geddes Iris Wins Dykes Gold Medal

THE highest honor which can be given an Iris—the Dykes gold medal for 1936, has been awarded the Iris **Mary Geddes.** **Venus De Milo** was second choice.

Mrs. Douglas Pattison of Freeport describes Mary Geddes as follows: Originated by Mr. P. A. Washington, Nashville, Tennessee, 1931. Of medium size, to 38". A beautiful blend of rare and unusual coloring. S. Salmon flushed yellow; F. same shade overlaid Pompeian red. The tall stalks are low and widely branched. A stunning variety and a new color note. Given the award of merit by the American Iris Society in 1933.

Venus De Milo

Venus De Milo, the second choice, was originated by Dr. Wylie Ayres of Cincinnati, Ohio. Mrs. Pattison's description is as follows: Medium to 40". A superb white Dominion seedling. The flowers are of rich creamy white, smooth finish and fine gold beard. One of the finest originations of this famous hybridizer and in our opinion, the best white in the lower price range. Given Honorary Mention by the American Iris Society.

Awards of Merit

Awards of Merit were given the following American varieties: **Lady Paramount,** a large primrose yellow; **Burning Bronze,** blazing, metallic red of large size; **Eros;** a pale coral pink; **Joycette,** very red with large flowers; **Valor,** a deep, blackish blue violet bicolor, one of the tallest of all varieties; **Ethel Peckham,** with brilliant reddish tones; **Shirvan,** a glowing soft brown with yellow tones; **Rosy Wings** and **Blue Triumph.**

Awards were given to six foreign varieties as follows: **Jean Cayeux,** a buff; **Depute Nomblot,** a French variety with rosy purple standards and purplish garnet falls; **Marquita,** ivory yellow, the falls lined with scarlet; **Eclador** and **Gudrun.**

The Dykes medal is the highest award given to any Iris and it is offered annually by the Iris Society of England through the American Iris Society for outstanding new Iris.

NOTES FROM MICHIGAN

HELIOPSIS scabra flore pleno is an excellent yellow-flowered hardy perennial for cutting in July. Heliopsis Lemoine another especially fine form. As exhibited by Cottage Gardens at the summer meeting, the latter was given an award of merit.

Lonicera Tellmanniana is a new hybrid climbing honeysuckle being offered by Lemoine. It is said to be fully hardy. The flowers are long-tubed, yellow, tipped bronzy red.

According to recent reports from the Wisely laboratories on the control of rust of snapdragons out-of-doors, sulfur as a control is not satisfactory, while copper containing sprays provide a fair degree of control.

"Massena" is a new deep purple-red lilac with huge flowers and flower-heads.—From Michigan State Florists Association Monthly Bulletin.

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NATCHEZ PILGRIMAGE

THE Natchez Garden Club, Natchez, Mississippi, will hold its 6th annual Pilgrimage March 28-April 4. The club is affiliated with the National Council and during this Pilgrimage will recreate the days of the old South. For illustrated folder write Harriet Dixon, Pres., Natchez, Mississippi.

EXPERIENCE HYBRIDIZING DAY LILIES

I HAVE worked with the late blooming Day Lily Middendorfi and the early blooming Flava in an attempt to get some improved types of Day Lilies. Flava sets seed freely. I grew about 25 seedlings which grew nicely for two summers. The following winter or spring about half of them were lost. The ten or twelve survivors have grown well, but with five seasons of growth, none of them threw a flowering stalk. Will give them another season.

I have not had any luck with Aster Frikarti or Wonder or Stafa. I purchased plants four different times from two different growers in the East. All four were different, but not one was worth having in the garden.—A. H. Lemke, Wausau.

FLOWER NAMES—WHAT THEY MEAN

RUPESTRIS — gravel loving; rotundifolium—round leaved; recta — upright; repens — creeping; ramosum — many branched; rubrum—red; rosea—rose pink; rugosa—wrinkled.

Stolonifera—spreading, stooling; speciosa—gorgeous; sylvestris—from woods; sanguinea—blood red; semperflorens—everblooming; sempervirens — evergreen; sempervivum — ever alive; serrata—prostrate; scandens—climbing; stricta—stout, tough; saxatile—indigenous to rocks.

Tomentosa—velvety; tenuifolium—slender-leaved.

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

SOCIAL ACTIVITIES FOR GARDEN CLUBS

OFFICERS and members of garden clubs have been discussing this winter ways and means of creating greater interest on the part of garden club members in their organizations.

It has been pointed out that clubs which have been keeping up the interest of their members best over a period of years, are those which combine work with pleasure. In addition to holding an interesting program on garden subjects, they have a short social meeting as well. Luncheon may be served or some arrangements made whereby members may visit and become better acquainted.

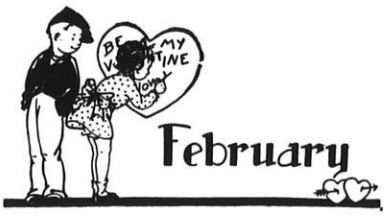
After a club has been holding monthly meetings for a number of years, it is easy to see how the interest may drop, especially among the older members, when subjects are repeated for the benefit of newer members. This is particularly true in the case of large clubs holding evening meetings especially if such clubs have a number of new members each year.

Any type of social activity is probably desirable because it keeps up the interest of members. The main object, gardening, must however be kept in the foreground.

OUR Christmas lighting contest was very successful, Writes Mrs. E. R. Durgin, honorary president, from Racine.

"There were about 80 contestants who took part but nearly every house in town had something—if no more than a candle."

Christmas lighting contests are becoming very popular as garden club projects and also quite valuable. Plan one for next year.



COMING EVENTS

March 10-22—Second Annual Garden Pilgrimage to Mexico City—Sponsored by Texas Garden Clubs.

March 14-21—Showing of antebellum houses, Pilgrimage Garden Club—At Natchez.

April 3-11—Chicago Flower Show—At Navy Pier.

April 10-18—National Flower Show—Auditorium, Milwaukee.

May 18-21—National Council, State Garden Clubs Annual Convention, at Cleveland.

NATIONAL COUNCIL TO MEET AT CLEVELAND

THE National Council of State Garden Club Federations will hold its annual convention at Cleveland May 18-21. The program and the visits to gardens are so interesting and worth while that we hope many garden club members from Wisconsin will attend.

Information may be obtained by writing our State Federation president, and arrangements should be made to become a delegate as only delegates may attend all sessions.

RADIO TALKS ABOUT GARDENING

THE Garden Club of the Air will again be a feature over State Radio Station WHA, University of Wisconsin, each Tuesday morning at 10:15 a. m. during the spring months.

We would like to hear from garden clubs who would be able to send a committee of two or three people to Madison some Tuesday to put on a 30 minute radio program. Write the Horticultural Society, 1532 University Avenue, Madison, at once if your club can take part.

Garden Talks During February

Tuesday, February 9, Journeys in Gardenland, Mrs. Leonard Wing, Madison. Early types of gardens.

Tuesday, February 16, The Poetry and Music of Trees, Prof. F. A. Aust, Madison.

Tuesday, February 23. Home Shrubbery and Evergreens, Louis P. Hanson, Madison.

ILLUSTRATED LECTURE ON LANDSCAPING AVAILABLE

MISS M. L. Riley of the North Star Nursery Company, Pardeeville, Wisconsin, is available for illustrated lectures with colored slides, on two topics: 1. Planting the Home Grounds; 2. The Outdoor Living Room.

Miss Riley will give these lectures to organizations free of charge on payment of one-half of the traveling expenses.

CAN YOU ANSWER THESE QUESTIONS

HERE are some good questions for your next garden club meeting.

Reference: Webster's Dictionary. Since many gardeners do not realize how much garden information may be obtained from Webster, the answers to the following questions can all be found in the Unabridged Dictionary.

1. What is the scientific name of lemon-lily? 2. How many species of lobelia are there? 3. What is the Passion flower? 4. What is Paulownia? 5. Where is Gaillardia native? 6. What is Gazania? 7. What is a Cypripedium? 8. What is a sedge? 9. How do the acorns of the oak differ? 10. Look up **leaf.** What is the difference between pinnate and palmate leaves? 11. What are some common leaf outlines? 12. What are the different ways leaves are attached to the stem? 13. What is an alder? 14. What is an aloe? 15. What is an anemone? 16. Where are beganias native?—By Victor Ries in Ohio News Letter.

THESE WILD FLOWERS ARE PROTECTED

THE Wisconsin Statutes provide that the following wild flowers or plants shall not be taken up, destroyed, or molested on any land, whether private or public, without the permission of the owner: Lotus, Trailing Arbutus, any species of Ladyslipper (Cypripedium), or any member of the Orchid family, or any species of Trillium. There is a penalty for anyone who exposed such flowers for sale or purchases the flowers, roots or seed pods.

For the purpose of establishing new beds of such varieties as Lotus taken from lakes or streams, a written permit may be obtained from the State Conservation Commission to remove the roots or seed pods.

FINANCIAL REPORT—GENERAL FUND—1936

Balance on hand, January 1, 1936—Deficit		$ 12.91
Receipts		
Membership dues:		
1776 Federation dues @ 15c	$266.40	
1732 Horticulture dues @ 35c	606.20	
Total	872.60	
Membership dues paid out:		
1747 Horticultural dues @ 35c	611.45	
Balance		$261.15
Cash rec'd for rental of Flower Arrangement slides	7.00	
Cash from Waukesha District	4.02	
Total		11.02
Total Receipts		272.17
Disbursements		
Dues to National Council, 1122 @ 5c	$ 56.10	
Salary of Rec. Sec.-Treas.	15.00	
Treasurer's Bond	5.00	
Secretary's supplies, postage, office suplies, stationary	18.95	
Bank service charge	9.30	
Refunds on dues	1.05	
Expenses:		
President to District convention at French Lick Springs	20.00	
Board meetings and summer meeting, transportation and meals	30.02	
Annual convention—Madison	40.90	
Exhibit at International Flower Show in Chicago	21.90	
Judging school at Milwaukee	27.90	
Junior Garden Club chairman	15.79	
Total		261.91
Balance		10.26
January 1, 1937—Deficit		2.65

SPEAKER'S FUND

Balance on hand January 1, 1936		$ 28.29
Receipts		
137 admission fees, judging school	$137.00	
From Horticultural Society for summer meeting	25.00	
From Horticultural Society for convention	25.00	
Donations from 38 clubs	61.00	
Total		$276.29
Disbursements		
Expenses of judging school:		
Victor Ries	$ 84.40	
C. Burton	75.00	
Summer meeting—Alonzo Pond	17.50	
Annual convention—Madison		
Music	8.00	
Lois Bowers	3.24	
Prof. O. I. Gregg	59.85	
Prof. C. E. Wildon	18.02	
Mrs. Lees	2.00	
Sam Campbell	21.00	
Total Disbursements		$289.01
Total Receipts		276.29
Deficit, January 1, 1937		$ 12.72

FLOWER SHOW FUND

Balance on hand, January 1, 1936		$230.12
Receipts		
Sale 40 copies Flower Show bulletin	$ 20.00	
Rental of Japanese Arrangement slides	6.00	
Donation from Horticultural Society	25.00	
Total Receipts		$281.12
Disbursements		
For 50 copies Flower Show bulletin	$ 22.50	
For ribbons, supplies of flower show, convention	1.00	
Services on shadow boxes	1.25	
Cartage shadow boxes	5.00	
Premiums for convention	19.00	
Total Disbursements		$ 48.75
Balance on hand, January 1, 1937		$232.37

AWARD FOR CIVIC ACHIEVEMENT

National Council to Award Medal to Garden Club for Work Along Civic Lines

THE National Council of State Garden Clubs, Inc., announces that a medal will be awarded to clubs doing really distinguished work along civic lines, especially such work as the following:

Conservation — for example such projects as sanctuaries, experimental forests—widespread educational campaign.

Permanent improvement for public benefit of town or countryside.

This medal to be awarded for exceptional achievement only, and not necessarily every year.

The project or work to have been completed within the current year (January 1-December 31) and award to be made at the following spring meeting. (For this year only, date extended to Feb. 1st.)

All competing projects to be presented and recommended by the State Federation, after investigation.

Only clubs belonging to member states eligible to compete.

While applications must be received by date stated above by National Council, States will decide about their own application dates.

A project would be eligible which charged an entrance fee for maintenance, but not for private profit.

JAPANESE FLOWER ARRANGEMENTS FOR MODERN HOMES

A NEW book on Japanese Flower Arrangement has been written by Margaret Preininger and published by Little, Brown & Co., Boston, Massachusetts. (Price $5.00). The book contains 38 full page illustrations with description of how Japanese arrangements can be adapted to the modern home.

The Hardy Amaryllis

ONE of the most interesting summer-blooming bulbs is the hardy amaryllis Lycoris Squamigera. It is called the hardy amaryllis because the flowers resemble the common amaryllis (Hippeastrum) and it is hardy in any winter without protection. The color of the flowers is a delicate lavender-pink. The strap-shaped leaves appear early in spring at the same time as the narcissus, which it resembles, and in late June or early July completely disappear. This change comes about so gradually that any one, growing this bulbous plant for the first time, will have forgotten all about it after the foliage has disappeared. The great surprise comes in August, when the flower stalks push through the soil and within a few days will have attained a height of about two feet, surmounted by an umbel of a dozen or more lily-shaped flowers.

There are very few plants that send up a flower-stalk without any accompanying foliage, and on that account some consideration should be given to the proper location of the bulbs. They are best set between some low-growing perennials whose foliage will cover the bare stems. To name a few combinations—this amaryllis looks well planted between clumps of the Chinese forget-me-not, dropwort, and other perennials with a compact habit of growth, or, it may be planted between dwarf peonies, dictamnus, or hostas. The bulbs should always be grown in a location where they will not be disturbed by any gardening operations. It is most disconcerting when preparing the soil for the planting of bulbs or perennials to run the spading fork through one of these bulbs, the exact location of which has been forgotten. The bulbs increase slowly and should not be disturbed for from three to five years, when they may be lifted and divided. If they are to be lifted in the fall, it is well to place a label or stick next to each flower stalk, in order that the location of the bulbs may not be lost. After about five years one bulb will have divided into two or three larger ones. It is this slow increase that accounts for the high price of this hardy amaryllis. Bulbs are usually listed at one dollar apiece and the larger ones at a dollar and a half. However, this is one bulb that will not fail to grow, unlike some of the lily bulbs which never show above ground after being planted or disappear the second year.

The bulbs may be planted in the spring or the fall and should be planted at least eight inches deep. A cushion of sand under each bulb is a good garden practice but is not essential in a well-drained location. If this amaryllis is planted in part shade, the flowers will last longer, as it is usually quite hot in August. In 1935 the blooming period in St. Louis extended from August 12 to 24 and in 1936 from August 5 to 15.

Lycoris squamigera is the correct botanical name for this hardy amaryllis but it is usually listed in the catalogs as Amaryllis Hallii. Occasionally it is included in the fall bulb catalogs, but more generally it is listed in the spring catalogs, with the summer-flowering bulbs.—From October, 1936, Missouri Botanical Garden Bulletin.

CONTROL OF ROSE PESTS

CONTROL of the Common Rose Pests is the title of a stencil circular by Prof. J. G. Moore, published by the Wisconsin College of Agriculture, and is available free to any of our members in Wisconsin. Address: Wisconsin College of Agriculture, Madison, Wisconsin.

Experience With New Annuals

Mrs. T. S. Purcell, President, Whitewater Garden Club

ZINNIA Augustifolia Hybrida. If I had just two dimes for flower seed I'd spend both of them for a package of this seed. The blooms vary from single to fully double, have "a starry individuality quite surprising in a zinnia," with a color range from a lemon yellow to orange, maroon, brown and even blood red. Every bloom has an expressive individuality, never two alike. They come into bloom quickly from seed sown about June 1 and are still going strong when everything else in the garden has succumbed to the frost.

If I had another dime I'd buy Red Riding Hood Zinnia seeds, the most cheerful little flowers in the world.

The following are the results of some of the annual novelties which I grew in 1936.

Dixie Sunshine Marigold. Seed started indoors March 15. Seedlings set out May 28. First blooms August 14. Continuous bloom until October 20, even after most other flowers in the garden had been killed by frost.

During September the plants excited much favorable comment because of the resemblance which they bore to Christmas trees with many golden candles on them. When cut the foliage and blooms remained nice for a week or more and I was able to furnish my friends with generous bouquets of these bright novelties after most of the other flowers in the garden had been killed by frost.

I do not plan to grow these marigolds again until the seed growers have improved the quality of the blooms and tamed the plants down to a more moderate growth.

Flaming Beauty Petunia

The seed from Burpee's produced blooms so beautiful as to well-nigh beggar description. Seed from another firm was not satisfactory as the blooms were not at all uniform in color and the quality not outstanding.

All double Petunias from Vaughan's. Magnificent blooms from early summer until killed by frost.

Asclepias Curassavica is an easy garden annual which bloomed gloriously from early July until late October. It is not suitable for cutting but is an excellent show plant in a border or bed where orange scarlet blooms and glossy green foliage are indicated.

From this year's experience and many others, I am constrained to believe the seedsmen frequently put on the market so-called novelties which are not really ready—as for example the Dixie Sunshine Marigold and the Flaming Velvet Petunia. The ever eager and often gullible purchaser pays fancy prices for seeds which have little to recommend them except as they serve as forerunners of what may be developed within the next two or three years.

California Sunshine Asters. For about two weeks the display of blooms was all that could be asked of any plant, but after that they dried up and I consigned them to my compost heap.

Tigridia. The blooms something to write rhapsodies about. These are at present too short lived to be practicable for the gardener of limited means.

Harmony Marigold. Bloomed early and long. Thoroughly satisfactory as both cutting and show material.

Yellow Supreme Marigold, Guinea Gold Marigold, Orange Flare Cosmos. All of these were most satisfactory—much better than in any previous year.

Burpee's Super-Double Nasturtiums. Both the gold and the scarlet were a total loss. I had a few blossoms but nothing to brag about.

Zinnias

Fantasy, Scabious, Pumila, Radio. All of these seem to have been re-selected and improved until there is little left to be desired in their blooms. For continuous interesting bloom the dwarf Mexican zinnia is outstanding and well worth a place in everybody's garden. Interesting novelties from the Rex Pearce were also on my list, the most satisfactory being (1) Takoka Daisy, a lovely blue flower with a long season of bloom, a distinct addition to any garden; (2) Mexican Opal Cup, anoda lavateroides. This is beautiful planted in a tall rear border with lavender cosmos. The blooms are opalescent hue, very numerous, but not suitable for cutting as they wilt too rapidly.

MINT SHRUB

ELSHOLTZIA STAUNTONI, the Mint Shrub, though a shrub in growth habit and appearance, is an especially appropriate plant for the herbaceous garden border because of the splendid mass of lilac-purple bloom from early September to frost.

The leaves are very aromatic, are bright green and glabrous above, lighter green beneath. The flowers appear in dense three to five inch terminal spikes, and are most profusely produced. Though the Elsholtzia will grow in partial shade, a sunny position gives the most satisfactory bloom. Coming from north China the plant is hardy in the northern states.—Merle Rasmussen, Oshkosh.

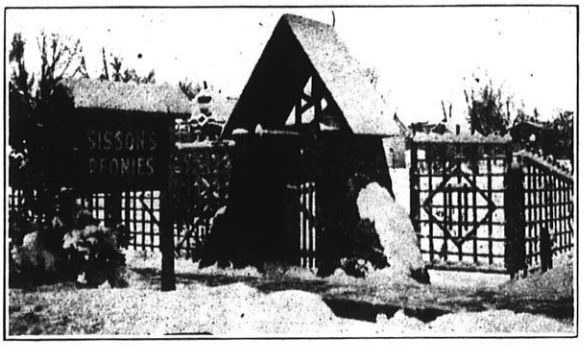


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Fig. 1 Fig. 2 Fig. 3

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The Official Organ of the Wisconsin State Horticultural Society

Established 1910

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Volume XXVII MARCH, 1937 No. 7

TABLE OF CONTENTS

	Page
How to Prune the Grape	147
Early Sprays for Apples	148
Harvested Fruits and Vegetables Live Longer When Respiration is Slow	149
Pollination and the Honey Bee	150
In the Orchard	152
The Story of Johnny Appleseed	154
When to Set Strawberry Plants	156
When to Uncover Strawberry Plants	156
Timely Topics From Minnesota	157
Horticultural News	158
How to Beautify a Community	159
Editorials	160
Why Plants Smother	161
Wisconsin Wins National Cherry Pie Baking Contest	161
Garden Notes, W. A. Toole	162
Good Rugosa Roses	163
Gleanings From the Gladiolus Patch	164
Tuberous Rooted Begonias	166
State Garden Club Federations News	167
Superior Garden Club Marks the Brule-St. Croix Portage	168
The National Flower and Garden Show	169
Garden Club Officers for 1937	169
Wisconsin Beekeeping	172
District Beekeepers Meetings—Program	172
Two-Queen vs. Single-Queen Colony Management	173
Pollen Reserve Necessary to Build Up Colonies in the Spring	174

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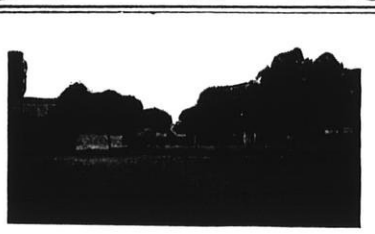
Subscription to Wisconsin Horticulture is obtained by membership in the Wisconsin State Horticulture Society for which annual dues are $1 per year or $1.50 for two years. Garden Clubs, Horticultural Societies, and other Horticultural Organizations are affiliated at a reduced membership rate.

PLEASE DO NOT SEND STAMPS

Wisconsin Horticulture

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

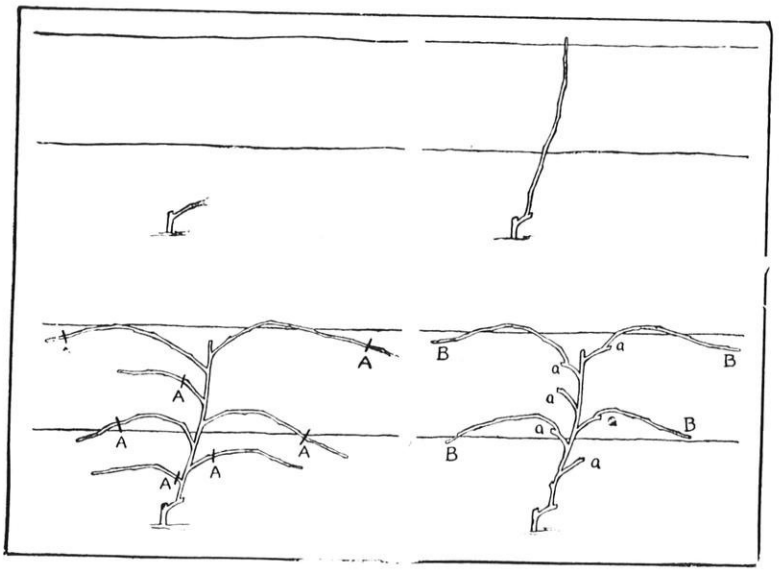


OUR PROGRAM
3. Greater publicity for Wisconsin grown fruits and vegetables.
4. A constantly improving magazine for the distribution of timely horticultural information.
5. Organization of local horticultural clubs in all sections of the state.

How to Prune the Grape

J. G. Moore, Madison

THERE are various methods of pruning grapes. In this article we are concerned only with pruning as done in the 4 cane Kniffen system of training which is usually conceded to be the desirable system for the varieties which we commonly grow. It consists primarily of leaving four canes (growths of the past season) which are to be trained on a 2 wire vertical trellis. The canes are left long enough to carry the number of buds which will produce the size of crop which the vine is capable of developing satisfactorily. With strong growing vines such as Concord and Worden, when they are healthy, it is usually considered that about 40 buds are desirable. Weaker growing varieties as Delaware, or weaker plants should carry a smaller number.



PRUNING AT DIFFERENT AGES

Upper left, vine after pruning at planting; upper right, vine at beginning of second season; lower left, vine at end of second season, showing (A) where cuts should be made; lower right, vine pruned at end of third year, (a) points at which old canes were cut off, (B) points at which new canes were headed in. Compare with lower left. Cut from Cir. 186, The Home Vineyard, courtesy Wis. College of Agriculture.

The canes selected should be well matured, arise as close to the trunk (main stem) as possible, and be about ¼ inch in diameter between the fifth and sixth buds. As production decreases rapidly beyond the twelfth bud the usual practice is not to leave more than 10 or 11 buds on a cane. The usual practice is to leave one or two more buds on the upper than on the lower canes. However, the number left should depend more on the vigor of the cane than on its position on the plant. The normal, vigorous vine then, after pruning, would have one trunk or stem, from which arises directly or more commonly from arms (lateral growths made up of wood two years old or over) carrying 8 to 12 buds.

The second problem in grape pruning is to have the canes arise close to the trunk. Each year they normally arise on the arms farther from the trunk making it necessary to eventually replace (renew) the arm with a cane arising either on the trunk, on the arm nearer the trunk, or from a spur (a cane cut back to one or two buds) left for the purpose of providing a renewal cane when it is desired. When pruning grapes one should always keep in mind the ultimate necessity of renewing the arm. It is probably a good plan to leave after the second or third year, at least one spur on the trunk or near the base of the

arm for the renewals of the arms on each of the two trellis wires.

Renewal of the Trunk

A third problem which is quite common in Wisconsin due to our severe winters is the renewal of the trunk. Vines usually produce a number of new growths arising from the base of the plant. With young vines these should all be removed, but when the vines are 6 to 8 years old one of the stronger of these growths should be cut back to a spur so as to insure a continuance of growths from the base of the plant to insure the possibility of renewal of the trunk when it becomes desirable. If all the growths are continuously removed frequently the plants cease to produce these basal growths.

The principal errors which I commonly observe in pruning the grapes are: leaving more than one trunk to a plant, leaving too many canes; leaving the canes too long; failure to renew the arms with the result that the fruiting wood gets farther and farther from the head of the vine.

Prune Annually

Prune annually; the grape gets out of control more quickly due to neglect in annual pruning than any other fruit plant.

Pruning may be done any time during the dormant season when the canes are not frozen. If the vines are to be covered during the winter, prune as soon as the leaves are off. If they are not covered, wait until you can determine somewhat where winter injury has occurred.

For more detailed information send for Circular 186 — The Home Vineyard, from the College of Agriculture, Madison, Wis.

The apple is a combination of refreshing acids, substantial bulk, and stimulating juices.

LIKES GRADER

Alric Erickson, Mgr., Horse Shoe Bay Farms, Egg Harbor

IN regard to the Niagara apple grader we are using and which was shown on your film, we like it very much. It is a Niagara Pony Sizer and is of spindle or shaft type. The big advantage of this type of sizer is that the apple spins with the stem end towards the sizer opening, giving you a more uniform size, and this is especially true when you are grading a long apple, like Delicious.

For myself, I like grading in four sizes, although a lot of growers in the last two years have been packing 2¼" and up with good results.

The Bushel Box

This year we are packing in Eastern bushel boxes with no face, and used no packer. I like the box a lot better, as it is so much faster, and takes less help, although so far the trade has not taken to it as well as the basket pack.

We are using an open bottom metal picking container with a canvas drop, the same as the bag, and I find this is lots better as apples are not bruised against the ladder or the limbs of the tree.

Editor's Note: This is the second article on graders written by orchardists whose methods were shown in our moving picture film on Apple Harvesting in Wisconsin. Other articles will appear in early issues.

NEVER THOUGHT OF THAT

The other day an ex-soldier expressed an opinion of what the next war will be like.

"It will be terrible," he said. "The safest place will be in the army, and the soldiers will spend their spare time knitting comforts for the harassed civilian population."

THE EARLY SPRAYS FOR APPLES

COMMERCIAL fruit growers depend less and less on "Spray Charts" and more on weather conditions in determining the number of sprays to apply. The more rainy weather we have the more often we must spray to control apple scab.

Pre-Blossom Sprays

Many growers are using three sprays before the blossoming period, as recommended by Dr. G. W. Keitt of the Plant Pathology Department as follows:

1. **Green tip or delayed dormant.** Use lime-sulphur, one and one-fourth gallons, arsenate of lead one pound, and water to make 50 gallons.
2. **Closed cluster or pre-pink.** Use 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 blossom buds have separated in the clusters using the same materials.

If the disease is not well controlled early in the season, its control will, at best, be unsatisfactory and difficult. Thorough and timely application of early sprays is, therefore, the foundation for successful scab control throughout the season.

In our next issue we will have opinions of several successful growers on spraying methods.

Our 1937 Fruit Book

Describes Best Varieties to Plant

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New Wayzata Everbearing Strawberry—25 plants for $1.85 postpaid

Minnesota Fruit Growers Service Company

787 Eustis St. St. Paul, Minn.

Harvested Fruits and Vegetables Live Longer When Respiration Is Slow

AN apple does not die when picked from a tree, but failure to control its respiration shortens its life. Fruit growers and handlers slow down the respiration of apples by putting them in cold storage, says U. S. D. A. Clip Sheet 942.

Harvested fruits and vegetables—like animals—respire by taking oxygen from the air and giving off carbon dioxide, water, and waste products, and generating heat. Other living processes continuing after harvest change the constituents, flavor, and color.

Too-rapid respiration causes fruits and vegetables to lose their freshness. In cold storage, the rate of respiration usually doubles each time the temperature rises 18 degrees F. above the temperatures recommended for keeping them fresh. Respiration usually affects the flavor of fruits by breaking down and exhausting most of the carbohydrates and acids. When this occurs in an apple, it becomes overripe, mealy, and practically worthless—succumbing to senility if not previously destroyed by fungus rots.

Cold-Storage Air With 85% Moisture Gives Best Results

Too much, or too little humidity in cold-storage air also affects the quality of fruits and vegetables. Cold-storage air with 85 to 88 per cent moisture usually gives best results. This moisture percentage is about the same as that in the tissues of these products. If the relative humidity of the cold-storage air falls lower, fruits and vegetables dry out, wilt, and shrivel. If raised above, they tend to mold, and are easily damaged by fungus rots. Celery and onions, however, are exceptions to the general rule. Celery requires a higher humidity to keep it from wilting. Onions must be kept drier to prevent them forming roots. — From American Hortigraphs & Agronomic Review.

Apples stimulate the appetite, aid digestion and give variety to the diet.

RED LAKE CURRANT POPULAR

MEASURED by inquiries and orders from fruit growers and nurserymen in other states, the nurserymen of Minnesota will tell you that Red Lake Currant has become an outstanding variety in many sections of the country. It now appears likely it will take its place alongside of the Latham raspberry in the estimate of American fruit growers.—From The Minnesota Horticulturist.

Ask for Leaflet F-142

· · · · which tells you more about this NON-LEACHING, HIGH-NITROGEN, HIGH-LIME, GRANULAR FERTILIZER, and how to use it in growing · · · · bigger yields of better-quality fruit.

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Reg. U. S. Pat. off. and Principal Foreign Countries

Feeds the Tree Evenly Throughout Growing Season

Pollination and the Honey Bee

H. D. Hootman, Michigan

In the W. R. Roach Company orchards located near Hart, a twenty acre solid block of McIntosh was located that had been consistently producing unusually light crops for an orchard 22 years of age that was so well cared for. The crop that year was only 700 bushel (an average a trifle more than a bushel per tree), but crops in previous years had been as high as 1600 bushels. It seemed that the orchard should produce considerably more if its blossoms were properly pollinated. Arrangements were made with C. J. Freeman, a beekeeper 80 miles away, to furnish 200 colonies of bees to be distributed in the orchards for the blossoming period. Four truck loads of bees were distributed in 150 acres of apples and cherries to utilize for pollination purposes any flights that were made. Conditions for handling and moving must have been ideal for this operation was completed without a single man getting stung.

Blasted Hopes Bright Again

At the close of the apple blossom season it appeared that the attempt to set a crop in the McIntosh block had been a failure. It was impossible to secure sufficient bouquet material to keep the buckets located throughout the orchard supplied with fresh branches. The bees had shown a marked preference for the cherry blossoms and worked them to the exclusion of the apples as long as cherry bloom was available.

In midsummer, it was estimated that the crop would compare favorably with the largest formerly produced of 1600 bushels. As the season advanced, red apples seemed to appear well distributed through many trees where they had been unnoticed earlier. It was apparent that previous estimates had been too low. Some individual trees picked over twenty bushels and a total of 4000 bushels were harvested.

Screened A McIntosh Tree

The owners of the orchard had screened to exclude all insects a single McIntosh tree to determine what was being accomplished by the bees. At harvest time the screened McIntosh tree picked 25 apples while its nearest neighbor 40 feet away, where provision with bouquets had been made for cross-pollination to take place, picked over 1200.

To the average fruit growers there are two ways to secure bees to pollinate fruit bloom. Many practical orchard men hire bees for the blossoming period, the usual price to the beekeeper being $2.50 to $3.00 per colony. Where an orchard is located in a good honey producing section, arrangements can often be made with a beekeeper to establish an apiary in or near the orchard for a nominal sum. The other alternative is to engage in the beekeeping business. To succeed with bees a man must have a special aptitude for the work. Most fruit growers at heart are not beekeepers.

Factors That Determine the Need of Bees

The location and size of the individual orchard are apparently the factors that determine whether or not bees are needed. Orchards, not too large in size with varieties well mixed, located near woods, swamps or uncultivated land where wild insects can winter over in large numbers, usually set a satisfactory crop without additional bees. With the conditions that exist in commercial fruit sections where whole communities are engaged in fruit growing and where orchards have been planted by the square mile the wild insects are wholly inadequate to pollinate effectively the vast expanse of bloom.

In season when warm, sunny weather prevails during the blossoming period, the wild insects and what honey-bees there are near an orchard have an opportunity to work many hours each day and will generally pollinate enough blossoms for a satisfactory crop. When cold, rainy weather prevails previous to and during the blossoming period wild insects are of little value, and the influence of the honey bees can not readily be observed for more than a few hundred feet from the location of the colonies.

I cannot better close than by repeating those lines from the late Bob Adams:

It Pays to Advertise

The little flowers by hill and dell
Have learned their little lesson well.
They breathe sweet scents for bees and flies.
Because it pays to advertise.
The insect visitors that fall in
Or light upon the edge and crawl in,
The butterflies and bugs and ants
Get pollen on their coats and pants,
And willy-nilly thus they share
In every floral love affair.
If I had peach and apple trees,
I'd put the proper spray on these
And when the fruit was red and ripe
I'd tell the world in good plain type,
So plain that they who ran might read
And buy the fruit their children need.

—Bob Adams

EXTRA Orchard Brand News EXTRA
Reg U. S. Pat. Off
VOL. 1, NO 1 MARCH 1937 EASTERN EDITION

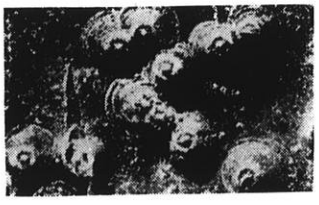
OIL EMULSION "83" ELIMINATES RIVALS ON QUICK-BREAKING PERFORMANCE

ORCHARD BRAND LIME SULPHUR SOLUTION COMBINES HIGH POWER, FREEDOM FROM SEDIMENT

Field tests prove that, unlike the home-cooked material familiar to old-time fruit growers, and ordinary commercial lime sulphur solutions, the modern Orchard Brand product is always of one standard concentration . . . always uniformly high in potency, uniformly free from nozzle-clogging sediment.

Rigid control in manufacture assures a calcium polysulphide content of 29%, and a definite preponderance of available sulphur in the efficient tetrasulphide and pentasulphide forms.

Complete filtration in the most modern type of filter press, the final process in manufacture, makes Orchard Brand Lime Sulphur Solution clean and free from sediment. Fruit growers are unanimous in their appreciation of the savings in time, labor-costs . . . and frayed tempers . . . assured by this unique feature. Lime sulphur clogging of spray nozzles, with its attendant annoyance, is definitely a thing of the past.



San José Scale
The grower's principal scale enemy
(greatly enlarged)

Points Way To Economy For Dormant Spray

ORCHARD BRAND Oil Emulsion "83" is a *quick-breaking* emulsion. When applied (after dilution with water) the oil quickly separates from the emulsifier and deposits itself *evenly* on the twigs and branches. Its run-off is almost entirely water.

Recent experiment station work demonstrating that high calibre quick-breaking emulsions deposit almost twice as much oil as "tight" miscible oils, explains the remarkable control records compiled by "83" on job after job.

Oil Emulsion "83" is productive of substantial economies not only in crop saving, but in material, time and labor as well.

Flexibility is an important feature of this Orchard Brand product. Used alone, it provides effective control of red mite, leaf roller and scale. And it is highly efficient, in combination with tar oils or cresylic acid, against rosy aphis . . . and with lime sulphur solution or bordeaux mixture against peach leaf curl.

MAXIMUM EFFICIENCY AND SAFETY AT MINIMUM PER-ACRE CONTROL COST

ORCHARD BRAND Oil Emulsion "83" contains 83% by volume of mineral oil in complete emulsion, and has spreading and covering qualities that enable it to kill both running and hibernating scale.

ITS LARGER OIL PARTICLES, as compared with certain flowable products, give it superior breaking characteristics—better deposition and less run-off. It is highly economical.

ITS OIL CONTENT is a petroleum distillate of a proper boiling range—without heavies to gum the bark, or light oils which might penetrate and injure the cambium.

THE ORCHARD BRAND PRODUCT spreads an efficient film on the tree surface, yet is sufficiently volatile to dissipate itself before it can cause injury.

A card or letter will bring you, *without obligation*, concrete suggestions on the efficient solution of any particular control problems you may have.

Orchard Brand customers are invited to take advantage of the personal service offered by the staff of technical experts we maintain in the field. Just phone or write your nearest Orchard Brand sales office.

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In the Orchard

TOP-GRAFTING SAVES TIME IN TESTING FITNESS OF NEW APPLE VARIETIES

TOP-GRAFTING offers a time-saving method of testing the fitness of new apple varieties to local conditions, says Professor W. H. Thies, in a recent Massachusetts extension service news release. By wide distribution of scion material, growers are able to find out how a new variety will perform without waiting several dcades for evidence of its good and bad points.

"The McIntosh apple, now widely grown throughout Massachusetts, was being tested for many years on the McIntosh homestead in Ontario before outsiders ever heard of it. Today, with top-grafting, farmers can see within five years what new varieties will do under various soil conditions."—From American Hortigraphs & Agronomic Review.

PRUNE APPLE TREE SO LEADER WILL BE ON WINDWARD SIDE

"IT is important that the apple tree be so pruned that th leader will be on the windward side. Variation from this practice in windy locations will result in failure to develop a leader tree."—Professor J. L. Mecartney, Pennsylvania Extension Service.

MULCHING KEEPS DOWN WEEDS, CONSERVES MOISTURE AND ELIMINATES CULTIVATION

"AS experience with the system broadens, mulching orchards with crop residues, such as wheat straw, gives a better account of itself as a method of orchard soil management. An application of about 4 inchs of mulch annually will kep down weeds, conserve moisture, and substitute for cultivation." — Professor R. J. Barnett, Kansas Experiment Station.

A MATURE apple orchard which produces an average of less than 200 bushels per acre is likely a borderline case so far as profit is concerned, says American Fruit Grower, Vol. 56, No. 9. As it reaches 350 to 400 bushels over a long-time average, and the acreage unit is sufficiently large, the venture should be successful.

This means a favorable soil, that is, a deep, fairly fertile, and fairly well-drained one, and a site reasonably free from frosts and severe winter injury, and with good marketing facilities. —From American Hortigraphs & Agronomic Review.

MATERIALS FOR THE CONTROL OF APPLE SCAB

TESTS with "electric" sulphur and flotation sulphur have shown that when used at the rate of 6 pounds to 100 gallons of spray and when the applications are timed correctly and all surfaces are thoroughly covered, even when apple scab is epidemic, satisfactory commercial control may be obtained. However, failure to prevent primary infections early in the season because of lack of thorough coverage or incorrect timing is likely to be followed by serious outbreaks later, and it is probable that for average conditions use of the standard lime-sulphur in the preblossom applications is a somewhat safer procedure. — From Michigan Experiment Station Report.

When it comes to the blending of food flavors the combination of natural sugars of honey with the fruit sugar in apples produces most harmonious results.

BARTLETT DETROIT

Tree Trimming Equipment

No. 1-W No. 777 No. 44

Illustrated are three of the Bartlett Tools for tree trimming. Special attention is called to the Bartlett No. 1-W Tree Trimmer with the compound lever. Has enormous cutting power; blades are crucible steel. It is a side cutting tool with a hardened hook. Available in any length from 6 to 16 ft.—in one piece or sectional poles.

Bartlett Detroit Tree Paint

flows freely in cold weather. Should be applied to all pruning wounds.

Write for Catalog and Prices

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JEFFERSON COUNTY FRUIT GROWERS MEETING

THE Jefferson County Fruit Growers Association will meet in the Community Hall, Fort Atkinson, on Wednesday, March 24th beginning at 10:30 a. m. The usual excellent dinner will be served in the hall during the noon hour. The program this year will consist of the showing of the films on picking, packing and grading Wisconsin apples by the Wisconsin Horticultureal Society, talks on new varieties by H. J. Rahmlow, orchard problems by C. L. Kuehner, Madison, and N. O. Eckley, Fort Atkinson High School Instructor. All are invited to attend.

IRRIGATION IN THE ORCHARD

IN several Eastern and mid-Western states irrigation has been used in the orchard. The Bureau of Plant Industry, U. S. Department of Agriculture, reports that after studying results for four years, larger and more desirable late marketing apples may be grown in drought years when irrigation is provided.

On very shallow soil plots trees were only about half normal size when the test was begun. During dry years, fruit from these trees was not marketable because of small size. Neither was additional irrigation water entirely satisfactory. The moisture storage capacity of shallow soils is so limited that water would have to be applied about once each week to carry the trees through the dry period. Therefore orchards should not be planted on shallow soils.

It was also found that on early varieties such as Duchess, irrigation did not pay. Fairly good soils absorb enough water from winter snows and spring rains to carry the trees through the early harvest period.

Late varieties, however, which carry their fruit until October, suffered severely during dry years, and irrigation greatly increased the yield due to larger sizes of fruit. Both size and color were improved by water application during drought years on late varieties.

Whether irrigation will pay in Wisconsin will depend upon the cheapness of the water supply, the yield of the trees, the variety and value of the fruit.

PROPAGATING GRAPES

A NEW method of starting grape cuttings in heavy soils has been successfully used by Dr. W. P. Duruz in his experimental grape plantings at Oregon State College. Ordinarily it is quite difficult to start calloused grape cuttings directly in heavy soil, which is common in many parts of the Pacific Coast.

In this new method, a crowbar was used to make the holes where the grapes were to be set. The calloused cutting was then held in the center of the hole while sand was sifted around it. By having sand instead of clay next to the cutting, it was found that much better rooting took place, due to better drainage and aeration.—J. H. Currie, from the Country Gentleman.

We Offer for Spring Planting

Bleeding Hearts, ... 30c, 3 for 75c
New Ember Plum, 3-4', ... 55c
New Beacon Apple, 2-3', 3-4'
New No. 790 Apple, 3-4'
New No. 1007 Apple, 2-3', 3-4'
Anoka Apple, 2-3', 35c; 3-4', 45c

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Battle Lake, Minnesota

Niagara Emulso—The Perfect Oil Spray

for Dormant and Delayed Dormant Applications

Some facts about EMULSO:

Controls leaf-roller in the dormant stage.

Mixes perfectly with Lime and Sulphur, therefore these two materials can be combined for your delayed Dormant application for scale, aphis and scab.

Mixes perfectly with any kind of water.

Does not separate on freezing.

High toxic effect on scale insects.

EMULSO is the large drop mechanical type oil emulsion, which means safety, economy and effectiveness.

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WHEN YOU BUY Niagara YOU BUY PROTECTION

Niagara Sprayer and Chemical Company

J. Henry Smith, Sales Representative

Waupaca, Wisconsin

The Story of Johnny Appleseed

From Bulletin of the Garden Club of America

(Continued from February)

Early History

John Chapman was probably born near Bunker Hill monument in Boston. His father, a poor carpenter before his Revolutionary service and a poorer one afterward, never laid hands on Johnny, though the boy was always running away to the woods to watch birds and gather flowers. At eighteen he started with a younger brother on foot and mostly by Indian trails to the headwaters of the Ohio, the "Beautiful River" of the early French and English explorers, where forests were deeper and the prairies thick with flowers. At that time Pittsburg Landing had less than one thousand inhabitants. There was not a church nor an orchard. Down the sycamore-lined shores of the river at Marietta six years later, Johnny found a single beautiful apple tree which Dr. Jabez True, physician to the Ohio Company, had brought from Potomac and planted near Fort Harmer, Johnny stared at it, then turned to the doctor with the words, "The hour will come when there will be many such trees bearing fruit in these settlements."

The Ohio Company, it was rumored, had bought five hundred thousand acres of land at 66 2/3¢ an acre, which it was now selling for two dollars. Its offiicials were inclined to sympathize with this quixotic fellow who wished to make these acres productive, to the extent of detailing some of the fort soldiers to help him.

On the wharf at Pittsburgh, wrapped in straw, he had young apple trees ready to give to the emigrants as they floated down on flatboats to new settlements, and he filled for them also little deerskin pouches, holding an ounce of apple seeds apiece. A Chicago student tells today of one bag still kept as a memento of his family's pioneer days. When stage-coaches began to thunder into Ohio on newly opened roads, Johnny left the cramping walls of his four-room cabin and his fine young orchard at Brilliat, "the wonder of the wilderness," and discarded his buckskins and moccasin leggings with his coonskin cap. He could not trust the hard bitten pioneers to grow apples, but must himself push on ahead of them and plant.

A Saint

Johnny made himself a hat of pasteboard with a peak over the eyes and put on his old coffee sack, "a very serviceable cloak," as he said, "and as good as any man need wear." He went barefoot unless he happened to be given old brogans in payment for apple trees, and even then he was likely to give them away to the first travelers he met going west. With his polite manners, alertness and gentleness, there was nothing eccentric about him except his restless energy. No one laughed at the glorified tramp. No doubt the western children ran out to meet him, just as the children of the New England coast used to hail the tin peddlers and essence vendors when they came jingling into the older villages. Men liked his trees and the price of them, "a fip-penny bit," or nothing at all, if the family purse was flat. Every slab door swung open to Johnny on its deerskin hinges, and he brought with him a ray of light such as seldom shone through chink-and-daub walls or windows of greased paper. Sometimes he had zinnia and snapdragon seeds in his bag for the women, and he helped them plant the evil smelling dog-fennel or may-weed under their cabin windows to keep malaria away from the children; catnip, pennyroyal and rattlesnake root were every day gifts.

A dot for each one of John Chapman's nurseries would speckle a map of the central states fairly thickly from the shores of Lake Ontario, Lake Erie and Lake Michigan on the north, to the snake line of the Ohio on the south, an dalong its many feeding streams. The one other way into this wilderness, beside canoeing up its streams, was by forest paths, first an old Indian trail from Fort Duquesne by Fort Sandusky, which had once led to Detroit, and then by his own narrower, freshly blazed trail, where he had to leave horse and saddlebags behind him and carry his leather bag of seeds on his own back, through underbrush, cat-briars, fallen timber and spruce thickets which would have torn any mealsack to ribbons by the first rod. For the greater part of the way he made his own "tree trails" by breaking a limb so that the broken part would hang down, but another would soon start fresh growth upwards from the break. The last of such old tree trails could be found in Wisconsin a quarter of a century ago. Through the 166 miles of unbroken forest lying north-northwest from Fort Duquesne to the Black Ford of the Mohican where bears made their coverts, deer roved, and wild hogs rooted, Johnny found his way without a compass, needing only the arrowy sense of direction in his own heart.

Every fall he collected fresh pumice until his own nurseries gave him all the seed he wanted; every spring he planted and transplanted. Summer and winter, for forty years, he made the

rounds of his orchards, fencing them with brush, cultivating the circles around young trees. No one says a word about Johnny's gathering apples or eating them himself, or staying anywhere long enough for someone to bake him a pie.

Saves People From Indians

Johnny traveled sixty miles between sunset and sunrise, by paths known to himself alone, to get troops from Camp Douglas at Mount Vernon to protect the Mansfield people, frightened from their cornfields by the threat of an Indian massacre.

John's placid death at 72 was all in his day's work, and in the 46th year of his wilderness planting. He had walked twenty miles on a March day to repair the fence of his young orchard up the St. Joseph River, which had been broken by straying cows, and he just managed to drag his old feet back again to the doorstep of his friends, the Worths, at Ft. Wayne, in whose home he died the next morning. The day the news of John Chapman's death was told in Washington, General Sam Houston of Texas rose from his seat in Congress to say, "The old man was one of the most useful citizens in the world in his humble way. He has made a greater contribution to our civilization than we realize. Farewell, dear old eccentric heart! Your labor has been a labor of love, and generations yet unborn will rise up and call you blessed."

At Rest

He was buried in one of the family graveyards above the old canal at Ft. Wayne where the common wooden headboard of the period soon decayed. The Men's Garden Club of America now keeps his memory green with lawns and flowering crabs, honeysuckles and locusts planted about the spot where Johnny, who could never sit still all his life long, rests at last.

LIKES SECOR APPLE

THE Secor apple, cions of which I grafted onto trees several years ago, produced a very heavy crop on three year old grafts, and the apple made a hit with my family. We like it better than any other apple except perhaps the late McIntosh type. Secor keeps well in common storage and the size of the apple is quite uniform. It did not seem to color up well for us. —Louis J. Garday, Waukesha.

Note: Mr. Carday found that cions of new varieties grafted onto Duchess did not bear apples after four years, but made a heavy growth, while on Winesap they proved very productive. This is a matter of the type of growth, a large vegetative growth of the cions resulting in no fruit, while with a smaller type of growth or non-vegetative, fruit was produced. However, the cions on Duchess making a heavy growth would eventually form the best branches and probably produce the best crop and live the longest.

An apple eaten at night will cleanse the teeth mechanically and chemically, and, if followed by vigorous brushing, will protect them from bacteria during the night.

NEW FRUITS...

Beacon Apple
Ember Plum
Minn. No. 1007 Apple
Haralson Apple
Chinese Elm (Siberian Strain)

Catalog Free

Andrews Nursery

Faribault, Minn.

Fruit Farm Bargain

Operating since 1920. 22A. overhead irrigation 7A. berries. Price $3300.00. Small down payment will handle. Must sell due to health.

Write

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The Southeastern Wisconsin Fruit Growers Co-operative Inc.

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LESTER TANS, Secretary-Treasurer
Route No. 3, Waukesha, Wis.

With the Small Fruit Grower

WHEN TO SET STRAWBERRY PLANTS

EARLY spring is the logical, natural, and most successful time to set strawberry plants.

Everbearing varieties, even more than others, should be set early in the spring because they bear their best crop in the summer and fall of the same year and need the best possible start.

How Early

Just as soon as weather permits getting ground ready. In the Northern states, April.

Why So Early?

Experience has taught that strawberries live better and grow better if they can become established early in the spring while the soil is still cool and moist. Late set plants are more likely to run into hot, dry conditions which make good results unlikely if not impossible. Furthermore, investigations have shown that runner plants made early are much more fruitful than those made in late summer or fall. Early spring planting, therefore, tends to promote a larger percentage of highly productive, early set runner plants. If ordering plants be sure to order early enough so that they can be at hand as soon as the ground is prepared.

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 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. — From Allen's Book of Berries.

GET STRAWBERRY PLANTS EARLY

MR. R. L. MARKEN, Kenosha, vice-president of the Horticultural Society, and a fruit grower of wide experience states that he believes in buying strawberry plants as early in the season as possible. He likes to get his plants the first part of April if they are to be shipped by express or mail. Later in the season there are often warm days and if a package of plants is heated they are likely to be seriously injured. If they come before the field is ready for them, heel them in until ready to be set out.

STRAWBERRIES WINTERING WELL AT WARRENS

"STRAWBERRIES should be wintering well as the ground is covered with snow, in most places probably a foot or more in depth," writes R. E. Harris of Warrens.

Mr. Virgil Fieldhouse of Dodgeville also reports that the strawberries seem in good condition under the mulch. At Dodgeville, however, there was considerable ice on the snow but this didn't seem to effect the strawberries because of the snow and mulch over the plants. Mr. Fieldhouse states that irrigated plots made an exceptionally good growth last fall and went into winter in good condition.

Mulched plants in sections where there was ice may be badly injured this year.

WHEN TO UNCOVER STRAWBERRY PLANTS

R. H. Roberts, Madison

IT IS dangerous to recommend changes in long established practices. It does seem, however, in the past few seasons' experiences that we can well question the present general idea that strawberries should be uncovered late in order to delay blossoming enough to avoid spring frost injury. Late uncovering may prevent some danger of frost injury, but it does appear to definitely reduce production. An exception would, of course, be in the unusual case where spring frost determines the yield. The fine performance of some of the plants in rows which were uncovered early to get plants for transplanting, but where the row was not dug illustrates the effect of early uncovering upon yield.

Delay Reduces Yield

Experiments in the time of uncovering have shown that a delay of as little as a week after the "proper time" to uncover has reduced the yields about 50%. It seems the cover should come off when the night temperatures are about forty degrees. This has been about April 20th for the past two seasons at Madison. Decidedly warm days will occur before this, but these are generally followed by cool nights. When the nights are warm enough for the plants to grow the cover should be taken off.

If some frost injury occurs, this seems to reduce the crop less than results from late uncovering. Plant the patch if possible on ground which is relatively free from frost and uncover the plants when the weather warms up and take chances with frost injury.

TIMELY TOPICS FROM MINNESOTA

IF YOU are troubled with the disease known as celery yellows, a soil borne disease, next season try some of the following varieties, which are said to be resistant, in the garden: Crisp Heart, Early Green Hybrid, and Utah are green types. White or Yellow varieties include Golden Pascal, Giant Pascal, Florida Golden, Michigan Golden.

Do not plant dwarf nasturtiums in rich peaty soil. This merely increases the tendency to "leafiness" with a corresponding decrease in flowers.

A fallacy often heard is that parsnips are poisonous at certain stages of their development. Parsnips can be used at any time after the roots have become large enough. They may be dug in the fall, stored, or left in the ground over winter. They are not poisonous at any time, but, after they start to grow well the second season, the roots are apt to become tough, woody, and undesirable to use from that standpoint.

"I have room for only one plum tree in my yard. What is the best variety for me to plant?" This question is answered dozens of times a year. Don't plant one. An elm will make a better shade tree and bear just as much fruit. Plums require cross pollination and unless another tree is nearby, to supply the right kind of pollen, it is useless to plant one plum tree.

Good plum varieties are Underwood for an early variety; Superior for mid-season; and Ember for late. Kaga, Surprise, or any of the old time native varieties, will take care of the pollination problem.—By Professors W. H. Alderman, Louis Sando and A. E. Hutchins.

Plants for Sale

Strawberry Plants

Beaver, Premier, Dorsett, Gem and Wayzata Everbearing. Alfred Isaacson, Route 3, Menomonie, Wisconsin.

Strawberry and Raspberry Plants

Inspected, Heavily Mulched. Beaver, Fairfax, Dorsett, Premier. Latham Raspberry plants. $1.50 per 100; $10.00 per 1,000. Chris Laursen, Warrens, Wisconsin.

Strawberry Plants

Strawberry plants. Heavily mulched plants from a fine row. Not affected by drought. Beaver, Premier, Fairfax, Dorsett and Clark's Seedlings. John Jensen, Warrens, Wisconsin.

SHORTAGE OF BEES IN FRUIT GROWING AREAS

"STUDIES in cooperation with the Oregon Agricultural Experiment Station reveal a deficiency in bee population in numerous Oregon fruit-growing districts. The list of known honey plants includes 128 species. The concentration of nectar in certain of these plants ranges in sugar content from 5 to 77 per cent. Bees were found to be so sensitive to the sugar variation that certain fruit blooms were ignored in preference for those yielding richer nectars. Oregon maple and mustard in particular are formidable competitors. A similar variation has been found between varieties of a species of honey plant—an important factor hitherto ignored in pollination studies.—From the report of the Chief of the Federal Bureau of Entomology.

Strawberry and Raspberry Plants

Latham and St. Regis Raspberry Plants. Twice inspected. Free of Mosaic. **Strawberries:** Fairfax, Dorsett, Beaver, Senator Dunlap. Write for special prices for February. Mt. Vernon Nursery, Viola, Wisconsin.

Wayzata Everbearing Strawberry Plants

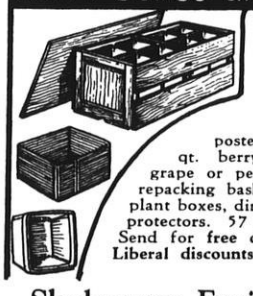
Strong well rooted plants. State certified. Offered by the originator at a big discount for cash in full with order before April 1st. Write for circular and price list.

FRED W. BRADEN
Wayzata, Minnesota

RUBBER TIRED WHEELBARROW A BIG HELP

"OUR rubber tired wheelbarrow is surely wonderful," writes Virgil Fieldhouse, nurseryman of Dodgeville. "Even this winter we are using it for wheeling heavy loads over the snow crust. In summer anyone wanting a wheelbarrow looks first for the one with rubber tires."

Berry Boxes and Crates



SAVE at Sheboygan on your box and crate needs. Check our made up or K. D. berry boxes, crates. Be posted on our American qt. berry baskets, Climax grape or peach baskets, till or repacking baskets, pansy baskets, plant boxes, dirt bands, veneer tree protectors. 57 years in business Send for free circular with prices. Liberal discounts on early orders.

Sheboygan Fruit Box Co.
2137-CT SHEBOYGAN, WISCONSIN

Horticultural News

A. F. Yeager, North Dakota

AMONG the newer varieties of potatoes the Chippewa shows greatest promise. Not only in North Dakota, but in many other sections, this variety looks to be superior.

If I could plant out only one variety of cabbage for commercial purposes it would be Penn State strain of Danish Ballhead. This is a heavy yielding desirable type of winter cabbage.

Mr. John Watt of Leonard has the following to say about the Betty Bland rose sent out as a premium a few years ago: "This is the best rose we have yet tried. It came through last winter without losing a bud; is green and healthy, as well as attractive in winter; and so far has not been hurt by the rose beetle. It is far better than the much advertised Hugonis which is inferior to Harrison's Yellow."

A South Dakota correspondent commented on my statement that cheap seeds are not worth planting. He states that a friend of his in the South raises a considerable acreage of turnips of which he sells the best roots and leaves the rest go to seed. The crop is then mowed like hay and of course the seed can be sold cheaply. Any seedsman who buys seeds of that kind and distributes it to his customers, while he may make a few dollars immediately, in the long run will build up ill will rather than good will. Selecting the poorest for seed purposes, as this man does, most certainly gives an inferior crop. The moral is: It pays to know your seedsman, or nurseryman for that matter; and if you have one who gives you good seeds, and good nursery stock, stay with him; he is a friend indeed.

When one realizes that great variations in temperature may be found under the bark of a tree on the southwest as compared to the northeast one might more readily understand how sunscalded may come about. Studies at the New York Agricultural Experiment Station showed that with an air temperature of 20 degrees F. the under bark temperature on the southwest was 40 degrees F., on the northeast 18 degrees F. When the air temperature was 43 degrees F. the southwest side of the tree was 71 degrees F. and the northeast 32 degrees F. By darkening the trunk with tar the temperature on the southwest was 92 degrees F., on the northeast 35 degrees F.; while whitewashing resulted in 43 degrees F. on the southwest and 31 degrees F. on the northeast. It is on the basis of such work that recommendations for the whitewashing of trees to prevent sunscald are sometimes made.

A new variety of tomato in the late class which should be worth a trial is Rutger's, produced by the New Jersey Agricultural Experiment Station.

According to experiments at the Oregon Agricultural College, Regal lily bulbs planted without having the roots cut away made 23 per cent longer stems the first year and 27 per cent longer stems the second year than those with the roots removed.

The Ohio Agricultural Experiment Station summarizes visible symptoms of plant food deficiency by saying that the yellowing of foliage indicates nitrogen deficiency; yellowing of the margins of leaves and the dropping of the lower foliage, phosphorous deficiency; browning of the edges, potassium deficiency.

A. J. Pratt in Gardener's Chronicle (American) states that 100 pounds of sand will absorb 25 pounds of water; 100 pounds of clay will absorb 50 pounds of water; 100 pounds of humus (organic matter) will absorb 190 pounds of water. Thus, we see why adding manure and plowing under green vegetation increases the water holding capacity of a soil.—From North and South Dakota Horticulture.

STUMPS CANNOT BE REMOVED BY MAGIC

NEW and magic methods for doing difficult things easily, appear in the press from time to time. The newest one is a method of removing stumps. It consists of the simple process of boring a hole 1½ inches in diameter and 18 inches deep into a stump and then putting in 10c worth of saltpeter. After three months the saltpeter is supposed to have filtered through the wood of the stump, when by touching a match to it the entire thing will burn up as if by magic.

This method has been described in many reliable magazines. The only trouble with it is that it doesn't work. Neither is it new, as we heard about it 15 years ago. However, if you think it will work, try it on a stump since it won't cost much and it might be interesting to observe the results. The only suggestion we have is that editors be careful about printing such material.

How to Beautify A Community

Jan Hartnett, National Youth Administration

WITH the approach of spring many Wisconsin garden clubs and civic organizations are ready to swing into an active program of landscaping, school grounds and parks beautification. By the time that summer rolls around our communities will show by their appearance just what the clubs have accomplished along these lines.

This year a number of Wisconsin cities and their garden clubs will again have an opportunity to cooperate with the National Youth Administration and its young workers in carrying out a program of landscaping and general improvement which will prove of lasting benefit to the clubs and the communities. The NYA is ready to furnish the labor, if the project is sponsored by the garden club or the city itself. Thus, with the cooperation of the cities, the clubs and the NYA, many communities may actually be turned into garden spots.

Excellent Work at Lake Geneva

Last year, for instance, one of the NYA's most unusual and outstanding community service projects in the state was the landscaping and general beautification project carried out in Lake Geneva. Under the leadership of Mrs. Harry L. Macdonald, to whom Mayor Ed Dunn delegated the active sponsorship of the project, the task of beautifying and landscaping various sections of the city was completed by a group of 30 young Walworth County workers.

For months last spring and summer these thirty boys and girls were engaged in planting shrubs, flowers and trees at school grounds, parks and athetic fields, as well as a small area in front of the railroad depot. Under the able direction of Foreman William Wahlstedt, who has had 42 years of gardening and landscaping experience, the NYA employees worked tirelessly in an effort to make the beautiful resort town of Lake Geneva even more attractive to local residents and visitors. With the wholehearted cooperation of the Lake Geneva Garden Club, the school board and the city itself, they succeeded in their task. Now, the NYA crew is carrying out a winter bird-feeding and conservation project, also sponsored by the local garden club. These youth, however, will again take up landscaping work with the first signs of spring.

How It Was Done

Last year, 15 NYA boys did the heavy work of preparing flower beds and holes for shrubs and trees, as well as planting and caring for them. A group of girls, working with Mrs. Macdonald, took care of the more artistic details of the gardening work and the care of the flower beds in front of the high school, the athletic field and the lake front park.

Plans for the Lake Geneva project were drawn up by Professor F. A. Aust, of the University of Wisconsin horticultural department. Hundreds of trees, flowers and bushes were planted at library park, the high school and grade school grounds, the community athletic field and various small parcels of land at street intersections and near the railroad depot.

The NYA crew spent weeks cleaning, raking, reseeding, rolling, watering, pruning, etc., before they actually planted the pine, elm and maple trees, in addition to hundreds of lilac, honeysuckle, barberry bushes and evergreens. As the work progressed the city began to take on a new appearance and organizations began to take greater interest in the work these youth were doing. The city of Lake Geneva loaned the tools and trucks needed for the project. Furthermore, many contributions of money, materials and supplies were also received from the school board, the city and from private individuals.

How to Obtain Information

The Lake Geneva Garden Club and the NYA have set a high mark for other organizations in the state to equal or better. Indeed, now is the time for Wisconsin communities and garden clubs to formulate plans for similar projects. Such clubs desiring to inquire concerning the cooperation and labor furnished by the NYA may secure information regarding sponsorship of the project from Mr. E. H. Gibson, NYA State Project Supervisor, Madison.

The time is ripe for garden clubs to make their plans. Spring will soon be here!

HYDRANGEA PETIOLARIS

THE Climbing Hydrangea, one of the finest and most artistic of the hardy flowering vines, is little known and rarely planted. This excellent vine from Japan is deserving of more attention and a place in our garden plantings.

Climbing like Ivy, by rootlets, it clings to walls or other support. The leaves are large, dark green and lustrous. Blossoming in late June to July, the flowers are borne in large, flat clusters—large, flaky, sterile blooms which are very showy and fragrant. A rich loamy soil with plenty of water during blooming season are the necessary requisites for good growth.—Merle Rasmussen, Oshkosh.

EDITORIALS

HARDY APRICOTS

"PROBABLY the greatest hardy fruit introduced in many years," is the statement of Dr. N. E. Hansen, Department of Horticulture, Brookings, South Dakota, in describing the new hardy apricot he has introduced.

These hardy apricots were obtained by Prof. Hansen in his 1924 trip to North Manchuria and are native to the region between Harbin, on the Siberian railway, and the Amur river. The minimum temperature is 50 below zero F. Prof. Hansen saved seed from many fruits and now has 45 seedlings. He states that the trees are beautiful in bloom, the flowers being large white with distinct pink tinge and appear early before the leaves. The fruit is yellow, somewhat smaller than the apricots of commerce, and make good preserves.

Prof. Hansen has selected a few of the best varieties which he is selling for trial at $1.00 each. They were budded on native plum stock.

SUCCESS WITH ENGLISH WALNUTS

MR. J. R. DAVIDSON, Milton, Wisconsin, writes: "I have about 35 trees which grew to from 8 to 16 inches last year from the one pound of Carpathian English walnut seed I received from the Horticultural Society last year."

This shows good germination and growth for a pound of seed which is about 50 nuts.

A VALUABLE SERVICE

ONE of the most valuable services of the U. S. Department of Agriculture is the protection for the people by the Federal Food and Drug Administration.

In a January release by the Department, a large number of cases are mentioned in which the Government fined manufacturers of fake patent medicine. Many medicines were found to contain absolutely no valuable ingredients for curing the diseases advertised in the literature.

Sometimes when we hear the cry that "our liberties are being taken from us by the Government" it is well to wonder where it comes from.

BEEKEEPERS NOTICE!

Wisconsin Beekeeping will be found in the back part of this issue on pages 172-175.

EXCELLENT NEW BOOK ON EVERGREENS

"HILL'S Book of Evergreens" is the title of a new book containing 320 pages and 360 illustrations of evergreens, 45 of them in full color.

The book is published by the D. Hill Nursery Company, Dundee, Illinois ($3.50). The book contains 50 chapters. Beginning with the history of the evergreen, it follows through with a description of varieties, planting methods, soil requirements, winter care, pruning, diseases and insects, landscaping and varieties. An excellent book for nurserymen and gardeners.

PLANT TESTING

IN this issue will be found a price list of the varieties recommended by the plant testing committee for trial in 1937. Both the Rasmussen Nursery of Oshkosh and the White Elm Nursery of Hartland have submitted bids and the materials may be obtained from either nursery by mail or by calling. Special premiums are being offered when calling at the nursery or when buying large orders.

The committee was very careful in making the selection and we believe that all these new varieties will be found desirable. We hope that all garden clubs will organize so as to try out every one of the varieties so they may be seen by the members and discussed at fall meetings.

WHY PLANTS SMOTHER

THAT plants smother if the toxic substance given off by the living cells cannot escape, is the opinion of scientists. It is the same principal as the poisoning of human beings by closing the pores of the skin. For example, we have all heard of instances in which gold leaf or something of the kind was used to cover the body of a dancer or actor resulting in death because the pores of the skin were closed.

If ice covers the soil and excludes the air from the plants, the toxins which are given off by the plant poison it, resulting in death, according to the latest theory. If, however, there is snow or mulch covering the plants, there may be sufficient air so that these substances may pass off without injury. It may also be that if a mulch prevents the soil from freezing the toxins can pass into the air in the soil.

This theory is not only interesting, but will help us in determining how to protect our plants. Covering them with marsh hay or straw in the fall and removing this before any growth starts in the spring is becoming a popular practice in regions in which there is little snowfall. Snow, of course, is the best covering because it contains air and prevents the soil from freezing.

During the past two winters there was considerable snow and plants came through in good condition. This year, however, mulching was of considerable value due to the lack of snow and the ice sheets which formed in the southern part of the state.

PEST

A bacteriologist says a germ can live a year on a dollar bill. No doubt, a germ is a conservative and economical little fellow. He doesn't wear clothes, smoke cigars, bet on horse races, play bridge, buy motor cars, join the Elks, play golf or try to keep up with the Joneses.

Wisconsin Wins National Cherry Pie Baking Contest

Miss Betty Rine, Sturgeon Bay, made the best cherry pie in the National Contest in Chicago on Washington's Birthday.

WISCONSIN GIRL MAKES BEST CHERRY PIE

MISS Betty Rine, 16 year old Sturgeon Bay girl representing Wisconsin in the National Cherry Pie Baking Contest, won the highest honor in the contest in which eight other states participated.

Miss Rine only won second place a year ago in the state contest, as a result of which she went into intensive training and worked all year preparing herself for this year's event.

The fifteen judges of the contest were practically unanimous in awarding the first prize to Betty. Other winners were, 2nd prize, Ohio; 3rd prize, New York; 4th prize, Illinois; 5th prize, Indiana. Four other states competed, being Michigan, Missouri, Minnesota and Iowa.

First prize was $100. During the four weeks before the contest Betty baked one or two cherry pies each day.

Her Prize Recipe

Filling — 3 cups cherries (packed in medium syrup); 1 cup juice; 2 tablespoons sugar; 5 level teaspoons cornstarch; small lump butter.

Drain cherries, using one cup of the juice. Mix sugar and cornstarch and a little of the juice. Heat balance of juice to boiling, then stir in the moistened sugar and cornstarch. When thickened take from fire and add the butter. Fold in the cherries. Set aside to cool while making the pastry.

Pastry: 1½ cups flour measured after sifting; ½ teaspoon salt; ⅔ cup shortening; ⅓ cup ice water.

Sift flour and salt together. Cut in shortening, and lastly add the water a little at a time until all ingredients cling together.

WISCONSIN NURSERYMEN ELECT OFFICERS

THE Wisconsin Nurserymen's Association held a very successful convention at the Republican Hotel, Milwaukee, February 11th. The following officers were re-elected:

President, Karl Junginger, Madison; Vice-president, N. A. Rasmussen, Oshkosh, Secretary-Treasurer, M. C. Hepler, Pardeeville; James Livingstone, Milwaukee, was elected as a new director. Directors continuing in office are A. T. Singer, Milwaukee, and Thomas S. Pinney, Sturgeon Bay.

President Junginger in his talk stated that the nursery business is definitely on the upturn. There is a shortage today of a great many items of nursery stock brought about by the adverse weather conditions of the past year, and the greatly increased demand for goods. Many items will be sold out before the end of the season.

About the Home and Garden

W. A. TOOLE

I AM much impressed as years go by with the importance of soil texture and fertility in connection with garden success. It appears that while a few gardeners have attained a reputation as good gardeners because of a soil naturally fertile and of good texture rather than because of any special knowledge or skill. They just couldn't help succeeding with the very minimum of care. It will certainly pay any gardener to study his soil carefully, and to get the latest information possible on the action of fertilizers. Possibly a better drained soil, or the addition of some one item of fertilizer may solve a problem of failure in the garden.

Ashes

Have you ever noticed how well many wild plants or weeds thrive in the cinder fill of a railway right of way. Cinders and coal ashes are not credited with having fertilizer value but many plants see mto thrive in them, after a first weathering process is over. Perhaps it is the soil texture or possibly they supply some obscure elements needed by plants. A good many years ago I was enjoying a back yard garden chat with Dr. S. M. Babcock and he remarked on the puzzling fact that everything in his garden seemed to grow very well though the soil consisted mostly of an 18 inch fill of coal ashes with but a small amount of heavy soil mixed in. No extra fertilizers had been added.

Pansies

To succeed with pansies do not try to grow them in heavy shade. Open sun is preferable to much shade though they do enjoy a location where they have morning sun and shade in the afternoon. Pansies do not root deeply and do best where the surface 4 or 5 inches is loose with organic matter and very rich. Frequent cultivation of the surface soil helps to grow fine pansies. Try sowing some pansy seed soon as the ground permits this spring. Transplant as soon as there are 3 or 4 leaves. These little plants will start to flower in July and will make nice large bushy plants by September when with the advent of cool weather they will be at their best. If not allowed to seed heavily you can look forward to a heavy display of flowers early next spring which will last till hot weather comes when it is best to discard them.

Violas

The newer strains of pansies reach a size under good culture that we could not attain 40 or 50 years ago, but I miss the brilliancy and variety of coloring of the older medium sized type of flowers. These seem to be grown largely in Europe but are not often seen in this country now.

Because of greater freedom of bloom and ability to stand summer heat the little pansies known generally as Violas are more used each year for bedding purposes. Violas are of two quite distinct classes, the Scotch Violas which are really selected small flowered pansies and those of the cornuta class which have as a usual thing flowers that are longer in form, with very slender wiry stems and a more perennial type of growth.

Can We Build a Moraine?

If any readers of Wisconsin Horticulture have had experience in building a "Moraine" for alpine plants I wish they would write in and tell how it is done. I would like to build one but am uncertain how to go about it despite much reading on the subject. Most descriptions are written from the standpoint of a much moister climate than we normally have here in Wisconsin.

ILLUMINATING GAS CAUSES LEAVES TO FALL

IT takes at least one part of illuminating gas (mostly ethylene) in 400 parts of air to be detectable by smell, but only one part of gas in 1,000 parts of air is sufficient to cause the leaves of tomato, hibiscus, and other plants to fall, says a recent news release from Washington State College horticulturists.

Sweet-pea seedlings are so sensitive that one part of illuminating gas in 10,000,000 parts of air stops their growth, they say. —From American Hortigraphs & Agronomic Review.

Good Rugosa Roses

AGNES Emily Carman (Rogosa x Harison's Yellow) is very hardy, growing about five feet in height, with fine large foliage, fairly rugose. It blooms in June, producing a splendid crop of fairly double flowers or the richest jacqueminot crimson, and scatteringly thereafter.

Agnes (Rugosa alba x Persian Yellow) is a very hardy, healthy grower to five feet. Its much-pitted grayish foliage is very distinctive and makes an ideal foil for its fine buds of coppery yellow which open into well-formed, sweet-scented, double flowers of pale amber. It is one of the earliest to bloom, although blooming but once, and was awarded a gold medal by the American Rose Society.

I have found Amelie Gravereaux extremely hardy. It is desirable where few roses can survive, making a strong bush with good foliage, producing its medium-sized purplish red, fragrant double flowers recurrently.

On the whole, Dr. Eckener has been disappointing, although some growers have success with it. Its color is fleeting and the plants are subject to black spot, according to many reports.

Sir Thomas Lipton (Rogusa alba x Clothilde Soupert), produced by the late Dr. van Fleet, is in my opinion the finest of all the white rugosas when well grown. It demands rich soil, ample water or heavy mulching, own-root plants and special care to develop to its full possibilities. It should be planted where it has ample room for full development, when it will make naturally a vase-shaped shrub of magnificent proportions.

Strangely enough, New Century, although of the same parentage, is not as strong growing. Yet it produces its fully double, fragrant flowers of clear flesh pink, with a light red center and creamy edges very freely.

When pruning rugosas, only weak-looking branches should be removed from the plants or, if desired, they may occasionally be sheared off at the base, when they will quickly renew themselves. From personal experience, own-root rugosas give the most permanent satisfaction.—By Chester D. Wedrick, Ontario, Canada, in Horticulture.

REGAL LILY BULBS

11 medium sized Regal Lily bulbs or 6 large bulbs, $1.00; 24 medium or 13 large, $2.00; 100 medium, $7.00; 100 large $11.00. All prepaid with planting instructions. Limberg Nursery, Plymouth, Wisconsin.

HE FLUNKED

"What did you do with my shirt?"

"I sent it to the laundry."

"Ye gods! The whole history of England was on the cuffs."

Hardy English Walnuts

The Carpathian English Walnut seeds have arrived and are available from the Society at 9 nuts for $1.00, $4.00 per pound. Trees, $1.00 each.

A POWER HOE FOR THE GARDEN

A POWER hoe complete with cultivator for $88.50, F. O. B. factory, is announced by the Gilson Bolens Manufacturing Company of Port Washington, Wisconsin. It motorizes such garden work as seeding, weeding, cultivating, furrowing and hilling, and may be used for pushing the lawn mower. It is especially adapted for the farm vegetable garden and is as indispensable as a power wash machine.

Trees — Plants — Shrubs

Specimen Evergreens

Assure the results you want from your Spring planting by patronizing Wisconsin's Greatest Nursery.

Let us help you plan your Spring Planting. Consult our Local Representative, or write to

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Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

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B. A. Robinson, Kenosha, Vice-Pres.
H. J. Rahmlow, Madison, Cor. Sec.

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M. J. Rahn, Green Bay

SPRING MEETING, WISCONSIN GLADIOLUS SOCIETY

Raulf Hotel, Oshkosh
Saturday, March 20

ALL members of the Wisconsin Gladiolus Society and all interested in growing gladiolus are invited to attend the spring meeting of the Society at the Raulf Hotel, Oshkosh, on Saturday, March 20th.

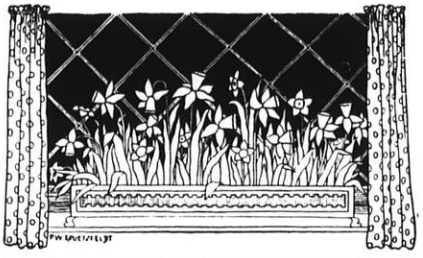
The forenoon will be devoted to a business meeting of the Board of Directors. Possible locations for the next gladiolus show will be visited and the show site decided upon.

Afternoon Program

1:30 p. m. **Motion pictures.** 1. Function of roots, leaves and stems of plants, showing how the plant manufactures its food; 2. Fertilization and cross pollination of flowers, showing artificial pollination and how seed is formed; 3. Growing plants without soil. By H. J. Rahmlow, Secretary, Wisconsin Horticultural Society.

2:15 p. m. **How to create new varieties of gladiolus.** Walter C. Krueger, Oconomowoc, President Gladiolus Society.

2:45 p. m. **Discussion of the best gladiolus varieties and their characteristics.,** A Symposium. Ten minutes allotted to each speaker on a color class. 1. Best whites, cream, or buff variety, Chester Harrison, Waldo; 2. The best yellows or orange, Harold Janes, Whitewater; 3. The best reds, rose-reds and rose pinks, Walter Miller, Sun Prairie; 4. Lavenders, purples and violets, A. S. Haugen, Stoughton; 5. The best pinks, Arthur Strobel, Hartford; 6. Smoky varieties and



general culture, B. A. Robinson, Kenosha.

FAVORITE GLADS

Karl J. Timm, Markesan

IT WAS very interesting to read in the January issue of Wisconsin Horticulture about the "Favorite Gladiolus Varieties."

In the Symposium, Picardy was given first place as a pink; not that this great flower isn't worthy of its place, but does Picardy really belong in the pink class? I think it belongs in the salmon pink class. A pink color was asked for and there are but a very few true pink glads and I agree with Mr. Heberling of Easton, Illinois, in his choice as to pink.—New Era.

In the red class I have the same suggestion namely what shade of red, light, medium or dark, and of what cast—on the yellow or blue cast? These are all essential to my estimation in making a choice as to color in glads, and am going to give the readers of Horticulture my choice as to colors asked for, which are as follows:

White: 1st, Star of Bethlehem; 2nd, Jonkeer van Tets; 3rd, Maid of Orleans.

Yellow: 1st, Golden Cup; 2nd, Golden Chimes; 3rd, Golden Dream.

Pink: 1st, New Era; 2nd, D. A. Hay; 3rd, Lady Eaton.

Red: 1st, Pirate; 2nd, Bill Sowden; 3rd, Wuertembergia.

Lavender: 1st, Minuet; 2nd, Dr. Moody; 3rd, Libelle.

Smoky: 1st, Bagdad; 2nd, Mother Machree; 3rd, Marmora.

Any Other Color: 1st, Evelyn Stinton; 2nd, Morongo; 3rd, Champlain.

Best Glad: I couldn't and wouldn't attempt to name this. Soil, location and growing conditions are things that have to be taken in consideration and would be pleased to hear from other readers through the Horticulture in reference to the above suggestions and their personal opinion.

LIKES SYMPOSIUM

IF I HAD to limit myself to three glads of each color class I would be pleased to grow the favorites listed in the Wisconsin Horticulture of January issue. I am a great believer in that a symposium correctly discloses the average taste in color and the reliability of performance.—Walter Krueger, Oconomowoc.

GLADIOLUS BULBS

Write for new price list of all leading varieties including 1937 introductions. Albert S. Haugen, Route 3, Stoughton, Wisconsin.

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Our list offers double value on early orders. Standard varieties at lowest prices.
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7014 S. E. 20th Ave., Portland Ore.

THE RED VARIETIES OF GLADIOLUS

Dr. Geo. H. Scheer, Sheboygan

I REMEMBER reading some years ago that the red varieties of gladiolus were about finished so far as any further improvement was concerned. Yet, when I tried to settle on the best red variety, the realization dawned upon me that we are still a long way from a red that could be considered as **the red.**

Take Commander Koehl, probably considered by most as the No. 1 red. Its petals are too narrow for their length and there should be a few more out. Stuttgardia has gorgeous color, but the spike is rather short and it opens too few—only four or five. The same criticism applies to Bill Sowden. Lucifer and Red Lory have enough out to satisfy anyone—but my experience has been that both are decidedly lacking in lasting qualities—the entire spike opens in a couple of days and it goes just as fast.

Of the older reds several are rather outstanding for both color and substance, as Sultan and Tosca. Of the newer kinds the most promising are: Allemannia, a lighter Koehl with possibly better florets; 9th Symphony, a rather light scarlet often with 9 to 10 open, but it struck me as rather light in substance. Kassel and Rotenberg are both fine in color and the former has mammoth florets, but again only three to five open. The same applies to Flaming Meteor, which with more open, would rank pretty close to the top. Beacon has not bloomed for me as yet; Toa and Pititi from bulblets were not impressive. They may do better from larger stock.

I have tried to pick varieties that have performed quite uniformly in the past—some are gorgeous one year and flop the next, and I don't care very much for the tempermental ones—give me glads that can "take it."

MINNESOTA SYMPOSIUM

THE results of the Minnesota Gladiolus Society Symposium was given as follows: **Exhibition Types:** Picardy, Minuet, Star of Bethlehem, Commander Koehl, Bagdad, Smiling Maestro, Maid of Orleans, Blue Admiral, Red Admiral and Mildred Louise. **Decorative Class:** Wasaga, King Arthur, Redwood Beauty, Debonair, Golden Dream and Betty Coed. — From The Minnesota Horticulturist.

BUDDLEIA HARTWEGI

THERE has been much interest in the Butterflybush or Summer Lilac with new color introductions and hardier stock. An outstanding plant introduction for 1937 is the **Buddleia Hartwegi**—undoubtedly one of the finest of summer flowering shrubs. As a summer cut flower plant and as an ornamental shrub it is unsurpassed in beauty and usefulness.

The large bright lavender panicles have remarkable substance and harmonize in arrangement with other summer flowers. The blossoms do not sunburn as do some other Buddleia varieties, and the tip flowers open before the basal flowers have faded. The individual flowers are closely spaced on the panicles, giving a compact and pleasing appearance. The foliage is very heavy and is rich dark green. The plants are hardier than many of the summer flowering Butterflybushes, having lived through the winter of 1935-36 without protection and with only slight loss. —Merle Rasmussen, Oshkosh.

MINIATURE TRITOMAS

THESE new hybrids are an entirely distinct specie from the common Red Hot Poker of old gardens. Beautiful, attractive flowers smaller in size than the older type, decidedly more graceful and dainty, and with a much greater range of color and shadings. Clear red, pink, yellow and salmon and other soft shades predominate; also glorious combinations of these colors. Tritomas given a sunny location, well fertilized soil and plenty of water will give a grand display from July on through summer and are particularly effective for garden display. In some sections of Wisconsin the Tritoma has proven hardy and may be left in the garden the year round, but in other sections they are best taken up in the fall and stored as are Dahlias and other lovely flowering garden bulbs.—Merle Rasmussen, Oshkosh.

THE FLOWER GROWER CHANGES EDITORS

MADISON Cooper, for twenty-five years editor and founder of the **Flower Grower,** has retired, and Leonard Barron, garden editor of **The American Home,** has taken his place.

Trees, Shrubs and Perennials for the home grounds and nursery. Moderate prices. No extra charge for baling. Write American Forestry Company, Pembine, Wisconsin.

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TUBEROUS ROOTED BEGONIAS

THIS is the month in which to buy the bulbs of tuberous rooted begonias. The bulbs are on the market early in the season because they are usually started indoors in pots to be set out in the garden as soon as the weather is warm.

The beautiful flowers of the tuberous rooted begonias with their heavy wax-like petals and pure colors make them probably the most beautiful garden flowers for shady spots we have.

They require a rich soil with plenty of leaf mold, plenty of moisture and shade. Do not plant them where they will receive the direct sunlight at any time during the day in the hot weather of mid-summer. They will do well, however, in the coolest part of the garden, under a tree or shrub, or on the north side of a house where there is shade all day long and will bloom from spring until frost in the fall. During the coolest parts of the season, of course, they will be at their best.

Plant the tubers in a box or pot of sandy soil, not over one-half inch deep. The bulbs are concave on the top side and rounding at the bottom. For the first week, or until the leaves appear they may be kept in the basement if the temperature is about 50 to 65 degrees. When the leaves appear place near a window.

Last year we had plants producing double flowers almost six inches across, looking very much like roses. During the hot spell of last summer we had to water them often. The plants did not look so very thrifty at this time. However, when rains and cooler weather of fall came they bloomed profusely.

Cladrastis tinctoria as an ornamental flowering tree has hardly an equal when in full flower.

TRY THESE PLANTS IN 1937

A LIST of ornamentals for testing in Wisconsin as selected by the Plant Testing Committee was published in the January issue of Wisconsin Horticulture.

There are a number of very desirable varieties on this list. All of them are varieties which are reliably hardy and enough is known about them so that the committee felt quite sure they would do well in this state.

There is always a thrill in testing something new. The varieties will be discussed by members at coming meetings. We suggest every garden club organize so as to have some member of the club try each of the varieties listed.

Fortunately this year stock will be available from two sources—the Rasmussen Nursery at Oshkosh and the White Elm Nursery at Hartland. Premiums will be offered to those who call at the nursery for stock consisting of one plant of the new Korean Cherry—Prunus Japonica which we saw doing very well at the Minnesota Fruit Breeding Farm, Excelsior, last fall. Prof. Alderman told us it had produced cherries almost equal to the sour cherries grown in this state. The plant is a seedling, however, and fruit will vary considerably in quality. Therefore further selection should be made of the best quality fruit. The shrub grows from 3-4 feet in height with white flowers and red fruit.

On orders of $5.00 or over received before April 1st a premium of one Malus Aldenheimensis will be given.

Plant Testing Varieties

PRICE LIST

Malus Sargenti, 3-4',	$1.25	Tritoma Early Flowering, Multicolored Hybrids, .35, 3 for	$1.00
Lonicera Syringantha, 2-3',	.65	Aster Frikarti,	.50
Viburnum Sieboldi, 2-3',	.65	Aster Mme. Carroy,	.25
Vitex Macrophylla, 18-24",	.65	Aster Luteus Hybrid,	.30
Elsholtzia Stauntonii, 2-3',	.75	Aster Amellus King George,	.35
Hydrangea Petiolaris, 12-18",	1.25	Dianthus Rose Dawn,	.40
Rose Dr. Eckener, 2 yr. No. 1	.60	Aquilegia Crimson Star,	.35
Rose Springtime, 2 yr. No. 1	1.00	Iris Dichotoma,	.30
Lilium Cernuum, .35, 3 or	$1	Chrysanthemum White Swan,	.25
Tritoma Miniature Hybrids, .35, 3 for	$1.00	Sidalcea Rose Queen,	.25

Tritoma Perrys Hybrids, .35, 3 for $1.00

For every order of $1.00 or over received before April first we will include as a premium one Prunus Japonica 12-18". This is a new shrub introduced by the Minnesota Experiment Station and described as growing 3-4' in height with white flowers and red fruit almost as good in quality as cherries.

On all orders of $5.00 or over received before April first we offer as a premium one Malus Aldenheimensis 2-3'. This shrub has white flowers and attractive small red fruit.

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STATE GARDEN CLUB FEDERATION NEWS

Mrs. Chester Thomas, President
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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

NATIONAL COUNCIL MEETING, CLEVELAND, OHIO, MAY 18-21

THE annual meeting of the National Council of State Garden Clubs, Inc., will be held in Cleveland, Ohio, May 18-21. The registration fee will be $15 for the four days. Registrations must be in by the 10th of May. After that date an extra $5 will be charged those wishing to attend.

The number who may attend will be limited to 350. Any member of the Wisconsin Garden Club Federation who wishes to attend should apply for a registration blank to the president of the Federation, Mrs. Chester Thomas, R. 2, Thiensville.

The program, the tours to beauty spots and gardens and the associations at these annual conventions are of such great value that we hope a large delegation from Wisconsin will attend.

WANTED! FLOWER SHOW DATES

WE have had requests for dates of flower shows even this early in the season. We suggest that all garden clubs set the dates for their shows as early as possible and then send the information to the Wisconsin Horticultural Society for publication in the magazine.

A list of all shows to be held during May, June and July should be published in the May issue. Copy must be sent in by April 15th.

COMING EVENTS

April 10-18. National Flower and Garden Show, Milwaukee Auditorium.

April 3-11. Chicago. Spring Flower Show of the Garden Club of Illinois at the Navy Pier.

March 14-21. Detroit. Michigan Flower and Garden Show. Auspices Michigan Horticultural Society in Convention Hall.

March 28-April 4. Natchez, Mississippi. Annual Pilgrimage to historic gardens and homes. By Natchez Garden Club.

March 6-7. Houston, Texas. Second Annual Azalea Trail by the River Oaks Garden Club.

GARDEN CLUB DAY—NATIONAL FLOWER AND GARDEN SHOW

Tuesday, April 13—Milwaukee Auditorium

TUESDAY, April 13, has been set aside at the National Flower and Garden Show as Garden Club Day.

Three speakers are expected to appear on the program at 10 a. m. They are Mr. Max Schling of New York, Inez Williams of Columbus, Ohio, and Elizabeth Bertermann of Indianapolis, Indiana.

These florists, considered outstanding in the art of flower arrangement, are expected to judge the garden club exhibits on Monday, April 12. They will speak on flower arrangement and comment on the classes they judged, giving constructive suggestions.

Features for Garden Club Day

The show committee has designated the following flowers to be featured on Tuesday, April 13, in honor of Garden Club Day.

Lilacs from Holland.

Fragrant Marigolds — Burpee's Collarette Crown of Gold.

Tom Thumb Rose.

New Thornless Rose.

All garden club members are invited to visit the show on Tuesday, April 13, and take in this program beginning at 10 a. m. There will be no extra charge for the program.

Because the admission price will be 75c after April 1st, garden club members will wish to obtain books of tickets which may be sold at 45c per ticket. Write The National Flower and Garden Show, Hotel Schroeder, Milwaukee, Wisconsin.

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TEACHERS' GARDEN CLUB SPONSORS BOOK EXCHANGE

THE Waukesha County Teachers' Garden Club has been organized for two years and is sponsoring junior garden club work in the rural schools of Waukesha County. Each teacher member of the club must act as a Councilor of a Junior Club in her school.

One of the major projects of the club is to establish a book exchange or traveling library for the use of the junior clubs. Various organizations in the county have contributed to a fund for this library.

The organization will be glad to receive any of last year's issues of suitable garden magazines. Books will also be welcome.

We urge all garden clubs to send whatever gardening material they can spare to Miss Margaret Cawley, President of the Waukesha County Teachers' Garden Club, Wauwatosa, R. 7, Box 141.

WISCONSIN SCHOOL CHILDREN'S FOREST

TREE planting in the Wisconsin School Children's Forest of 1200 acres in the Nicolet National Forest will be continued by Wisconsin school children this spring. Last year 104,000 trees were planted. Wisconsin school children will be asked by their teachers and superintendents to contribute pennies to buy the trees. Each penny will buy four pine seedlings, and 1,000 trees will plant an acre. The project will remain open until Arbor Day, 1940. Each school contributing will receive a certificate showing the number of trees planted and a map showing where the forest is located.

This fine project was originated by Mrs. Frank Quimby, Racine, chairman of the Wisconsin Garden Club Federation Junior Committee.

Superior Garden Club Marks the Brule-St. Croix Portage

An interesting and valuable piece of work was done by the Garden Club of Superior during the past year in the marking of the Brule, St. Croix Portage. The project was entered for consideration for the Kellogg Medal award to be given by the National Council of Garden Club Federations.

The following is a summary of the work done, as submitted to the National Council by the Superior Garden Club.

BRULE-St. Croix Portage, discovered 1680, by Greysolon DuLhut. Has been retraced, brushed out for the entire length of one and three-quarters miles, and opened for travel. Boulders weighing from three to four tons have been placed at each end.

Bronze tablets 12″ x 18″ bearing historical data have been attached to boulders.

Nine smaller boulders have been placed at intervals along the trail, each carrying a bronze name plate using the names of famous men who traveled over the Portage, Greysolon DuLhut, 1680; Pierre LeSueur, 1693; Jonathan Carver, 1768; Michel Curot, 1803; Lewis Cass, 1782; Jean Baptiste Cadotte, 1819; Henry R. Schoolcraft, 1820; George R. Stuntz, 1853; and Nicholas, Jr., and Joseph Lucius, 1886.

One hundred trees have been planted along the trail.

Work of marking was completed September 17, 1936.

All work was done under the supervision of the Civic and Landscape Committee of the Garden Club. They also secured all funds necessary to carry on the work.

The pack rest which stood about midway along the trail and near one of the great springs, has been rebuilt by Mr. Joseph Lucius, one of the last men to use the portage. The original was burned a few years ago. Mr. Lucius rebuilt this one, a replica of the original, September 17th, 1936, at the request of the Garden Club Committee.

HELPS FOR FLOWER SHOWS

COPIES of the bulletin entitled "Wisconsin Flower Shows, Their Management and Schedules," are still available for the use of Wisconsin Garden Clubs in helping them plan their spring or fall shows.

The bulletin contains suggestions for organization, committees, the new plan of judging and schedules. The price is 15c per copy, or two for 25c. The money is replaced in the flower show fund of the Federation, from which fund the amount to pay for the bulletin was borrowed. Write the Horticultural Society for the bulletin.

THE UNIVERSITY ARBORETUM

A LECTURE on the University Arboretum illustrated with colored slides was given by Prof. G. Wm. Longenecker of the Horticulture Department, Wisconsin College of Agriculture, at the Nurserymen's convention in February. The pictures show many views and also the plans for the extension of the Arboretum. It may be possible for Mr. Longenecker to accept a few engagements to speak before organizations on the Arboretum, on request.

The National Garden and Flower Show

Milwaukee Auditorium, April 10-18

I KNOW that all garden club members will be glad to hear that plans for the National Garden and Flower Show are progressing wonderfully. Reports from all committees indicate that nearly every class is filled and we are beginning to fear it will be necessary to build an addition to the Auditorium.

The amateur section that is being handled by the Wisconsin Garden Club Federation is rapidly filling. We are so glad that a number of the clubs outside of Milwaukee County have entered. We have reservations from Oconomowoc, both LaBelle and Sum-Mer-Del, from the Countryside Garden Cub at Mequon, and the Racine Garden Club for gardens and other classes also. Besides these, Elm Grove, Menomonee Falls, Elkhorn, Baraboo and Superior have already entered in several different classes. There are still two spaces open, and space in classes 8, 10, 11, 12, 13 and 16.

We are so thrilled with the prospect of this show here in Milwaukee where we really know what it is to be, that all the Milwaukee County clubs have made reservations for a number of entries. We know here that this is the kind of show that comes to a city once in a life time. The Wauwatosa Garden Club took one hundred books of tickets and all the clubs are taking a large number because they know that everyone in Milwaukee will want to attend several times and everyone in the state, at least once. We are sure that anyone who misses this show will always regret it.

The judges for the amateur section are being chosen from Nationally known people who will be in town for the show. We are delighted to have these people since it will be an opportunity that our garden clubs have never had.

Monday, April 12, is to be Garden Club day at the show. On that day there will be special entertainment and speakers for garden club members. We hope every out-of-town member of a club will register at a desk provided for that purpose as soon as she enters the Auditorium, so that we may know who our guests are and be able to help them enjoy their stay in Milwaukee. This seems such a fine opportunity to become better acquainted. We hope to have a great many guests with us every day of the show and the local clubs will be anxious to help everyone in any way possible.—Edith Hibbard, Chm. Amateur Section.

Garden Club Officers for 1937

DISTRICT OFFICERS

Fox River Valley District

Chairman—Miss Edna Robertson, 515 Broad St., Menasha
Vice-Chm.—Mrs. H. A. Foeller, 1036 So. Webster St., Green Bay
Sec'y-Treas.—Miss Merle Rasmussen, Oshkosh, R. 4

Madison District

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Vice-Chm.—Mrs. M. H. Willing, 2121 Keyes Ave., Madison
Sec'y-Treas.—Mrs. H. S. Bostock, Madison, R. 7

Milwaukee County District

Chairman—Mrs. H. E. Freudenberg, 1507 N. 68th St., Wauwautosa
Vice-Chm.—Mrs. W. F. Roecker, 3319 N. 14th St., Milwaukee
Sec'y-Treas.—Mrs. Roy H. Sewell, 957 No. 70th St., Wauwautosa

South Central District

Chairman—Mrs. H. J. Torrence, 111 Highland St., Whitewater
1st Vice-Chm. — Mrs. H. C. Smith, Lake Geneva
2nd Vice-Chm.—Mrs. W. Strohbusch, 1109 Wilson St., Jefferson
Sec'y-Treas.—Miss Nan Larson, 111 So. Prairie, Whitewater

GARDEN CLUB OFFICERS

Art Institute Garden Club
(Milwaukee)

President—Miss Alma Hoffman, 1002 N. 21st St.
Vice-Pres.—Miss Emma Schipper, 510 E. Homer St.
Rec. Sec'y—Mrs. William Krahn, 4811 W. Washington Blvd.
Cor. Sec'y — Mrs. Arthur Poenisch, 3056 N. Cramer St.
Treasurer—Mrs. Arthur Wenz, Sta. C, R. 6, Box 202
Meeting—3rd Friday of month. Visitors by permission.

Baraboo Garden Club

President—Mrs. R. E. Kartack, 115-10th Avenue
Vice-Pres.—Mrs. Ione H. Scott, 107-12th Ave.
Secretary—Miss Della A. Payne, 522-2nd St.
Treasurer—Mrs. J. T. Walker, 219-7th St.
Meeting—2nd Tuesday of month, 2:30 p. m.

Bay Shore Garden Club
(Milwaukee)

President—Earl Gardner, 1712 E. Marion St.
Sec'y-Treas.—Mrs. Barney Wilke, 4923 N. Oakland Ave.

Blue Beech Garden Club
(Milwaukee)

President—Mrs. H. H. Thomas, Sta. C, R. 6
Secretary—Mrs. John LeFeber, 3900 N. Lake Drive

Blue Mound Garden Club
(Wauwatosa)

President—Mrs. A. M. Nehs, 6722 W. Wisconsin Ave.
Secretary—Mrs. C. A. Nagel, 7038 Cedar St.
Treasurer—Mrs. A. C. Grant, 6611 W. Wisconsin Ave.
Meeting—2nd Tuesday of month, 1:30 p. m. at homes of members.

Brandon Garden Club

President—Mrs. J. G. Strodthoff
Vice-Pres.—Mrs. Harry Sims
Secretary—Mrs. Ward Williams
Treasurer—Mrs. C. F. Tank
Meeting—3rd Friday of month

Cambridge and Lake Ripley Garden Club
(Cambridge)
President—Mrs. Frank Potter
Vice-Pres.—Mrs. Ben Thronson
Sec'y-Treas.—Mrs. Paul Westphal
Meeting—3rd Tuesday of month in evening at homes of members

Ceresco Garden Club
(Ripon)
President—Mrs. Bertha Kraemer, 45 Union St.
Vice-Pres.—Mrs. Ed Sommers, 416 Washington St.
Sec'y-Treas.—Mrs. F. W. Schlueter, R. R. 2
Meeting—3rd Monday of month at 7:30 p. m. in homes of members

Chippewa Falls Garden Club
President—Theo. A. Willenbockel, 811 Dover St.
Vice-Pres.—Adeline Lee, R. R. 1
Sec'y-Treas. — Minnie Enger, P. O. Box 237
Meeting—4th Monday of month at Junior High School Bldg.

Clintonville Garden Club
President—Mrs. Kenneth J. Darling
Vice-Pres.—Mrs. Carl Folkman
Sec'y-Treas.—Mrs. John Buehrens
Meeting—2nd Monday of month, 8 p. m. in High School

Countryside Garden Club
(Thiensville)
President—Mrs. James Martin, Route 2
Vice-Pres.—Mrs. Elmer Niss, Route 1
Sec'y-Treas. — Mrs. Charles Leidgen, Route 2
Meeting—1st Monday of month

Dopp Community Garden Club
(Wild Rose)
President—Mrs. James Dopp
Vice-Pres.—Mrs. Dan Davies
Sec'y-Treas.—Mrs. A. G. Holt
Meeting—Friday nearest 20th of each month

Elkhorn Garden Club
President—Mrs. Chas. Jahr, 312 No. Broad St.
Vice-Pres.—Mrs. Thos. Keys, 606 N. Wisconsin St.
Sec'y-Treas. — Mrs. Harry F. Howe, 302 W. Walworth St.
Meeting—1st Friday of month in evening.

Elm Grove Garden Club
President—Mrs. James Johnson, 1532 Alice St., Wauwatosa
Vice-Pres. — Mrs. George Schroeder, Elm Grove
Sec'y-Treas. — Arthur J. Kron, Elm Grove
Meeting—1st Monday of month at 8 p. m. in Leland School

Fond du Lac Community Garden Club
President—Mrs. W. I. Cole, 203 Hoyt St.
1st Vice-Pres.—Miss Lucinda M. Baker, 9 Seventh St.
Sec'y-Treas.—Mrs. J. O. Goranson, 41 E. 9th St.
Meeting—3rd Friday of month at 2:30 p. m. Visitors welcome.

Fort Atkinson Garden Club
President—Mrs. Chas. Vosburg, Madison, Ave., R. F. D. 1
Vice-Pres. — Mrs. A. J. Koenig, 80 Jackson St.
Secretary—Mrs. T. S. Ward, Route 1
Treasurer—Mrs. W. Leonard, Route 1

Fox Point Garden Club
President—Clarence James, 1849 E. Fox Lane
Vice-Pres.—Mrs. Arthur Wenz, 7134 N. Barnett Lane
Sec'y-Treas.—Mrs. Walter R. Fleischer, 7242 N. Beach Dr.
Meeting—3rd Friday of month

Green Bay Garden Club
President—Mrs. H. A. Foeller, 1036 So. Webster St.
Vice-Pres.—Miss Emmeline Andruskevicz, 1803 Willow St.
Secretary—Miss Germaine Donovan, 874 Kellogg St.
Treasurer—Mrs. R. M. Burdon, 140 N. Oakland Ave.
Meeting—Alternate Mondays, 7:30 p. m. in Y. W. C. A.

Green Tree Garden Club
(Milwaukee)
President—Mrs. Harold Seaman, R. 9, Box 629
Vice-Pres.—Mrs. Edmund Shea, Sta. C, R. 6
Rec. Sec'y—Mrs. A. J. Kieckhefer, Sta. F, R. 9, Box 819
Cor. Sec'y—Mrs. Joseph Patton, Sta. F, R. 9, Box 820
Treasurer—Mrs. Harry Swigart, R. 9, Box 830A

Hawthorne Garden Club
President—Mrs. J. M. Gaines, 5503 W. Martin Drive, Milwaukee
Sec'y-Treas.—Mrs. A. W. Sperber, R. 1, Box 31, Hales Corners

Hillcrest Garden Club
(West Allis)
President—Mrs. R. C. Schlisser, 2148 No. 74th St.
Vice-Pres.—Mrs. R. Larson, 2043 S. 86th St.
Secretary—Mrs. L. P. C. Smith, 2019 So. 82nd St.
Treasurer—Mrs. W. Bruhn, R. R. 5, Box 56
Meeting — 3rd Monday of month at homes of members

Home Garden Club
(Ripon)
President—Mrs. Allmer J. Hammen, R. 1, Box 1
Vice-Pres.—Mrs. R. C. Hill, 219 Ransom St.
Secretary—Mrs. O. A. Luck, 222 Tygert St.
Treasurer—Mrs. G. W. Lambert, 203 State St.
Meeting—3rd Monday of month, 8 p. m. in winter; 2:30 p. m. in summer at homes of members

Jefferson Garden Club
President—Frederick Bullwinkel, 1111 High St.
Sec'y-Treas.—Mrs. A. H. Moen
Meeting—2nd Tuesday of month; 7:30 p. m. in Library

Juneau Heights Garden Club
President—Adolph H. Chromasta, 3714 Frederica Pl., Milwaukee
Vice-Pres.—August Schlueter, 1207 S. 36th St., Milwaukee
Secretary — Gordon Chromasta, 6324 W. Oconto Pl., West Allis
Treasurer—Chas. Sternberger, 2180 S. Livingstone Terrace, West Allis
Meeting—3rd Monday of month at homes of members

Kenosha County Garden Club
President—Fred Becker, 1913-62nd St.
Vice-Pres.—Mrs. H. Schaeffer, 4312 Taft Rd.
Secretary—Claudia Jordan, 3811-10th Ave.
Act. Treas. — Mrs. Florence Strangberg, 4526-19th Ave.
Meeting—3rd Tuesday of month in County Court House

La Belle Garden Club
(Oconomowoc)
President—Mrs. Chas. Schuele, Woodland Lane
Vice-Pres.—Mrs. N. W. Evans, 400 Oakwood Ave.
Secretary — Mrs. Victor Nelson, 152 Woodland Lane
Treasurer—Mrs. A. G. Straube, 336-2nd St.
Meeting date—First Friday of month

La Crosse Garden Club
President—Mrs. D. O. Coate, 410 S. 14th St.
Vice-Pres.—Mrs. Horace Holley, 230 S. 8th St.
Sec'y-Treas.—G. C. Ellis, 234 S. 20th St.

Ledgeview Garden Club
(Fond du Lac)
President—Mrs. Thomas Mullen, 311 E. Johnson St.
Vice-Pres.—Mrs. J. C. Yockey, 336 Rose Ave.
Sec'y-Treas. — Mrs. James E. Harbridge, 318 Ledgeview Ave.
Meeting—2nd Tuesday of month

Lodi Garden Club
President—Mrs. Emma Gluth
Vice-Pres.—Mrs. Mayme Demynck
Sec'y-Treas. — Mrs. Tressa Habermann

Madison Garden Club
President—Dr. H. S. Bostock, 15 W. Main St.
Vice-Pres.—J. G. Wynn, 1142 Spaight St.
Secretary—Mrs. W. D. Mack, 1145 Elizabeth St.
Treasurer — F. E. Ballard, Badger Park
Meeting — 1st Tuesday evening of month. Visitors welcome.

Menasha Garden Club
President—Miss Edna Robertson, 515 Broad St.
Vice-Pres. — Miss Celia Boyce, 563 Tayco St.
Secretary—Miss Bernice Corry, 600 First St.
Treasurer—Miss Henrietta Hall, Route 1
Meeting—Last Tuesday of month at 7:30 p. m. at homes of members

Menomonee Falls Garden Club
President—Mrs. Gerald Otto
Vice-Pres.—Mrs. A. J. Schloemer
Secretary—Mrs. J. C. Dexheimer, 209 W. Third St.
Treasurer — John Schuldt, Colgate, Wis.

Meeting—4th Monday; no meetings Nov. and Dec.

Milwaukee County Horticultural Society
President—Mrs. Irving Lorentz, 1006 E. Manitoba St.
Vice-Pres.—Harry Parsons, R. 4, Box 754, West Allis
Sec'y-Treas.—Mrs. Erich Raisch, 3473 No. Frederick Ave.
Meeting—4th Tuesday of month except July and August, 7:30 p. m. Trustee's Room of Public Museum

Milwaukee Post Office Employees Garden Club
President—Wm. P. Arbuckle, 4053 N. Prospect Ave.
Sec'y-Treas. — Henry Konrad, 7917 Stickney Ave., Wauwatosa

North Prairie Garden Club
President — Mrs. K. Traeder, New Lisbon
Vice-Pres.—Mrs. L. Heintz
Sec'y-Treas.—Miss Letha J. Sherman
Meeting—Last Wednesday of month. Visitors welcome

Oakfield Garden Club
President—Mrs. E. J. Wells
Vice-Pres.—H. J. Sonn
Sec'y-Treas.—Mrs. Frank E. Willard
Meeting — 2nd Friday of month in evening

Omro Garden Club
President—Mrs. H. B. Winslow
Vice-Pres.—Mrs. Madge S. Ford
Sec'y-Treas.—Miss Grace Carter
Meeting—3rd Tuesday of month at 2:30 p. m. at homes of members

Oshkosh Garden Club
President — Mrs. Howard Rowland, 427 Main St.
1st Vice-Pres.—Mrs. Henry Kimberly, 421 Washington Blvd.
Cor. Sec'y—Mrs. Robert Harmon, 103 Elmwood Ave.
Rec. Sec'y—Mrs. Paul Bell, 231 Algoma Blvd.
Treasurer—Mrs. Homer Pipkorn, 410 Merritt St.

Oshkosh Horticultural Society
President — W. E. Mouck, 94½ E. Irving St.
Vice-Pres.—Otto Ruelke, Route 4
Sec'y-Treas. — Florence Winchester, Route 4
Meetings—1st Monday of month at Oshkosh Public Museum

Pewaukee Garden Club
President—Mrs. A. Richter
Vice-Pres.—Mrs. Geo. Duckgeischel
Sec'y-Treas.—Mrs. Lloyd Bartlett

Plymouth Garden Club
President—Henry Winn, 415 Fremont St.
Vice-Pres. — Mrs. Frank Robb, 407 Western Ave.
Sec'y-Treas.—Mrs. Louis Rohde, 350 Stafford St.
Meeting—2nd Wednesday of month; 4:30 p. m. in Public Library; Oct. to May; June-Sept. in homes of members.

Port Washington Garden Club
President — Miss Anna Ubbink, 214 Pier St.
Vice-Pres.—Mrs. Arnold Barr, 762 Milwaukee St.
Sec'y-Treas.—Mrs. John N. Bittner, R. R. 1
Meetings—2nd Wednesday of month. No meetings Nov., Dec., Jan., and Feb.

Racine Garden Club
President—Mrs. H. J. Anderson, 317 West Blvd.
Vice-Pres.—Mrs. F. H. Patrick, 1545 West Blvd.
Secretary—Mrs. J. L. Hancock, 1419½ W. 6th St.
Treasurer — Miss Gertrude Peters, 1503 Thurston Ave.
Meeting — 2nd Monday evening of month

Ripon Garden Club
President—Mrs. Mary Hargrave, c/o Inverness
Vice-Pres.—Mrs. Mildred Pedrick, 523 Watson St.
Secretary — Mrs. Edith Searle, 540 Ransom St.
Treasurer—Mrs. Viola Kurth, 726 Watson St.
Meeting—2nd Monday of month, 7:45 p. m. during winter; 2:30 p. m. during summer months at homes of members.

Sheboygan Garden Club
President—Rev. A. P. Curtiss, 630 Ontario Ave.
1st Vice-Pres.—Fred Hagedorn, 1127 Alabama Ave.
Secretary—Mrs. Wm. Leucke, 2547 Calumet Drive
Treasurer—Francis Schmidmeyer, 2220 N. 11th St.
Meetings — Summer: 2nd and 4th Thursdays. Winter: 2nd Thursday

Sum-Mer-Del Garden Club
President—Mrs. Richard Philipp, R. 1, Waukesha
Vice-Pres.—Mrs. Chas. B. Jackson, Nashotah
Secretary—Mrs. A. W. Notbohm, Delafield
Treasurer—Mrs. M. O. Gruber, Delafield

Superior Garden Club
President—Mrs. H. A. Juneau, 810 E. 4th St.
Vice-Pres.—Mrs. F. E. Walde, 806 E. 4th St.
Secretary—Mrs. O. L. Loop, 1515 College Court
Treasurer—Mrs. John Cadigan, 2008 Hughitt Ave.
Meeting—1st Thursday of month at 10 a. m.

Town and Country Garden Club (Lake Geneva)
President—Miss Betty Blackwood
1st Vice-Pres.—Mrs. Boyd Dickinson
Rec. Sec'y—Mrs. George Allen
Cor. Sec'y—Mrs. Ethel Brann
Treasurer—Mrs. Arthur Lawrie
Meeting—2nd Monday of month at 7:30 p. m. in Assembly Hall of Public Library

Violet Garden Club (North Prairie)
President—Mrs. Wesley Arenz
Vice-Pres.—Mrs. Kernol Olson
Sec'y-Treas.—Mrs. Ella Finney

Washington Island Garden Club
President—Mrs. Arthur Wickman
Vice-Pres.—Mrs. Earl Richter
Secretary—Mrs. Will Wickman
Treasurer—Mrs. Julia Petersen

Waupaca Garden Club
President—Mrs. Sam Salan, Washington St.
Vice-Pres.—Mrs. Chas Braman, Box 147
Rec. Sec'y—Mrs. Allan Scott
Cor. Sec'y—Mrs. John Hart, Shearer St.
Treasurer—Mrs. Fred Fisher, 209 E. Lake St.
Meetings—2nd Monday in month, 3 p. m. at Public Library

Wausau Garden Club
President—Mrs. Charles L. Barthels, 115 Eau Claire Blvd.
Vice-Pres.—Mrs. Peter Portman, Forest Park
Sec'y-Treas.—Mrs. William H. Nablo, Forest Park
Meetings—At homes of members

Wauwatosa Garden Club
President—Richard Ferge, 8036 Milwaukee Ave.
Vice-Pres.—Mrs. E. C. Haasch, Box 124, Elm Grove
Sec'y-Treas.—Ernest Lefeber, 7500 Hillcrest Drive
Meeting—3rd Tuesday of month in Room 5 of the old High School

West Allis Garden Club
President—Mrs. J. W. Overholt, 1979 S. 73rd St.
Vice-Pres.—Mrs. H. Gay, 1978 So. 82nd St.
Secretary—Mrs. Robt. E. Stoll, 933 N. 70th St., Wauwatosa
Treasurer—Miss Eleanor Birch, 1535 So. 80th St.
Meetings—3rd Wednesday of month, 2 p. m. at homes of members

West Side Garden Club (Madison)
President—Mrs. E. L. Sevringhaus, 3914 Cherokee Drive
1st Vice-Pres.—Mrs. Hans Reese, Circle Close, Shorewood Hills
Secretary—Mrs. M. H. Willing, 1046 E. Dayton St.
Treasurer—Mrs. R. J. Colbert, 3901 Council Crest
Meeting—4th Tuesday of month at homes of members

Whitewater Garden Club
President—Mrs. Thomas Purcell, 805 Main St.
Vice-Pres.—Mrs. John R. Johnson, 204 S. Prairie St.
Secretary-Treas — Mrs. Willis Miller, 1016 Highland St.
Schedule of meetings on request

Yard and Garden Club (Ripon)
President—Miss Maud Russell, 320 Thorn St.
Vice-Pres.—Miss Harriet Gibbs, 117 Thorn St.
Secretary—Miss Helen Bottum, 518 Lincoln St.
Treasurer—Miss Alice Bonnell, 524 Liberty St.
Meeting—3rd Monday

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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VOL. XIII MARCH, 1937 No. 3

THE APPROPRIATION FOR ERADICATING FOUL BROOD FROM WISCONSIN

BEEKEEPERS all over Wisconsin have expressed themselves strongly behind the Wisconsin Beekeepers Association plan to request an appropriation from the Wisconsin Legislature large enough to drive the disease from the state in as short a time as possible.

Mr. C. D. Adams, Chief Inspector, and Mr. E. L. Chambers, State Entomologist, were asked to submit an estimate of the amount which in their opinion would be the minimum required to do the work effectively in each county of the state. This totaled to the sum of $31,000. A bill was introduced by Assemblyman L. E. Douglas to appropriate this amount for the work.

Whether or not a majority of the 100 Assemblyman and 33 State Senators vote in favor of the bill will depend entirely upon whether or not they hear from beekeepers in their districts asking them to vote for it, and telling them the reasons why.

Have you written to both your Assemblyman and State Senator? In writing, it is not necessary to mention the number of the bill. Simply refer to the bill appropriating money to eradicate bee diseases from Wisconsin.

The man who is lucky in love remains single.

DISTRICT BEEKEEPERS MEETINGS

Wisconsin Beekeepers Association

LADIES AUXILIARY MEETINGS

Southeastern Wisconsin District Meeting, Waukesha, Y. M. C. A., Tuesday, April 6

Fox River Valley District Meeting, Appleton, City Hall, Wednesday, April 7

Western District Association Meeting, Menomonie, Court House, Thursday, April 8

PROGRAM

10:00 a. m. Beekeeping Prospects for 1937—By the District Chairman.

10:15 a. m. Influence of Pollen Reserves on the Overwintered Colonies. Mr. Carl Schaefer, Department of Entomology, Madison.

Note: Mr. Schaefer will present some of the important work done by C. L. Farrar at the Bee Culture Laboratory in Wyoming. We hope to have Mr. Farrar with us at our summer meetings to give more detail.

11:00 a. m. Two Queens Versus Single Queen Colony Management According to Method Worked Out at the Bee Culture Laboratory in Wyoming. Questions will be reserved for Mr. Farrar to answer at summer meetings. H. J. Rahmlow, Madison.

12:00 M. Noon luncheon. Opportunity to pay dues to District Secretary-Treasurer. Luncheon plans announced at forenoon meeting.

1:15 p. m. Demonstration of our method of swarm control and queen breeding. Henry Schaefer, Osseo and Carl Schaefer, Madison. Discussion.

2:30 p. m. Demonstration of methods of queen breeding including the grafting of cells, making nuclei, and introduction. By district members: H. Hodgson, Waukesha, Walter Diehnelt, Menomonee Falls, A. J. Schultz, Ripon, H. Schaefer, S. P. Elliott, H. J. Rahmlow and others.

3:30 p. m. Answers to questions from question box and from list to be sent to beekeepers, by leading beekeepers present.

Discussion of progress of foul brood eradication program and appropriation. E. L. Chambers or C. D. Adams, Madison.

LADIES AUXILIARY PROGRAM

There will be a special ladies auxiliary program at each meeting at 1:30 p. m. Either Mrs. M. Jensen or Miss M. Cranston will be present to talk to the ladies. Discussion by ladies present.

Meetings will be held in separate room during the afternoon. Ladies are invited to attend the forenoon program with the beekeepers.

Beekeepers bring your wives and daughters.

LARGER BEES

"WHY don't we make the cells in foundation slightly larger?" asks Joseph Legner of Knowlton.

Mr. Legner thinks that eventually we would produce a slightly larger bee if the cells were made larger and suggests that Experiment Stations carry on some research work along this line. There is good evidence that the bees produced in very old foundation in which the cells have become smaller actually do produce a slightly smaller bee. If we started out with a foundation with larger cells, at least we could use it longer before the cells became too small.

Two-Queen vs. Single Queen Colony Management

PROBABLY the most interesting of the three talks given by C. L. Farrar of the Federal Bee Culture Laboratory at Laramie during Farm & Home Week, was the one on two-queen colony management.

He stated that a marked advantage may be obtained from intensive or two-queen colony management and outlined the method of procedure. Some of the requirements for this method of management are as follows.

First, there must be a large amount of reserve pollen left in the fall permitting late winter or early spring brood rearing.

Second, for any honey flow the **production increases as the population increases.** In other words, one strong colony will produce more honey than two smaller colonies containing the same total number of bees.

The Method

We cannot give the method in detail in this issue. However, drawings will be shown at the district meetings to be held early in April as mentioned in this issue. We hope to have the details discussed by Mr. Farrar at our summer meeting, and questions answered.

However, we will try to describe the method briefly. First the colony is given two brood chambers in the spring for brood rearing. These ore reversed at 10-day intervals because the queen has a tendency to lay in the upper brood chamber.

Second, as soon as the two brood chambers are filled with bees, a second queen is introduced. This is done as follows: From 4 to 6 frames of mature brood with honey and pollen are placed above an inner cover with the escape hole closed with wire screen and the queen introduced to this nucleus. The old queen and the remaining brood is confined to a lower body with an excluder. Two supers are placed above the excluder and over this the inner cover and the nucleus with queen. An entrance into this upper brood nest is provided. As soon as the upper queen has an established brood nest the inner cover is removed and the two colonies united by the newspaper method. When additional room is required, supers are added on top and normally seven hive bodies are required for this one colony.

More details about this method may be obtained by reading the article in Gleanings in Bee Culture, October, 1936.

Comments. Mr. Farrar stated that with their system of management they had no trouble with swarming. Whether this will be true in Wisconsin remains to be discovered by the beekeepers. He stated that they have obtained as high as 600 pounds per colony with this method when single queen colonies produced only one-third of this amount.

The method might be of especial interest to those who have weak colonies in the spring. Instead of uniting two colonies and destroying one queen, good results may be obtained by adding one weak colony to a strong one by this method. Package bees with queens may also be used in the same way.

We believe that the method is of sufficient importance and interest to have it tested by beekeepers in Wisconsin this spring on a small scale.

FOR SALE

24 Cases of 60-lb. second hand honey cans, two in the case. Good as new. H. M. Schultz, Waterloo, Wis.

FOR SALE

Used 10 frame and 8 frame hive bodies, bottoms and covers. Also some comb honey supers. Half price. All factory made. Disease free. E. L. White, Fort Atkinson, Wisconsin.

HONEY WANTED

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

"At the prom last night, my suspenders broke right in the middle of the dance floor."

"Weren't you terribly embarrassed?"

"No. My roommate had them on!"

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In forty to fifty days here in the North we will be taking our bees out of their winter homes. From then on they will demand most of our attention so there will be no time to spend assembling equipment.

Act promptly and get your order in the mail today, but if you do not have a Lotz catalog from which to select your supplies, don't order until you get a copy. We will mail one out the same day your inquiry is **received.**

We'll be looking forward to hearing from you.

August Lotz Company
Boyd, Wisconsin

Pollen Reserve Necessary to Build Up Colonies In the Spring

A TALK given by Mr. C. L. Farrar of the Bee Culture Laboratory, Laramie, Wyoming, at the beekeeper's school during Farm and Home Week at Madison created a great deal of interest among those present. In fact, this work may revolutionize beekeeping methods being used throughout the country.

With a series of charts giving results of experimental work, Mr. Farrar proved first of all that the amount of honey produced by a colony is directly proportioned to the number of bees in that colony at the time of the honey flow.

Secondly he showed that the number of bees in the colony in the spring is directly proportional to the number of square inches of reserve pollen in the combs.

No Pollen—No Honey

In other words, if a colony went into winter quarters in the fall with no pollen it would fail to raise brood in the spring. It built up very slowly and when the honey flow came it produced very little honey as compared with those colonies having a large pollen reserve.

Let us take a typical case in one of the experiments taken from Mr. Farrar's article printed in the American Bee Journal for September, 1936. One group of bees having very little pollen reserve and another group having a large amount of pollen.

Group A, consisting of five colonies, had only 45 square inches of pollen. The spring population was 13,300 bees which was only 38.7% of the fall population. From May 27 to June 21 this group lost 3,900 bees, and lost 3.7 pounds of honey.

Group C consisted of four colonies had 25,300 bees in the spring which was 68% of the fall population, or in other words, they had gained in bees during the late winter months. They had 470 square inches of pollen and from May 27th to June 21st gained 3,700 bees and 18.5 pounds of honey—probably through the dandelion flow.

Mr. Farrar emphasized that a strong colony with plenty of honey and bees will start brood rearing in February and March and come out strong, even in their cold climate—their season being later than ours in the spring. This early brood rearing is quite advantageous.

This work seems so important that beekeepers may have to watch the pollen reserves in the colonies in the fall, placing in the brood nest combs heavy with pollen. We may eventually be able to provide more pollen in the fall.

Effect On Queens

It may be too that many of our queens which we consider poor queens in the spring may not be poor at all but may be unable to raise brood because of lack of pollen. For example. Suppose we had a very vigorous young queen laying eggs late in the fall. This brood rearing uses up the pollen reserve so that there is very little available in the spring. This colony then cannot raise brood in the spring and comes out weak through no fault of the queen.

THE FLOOD

MR. Walter T. Kelley of Paducah, Kentucky, one of our advertisers, gave us a report on February 12th of the flood at Paducah. He stated that the normal rainfall for January is around 3 inches, but this year they had over 18 inches throughout the Ohio Valley. The winter was very mild until just before the flood when there was a heavy snow sleet storm and bittter cold.

Paducah is relatively high and was not badly hit in the 1913 flood and has no levee. This year the water came in about 8 feet deeper than it has ever been before. When the electric lights and water supply failed the people had to move out.

Mr. Kelley's plant is about 3 miles out of Paducah on high land and so he was not flooded, but in 28 blocks of the city there was water from 8 to 10 feet deep throughout the business section. There was no train or mail service for over two weeks. Mr. Kelly reported that most of the water will be out of the city by February 15, and with WPA assistance the town will be quickly cleaned, but the memory of the disaster will linger long.

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Swarm Control

"SWARMING, Its Control and Prevention," written by L. E. Snelgrove, Somerset, England, is a book in which many beekeepers have been interested. It describes a method which is probably a good one in many localities. The method is somewhat similar to that described by Mr. Henry Schaefer of Osseo, Wisconsin, at the annual convention of the Wisconsin Beekeepers Association. We are inclined to think that Mr. Schaefer's method has some advantages because he uses, instead of a **solid inner cover** to divide the brood and bees (put up on top of the colony) a frame made of screen wire with a lath border. This wire frame furnishes ventilation in hot weather and warmth in cold weather. Mr. Schaefer furnishes artificial queen cells for requeening the nucleus placed on top instead of allowing them to raise a new queen of their own, which has a great deal of advantage.

The following is a brief description of the method described by Mr. Snelgrove which appeared in the January issue of the Pennsylvania Beekeeper, issued by that State Association.

Cause of Swarming

"The conditions commonly considered conducive to swarming are listed as follows:

"(1) Lack of space for the extension of the brood nest.

"(2) Lack of storage room for honey.

"(3) Crowding of the brood nest.

"(4) Insufficient ventilation.

"(5) High temperature.

"The author of the book feels that swarming is directly related to the emergence of brood. The egg laying of the queen in spring increases rapidly to a peak and then recedes. The result is that there are soon a large number of young bees emerging and a reduced amount of work to be done. At the same time nectar and pollen are coming in rather rapidly. The result is the colony quickly develops the swarming fever and begins building queen cells.

"When a hive body is added in spring as additional space it is placed above the brood chamber and two frames of brood are taken from below and placed in it one on each side of the center comb. Two empty combs are placed below. Generally two bodies are left for brood rearing space. An additional shallow frame or section super is given the colony. (To be continued)

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.

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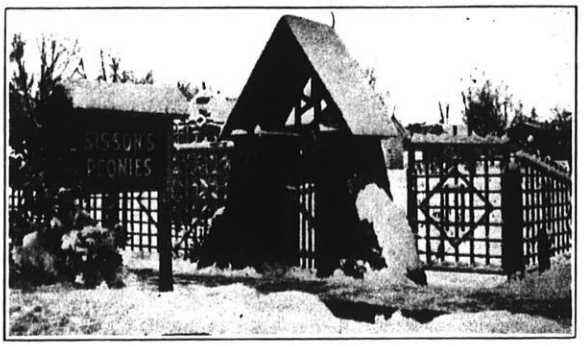

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HIGH and DRY

Yes, Paducah was flooded, and all of the pictures you saw and description were probably true as Paducah was 7/8 under water, over 10 feet deep in many places, really it was a major disaster with most of the 33,000 Paducah citizens moved in boats to higher ground.

But due to my country location my bee hive factory was high and dry all of the time. My factory actually was 3 miles away and 50 feet higher than the highest flood waters.

It is true that shipments have been delayed and mail has been slow as we did not receive any mail for over 2 weeks and then only part of it for some time. Neither did freight trains cross the Ohio river for over 3 weeks due to wash outs and high water.

But by February 15th most of the water was out of Paducah, rail and mail service had been resumed and we had shipped out the supplies we had been forced to hold in our warehouse for over 3 weeks.

Our 1937 catalog is in the mails and if you don't have your copy write for it as it is completely new with many new features you will want at **Prices You Can Afford To Pay.**

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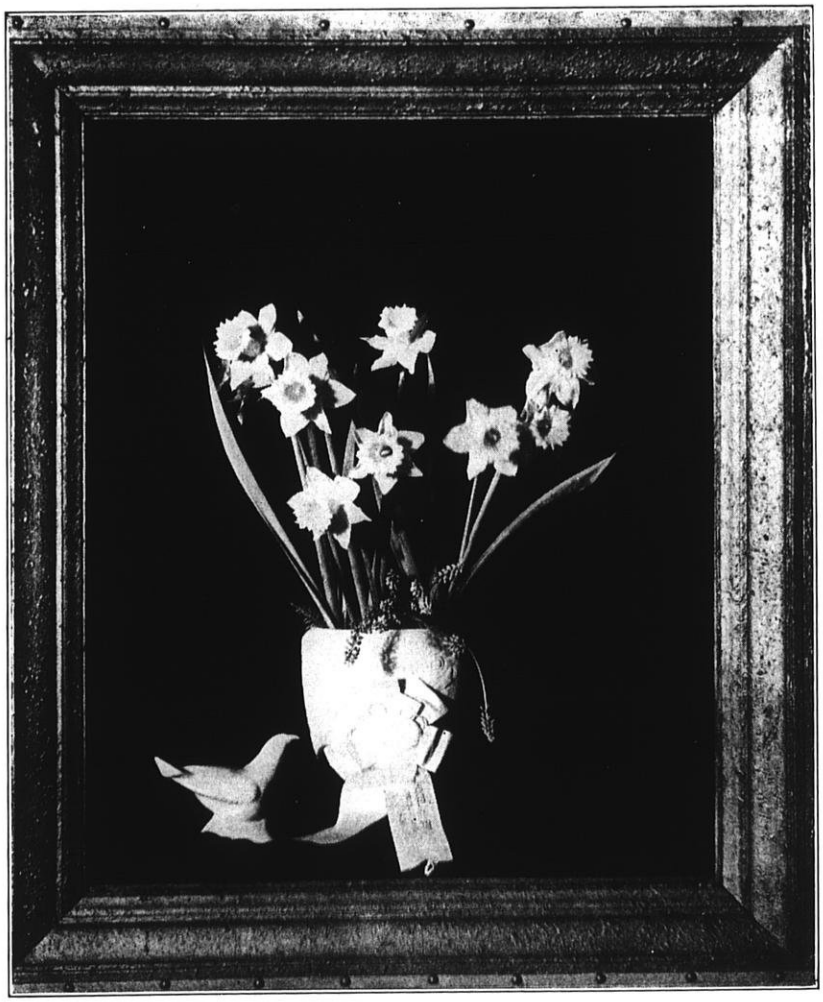

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A NEW bulletin entitled "Varieties of Vegetables for 1937" has just been published by Cornell University, Ithaca, New York. The authors are Paul Work and A. T. Griffiths. It describes the newer varieties of leading vegetables with comments that will be of considerable interest to vegetable growers.

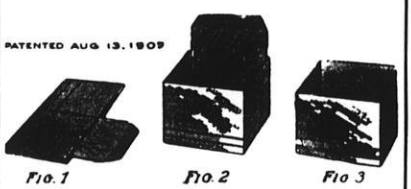

Fig. 1 Fig. 2 Fig 3

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

Established 1910

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TABLE OF CONTENTS

	Page
How Wisconsin Orchardists Spray Their Apple Trees	179
Boric Acid Promising Remedy for Internal Cork Disease of Apples	181
Controlling the Fruit Tree Leaf Roller	182
In the Orchard	184
Portable and Stationary Spray Systems	184
Helpful Hints for the Spraying Season	184
Hardy Apples	185
Soil Management in the Orchard	186
Manitowoc Fruit Growers Meeting	187
Jefferson County Fruit Growers Meeting	187
With the Small Fruit Grower	188
How We Plant Strawberries	188
Spacing Strawberry Plants	189
Spray Carefully for Plum Curculio	190
How New Varieties Are Created	190
Vegetable Varieties for 1937	191
Editorials	192
Directory—Officers Affiliated Fruit Growers Associations	192
Officers Beekeepers Associations	193
Hemerocallis	194
Androsace	195
Gleanings from the Gladiolus Patch	196
Be Original In Arranging Flowers	198
State Garden Club Federation News	200
Garden Club Exhibits at National Show	201
Herbs in the Garden	203
Wisconsin Beekeeping	204

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3. Greater publicity for Wisconsin grown fruits and vegetables.
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How Wisconsin Orchardists Spray Their Apple Trees

EARLY in March a questionnaire was sent to a few of Wisconsin's leading orchardists asking the following questions:

1. When will you spray this spring?

2. What kind of a sprayer do you use and how do you like it?

3. How do you mix up your spray solution?

4. Do you add any insecticides for control of other insects besides codling moth? If so, what?

Most of the orchardists replied and we have condensed their letters as follows:

From Door County

Mr. Don Reynolds of Sturgeon Bay writes:

"We will probably put on three sprays before the regular petal fall or calyx spray. There will be first, the delayed dormant; second, the pre-pink; and third, pink. We seldom use the dormant spray but sometimes find that an additional pre-pink is required, making a total of four before the calyx spray.

"We then make an application after the petals have fallen, one about ten days later, and then enough more during the season to control scab and codling moth. Since the time of application depends so much upon the weather, we have appreciated the assistance of the Pathologist and Entomologist of the University in helping us determine the time.

"We have six sprayers. Two of them are Friends, one Meyer, one Hayes, and two Bean, purchased in 1924. They are of the 4-wheel, 6 barrel type with a pump and two-cylinder 8 h. p. engines mounted on the chassis and are drawn either by horses or tractor. We have been thinking of using a two-wheel type with the pump mounted on the chassis and power taken from the tractor.

"We use the straight spray gun, applying from 12 to 15 gallons per minute with one operative on each rig.

"We try not to carry less than 300-350 pounds pressure. Less than this is not satisfactory.

"While we do not feel that lime sulphur is safe to use throughout the season, as yet we have not found an ideal substitute. We decrease the strength of our lime sulphur during the hot weather and add a quantity of dry hydrated lime to each tankful. We question the benefit derived from the lime but it seems that we are doing something to prevent burning.

"While the water is being run into the spray tanks, the proper amount of liquid lime sulphur is added. When the tank is about one-half full the engine is started and the arsenate of lead added. This gives thorough agitation."

Early Sprays Are Necessary to Control Apple

By D. E. Bingham, Sturgeon Bay

Mr. Bingham states that his first spray is a dormant spray applied about April 15th, using oil emulsion for case bearer, leaf roller and scale. Following this he applies two sprays—pre-pink and pink, using lime sulphur and arsenate of lead.

Sprayers

Mr. Bingham has used a Friend sprayer for the past 15 years. He now has three. He uses a spray gun mostly, sometimes using a 4 nozzle broom, when spraying from the ground. A spray gun is best for all around work. The minimum pressure should be 300 to 400 pounds.

He states that there are several good machines on the market now. "Look for foolproof driving mechanism running in oil that can't get spray dope mixed into it. Also inexpensive repair parts, durable packing and accessibility for repair."

Liquid lime sulphur is used through the petal fall spray and for several years Kolofog for subsequent cover sprays. Kolofog and lime sulphur can be used together to combine the advantages of each. Kolofog sticks well, therefore good for late cover sprays and have avoided burning by its use, even during the record hot weather of last year.

Nicotine 1-800 is frequently added to regular sprays for aphids. Arsenate of lead is used in all sprays, about 5,000 pounds being used in each season.

By S .S. Telfer, Ellison Bay, Door County

Mr. S. S. Telfer of Ellison Bay States: "The time of application of the sprays this spring will be determined largely by bud development and temperature. A dormant oil spray will undoubtedly be used for the control of leaf roller. We usually get on two lime sulphur sprays before the pink spray for the control of scab. This depends entirely upon the rapidity with which the buds develop. **Cool weather retards development and therefore will require extra sprays.** A pink spray will be applied when the buds have separated in the clusters.

"We use 'Friend' sprayers—one six and two eight-barrel tank capacity. These sprayers all have their own power units. They are satisfactory and I believe the automatic pressure controller feature (all sprayers have this feature now) is the greatest improvement in sprayers recently. We carry 450-500 pounds pressure. A single nozzle spray gun with this pressure is satisfactory. We spray with only one operator to a sprayer. Caterpillar tractors furnish the motive power.

"Liquid lime sulphur is poured into the tanks of water and arsenate of lead carefully poured into the filled tank with the agitator going. During the later sprays a weaker solution of lime sulphur is used. We have had little trouble with spray burn and practically none with scab. Varieties which burn easily are sprayed with still weaker solutions of lime sulphur.

"Increased amounts of arsenate of lead are used where leaf rollers are numerous.

By R. L. Marken, Kenosha

"I will put on a delayed dormant, pre-pink and pink spray. The time will be determined by the development of the buds. The colored spray chart put out by the Wisconsin Horticultural Society is as good a photographic description as I know of.

"I used the multiple nozzles last year but will try the Pecan gun this season for its better range. I use 400 pounds pressure.

"We haul water to the sprayer whenever the tank is empty. The water is conveyed from the truck to sprayer by means of a refiller, the spray material being poured through strainer at the same time. Lime sulphur even when diluted one to sixty is apt to cause spray burn on Jonathan, so will substitute Kolofog and lime for later sprays. I use only arsenate of lead as an insecticide."

By J. C. Telfer, Larsen Orchards, Green Bay

"We spray about one-third of the apple trees each year with a delayed dormant spray using either lime sulphur or an oil emulsion. In this way the whole orchard is given a dormant spray every third year.

"We use a pre-pink and pink spray and the time of application is determined by the weather and looks of the blossom clusters.

"We give a pre-pink and pink spray barrell capacity Friend sprayers with 300 pounds pressure and very short hose so that little pressure is lost between pump and gun nozzle. Use Friend L. O. U. or Pecan guns. Have brooms to use on these guns for this year but have never used them. We like these machines because they have capacity and plenty of power and give very little trouble.

"Spray materials are all mixed in tank with agitator running. I do not consider lime and sulphur safe for the entire season. Have used Niagara Kolo form or Kolofog for several years after calyx spray and several times have used dust second time after calyx.

"We do not use any insecticides except lead arsenate and never have used more than 3 pounds per 100 gallons of water.

"Cherry buds look very good at this time. Wealthy seemed to have been damaged by heat last year.

"Have seen no mouse injury to date."

By Arno Meyer, Waldo, Sheboygan County

"I have always had good results with only one pre-blossom spray. I get it on about three days before the blossoms open.

"I use a Bean Triplex pump operated with power-take-off on truck. I purchased this machine in 1916 and it still performs efficiently although most of the original parts have been replaced. Would prefer their new enclosed pumps. The features I like in this pump are rubber plunger packings, pressure regulator and good service on repair parts at reasonable cost. I use 300 pounds pressure with a four-nozzle Fog Drive Gun on an 8 foot rod for tall trees.

"I mix the spray as follows: wash the spreader through the strainer, then the arsenate of lead and last the lime sulphur. If scab is under control, I cut the lime sulphur to one-half during hot weather. Last season we had 35% damage by heat and lime sulphur."

Scab According to Wisconsin Orchardists

By A. K. Bassett, Baraboo

"I will put on a late dormant spray using lime sulphur 7 to 1. I delay this spray until I can see the green aphis on the buds, and it kills a great many at this time. I figure on spraying half of the orchard with the belated dormant each year, followed by the pre-pink and the pink spray. In 1936 we started with a belated dormant and ended with a pink spray all in one week due to the rapid development of the buds.

"I use a Bean sprayer and like it very much. I like the pressure regulator which is one of its special features. The pump packings and valves are long lived and give very little trouble. I use a 'Friend' gun with a Pecan nozzle. I have used several makes but this has given me the best results. We carry from 250 to 400 pounds pressure, increasing the pressure as the foliage thickens. I believe the new oil bath machine is better than the one I have.

"We run in enough water to cover the agitator. Then we start our engine, and sift in two pounds of 'Ortho spreader' in our 300 gallon tank. Then we sift in 7 pounds of arsenate of lead. When the tank is nearly full we add 7½ gallons of lime sulphur solution. When the weather is hot Ido not use quite so much lime sulphur. If we have to put on a second brood or maggot spray and the weather is extremely hot we 'cut out' the lime sulphur altogether.

"We add arsenate of lead to all of our sprays except the dormant. We have used nicotine when aphis were bad. The big problem is to thoroughly cover the tree. With our trees, which are somewhat smaller than the Eastern trees, it takes from 3 to 8 gallons to cover a tree."

By Theo. Bakke, Kickapoo Development Company, Gays Mills

"Our spraying program is governed a great deal by growth and development of buds and foliage. We do not spray according to any set dates. The first is the 'green tip' spray followed by the closed cluster and pink sprays. We have found that it does not pay to experiment in trying to save the few extra dollars of spraying costs in eliminating any one spray before the blossoms come on. **If scab cannot be controlled with these three sprays and the petal fall spray it is not satisfactory** to try and control it later. All other sprays are put on according to recommendations by the Entomology Department.

New Stationary Spray Systems

"We have discarded all horse and tractor drawn sprayers except two for experimental spraying. We will have six stationary spraying systems this season by installing two new outfits. These are all Friend sprayers. All our acreage is now piped for spraying except about ten acres. We have increased our production about fifty percent by being able to spray everywhere and at any time where we found it impossible to do so with the portable sprayers. We use what is called the 'Pecan' spray gun which we have found very satisfactory.

"We would welcome some other chemical than lime sulphur. As for arsenate of lead, we do not have to spray so much but that we can be below U. S. requirements. We use powdered milk purchased from local factories which we find very satisfactory as a sticker and spreader and is as effective as any of the advertised spreaders. No other chemical is used to prevent burning although we have tried Hydrated Lime at times.

"The University Experiment Station located here has given all orchards in this fruit growing district valuable help. We do not think that we are so smart that we can decide all of the spraying that should be done by guessing at it."

By Earl Johnson, Martin Orchard Company, Sturgeon Bay

"Because we have no need for a dormant spray our first spray will be the delayed dormant then will follow one or two pre-pinks and one or two pink sprays. The number of these sprays will depend on development of buds and moisture conditions. In other words we try to keep all new development of buds covered with spray.

"We have 3 Bean Pumps, 1 Friend and 1 Meyers and like all three types. We use mostly single nozzle Hardie guns and like them. We use two guns on each machine, one spraying to the right and one to the left, thus spraying one complete row. On apples if wind is too strong we have both men spray the same side, one spraying tops and one bottoms. We carry 350 to 400 pounds with both guns open. We believe 500 pounds would be better.

"In spraying cherries we use Bordeau mixed at Central mixing plant and hauled out with large trucks with two tanks on each truck, each tank holding six to seven barrels. Spray rigs stay in the orchard and go down across 40 acres and back and then fill up from tanks on trucks. Each truck supplies two spray rigs. In spraying apples we haul water and add liquid lime sulphur and lead when filling sprayer. The past two years we have used Bordeau on apples for the last spray. We wish for something better than lime sulphur for early summer sprays. Last year we had considerable burning from lime sulphur which started nine days after spray July 2.

"So far we have had no insects to contend with besides codling moth and have only arsenate of lead although last year we used calcium arsenate on last apple spray instead of lead."

BORIC ACID PROMISING REMEDY FOR INTERNAL CORK DISEASE OF APPLES

APPLE trees suffering from the ailment that causes "internal cork" in the fruit, recovered almost completely and bore marketable apples as a result of boric acid treatment by Bureau of Plant Industry workers.

The disease consists of brown areas deep in the flesh of the fruit, especially at the stem end. This is distinct from Baldwin spot or Bitter pit. There is no evidence that the latter disease is benefited by boron applications. Internal cork is common in many apple regions and causes serious losses. Sprinkling a pound of boric acid crystals under 30 year old trees about a month before they bloom was effective and inexpensive and did not appear to have any ill effects on the trees.

The bureau suggests that growers who have been troubled with corky apples will be warranted in treating trees this spring, but warns that too much boron acts as a plant poison and that an application of more than one pound on old trees and proportionally smaller amounts on young trees might be injurious. Applications made once should not be repeated in later years until more is known of the boron tolerance of apples.

Try the Prudential

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"Yes, madam."

"Well, I want to arrange to have my husband's fidelity insured."—Growler.

Controlling the Fruit Tree Leaf Roller

John H. Lilly

LEAF rollers are at present the most serious insect pest in Door County apple orchards. They are the large green worms with black heads that feed ravenously on apple leaves and small fruit in spring and early summer. There are really two species or kinds of leaf rollers in Wisconsin, but for practical purposes they may be considered together.

The fruit tree leaf roller lives over winter in the egg stage. The eggs are laid in masses and covered over with a very resistant varnish-like material. This covering affords them excellent protection from unfavorable weather and spray treatments, and also makes them very difficult to see when one is looking for them. The eggs are laid by the adult moths in mid-summer and do not hatch until early the next spring when the leaves are still small. The worms start eating at once and continue to feed until the pupal or cocoon stage in late June.

Several facts help account for the seriousness of this pest. The eggs are hard to find and growers are often led to believe that they will not be troubled with it. Single egg masses contain from 30 to over a hundred eggs, so that only one will infest a tree if most of the eggs hatch. These worms are not readily destroyed by arsenate of lead or other common insecticides. This is partly due to their habit of rolling themselves up in the leaves and partly to their natural resistance to stomach poisons. A high percentage of the small apples attacked drops early in the season and the remainder always show unsightly scars when harvested.

The question arises as to how one can tell whether or not he should apply special treatments for the control of this pest. We have pointed out how difficult it is for even a trained observer to make a good survey for eggs where they are not particularly numerous. In general, a good index of the infestation for the coming year is furnished by the injuries of the previous season. If control has been inadequate during the past year so that many worms reached maturity, a comparable population may be predicted with considerable certainty.

Oil Sprays

For some years a dormant petroleum oil emulsion containing 6% actual oil has been a standard recommendation for leaf roller control. Such a treatment seems to form a thin film of oil over the egg masses and prevent hatching by suffocation. This shows the necessity of thorough spraying if the application is to be successful, since a single egg mass can infest a tree if it is not covered. In 1936 the use of dormant oils was not encouraged on most varieties of apples in Door County, due to the tree injuries of the preceding winter. We had no evidence that dormant oils would seriously injure these trees, but we recommended conservatively in order to play safe. It should be pointed out that none of the ordinary dormant oil treatments used in 1936 resulted in any appreciable tree injuries.

A six per cent emulsion of a petroleum oil applied in the dormant stage is our recommendation for leaf roller control in 1937. Satisfactory oils are obtainable from various companies selling petroleum products or insecticides. They fall into three groups:

1. Light lubricating oils of the Diamond Paraffin type which are emulsified in the spray tank with a material like Kayso or Goulac just before using.
2. Mayonnaise-type factory-made emulsions which require no additional emulsifier.
3. Miscible oils which readily form comparatively stable emulsions in water.

The mayonnaise-type emulsions should contain not less than about 83% oil and 17% inert ingredients, and they must be used at about 7% to give approximately 6% actual oil. All true miscible oils also contain an inert fraction so that they must be used at concentrations above 6% to give 6% actual oil. All three types give satisfactory leaf roller control when properly used. The first or "cold-mixed" type is the cheapest.

How to Spray

Most leaf roller eggs are deposited on the upper sides of the smaller branches, so that they are most effectively hit when the sprayman stands on the spray tank. This is the exact opposite of the recommendation for case bearer control, where the operator is advised to walk and spray from below. The same material will control both insects if the coverage is sufficiently thorough.

The bud moth is also somewhat of a problem in some Door County apple orchards. It may be checked by adding nicotine sulfate to the above oil emulsions at the rate of 1-600 or 1-400. This makes a costly combination, and it is probably justified in few Door County orchards this season.

It sometimes happens that dormant treatments are not feasible for leaf roller control. In such cases they are best checked by a heavy and thorough application of arsenate of lead in about the pre-pink stage just as the eggs are hatching. Arsenate of lead at three pounds to 50 gallons plus Goulac at one-half pound to 50 gallons was the most satisfactory formula of this type.

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VOL. 1, NO. 2 • APRIL 1937 EASTERN EDITION

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In the Orchard

PORTABLE AND STATIONARY SPRAY SYSTEMS

R. H. Roberts

THE selection of a portable or stationary spray system should be decided on the basis of each particular location, keeping in mind particularly the availability of water, distance which it has to be hauled, the lay of the land, the planting distance, and whether or not ground may be wet in the spring at the time early sprays are to be applied and so interfere with the transport of the portable machine.

Cost

There is probably no great difference in the cost of the two systems. The initial cost of the stationary installation is, of course, much higher, but the depreciation is so very much lower that it is as cheap a method of spraying as is the use of the portable machines. In connection with the cost, no attempt should be made to reduce the installation investment by putting stand pipes far apart or using small mains. The outlets should be close enough to permit of thorough spraying with not more than 100 feet of hose. The mains should be large enough to allow for high pressures at the outlet. The sprayer manufacturing companies are pleased to furnish engineering advice on the installation of stationary outfits.

Whether underground or overhead installation of a stationary pipe is used seems to be largely a matter of personal preference. On ground that is at all level some sagging results and it is necessary to fill the system with oil or some other material to prevent freezing. Pipe laid underground on a grade so it will drain with outlets at the low points causes no trouble from freezing up although laid at a shallow depth. The underground system should, of course, be thoroughly tested before being covered up.

Advantages of Stationary System

Spray application is, of course, much quicker by the stationary system. It also requires less man power especially if a driver is used on the portable sprayer. The stationary system requires a large supply of water to be available quickly for each spray. It is more adapted to the thorough spraying of trees in close plantings, but has the very decided fault of its being more difficult to thoroughly spray the tops of tall trees than is possible from a tower on top of a portable machine.

The stationary outfit provides protection against fire hazard in sod orchards, but these do not seem to be very common.

THE ANOKA APPLE

THE Anoka apple has received considerable publicity in magazines during the past winter as a hardy apple which bears very young, and is an annual producer.

This variety was originated at the South Dakota Experiment Station as an exceedingly hardy variety for the severe winters of the plains and northern portions of the United States where temperatures are very low and where most varieties are not hardy.

The Anoka is an early apple of poor quality and where such good early varieties as Melba, Early McIntosh, Milton, Wealthy, Duchess and Beacon can be grown, we feel sure that growers would be disappointed in this variety. Therefore we cannot recommend it for the fruit growing sections of Wisconsin where good quality varieties can be grown.

HELPFUL HINTS FOR THE SPRAYING SEASON

ARNO Meyer, proprietor of the Waldo Orchards at Waldo, sends in some suggestions for fruit growers at spraying time.

"To clean hands and face of spraying material (lime sulphur and lead) I apply warm lard and then wipe with a dry cloth or soft paper. Soap and water, following this, will cleanse the skin and leave it in fine condition. To shave easily after the beard has been covered with spray, I use any of the waterless shaving creams, and they work fine.

"To make a quick hose repair by wrapping with wire I use about six feet of No. 20 soft wire. Make a loop in each end. Fasten one end to a solid object and take five wraps, loosely, around the hose. Then have someone put a stick through the other loop and draw the wire taut. Roll the hose in either direction and you will find that the wire will wrap tightly about the hose, and a single twist will secure the ends of the wire. Cut off any surplus wire.

"Power sprayers can be used to advantage in making holes in the ground and to clean drains or culverts by attaching a length of quarter-inch pipe at the end of the spray hose and turning on the pressure. The water under pressure will force its way through the hardest clay."—In The American Fruit Grower.

"Mr. Jones, dad wants to borrow your corkscrew."

"All right, sonny," said Jones, reaching for his coat. "You run along home; I'll bring it over."

NATIONAL FRUIT GROWERS TOUR PLANNED

THE American Pomological Society is planning another Pacific Coast tour similar to the one held in 1926. The tour will be made in special Pullman cars covering about a three weeks period, with stops in Colorado, California, Oregon and Washington, apple growing sections. Tentative dates are the last part of June and the first week in July. Further announcements will be made when available.

OHIO FRUIT GROWERS ORGANIZE APPLE INSTITUTE

THE Ohio Apple Institute was organized during the past winter for the purpose of raising money among the growers to advertise apples on the consuming market. In January the Institute carried an ad in a Cleveland newspaper offering cash prizes for the best original recipe of an apple dessert. A total of 400 recipes were received. The recipe for the prize winning dessert, "Apple John," will be found elsewhere in this issue.

The Ohio growers favor the work of the American Apple Institute, but feel that they must learn how to raise money and properly advertise apples themselves before they can combine with the National organization. It is hoped that in the near future all the State Institutes will combine in one National Institute.

FRUIT TREE SEEDLING STOCK AVAILABLE

THERE are occasional inquiries for stock for propagating apple and other fruit trees. The American Forestry Company, Pembine, Wisconsin, lists apple tree seedlings, cherry Mahaleb, plums, Myrobolan and native plum seedlings. These can be used for stock for top-working named varieties.

HARDY APPLES

PROF. A. F. Yeager of the North Dakota Horticulture Department writing in the American Fruit Grower states that the severe winter of a year ago was a good test of the hardiness of apple varieties.

In an orchard at Wyndmere, N. D., Okabena, Wealthy and Duchess fruited heavily the year before and were badly hurt. McIntosh was somewhat injured and produced no crop in 1936.

The younger trees which stood the winter very well included Beacon, Minnesota No. 1007, Melba, Milton, Sweet Russett and Whitney. Cortland seems to be more apt to succeed than McIntosh.

A national agricultural program should favor the family-size farm. It should function so the family-size farm will yield a good living, and provide a surplus for security in the future. Development of highly-commercialized or corporation farming should be discouraged.—Senator Arthur Capper.

USED SPRAYER

Bean Sprayer — 1936 Model slightly used; 20 gallon Royal pump. 300 gallon steel tank mounted on steel frame. Delivers 20 gallons per minute at 800 pounds pressure. Price one-third less than new. New machine guarantee. Located near Milwaukee. Write H. H., Care of Wisconsin Horticultural Society, 1532 University Avenue, Madison, Wisconsin.

We Offer for Spring Planting

Bleeding Hearts, 30c; 3 for 75c
New Ember Plum, 3-4' 55c
New 790 Apple, 3-4' 55c
Anoka Apple, 3-4' 45c
Cortland Apple, 2' 25c
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Catalog Free

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Battle Lake, Minnesota

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That the Ideal Lead Arsenate Must Possess 5 Major Values

1. Spread completely and evenly. —A smooth, effective coverage.
2. Easy and constant suspension during the entire spraying operation. —To insure uniform concentration.
3. Slow reaction with other chemicals. —No black sludge with Lime Sulphur.
4. Highest percent of arsenic oxide. —Maximum killing power.
5. Lowest percent of water soluble arsenic. —Safety to Fruit and Foliage.

NIAGARA Suspenso Lead Arsenate Meets These Requirements

NIAGARA KOLOFOG

A Non-Caustic Sulphur spray material developed expressly for growers who desire control without injury.

KOLOFOG plus Niagara Arsenate of Lead is the ideal combination for Calyx application.

KOLOFOG sticks better and remains on foliage longer than many other Sulphur sprays.

See your Niagara dealer or write direct to

Niagara Sprayer and Chemical Company, Inc.
J. Henry Smith, Sales Representative Waupaca, Wisconsin
Milwaukee Distributor
Fertilizer Chemical Mills, Inc. Milwaukee, Wisconsin

Soil Management In the Orchard

By Henry W. Leidel, La Crescent

I HAVE been trying to grow fruit trees properly for the past 18 years, but most every year I have found some new problem to solve. That good soil is very essential when we come to plant any kind of plant life will be agreed upon. However, we find that fruit trees are planted on soil that will no longer produce properly and after a period of 6 or 8 years when this tree should produce some fruit, the planter to his sorrow, finds that he must build this soil before he grows fruit trees and he must forget about his fruit for some time. So in the first place, I want to advise you to prepare your orchard soil before you plant or at least start your culture immediately after planting.

Humus Needed

Young trees especially should be set on fertile soil and if there is a lack of humus, one should plow down a liberal amount of barnyard manure or get some legume to grow between the tree row and plow that down.

Now, in managing a bearing orchard, we have more to watch and keep in mind than just the growth of the tree. While tree growth is the major part of the job, we can't forget that color and size of the apple depends some on the treatment of the soil.

Commercial Fertilizer

After the trees have borne fruit quite heavily for a few times, you will notice a great variation in the trees—that is, some trees will have grown considerably larger than the other, one will have very large apples which will be quite green and another will have small apples which will be turning red in advance of the most of them. This is the first indication that some of your trees are in need of nitrogen, while others setting in a fertile spot of the field are growing good sized apples, but are inclined to color very slowly.

This bit of evidence shows us that a well-balanced soil is very essential in the growing of apples, but the question is—how can it be done? In the first place I am satisfied that one cannot get along without commercial fertilizer. You must use a great deal of judgment in applying fertilizer on a young bearing orchard. One should apply fertilizer according to the age and need of the tree. As little as a pound is noticeable on a tree that is in thriving condition. I hold that it is just as detrimental to over-fertilize as it is not to apply enough. Your close observation of the growth and appearance of a tree will prompt you as to how much should be applied—varying from 1 to 4 pounds.

Judge Trees In Fall

Very often you will discover a tree that is carrying a heavy load of fruit will make little or no growth at all and it is very doubtful if it will bloom the next year. This is the tree one can fertilize heavily either the same fall or the next spring.

I have discovered just recently that it is easier to judge the need of a tree in the fall of the year than in the spring, because one can see the foliage and the amount of fruit that the tree produced.

Roots Spread Far

I think the reason for this is that the roots of the tree are reaching out into space the same as the limbs above. Naturally, they are drawing more nitrogen from the soil as the tree matures a heavy crop of fruit, thereby causing the surface crop to suffer from want of nutrition.

In the past we have been applying Ammonium Sulphate about our trees a little beyond the spread of the limb and it has been a great benefit, but I noticed something a year ago that surprised me. I had sown soy beans in a certain block of trees for the purpose of plowing them down to gain a little humus which seemed to be lacking. These beans showed quite a variation in growth throughout the block—ranging from 18 to 36 inches in height. My conclusion is this, that we must spread our fertilizer out further into space, I would even say that it would be better to spread it over the entire surface for the benefit of our cover crop as well as aiding the tree by the humus produced. —From The Minnesota Fruit Grower.

DO NOT MULCH APPLE TREES WITH MANURE

IT IS an excellent plan to mulch apple trees with straw or marsh hay or other types of litter in the spring to conserve moisture. Excellent results were obtained last year during the dry spell with this mulching material.

However, manure should not be used for heavy mulching because it provides nitrogen fertilizer late in the season, causing a late growth which may winterkill the following winter.

Remember that the orchard should be fertilized very early in the spring in order that the nitrogen become available for early growth and to avoid a late growth which may not be hardy.

MANITOWOC FRUIT GROWERS MEETING

THE Manitowoc County Fruit Growers Association held their annual meeting in Manitowoc on March 1st. There was a good attendance and considerable interest manifested by the members in orchard problems. There is some increase in orchard acreage in this section which is a good apple growing section with a good market.

The officers were re-elected. They are: President, Ed. Klessig, Cleveland; vice-president, John Bruhn, Two Rivers; secretary-treasurer, Ervin M. Tuma, Cato.

County Agent H. J. Weavers cooperated in putting on the program and conducting the meeting.

Mr. H. J. Rahmlow, Secretary of the State Horticultural Society, showed the films on picking, packing and grading apples in Wisconsin with comments on the methods and machinery used. He also answered questions on varieties adaptable for Manitowoc County.

Members of the Manitowoc Horticultural Society, organized in 1906, voted to turn over their books and funds to the Fruit Growers Association. An interesting secretary's record book giving the minutes of meetings beginning 30 years ago was turned over to the Wisconsin Horticultural Society and will be deposited in the State Historical Library.

JEFFERSON COUNTY FRUIT GROWERS ASSOCIATION MEETING

THE Jefferson County Fruit Growers Association had a very interesting meeting on March 24th—the day of the blizzard. In spite of the storm there was a large attendance of fruit growers and high school agricultural students from Fort Atkinson and Lake Mills.

The officers were re-elected as listed in this issue. Speakers were Mr. C. L. Kuehner and H. J. Rahmlow, Madison.

A committee of five was appointed to consult with the secretary of the County Fair to revise the premium list and include the newer varieties of fruit being grown in the county.

Plans were made to purchase supplies and spray materials for members. Considerable interest was manifested in testing new varieties recommended by the Horticultural Society.

FLOUR AS A SPREADER

MR. R. L. Marken of Kenosha states that last season he used common wheat flour as a spreader in his spray materials for spraying apples, and that it worked very well. He used the flour at the rate of one pound to 50 gallons of spray material. The flour was first stirred up in a pail of water and then poured through the strainer into the spray tank while the agitator was running.

The Test

"Do you love me?"

"Uh-huh."

"Then why doesn't your chest heave like in the movies."—The Green Gander.

NEW FRUITS...

Beacon Apple
Ember Plum
Minn. No. 1007 Apple
Haralson Apple
Chinese Elm (Siberian Strain)

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Operating since 1920. 22A. overhead irrigation 7A. berries. Price $3300.00. Small down payment will handle. Must sell due to health.

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The Southeastern Wisconsin Fruit Growers Co-operative Inc.

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Fruit Growers Supplies; Spray Materials Bean Sprayers, Pruning Tools

We are carload buyers of Sulphate of Ammonia "Aero" Cyanamid—21% Nitrogen, Super Phosphate 32% Spray Materials

Wisconsin Fruit Growers: write for prices before you buy elsewhere.

Purchase your requirements from us and participate in the earnings.

Memberships solicited. **Dues $1.00 per year**

LESTER TANS, Secretary-Treasurer
Route No. 3, Waukesha, Wis.

With the Small Fruit Grower

HOW WE PLANT STRAWBERRIES

H. H. Harris, Warrens

WHERE we intend to set strawberries this spring there was a nice growth of alfalfa in 1935. Two cuttings were taken from this field that season. Quite a heavy top-dressing of barnyard manure was spread on the field between the cuttings, there was a good growth again when it froze. Just before planting time in 1936 the field was plowed—fitted—and planted to corn, which was thoroughly cultivated and hand hoed, making a good growth of stalks but rather poorly set with ears. The crop was cut for the silo, and the ground dug deeply with tractor drawn quack digger soon after the corn was removed, and repeated just before the ground froze.

Planting Distances

This spring as soon as the soil is in condition to handle we will mellow the field with the disc and level and smooth the surface with finetooth harrow, and when marked, which will be in both directions, will be ready to set.

We use a light marker (man drawn) having 4 runners, 4 feet apart.

We think it pays to mark the field in both directions even if we do care to cultivate both ways, as it is easier to space the plants evenly and also to estimate the number of plants needed for each row and the field.

We will set the Premier 24 inches apart in the row and the others 32 inches. The rows will be 4 feet apart. Good plants set that distance apart and set early on fertile soil will seldom fail to make good fruiting rows, barring white grubs and drought. We use plants of our own growing and can select and cull them as much as we like.

Varieties

We will probably set one-half or more of the field to Beaver and over half of the balance to Premier. Will set enough of Dorsett, Catskill and Fairfax for further trial.

Set Plants Early

We like to set our fields as early as the ground is fit to handle. We dig the plants with five or six tined fork, setting the fork deeply under the plants and lifting out a clump and setting it back on the freshly moved soil. After lifting quite a number of clumps, we shake the plants free from the dirt by hand, so as to keep the tops even and roots straight. As we get a handful we set them in a flat box or basket on a springling of moist dirt, setting them up straight in the box until the box is full.

Shade Plants

If the sun is shining or the wind blowing, the boxes are covered with a gunny sack and carried to the shed or basement where they are trimmed and counted and tied, usually in bunches of 25 plants. Handled thus the roots are exposed but little to the air and the roots not twisted or broken.

While very small plants may grow and finally make runners, I think that fairly large plants with well developed crowns are more likely to send out earlier and stronger runners.

While we liked a plant that had lots of leaves last autumn —in trimming we clean off all old leaves and runners and like to get them set before the new leaves get very tall.

By splitting the plants we can tell whether the crowns have been injured by freezing. If the roots have been injured they are likely to peel or pull loose from the crown easily.

AVOID LATE SETTING OF STRAWBERRIES

PLANTS dug for late setting are likely to have roots brown and withered in producing a heavy foliage growth with long leaf stems. In setting such plants, when roots are set the proper depth, the long stems and leaves make the plant seem top heavy. However, the bud must not be covered or the plant will die, and the roots must have the soil pressed firmly about them if they are to survive.

If soil conditions are good, such plants set late may prove satisfactory. If soil conditions are bad they will not do well. There is some evidence that plants dug early in ideal condition and held in cold storage at about 32 degrees F. will do much better than plants both dug and set late, partly because plants held in that way can be taken out just when soil and moisture conditions are favorable.—From Allen's Book of Berries.

PROPER SPRAY FOR RASPBERRY ANTHRACNOSE

ANTHRACNOSE is a very serious disease, especially of black raspberry. The fungus which causes the disease lives over winter in the spots on the canes.

The following sprays are recommended:

1. Use commercial liquid lime sulphur, one gallon to 9 gallons of water, and spray when two or three leaves have unfolded from the buds.

2. About one week before the blossoms open, apply lime sulphur at the rate of one gallon to 39 gallons of water. Cover the old canes thoroughly with the spray.

SPACING STRAWBERRY PLANTS

SEVERAL Experiment Stations have recently been working on the problem of spacing strawberry plants for greatest yield. It has been demonstrated that only large vigorous runner plants will produce large crops of berries. Spacing runner plants from 6 to 10 inches apart increased the number of leaves per plant and also the size of the individual leaf. It has also been demonstrated that the larger the leaf area the greater the number of berries and the larger their size will be.

A Labor Problem

The problem, of course, for the practical grower will be how to properly space the plants without involving too much labor. One fall we tried cutting out the smallest plants in a densely matted row of strawberries so that the plants would stand about 6 inches apart. After spending about an hour on a short piece of row, we decided it would be cheaper to harvest fewer berries.

There is another point involved and that is the time when the spacing must be done. Obviously we cannot wait until September to do the spacing because the fruit buds for the next year's strawberry crop are formed in September and October. Therefore at that time the root system must have plenty of room for obtaining moisture and mineral elements from the soil, and also the leaf area must be at its best so that a large number of fruit buds may be formed.

Space Early

The grower then must do his spacing early, probably in July and August. First the plants must not be planted too closely together and the distance will depend upon the variety planted. Then as the runners develop they must be guided in the right direction to produce a well matted row and not become too crowded.

It has also been shown that the early set runners produce the most berries. Runners set in June, July and August are the most profitable, because by September such plants are large enough to develop many fruit buds. Runners set in September and October produce but few berries the following year. In fact, those set in October may be classed as weeds.

Moisture is the limiting factor in strawberry production. Humus obtained by plowing under manure or green crops is one way of helping save moisture.

Plants for Sale

Strawberry Plants

Beaver, Premier, Dorsett, Gem and Wayzata Everbearing. Alfred Isaacson, Route 3, Menomonie, Wisconsin.

Strawberry and Raspberry Plants

Inspected, Heavily Mulched. Beaver, Fairfax, Dorsett, Premier. Latham Raspberry plants. Chris Laursen, Warrens, Wisconsin.

Strawberry Plants

Strawberry plants. Heavily mulched plants from a fine row. Not affected by drought. Beaver, Premier, Fairfax, Dorsett and Clark's Seedlings. John Jensen, Warrens, Wisconsin.

RASPBERRY AND STRAWBERRY PLANTS

Latham and Chief Raspberries, strong disease free certified plants that will grow. By the hundred or thousand. Beaver strawberry plants, priced to sell. Relyea Dahlia Gardens, Taylor, Wisconsin.

STRAWBERRY PLANTS

Beaver, Dunlap, Dorsett, Fairfax, Premier. Strong plants, irrigated and heavily mulched, grown on heavy soil. Our motto, Quality plants at a fair price. 25 to 100 rates only. Fieldhouse Nursery, Dodgeville, Wisconsin.

Wayzata Everbearing Strawberry Plants

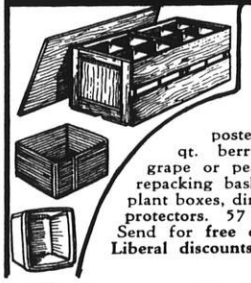
Strong well rooted plants. State certified. Offered by the originator at a big discount for cash in full with order before April 1st. Write for circular and price list.

FRED W. BRADEN
Wayzata, Minnesota

CATSKILL LOOKS PROMISING

MR. Victor Orchard of Warrens, well known strawberry grower, writes: "We fruited a short row of Catskill strawberries last summer and liked them first rate. They seem to stand lots of hot weather and taste better than the Beaver. I think they will ship almost as good. While there may not have been quite as many quarts in the same length of row as Beaver, they are nicer to pick and larger."

Berry Boxes and Crates



SAVE at Sheboygan on your box and crate needs. Check our made up or K. D. berry boxes, crates. Be posted on our American qt. berry baskets, Climax grape or peach baskets, till or repacking baskets, pansy baskets, plant boxes, dirt bands, veneer tree protectors. 57 years in business Send for free circular with prices. Liberal discounts on early orders.

Sheboygan Fruit Box Co.
2237-CT SHEBOYGAN, WISCONSIN

PRUNING RASPBERRIES

SEVERAL experiments have proven that the shorter raspberries are pruned, the smaller the crop, at least if they are cut below five feet in height. The more vigorous the canes, the more branches they can support. As a general rule, raspberries should be pruned only a little below the winter injured tip.

Plenty of humus and a nitrogen fertilizer should be provided the raspberry field. If the canes are crowded, hoe out all of the spindly canes—they are the weakest plants taking moisture and food from the heavier canes.

SPRAY CAREFULLY FOR PLUM CURCULIO

MANY plum growers have had difficulty in controlling the plum curculio. These insects lay their eggs by stinging the small plums. The eggs hatch into tiny worms which absolutely ruin the plums for market use.

The time to spray for the curculio is when about three-fourths of all the petals have fallen from the blossoms, called the calyx spray. Use lead arsenate at the rate of two pounds to each 50 gallons of spray. For smaller amounts use 7 or 8 level teaspoonsful to each gallon of water.

Before putting in the arsenate of lead, however, add common laundry soap in the same way as one would for preparing a washing—or until the water feels slippery. This is very important. It acts as a spreader and gives a uniform coating of poison on the leaves.

A second application should be made about five days after the first. The curculio may lay eggs for three or four weeks after blossoming and another application or two will do no harm if the trouble has been serious in the past.

FERTILIZER EXPERIMENTS ON RED CURRANTS

FERTILIZER experiments on the use of fertilizer on red currants at the Ohio Experiment Station indicated that nitrogen fertilizers increased the yield. No significant differences appeared in favor of potash or phosphorus in this experiment, which is in agreement with work done in New York where nitrogen gave good results but there was no benefit from potash or phosphate.

Work in both Ohio and New Work indicated that there is no difference in favor of any of the different nitrogen fertilizers, nitrate of soda, sulphate of ammonia or cyanamid. Seven kinds in all were used.

Straw Mulch Decreased Yield

When straw was used alone as a mulch, the yield was lower than on a check plot. However, when a straw mulch was used together with 200 pounds per acre of a nitrate fertilizer, the yield was greatly increased. Under the straw alone a year after the application the plants had assumed the yellowish color of the foliage.

It was also found that when fertilizer was applied there was a vigorous wood growth and pruning became necessary.

There seemed to be a slight increase in yield where nitrogen was applied one-half in the spring and one-half on September first, 160 pounds per acre being the total amount used.

PLANTS REQUIRED FOR VARIOUS PLANTING DISTANCES

Rows Apart	In the row	Total per-acre
3 ft.	18 inches	9,680
3 ft.	24 inches	7,260
3½ ft.	18 inches	8,297
3½ ft.	24 inches	6,223
4 ft.	18 inches	7,260
4 ft.	24 inches	5,445
3 ft. 8 in.	20 inches	7,128

—From Allen's Book of Berries.

HOW NEW VARIETIES ARE CREATED

PROF. W. H. Alderman, writing in the March issue of the Minnesota Horticulturist, states that it requires 20 years to create and introduce a new variety of plum or apple.

There are now 33,000 acres planted to varieties created by the Minnesota Fruit Breeding Farm since its establishment. Minnesota is a pioneer in this work. The Minnetonka Fruit Farm established in 1878 was apparently the first Fruit Breeding Station in America.

The Latham raspberry introduced bythe Minnesota Station is being grown so extensively that it represents more than half of the raspberry acreage of the United States, and produces an income of a million dollars per year to Minnesota growers.

The following is Prof. Alderman's estimate of the time required to produce a new variety of plum.

Time Required to Produce a New Variety of Plum

Years	
1—	Cross made, seed stratified
2—	Seed planted in seedbed
3—	Seedlings in nursery
4—	
5—	
6—	
7—	First test—Trees grown in seedling orchard
8—	
9—	Propagation of selected seedlings
10—	
11—	
12—	Second test in orchard
13—	
14—	
15—	
16—	Third test in widely scattered places
17—	
18—	Commercial nurseries begin propagation
19—	
20—	Named and introduced

Trees, Shrubs and Perennials for the home grounds and nursery. Moderate prices. No extra charge for baling. Write American Forestry Company, Pembine, Wisconsin.

Vegetable Varieties for 1937

By O. B. Combs

EACH year the total number of vegetable varieties increase. Likewise the choice of varieties which are most likely to prove successful under one's individual growing conditions becomes more difficult. It is for the purpose of aiding the vegetable growers of Wisconsin in their choice of vegetable varieties that the vegetable variety trials are conducted at the State Agricultural Experiment Station at Madison each season. As a result of these trials the Experiment Stations workers are able to recommend to the gardeners of the state such varieties of the various vegetables as are most likely to prove successful under Wisconsin conditions. A complete list of recommended varieties may be secured by those interested. It is the purpose of this article to discuss briefly only a few of the varieties of certain of the more common vegetables.

Cabbage

Gardeners whose soils are infected with cabbage yellows are naturally interested in planting only those varieties of cabbage which possess some degree of resistance to this disease. A number of such varieties are available: (early) Jersey Queen, Resistant Detroit, Marion Market; (midseason) Globe, Wisconsin All Seasons; (late) Wisconsin Ball Head, and Wisconsin Hollander. These yellows resistant varieties may show less uniformity to type than the older, but susceptible varieties and are therefore recommended for use only when the prevalence of cabbage yellows is such as to cause loss.

Carrots

A number of new varieties of carrots have appeared on the market during the past few years. All of these have been of the long, bunching type. Perfection, Tendersweet, Morse's Bunching, and Imperator are examples. All of these are adapted to Wisconsin conditions, but one should remember that success with long-rooted carrots demands a deep, loose, well-drained soil.

Egg Plants

Heretofore many Wisconsin gardeners, especially in the central and northern portions of the state, have been unable to grow egg plant satisfactorily because the varieties available require too long a season for successful production. Two new earlier varieties, Blackie and Black King, have been developed during the past three or four years in an effort to make possible the successful production of egg plants farther North as well as to secure earlier fruits in sections where Black Beauty and other late varieties are grown. The plants of both varieties produce an abundance of comparatively small oval to elongated fruits about two weeks earlier than Black Beauty. These varieties are worthy of trial in sections where Black Beauty is too late for successful production or where increased earliness is desired.

Sweet Corn

The most recent advancement in sweet corn varieties has been the development of hybrids with their two principal accompanying advantages, uniformity and increased productivity. From the standpoint of the home gardener or market gardener who is interested primarily in earliness, these new hybrids have not proved so popular because of their lateness. Many canners are using Golden Cross Bantam, the most satisfactory of all the hybrids, almost exclusively. The great need at the present time from the gardener's standpoint is for a variety possessing the desirable characteristics of Golden Cross Bantam in combination with the ability to produce edible ears at least ten days to two weeks earlier.

Tomatoes

A number of new varieties of tomatoes have appeared during the past few years. One of these, Pritchard, a medium early variety producing large, red semi-globe-shaped fruits, has proved very satisfactory for Wisconsin conditions as a second early and main crop variety. Three of the new varieties, Nystate, Scarlet Dawn, and Stokesdale, appear worthy of trial on a limited scale. All of these varieties produce large, red, deep fruits at about the same season as Bonny Best.

EDITORIALS

WANTED! LIFE MEMBERS IN THE WISCONSIN HORTICULTURAL SOCIETY

WITH the establishment of the endowment fund of the Wisconsin Horticultural Society interested horticulturists are invited to become life members. The life membership dues are $10.00.

The funds received from life membership dues are placed in the endowment fund and invested. The interest received is used by the Society to pay for the cost of the magazines sent to life members.

Individual members paying $1.00 per year in dues will find it profitable to become life members.

INTEREST IN PLANT TESTING

THE North Dakota State College of Agriculture, Horticulture Department, has purchased a large order of new varieties recommended by our Plant Testing Committee for trial in Wisconsin, as listed in this and the March issue of Wisconsin Horticulture.

This is especially interesting because evidently they have found these varieties to be of sufficient value to be tested in that state. The work of the committee therefore is highly important and serves as a safe guide as to what to try out in this section.

BAYFIELD STRAWBERRY FESTIVAL FRIDAY JULY 2

THE city of Bayfield will celebrate its annual strawberry festival this year on Friday, July 2nd. The Bayfield Commercial Club has already appointed committees for the event and the Agricultural Committee is planning a strawberry king contest for the grower who grows the best acre or more of strawberries.

A strawberry queen contest is also being planned. This may be similar to the cherry queen contest and will be awarded the girl who bakes and prepares the best strawberry shortcake.

A strawberry show will be held. While the details have not been worked out at this time, we expect to make full announcement of the plans in our next issue.

BEEKEEPERS NOTICE!

Wisconsin Beekeeping will be found in the pack part of this issue on page 204-207.

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BEE JOURNAL

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About the Home and Garden

Merle Rasmussen, Oshkosh

Hemerocallis

THE Daylily or Lemonlily has been given much attention by plant hybridists in recent years. The developments have been little less than phenomenal and new varieties are so great an improvement that one scarcely recognizes them as Daylilies.

The hybrid Hemerocallis are valuable border plants, as cut flowers and for utilizing partial shady positions. They are especially valuable where tones of yellow or orange are desired during summer and autumn. New varieties are of rare beauty, rich coloring, charming grace of form and some have delicate fragrance; all are unsurpassed as to hardiness and freedom from disease and insect pests. Selection may be so made that bloom is in the border from late May until frost; plants vary in height from eighteen inches to five and six feet, and in color from pale yellow to coppery-orange.

Hybrid Hemerocallis

Anna Betscher—deep orange, July flowering.

Bay State—deep yellow, July-August, 4 foot.

Donald D. Wyman — golden yellow, July-August, 2½ foot.

Gold Imperial—rich gold, July-September, 3 foot.

Gypsy—deep orange, August, tall and strong.

J. A. Crawford—large apricot-yellow, July.

Lemona—excellent lemon yellow, very early, tall.

Margaret Perry—copper yellow, 5 to 6 foot.

Mikado—large orange, mid-season.

Queen of May—deep yellow, May and June, again in the fall, 2½ foot.

Sir Michael Foster—clear yellow, July, strong and vigorous.

Yellow Hammer—large golden yellow, July, 2½ foot.

Hardy Asters

The various hardy Asters are becoming more popular each season for fall garden color. Coming in practically every shade of color, all are splendid border plants; most varieties are excellent cut-flower subjects and are in bloom when new flower forms are welcome. In height plants vary from the nine to twelve inches of the Dwarf Hybrid Border varieties to the four and five feet Michaelmas Daisies.

Several excellent varieties are on the Plant Testing List for this season. Among the larger flowered types Aster Frikarti or Wonder of Staefa and Star of Wartburg are outstanding, excellent in plant habit and as cut flowers over a prolonged season. Improved tall Novi-Belgii varieties are Charles Wilson, a bright red; Mount Everest, white; Skylands Queen, light blue; and Blue Jacket, a dark blue. Intermediate in height are Campbells Pink, Snowdrift, Royal Blue, Silver Sheen, a silvery blue, Little Boy Blue and Little Pink Lady. New colors and varieties in the Dwarf Hybrid border group include Blue Bird, dark lilac; Constance, pink; Lilac Time, Lavanda, lavender-blue; and Niobe, white.

1937 Chrysanthemums

Each season we note an increasing interest in hardy early-flowering Mums. This year we have many new introductions that are more robust and vigorous in habit; earliness of flowering is another noteworthy feature in several varieties.

Korean hybrids in double flower varieties are now available in several colors. The Moor, a wine red; King Midas, soft yellow with faint bronze, and Ember, brilliant glowing bronze, are 1937 introductions. Indian Summer, glowing orange; and Romany, red with a bronze tone, are worthy older varieties, both are double. In single forms Agnes Selkirk Clark, a very lovely blending of bronze, apricot and salmon, blooming in September, is outstanding among new introductions.

Astrid, with some Korean crossing, is a most excellent variety. The plant is exceptionally hardy, the foliage most luxuriant and healthy. The flowers are a pleasing apricot-pink of good form and substance, very desirable for cutting. It is the first of a new strain.

Emmet, introduced by Elmer Smith, grows similar to Pink Cushion, about 15 inches in height, a warm rosy bronze in

color, very free flowering, single, coming into bloom in early September. Panola, a seedling of Amelia, is a dark rosy-pink of the same dwarf habit. September Queen with large pure white flowers blooms in August and is also of dwarf habit.

Hardy Amaryllis

Lycoris Squamigera is a hardy bulb of the Amaryllis family. The habits of the plant are as unusual as the flower is attractive. In the spring a clump of leaves appear and grow quite vigorously until July when they completely disappear. About a month later the flower stalks appear, growing about two and one-half feet high and develop into umbels or clusters of large, lily-like rose lilac flowers. A light covering for Wisconsin winters is advisable. Spring planted bulbs will flower the first season. The plants increase in size and beauty each year and are an unusual and beautiful addition to the garden.

Editor's Note: Mrs. Strong's article will again appear on this page beginning with the May issue. Due to the illness of Mr. Strong she has found it impossible to prepare the material for the page during the past two months.

ANDROSACE

W. A. Toole

ANDROSACE or Rock Jasmine belong to that aristocratic "400" of rock garden plants that are looked on by most of us common rock garden bugs as exclusive and difficult to get acquainted with.

They are close relatives of the Primroses and vary considerably. Winter hardiness is not the difficulty with their culture, but dampness, especially in late winter or early spring and in fall.

Some of the varieties will always remain difficult to grow here in Wisconsin but others can be grown successfully by observing a few precautions. I have had success with A. sarmentosa and its variety Chumbyi and several other Wisconsin people have had good results.

In spring the little round rosettes of leaves covered with grey hair look like nothing so much as tiny Maltese kittens. The center of these little balls soon elongates and sends up a wiry stem 3 or 4 inches tall soon topped with a flat head of bright pink flowers.

About this time the mother plant sends out a circle of horizontal shoots like spokes and new little "Kittens" develop. Late in the season these new plants develop roots and may then be severed from the parent if increase is desired.

If these plants are grown in the sun or light airy shade in very well drained soil which has a surface layer of gravel, much of the trouble from dampness will be avoided; or they may be grown in crevices between rocks where the wooly balls may spread out on the surface of the dry warm rocks.

Try some of these little plants if you have not already done so and you will be charmed with the little furry "kittens" as much as by the dainty flowers.

SPECIAL SALE—TROLLIUS

Trollius ledebouri, Golden Queen. Strong two-year old plants of this most beautiful of all the Trollius. These plants for sale 10 @ $1.00; postpaid, 10 @ $1.25. Reserve your plants early before supply is exhausted. Henry Hartwig, 511 W. Capital Drive, Hartland, Wisconsin.

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Gleanings From the Gladiolus Patch

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M. J. Rahn, Green Bay

GLADIOLUS SOCIETY HOLDS INTERESTING MEETING

THE spring meeting of the Wisconsin Gladiolus Society at Oshkosh was well attended, 55 being present, and the program was one of the most interesting ever presented by the Society.

The Board of Directors met at 10 a. m. and inspected several proposed locations for the 1937 Gladiolus Show. The vote was unanimously in favor of holding the show at the Eagle's Club House, Oshkosh, which is ideally located and suited for the event. Dates for the show will be August 14-15. Invitations to hold the show in Oshkosh were extended by Mr. W. E. Mouck, president of the Oshkosh Horticultural Society, Mr. Williams, president of the Oshkosh Kiwanis Club, and letters were read from Oshkosh newspapers and the Mayor extending invitations and promising cooperation.

Movie Films On Gladiolus Growing

It was proposed to use $50 of Society funds for making a moving picture film of gladiolus growing in Wisconsin, the film to show grades of bulbs, diseases, planting methods, treatment for thrips, harvesting methods, and especially the leading varieties of gladiolus in color. The Bureau of Visual Instruction of the University of Wisconsin has promised cooperation in making the film. After the Society has finished showing the films to various organizations, it can be deposited in the Library of the Bureau of Visual Instruction to be loaned to schools and organizations throughout the state, thereby increasing the knowledge and interest in growing gladiolus.

Wisconsin Gladiolus Show
Eagles' Club, Oshkosh
August 14-15-1937

The motion to have the film made failed to pass and a committee was appointed to consider the matter further.

The treasurer, Mr. Otto A. Kapschitzke, reported $360.67 balance in the treasury.

The resignation of Mr. W. A. Sisson of Rosendale and Mr. G. A. Barrer of Cudahy as members of the Board of Directors was accepted. To succeed them, Mr. A. S. Haugen of Stoughton was elected as a director, and Mr. Noel Thompson of the State Entomology Department, Madison, was elected as Regional Vice-president.

Show Committees Appointed

The following committees were appointed to begin working at once on the annual Wisconsin Gladiolus Show.

Executive Committee: Walter Krueger, President; Ben Robinson, Kenosha, Vice-president; W. E. Menge, Director.

Show Manager: H. J. Rahmlow, Madison; Edwin Ristow, Oshkosh, Ass't Manager.

Entry or Floor Committee: Noel Thompson, Madison, Chm.

Classification and Prize Schedule: Walter Krueger, Oconomowoc, Chm.; Arthur Strobel, Hartford; Karl Timm, Markesan; H. J. Rahmlow, Madison.

Superintendent of Judges: Arthur Strobel, Chm.

Finance Committee: Otto A. Kapschitzke, Sheboygan.

Summer Meeting Planned

The next meeting of the Society will be held in the Madison District on Sunday, July 25th. Mr. Noel Thompson, Regional Vice-president from that district, is in charge. The meeting will probably be held with some large gladiolus grower where varieties may be studied and it will be in the nature of a picnic. Further announcements will be made later.

HOW DO YOU LIKE PICARDY?

ALMOST everyone has written good reports for Picardy. For myself, think it was great. I would like to hear from growers as to the growing habits for the past two years compared to other glads in their garden. I grow about 2,500 Picardy and the past two years they did not do so

The Best New Glads

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well. There were many crooked spikes, with short and poor placements. Perhaps this is due to our poor growing season, but how does this compare with other varieties?

I will appreciate a report in Wisconsin Horticulture, as I know many will be interested.—R. W. Jantz, Eldorado.

GOLDEN GODDESS

Dr. D. L. Floore, Columbus

LAST year I ordered one bulb of Golden Goddess, the new patented yellow Gladiolus of Salbach's.

A mammoth bulb was received. Printed on the bag was a caution not to sell or give away the bulb or its increase. When the summer's heat was registering 100 degrees in the shade, one spike, the first of two, came into bloom. I first noticed it one evening after a day of intense heat. About six of the lower florets were open and wilted.

I had promised some friends that I would show them Golden Goddess that week so I cut the wilted spike and laying a wet bath towel on my cellar floor I covered the stalk to keep it cool and moist. I placed the flower spike as straight as possible and arranged the buds and bloom, no trouble to "finger" the spike as it was as "limp as a rag."

I did not see it again for 24 hours and was then surprised to find the spike straight and stiffened and even the wilted petals of the open florets had regained their freshness. Twelve were open and my friends were delighted with the new variety.

After the second spike came into bloom with cooler weather we classed Golden Goddess the best yellow to date.

From Green Bay

"The selection of favorite glads as published in the December magazine conincides with my opinion," writes M. J. Rahn, of the Flower Gardens, Green Bay.

"One would not be far wrong if he confined his choice to the first and second placements. Undoubtedly many of today's leaders will be replaced by newer varieties in the near future. Everyone growing seedlings hopes to produce another Picardy or Miss New Zealand.

"Meanwhile we can do much to improve those we now have by good culture and by that I mean plenty of water, cultivation and fertilizer."

RARE WILD FLOWER REFUGE PLANNED IN DOOR COUNTY

A REFUGE for the rare wild flowers on the ridges at Baileys Harbor in upper Door County is being planned by organizations in Sturgeon Bay.

Mr. Albert M. Fuller, Curator of Botany of the Milwaukee Public Museum, originated the idea to develop the area into a botanical garden. He predicts that the place will attract thousands of visitors in years to come, and stated that already many students of botany study the native flowers in this area.

The Sturgeon Bay Woman's Club under the direction of Mrs. Chas. Irving, Chairman, invited Mr. Fuller to speak in Sturgeon Bay on the subject. As a result the plans are in progress not only for preserving this section, but to improve the area by building trails in proper places.

There had been a movement on foot to make this area into a camp site which would have destroyed the native flowers and orchids which abound here.

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GLADIOLUS BULBS

Write for new price list of all leading varieties including 1937 introductions. Albert S. Haugen, Route 3, Stoughton, Wisconsin.

Plant Testing Varieties

PRICE LIST

Malus Sargenti, 3-4',	$1.25
Lonicera Syringantha, 2-3',	.65
Viburnum Sieboldi, 2-3',	.65
Vitex Macrophylla, 18-24",	.65
Elsholtzia Stauntonii, 2-3',	.75
Hydrangea Petiolaris, 12-18",	1.25
Rose Dr. Eckener, 2 yr. No. 1	.60
Rose Springtime, 2 yr. No. 1	1.00
Lilium Cernuum,	.35, 3 or $1
Tritoma Miniature Hybrids,	.35, 3 for $1.00
Tritoma Early Flowering, Multicolored Hybrids,	.35, 3 for $1.00
Aster Frikarti,	.50
Aster Mme. Carroy,	.25
Aster Luteus Hybrid,	.30
Aster Amellus King George,	.35
Dianthus Rose Dawn,	.40
Aquilegia Crimson Star,	.35
Iris Dichotoma,	.30
Chrysanthemum White Swan,	.25
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Be Original In Arranging Flowers

Emma C. Schipper

A NUMBER of Wisconsin people attended the series of three lectures on flower arrangement given by Miss Alice Carson in Chicago, Feb. 8 and 9, under the auspices of the Garden Club of Illinois.

Miss Carson illustrated her talk with demonstrations and blackboard drawings.

The first bit of advice given us was, "Never try to do the same thing twice and never copy anyone. Learn to see lines or masses, confined by lines."

Point of Interest

Emphasis, or point of interest, was the principle most often referred to in these lectures. It is the art principle by which the eye is drawn to the most important part in an arrangement and from there to every other part in order of its importance. The point of interest should be near the center of an arrangement. This is achieved through the use of color, line, size, or massing of smaller flowers.

Flowers of one kind should be grouped so as to have a linear quality, the dominant line leading to the point of interest. Foliage should be pruned out where necessary to give this quality to an arrangement. There should be interesting spaces to the outside of an arrangement. Massing should be close to the opening of the container; the sides thinned out so as to provide these spaces.

Always use flowers in various stages of development; seed pods and even flowers that have lost some of their leaves. Turn flowers so as not to have them all face one way; sides and backs of flowers and leaves add interest.

Height of Arrangement

The rule of one and a half times the height of container is merely a check and should not be a hard and fast rule. The type of material used determines the proportion.

There are many different shapes in flower arrangement. Among them are the round, the pyramidal, and the triangular.

1. Round or dominants. Flowers important for their color rather than their form; flowers having weak stems and little foliage, such as the daisies.
2. Spike—in color.
3. Leaf forms — round or spikes.
4. The softeners. "Be wary in the use of these," Miss Carson warned, "as they often destroy the linear quality of an arrangement."
5. Flowers to be used by themselves, of fine **color, form** and foliage, such as orchids, lilies, amaryllis and roses.

These are best used alone and with the addition of other foliage only when necessary. Spike flowers when used alone should have large leaf greens added to help create a point of interest. Round or dominant flowers when used alone should have foliage with spiky leaves added. Even vegetable leaves can be used with good effect.

The begonia leaves, iris, yucca, pandanis, and aspidistra leaves were recommended.

The best shapes for containers were those more nearly approaching the geometric in form, as, the circle, the rectangle, the cylinder and the triangle.

Containers

Earth colors in pottery, not highly glazed, old copper, old pewter, and white Italian pot-

tery which has a terra cotta base showing through were favorites of Miss Carson.

Glass of a flaring shape was thought to be too difficult to handle, and silver was not satisfactory because of the high lustre causing too much competition between flowers and containers.

Containers for use on round or square dining tables should be either round or square. For the oblong table the oblong container is best suited.

Suitable material for table covers can be purchased in the dress department. Plain linen was thought more appropriate than damask with a high lustre. Tables can be set without any cloth if the china is attractive as the wood makes an excellent background. Lace is appropriate if made a feature and the china used not ornate. Here again the principle of emphasis was brought out. Clear glass was recommended instead of colored glass and cloth used were about the same tone; otherwise the colored glasses had a spotty effect on the table. Miss Carson concluded her talk on table settings with a demonstration of a Japanese arrangement suitable for a centerpiece.

SHELLAC FOR TREE WOUNDS

COMMON shellac is probably as good a dressing for tree wounds as we have because it is easily obtainable and seems to be satisfactory in every way. The wounds should be shellaced within a few minutes after the cuts are made. Small wounds need not be covered.

In cutting branches it is more important to cut the branch flush with the trunk or main branch than it is to cover it after the cut is made. Remember that the food for healing the cut is manufactured in the leaves and it is transported downward through tubes in the bark. None of this food, therefore, can pass upward into the stump of a branch which has been cut off. The branch, therefore, must be cut flush with a trunk or branch still having leaves in which this food is manufactured.

NEW ANNUALS RECOMMENDED

AN article in the February 15th issue of Horticulture published by the Massachusetts Horticultural Society, lists the following thirteen new annuals as recommended for 1937. Commenting on the varieties, the author makes this statement.

"There is this about annuals —if they fail to thrive satisfactorily, one suffers no great loss. For that reason, garden makers should feel particularly free to experiment with the newer varieties. It is fair to say, too, that there is every reason to expect success. Most of the novelties now being put on the market have been tested under varying conditions and with reasonable care will give a good account of themselves."

The Recommended Thirteen

1. Ageratum Blue Boy
2. Aster Golden Sheaf
3. Centaurea Jubilee Gem
4. Chrysanthemum Yellowstone
5. Cosmos Sensation
6. Daisy Tahoka
7. Marigold Crown of Gold
8. Nasturtium Apricot
9. Rudbeckia My Joy
10. Scabiosa Rosette
11. Tripteris hyoseriodes
12. Verbena grandiflora Crimson Glow
13. Zinnia Desert Gold

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Elkhorn

GARDEN CLUB DAY AT THE NATIONAL FLOWER SHOW

Tuesday, April 13, Milwaukee Auditorium

GARDEN club members are especially invited to attend the National Flower show on Tuesday, April 13th, which has been designated as Garden Club Day. Three speakers, who will be the judges on the preceding day, will talk at the meetings to be held beginning at 10 a. m. They will discuss the exhibits they judged and flower arrangement, until noon. The afternoon will be devoted to visiting the show.

There will be no extra charge for the lectures.

NATIONAL COUNCIL MEETING DATES CHANGED

Cleveland—May 25-28

OWING to conflicting dates with the annual meeting of the Garden Club of America in St. Louis, it was found advisable to change the dates of the National Council annual meeting in Cleveland, to May 25-28.

Registration blanks have been mailed to State Federation presidents. Those planning to attend should write to President Mrs. Chester Thomas, Route 2, Thiensville, Wisconsin, for a registration blank. The fee is $15.00 for all registrations received by May 10th. After that there will be an additional $5.00 charged.

Headquarters will be at Wade Park Manor, 107th Street, Cleveland.

COMING EVENTS

April 3-11. Chicago Flower Show. Navy Pier, Chicago, by the Garden Club of Illinois.

April 10-18. National Flower Show. Auditorium, Milwaukee.

May 25-28. Annual meeting of the National Council of State Garden Clubs at Cleveland, Ohio.

WELCOME TO NEW CLUBS

THE officers of the Wisconsin Garden Club Federation and the Wisconsin Horticultural Society wish to welcome to membership the West Bend Garden Club, organized March 9th.

Officers elected were:

President: Mrs. Ida Wiebe, 322 N. 8th Ave.

Vice-pres.: Miss Edith B. Heidner, 414 Poplar St.

Secy.: Miss Zella Loomer, 226½ S. Main St.

The Marinette Garden Club was organized in March, and the members have expressed their desire to join the Federation and the Horticultural Society. Interested gardeners from Menominee, Michigan, have also joined this club. Officers elected were:

President: C. B. Bowden, 1232 Merryman St.

Vice-pres.: Mrs. H. R. Bell, 1714 Main St.

Secy.-Treas.: Mrs. Geo. E. Pestrui, Hotel Marinette.

ATTENDS PACIFIC COAST CONFERENCE

A LETTER from Mrs. B. W. Wells of Madison, who is spending several months at Phoenix, Arizona, for her health, states that she was able to attend the Pacific Coast Regional Garden Club Conference at Phoenix, March 11-13. A splendid program of educational lectures was given. The meeting was attended by a number of National officers.

Mrs. Wells states that she is "thoroughly sold on Phoenix climate." Writing early in March she stated that the following flowers were blooming: roses, sweet peas, calendulas, larkspur, petunias, nasturtiums, venidium, ranunculas, daffodils, pansies and violets, and the city is filled with orange and grape fruit groves and many other fruits.

SUMMER MEETING PLANNED

A TWO day tour of parks and gardens is being planned for Wisconsin Garden Club Federation members. It will be held late in July or early August over a week end.

Garden Club Exhibits At the National Flower and Garden Show

Mrs. R. Hibbard, Wauwatosa

ALL classes in the amateur section of the National Flower and Garden Show had been reserved before the closing date. We are sorry that some clubs sent in their reservations a little too late, and will therefore be unable to exhibit.

The local committees for assisting on the floor are:

Staging: Mrs. H. E. Freudenberg, Wauwatosa; **Registration:** Mrs. E. A. St. Clair; **Judges:** Mrs. Chester Thomas, Thiensville; **Hospitality:** Mrs. R. R. Hibbard, Mrs. E. R. Durgin, Mrs. Chester Thomas, Mrs. H. E. Freudenberg, Mrs. W. F. Roecker, Mrs. R. H. Sewell, Mrs. E. A. St. Clair, Mrs. R. C. Schissler, Mrs. Clarence James, Mrs. F. Neidermeyer.

Committee in Charge of Table Decoration Classes: Mrs. Arno Krueger, Wauwatosa, Chm.; Mrs. Max Schmitt, Wauwatosa, Co-chairman; Assistants: Miss Celia Dix, Milwaukee County Horticultural Society, Mrs. H. H. Thomas, Blue Beech Garden Club, Miss Alma Hoffman, Art Institute Garden Club.

The following are the garden clubs which have made entries in the classes stated.

Garden with Water Feature: Blue Beech, Green Tree, Sum-Mer-Del, Juneau Heights, West Allis, Hillcrest, Art Institute, Hales Corners, Nature Club of Milwaukee.

Dooryard Garden: La Belle, Country Side, Milwaukee Post Office Employees.

Terrace Garden: Racine, Wauwatosa.

Still Life—A Nature Picture: Fox Point, Racine, Blue Mound, La Belle.

Silhouette: Racine, City Club, Art Institute, La Belle.

Saturday, April 10

Artistic Arrangement — Upright Niche: La Belle, Shorewood, Whitefish Bay Woman's Club, Garden Division, Town and Country Club, Art Institute, Sum - Mer - Del, Racine, Hawthorne.

Still Life: Elm Grove, Green Tree, Art Institute, Milwaukee County Horticultural Society.

Monday, April 12

Artistic Arrangement — Upright Niche: Elm Grove, Garden Division, Whitefish Bay Woman's Club, West Side, Wauwatosa, Superior, Elm Grove, Garden Division, Wauwatosa Woman's Club, Hillcrest.

Still Life: City Club, Art Institute, Racine, Hawthorne.

Wednesday, April 14

Artistic Arrangement — Upright Niche: Wauwatosa, 4 entries, Menomonee Falls, Elm Grove, Hawthorne, Hales Corners.

Still Life: Elm Grove, Art Institute, 2 entries, Milwaukee County Horticultural Society.

Friday, April 16

Artistic Arrangement — Upright Niche: Elkhorn, Elm Grove, Wauwatosa, 2 entries, Garden Dept., Wauwatosa Woman's Club, 2 entries, Town and Country, Fort Atkinson.

Still Life: Elm Grove, City Club, Art Institute, West Side.

Saturday, April 10

Tables — Nations, Period, Spring luncheon, formal dinner: Art Institute, 2 entries, Green Tree, Garden Dept., Whitefish Bay Woman's Club, Wauwatosa, 2 entries.

Tuesday, April 13

City Club, Art Institute, Wauwatosa, Country Side, Elm Grove, Baraboo.

MODERNISTIC Flower Arranging by Barbara Sagel Meisse, published by Orange Judd Publishing Company. Still another book on this ever popular subject. The title unfortunately rather misleads one to expect more of the "modern" school of art whereas it simply means present-day arrangement. The contests include the Phoenix of Modern Art, Plant Materials, Containers, Form, Color, Composition, Table Decorations, Christmas arrangements and description of the 33 arrangements shown in the illustrations. Although containing a great deal of interesting material the author is inclined to be a little biased toward the use of "rules," some of which are too much along the line of "thou shalt nots" of so many present-day writers and judges.—By Victor H. Ries, Ohio.

PLANTS FOR SHADY PLACES

PROF. Victor H. Ries of Ohio recommends the following plants for shady places:

Flowers — Lily-of-the-valley, Plaintain Lily (Hosta), Aquilegia Monarda, Foxglove, Forget-me-not, Meadowrue, Monkshood, Virginia Bluebell.

Shrubs — Low: Alpine Currant, Regal Privit, Coralberry, Fragrant Sumac.

Shrubs—Tall: Flowering Currant, Ibota Privet, European Privet, Arrowwood, Five-leaf Aralia.

Evergreen—Japanese Yew, Hemlock, Euonymus vegetus, Euonymus corrieri, Ilex glabra, Mahonia.

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YOUR TREES
Pruning — Cavity Treatment
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LAKESIDE 2907

THE GARDEN CLUB OF THE AIR

WISCONSIN garden clubs will again broadcast over the University Station WHA (940 K) and Station WLBL, Stevens Point (900 K) at from 10:15 to 10:45 a. m. on Tuesdays.

The following is the program for April. Notice that there will be garden club topics every Tuesday at the above hour, which is the Homemaker's Hour. Make it a habit to listen in.

April 6. Rural People Singing, Amy Gessner; Children in Forestry, Mrs. Frank Quimby, Racine.

April 13. The Garden Club of the Air—Madison West Side Garden Club. Early Spring in the Garden; 1937 Plans for the West Side Garden Club, Mrs. E. L. Sevringhaus; Primroses, Mrs. Walter Dakin; Daffodils, Mrs. Hans Reese; Birds, Mrs. R. A. Walker.

April 20. Madison Garden Club. Civic Work, Dr. W. T. Lindsay; Garden Topics, Wilfred Newell; Anemones, Mrs. J. A. Connaughton.

April 27. Baraboo Garden Club. History and Development of Tulips.

FOR YOUR MAY MEETING

TWO sets of lantern slides are available for club meetings and are especially appropriate for May and June meetings as follows:

1. How to arrange Flowers. 27 slides prepared by garden club members for the State Garden Club Federation, available at $1.00 from the Bureau of Visual Instruction, University of Wisconsin, Madison.

2. Modern Japanese Flower Arrangement. 28 lantern slides prepared by the Wisconsin Garden Club Federation with a very interesting lecture. Available at $1.00 from the Federation. Write the Wisconsin Horticultural Society, 1532 University Avenue, Madison.

Be sure to send notices of your flower show dates to the Horticultural Society for publication in the May issue of Wisconsin Horticulture. We would like to list all shows to be held during May, June and July, with location of building, type of show, admission price, and dates.

FLOWER SHOW BULLETINS

COPIES of the bulletin entitled "Wisconsin Flower Shows—Their Organization and Premium Schedules" published by the Wisconsin Garden Club Federation, are still available. The price is 15c each, 2 for 25c, postpaid, obtainable from the Horticultural Society.

A circulation describing the new method of judging flower shows which has become so popular in Wisconsin and is being used in many other states, is available free from the Wisconsin Horticultural Society.

Many cities in Wisconsin do not as yet have garden clubs. If you know of gardeners who are thinking of organizing a club, have them write the Wisconsin Horticultural Society for a copy of the pamphlet on "How to Organize a Garden Club."

TULIP FESTIVAL IN HOLLAND, MICHIGAN

THE Ninth Annual Tulip Festival will be celebrated in Holland, Michigan, this year, May 15-23. There will be tulip tours through eight miles of tulip lanes, the "Dutch Village," the "Made in Holland" exhibit, the Netherlands Museum, and special events.

A complete program may be obtained by writing the Chamber of Commerce, Holland, Michigan.

TIMELY GARDEN TOPICS

GAILLARDIA Sun God is being given high praise in many quarters and where it can be grown well it is very beautiful. However, it is said to be rather difficult to grow and in many sections cannot be grown successfully. For those who are interested in trying to grow difficult things, this will have an attraction.

Proper Fertilizers for the garden continue to be rather a mystery to many amateur gardeners. To anyone not having studied soil chemistry, articles on the deficiency of various chemical elements and the characteristic symptoms of these deficiencies in the plants are difficult to understand. Those who wish to grow special plants exceptionally well must study the requirements of such plants.

For the small gardener who wishes to grow a number of varieties for pleasure probably the use of wheat bran is as simple a way to fertilize the garden as any. Use from 50 to 100 pounds of wheat bran on one-thousand square feet of garden. Spread it over the soil and dig it in this spring. It will provide nitrogen, phosphate and potash in small amounts and also add humus to the soil.

Those who have larger gardens should use the commercial fertilizers prepared for garden use by manufacturers. In addition to the mineral fertilizers, however, humus must be added. Peat moss seems to be the most easily obtainable. It must be remembered that we cannot cultivate the garden year after year without losing the humus which decomposes rapidly and is lost within a few years.

FEDERATION OFFICERS WILL BROADCAST

The officers of the Garden Club Federation will speak over station WHA, Tuesday, May 11.

BIRD VISITORS OF THE SEASON

Mrs. E. L. Roloff, Madison

AMONG the unusual visitors at our regular bird family feeding station this winter were a flicker and two robins—both members of our migratory bird family, and evidently were left-overs when their kin trekked to the southland last fall. They were daily visitors through January and February on the Mountain Ash tree, feasting upon the berries until the supply was exhausted.

Cedar waxwings, the gypsies of birddom, were transient guests off and on feeding on the berries and seeds of the asparagus vines and Mountain Ash berries. Greatly to our sorrow, the dreaded and much despised newcomer to Wisconsin from the east—the Starling—has been an occasional caller.

Our regular winter bird family includes chickadees, white breasted nuthatches, brown creepers, downy woodpeckers, hairy woodpeckers, red-bellied woodpeckers and blue jays—all suet eaters; also cardinals, juncos, tree sparrows, purple finches and the chickadees, all seed eaters.

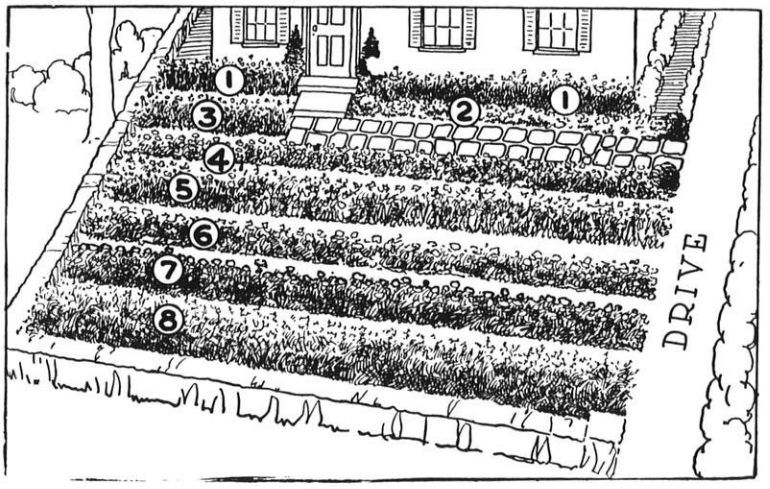
HERBS IN THE GARDEN

BY all means devote a little corner of your flower garden to herbs this season. They are easy to grow and a real kitchen help during the entire year. Good varieties are sage, borage, horehound, lavender, Marjoram, thyme and mint. There are others and sage is probably of the greatest value in making dressing.

Last fall we cut the tops off of our herb plants, washed them and then laid them on a piece of newspaper in a warm room. There they dried in a few days after which the leaves were stripped from the stems and placed in mason jars for use in the kitchen.

Plant Flowers In the Front Yard

By Mrs. Francis King



Key to Front Yard Flower Garden. Designed by Mrs. Francis King: 1—Miniature Sunflowers (Helianthus cucumerifolius). 2—Celosia Plumosa mixed (Ostrich plume or feathered cockscomb). 3—Cosmos Orange Flare. 4—A Giant Yellow Zinnia. 5—Nicotiana Affinis (Sweet tobacco). 6—Marigold Guinea Gold. 7—Giant Rose Zinnia. 8—White Annual Larkspur.

ON the small lot and especially if the house stands on a quiet street with not too many cars always parked before it (for the smells of cars and flowers do not mix well) why not use the whole front of the lot as a gay garden? If the place is a rented one, or lived in for the first year, the quick solution is to sow seed, to use annuals alone. Therefore these suggestions will be mainly for the use of annuals.

The seed catalogs give full directions for sowing, for starting seeds indoors or out, so that their arrangement will be emphasized, and general good effect will be specially dealt with. Wherever a hedge is specified it is one of privet ibota, kept clipped to two feet high by one wide.

In the sketch above such a low hedge encloses the flowers except those between entrance walk and house. If the house is brown use miniature sunflowers (helianthus cucumerifolius) against it, below these a line of giant yellow zinnias, next the tall white, nicotine, then marigold Guinea Gold, a giant rose zinnia, and nearest the front hedge successive sowings of seed of white annual larkspur. Used in this order a very nice picture should result.

Note: All over the world, except in the United States, flowers are planted in front yards. A fashion for lawn and shrubbery plants unrelieved by color has prevailed in American suburbs for a decade or more. With business recovery, and the dawn of a happier era, this fashion is being questioned. Our foremost garden authorities are agreed that the time has come to create a livelier, gayer setting for our homes.

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. Millie Francis, West Allis, R. 4, Box 608 Recording Secretary-Treasurer

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

VOL. XIII APRIL, 1937 No. 4

Notes On the Recent County Beekeepers' Meetings

UP TO the present time (March 15) we have held 16 county association beekeepers' meetings. The attendance, with only two exceptions, was above previous estimates. We have three more meetings scheduled but up to the present date, Buffalo county had the best attendance. Thirty-two beekeepers registered there. In most of the other counties, 20 or more registered. In a few cases bad roads may have cut down the attendance.

Wintering

Nearly all beekeepers reported very few known losses of colonies that are being wintered either in the cellar or out-of-doors. One Milwaukee county beekeeper had a heavy loss caused by mice getting in the hives.

There is still a chance for a considerable loss through starvation.

At every meeting some members said they were ordering package bees.

Foul Brood Appropriation

At all these meetings the question of a larger appropriation for state clean-up of American foul brood was discussed. At every meeting but one, the beekeepers were 100% for the appropriation. At this one meeting one good beekeeper said he would be opposed to it until some law was passed that would keep all honey from other states from being sold in the state. He seemed to be alone in this opinion.

At nearly all the meetings there were several beekeepers who had never attended a beekeepers' meeting before. We hope that most of them will form the habit of attending and that they will become cooperators with the other members. Many of them indicated by the questions they asked that they have good cases of the "bee fever" and no doubt they will be heard from again. New blood is needed in all industries and especially with ours.—C. D. Adams.

COUNTY APPROPRIATION FOR DISEASE CONTROL

TWENTY-ONE counties have appropriated a total of $4,126.94 for the control of bee diseases this year, according to E. L. Chambers, State Entomologist. The appropriations were made as follows:

Brown county, $200; Buffalo, $301.94; Clark, $200; Dane, $300; Dunn, $50; Eau Claire, $200; Fond du Lac, $200; Grant, $100; Jefferson, $75; Kenosha, $300; Marathon, $50; Milwaukee, $250; Outagamie, $200; Ozáukee, $100; Racine, $300; Rock, $200; Sheboygan, $100; Vernon, $200; Washington, $100; Waukesha, $500, and Waupaca, $200.

Last year 31,108 colonies of bees were inspected in 3,425 yards in the state. These figures include inspections of 25,916 colonies in 3,149 yards in those counties that had appropriated money to cooperate in the bee disease area cleanup program.

In the entire state 1,665 colonies infected with American foul brood were found in 544 apiaries.

THE APPROPRIATION FOR FOUL BROOD ERADICATION

THE first hearing on bill No. 458A to appropriate $31,000 per year for eradication of American foul brood from Wisconsin, was held before the Assembly Committee on Agriculture, Thursday, March 18th. Officers of the State Association and specialists of Madison were called on by Mr. Arthur J. Schultz, Ripon, president of the Association, to discuss the various phases of the bill before this committee.

The bill will come up before the Joint Finance Committee early in April. In the meantime, it must be engrossed or passed by the members of the Assembly. While the officers of the State Association have contacted many Assemblymen, it will remain for the beekeepers to write to the Assemblymen from their home community if this bill is to eventually pass. Remember that there are 100 Assemblymen and 33 Senators, and they represent the sentiment of the voters back home in their district. Have you written to your representative in the legislature?

Bees Wintering Well

THE bees have wintered well. This has probably been as mild a winter as we have had for many years and outdoor packed bees have wintered well if they were well provided with good stores. Because of several flights during the winter they had the advantage over cellar wintered bees. There was a flight at Madison the latter part of December and a number of flight days the first week in March, so even with relatively poor stores which means of course, granulation of honey, there should not have been any losses from dysentery this year in the southern half of the state.

To Scrape Bottom Boards

We discovered an easy and quick way for cleaning bottom boards in outdoor wintered colonies this year. We used a snow or ice chisel such as is used for cleaning the sidewalk, made of a heavy piece of steel about six inches wide. One man places his foot on the edge of the bottom board to prevent it from tipping up. The second man tips the hive bodies backward so that the dead bees can be quickly scraped off the bottom board with the snow chisel. It works fast, causes little disturbance and certainly helps the bees a great deal in cleaning up their home in early spring.

Brood the First Week in March

On March 6 the temperature at Madison went up to about 60 degrees so curiosity prompted us to see if there was brood in the colonies. Opening up a half a dozen we found that there were eggs and brood in every good colony.

Spring Feeding

We venture to predict that there is a greater shortage of honey or stores in the colonies this spring than there has been for many years. When we consider the amount of honey and pollen required to produce young bees so that the colony may be strong when the early honey flow begins, it is important that we provide light colonies with feed this spring. Feeding a ten pound pail of sugar syrup will be a good investment.

INSTALLING PACKAGE BEES

RELEASING the queen as soon as the bees are introduced to the hive is becoming the most approved method of installing package bees. Mr. Morey Pettit, well known queen breeder and beekeeper of Georgetown, Ontario, recommends this method.

Briefly, the steps are as follows:

On arrival, keep the packages in a dark room and either spray or paint sugar syrup on them to gorge them with food.

Mr. Pettit recommends installing them in the evening with the headlights of the car for light so they will not fly. The bees are shaken into the hive by removing the screen on one side and shaking them into a space left by removing a few combs. The queen cages are then opened and the queens allowed to run among the bees. If they have been well fed and are confused by being shaken out, the introduction is practically sure. The package is placed in front of the empty hive so that the remaining bees can go into the entrance.

The queen begins to lay almost immediately. If at all possible, combs containing honey and pollen should be furnished. These not being available, sugar syrup must be fed until nectar from flowers comes in.

FOR SALE

Two frame, hand power honey extractor for sale. Used one season. Eddie Krueger, Reeseville, Wisconsin.

FOR SALE

24 Cases of 60-lb. second hand honey cans, two in the case. Good as new. H. M. Schultz, Waterloo, Wis.

FOR SALE

Used 10 frame and 8 frame hive bodies, bottoms and covers. Also some comb honey supers. Half price. All factory made. Disease free. E. L. White, Fort Atkinson, Wisconsin.

HONEY WANTED

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

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Be guided by the experience of others and consider these vital points:

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Get our free samples and quotations on quantity orders.

INDIVIDUAL SECTIONS of comb honey are preferred by many hotels, restaurants, etc. Write us about them or any other special size sections.

August Lotz Company
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NEWS

THE Indiana Beekeepers Association reports that the great flood swept away over two thousand colonies of bees in parts of Indiana. This included all equipment—a very serious loss.

Small Entrances

Larger entrances for wintering colonies outdoors is being advocated by beekeepers to the South of us. They state that small entrances such as one-half by three-eighths inch gives insufficient ventilation and are too likely to get clogged, resulting in great dampness.

We have always believed in a larger entrance than this and have adopted the practice of leaving an opening one inch wide, the depth of the regular bottom board used in summer, at one side of the hive rather than in the center.

Brood Rearing in Late Winter

We find the following statement in the report of the U. S. D. A. Honey Market Report for January 15. "Because of the warm weather beekeepers fear that brood rearing may have started in hives that were not well packed." Why do they fear this? Dr. Farrar, in his work on the value of pollen for brood rearing states that strong colonies well provided with honey and pollen may start brood rearing as early as February and that this is the reason why they come out so strong in the spring.

We anticipate that there will be many weak colonies and dead colonies from lack of sufficient food in the colony last fall.

We are still of the opinion that it is more important in wintering bees to consider what is inside of the colony than what is on the outside during the winter months. Let's talk less about packing and more about proper stores.

Early Flights This Year

Probably a great advantage for outdoor wintered bees this year was the early flights possible in most sections of the state. Bees had good flights the week of March 1st when the temperature reached over 40 degrees for several days. Dysentery should not be a problem under such conditions. Brood rearing, however, will begin and plenty of stores are necessary.

NATIONAL BEEKEEPERS MEETING

WASHINGTON, D. C. October 25-27

WHAT will be perhaps the biggest meeting of beekeepers ever held in the United States, will take place in Washington, D. C., October 25-27. The meetings will be held in the Washington Hotel and the entire 7th floor will be turned over to the use of the beekeepers.

The banquet hall will accommodate 800 guests, and it is planned to make this an International Meeting. It will be a wonderful opportunity for a vacation. Let's hope the honey crop will be good so we can go.

CLIPPING QUEENS DOES NOT MAKE BEES UGLY

MR. Joseph Garre of Aniwa, Marathon County, writes that last fall a beekeeper asked him the question, "Have you ever observed that if one clips the queen's wings, the bees subsequently become very cross?"

Mr. Garre states that it is his opinion that clipping the queen's wings does not have any bad effect upon the temper of the bees. He has clipped wings for a decade and has some that are very gentle, but there are always a few that turn out to be cross.

He has also had the experience that cross bees sometimes become more gentle within a few days after exchanging queens.

If a gentle colony became very cross after the queen's wings were clipped it may be that the queen was injured, then superseded—the young queen mating with a drone from an ugly colony which then might result in the young bees produced being very ugly.

HELP WANTED

Beekeepers, aged 39, desires expert housekeeper, preferably one who is familiar with, or interested in, beekeeping. Apply B-15, c/o this magazine, stating age, qualifications, references, and salary desired.

HONEY

Honey for sale. About 6,000 pounds of the finest extracted honey. F. E. Matzke, Juda, Wisconsin.

FOUNDATION

is a necessity to good beekeeping. It is impossible to get nice straight combs in frames without foundation and, above all, a good saleable honey in sections.

Send us your wax to be worked into foundation both brood and thin surplus.

Write us for prices and full information.

We carry a complete line of supplies for the beekeeper at the lowest possible prices.

Send for price list.

GUS DITTMER COMPANY
Augusta, Wisconsin

Swarm Control

(Continued from March)

When the honey flow begins operation (1) should be performed with all normal colonies.

"Operation (1)—in the swarm control program is to place the queen with one frame of brood and nine frames without brood in the lower hive body. A queen excluder is placed above this hive body then the small super is placed on the queen excluder and the second hive body with most of the brood is placed on top. The one frame of brood placed in the lower body is put in the center. If more than ten frames of brood are left over for the top body the surplus frames are given to a weak colony and empty combs or sheets of foundation are used in their place in the colony being treated. The unsealed brood is placed near the center of the upper hive body and the sealed brood near the outside.

Special Inner Cover

"A special inner cover is made with a 3/8 inch stripe 3/4 of an inch wide nailed around the edge of both the upper and lower side of the board. This inner cover is the same as the one we use except that it has the 3/8 inch strip providing a bee space below as well as above the board A wedge shaped piece of the 3/8 inch strip about 1 1/4 inches long is cut out of the middle of the upper and lower surface on three sides. The wedge shaped pieces are to be removed and the space left to serve as entrances when needed. The hole in the center of the bee escape is covered with a wire screen.

"Operation (2)—Three days after operation (1) place the specially prepared inner cover below the upper hive body, but above the honey super. Place it so the solid side faces the front of the hive. Remove the upper block or wedge of the inner cover on the right side of the hive. The bees in the upper body are separated from those below. They have the space provided by the removal of the small block as an entrance. The old or field bees will leave the upper body through this opening but will return to the lower because they were accustomed to the old entrance. The younger bees will use this new opening as their entrance. The bees in the upper body, because they are queenless, will begin to build queen cells.

(To be continued)

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.

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G. B. LEWIS COMPANY

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

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Emil Hince, Portage, Wis.
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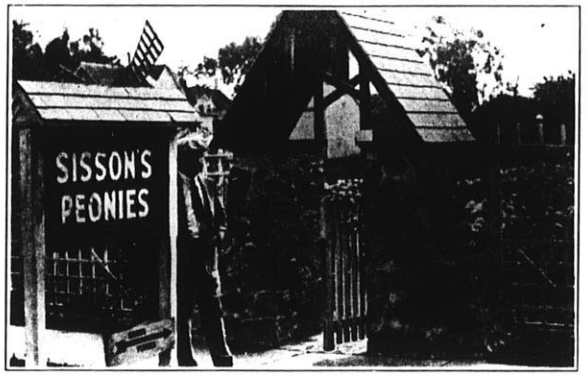
Ohmert Honey Co., 380 Wartburg, Dubuque, Iowa
Standard Lumber Company, Winona, Minn.

Support the American Honey Institute



As soon as the frost is out of the ground and before new growth starts, it is all right to dig and plant out peony roots. At this time we fill all spring orders.

Sisson's Peonies
ROSENDALE, WISCONSIN
Highways 23-26 Intersection

BEES QUEENS

In our Louisiana Apairies we are growing 100 queens daily. Count on us for quick shipment of extra fine, young three banded Italian laying queen bees. We guarantee them to satisfy you completely. 75c each.

Overweight swarms of baby bees, all pure Italians, with young purely mated laying queens, shipped in light weight cages, guaranteed to reach you safely and to equal any. Our men ship about five thousand swarms annually and know how.

2 pound swarms with young queen, each $2.45
3 pound swarms with young queen, each $3.15

Send all orders to us at Paducah for quickest shipment, the best and biggest guarantee for complete satisfaction.

Walter T. Kelley Co.
Bee hive Factory and Main Office, Paducah, Ky.

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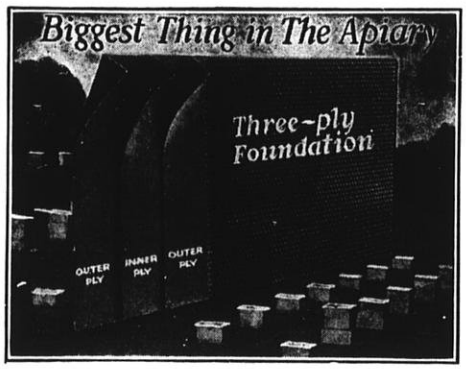

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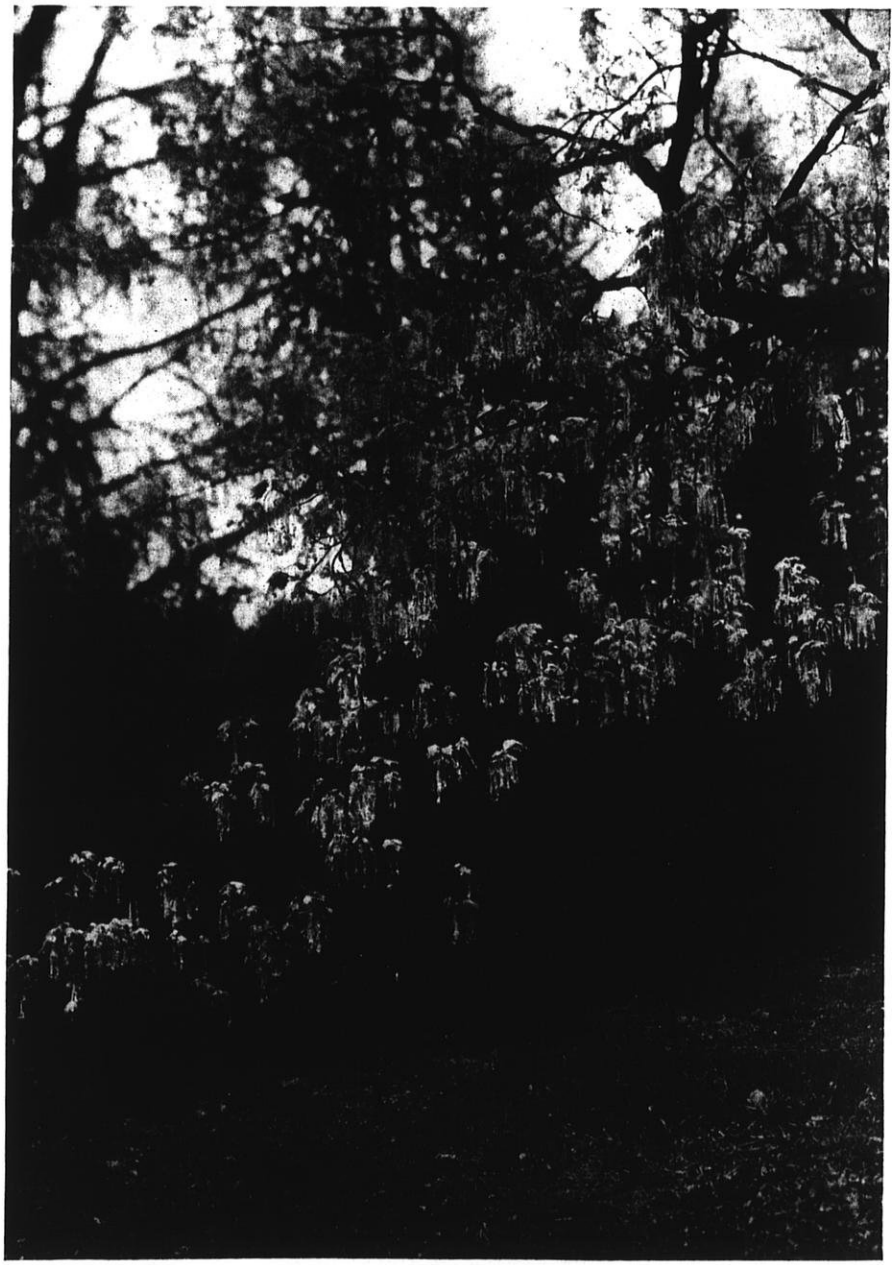

SUGAR MAPLE BLOSSOMS

Like fringe, the pale yellow flowers of the Sugar Maple droop gracefully from the leafless branches in the early spring at the Morton Arboretum, Lisle, Ill.

MAY, 1937

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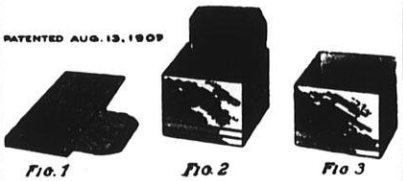

Fig. 1 Fig. 2 Fig 3

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Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

Established 1910

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TABLE OF CONTENTS

	Page
Questions Fruit Growers Are Asking	211
Copper Sprays	212
Goulac As a Spreader	212
The Cherry Leaf Spot Control Program	213
Sod vs. Tillage for Conserving Moisture	214
In the Orchard	216
Orchardists Should Cooperate With the Beekeepers	217
We Saved the Garden With Canvas Hose Irrigation	218
Fertilizers for Strawberries	219
With the Small Fruit Grower	220
Tree Injection for Disease and Insect Control	221
Horticultural News	222
Timely Topics	222
Experience With Roses	223
Editorials	224
Home Landscape Short Course	225
About the Home and Garden	226
Horticulture in the Garden Clubs	227
Gleanings From the Gladiolus Patch	228
Anemones	230
Seasonable Suggestions With Herbs	231
State Garden Club Federation News	232
Important Coming Flower Shows	233
Cheer Up—Spring Is Here	234
Awards at the National Flower and Garden Show	235
Gardens Open for Visit This Spring	235
Wisconsin Beekeeping	236

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OUR PROGRAM
1. A more beautiful Wisconsin, secured by cooperation with all existing agencies.
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OUR PROGRAM
3. Greater publicity for Wisconsin grown fruits and vegetables.
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Questions Fruit Growers Are Asking

C. L. Fluke

Dynamite Sprays

1. A recent article in a horticultural magazine states that the so-called "dynamite" sprays are now being used for the control of codling moth. Will you explain the meaning of this term and how the sprays are applied?

Answer. This material is now recommended by the Washington State College, Pullman, and is called an inverted mixture. Briefly, it consists of lead arsenate, mineral oil, oleic acid, and either triethanolamine or ammonia. It is a complicated mixture and "filled with dynamite" if not properly handled. It gives a heavy coating of lead arsenate to the fruit and should be used only for the first brood codling moth. It makes a coating on the fruit that is exceedingly difficult to remove.

This spray does not have a place at present in the Wisconsin program:

Firstly, it cannot be used with sulphur and should not be applied for a considerable time even with only a dormant application of sulphur. Secondly, it will build up such a residue deposit that fruit washing is imperative. Thirdly, it is not recommended, generally, except under heavy codling moth infestations.

Information on this spray is contained in an extension bulletin No. 232, issued in March, 1937, by the State College of Washington, Pullman.

Bait Traps for Codling Moth

2. Is it advisable for orchardists to place bait traps in their trees? How is the solution made and how long does it last?

Answer. The department of entomology at the University **strongly recommends the use of bait traps to aid in determining spray dates.** These traps are simply stew pans half filled with a mixture of 5% honey, 5% molasses, and 90% water, hung in the trees as near the tops as possible. Six to twelve traps per orchard should give a good indication of both activity. This method isn't the most accurate to determine spray dates but it is the simplest and will generally serve for orchardists in Wisconsin. The **grower should spray** approximately ten days after a heavy flight of moths.

The solution dries out rapidly in hot dry weather, so water should be added to keep the general level in the pans. It should be changed regularly every five to seven days, depending upon the temperature and rainfall. After heavy rains the solution may be too dilute to be effective and thus needs changing then.

Spraying In Bloom

3. Is it all right to apply the calyx spray while half the flowers are still on the trees? How long does the calyx remain open after the petals fall?

Answer. I cannot write too strongly against the practice of spraying trees in bloom. A spray at this time will not only kill pollenizing insects, especially the honeybee, but will actually lessen the set of fruit. Wait until the petals have fallen.

The calyx cups will remain open a week or ten days after the petals are off, depending upon the weather and variety of fruit. Some fruits close their calyxes very quickly and if the weather is extremely warm they may close within four or five days.

COPPER SPRAYS SHOW PROMISE FOR CONTROLLING FIRE BLIGHT OF APPLE

DURING the past year G. W. Keitt and J. B. Carpenter (Plant Pathology) have tested the value of summer sprays for combating fire blight. It is not expected that summer spraying alone will be able to cope with the disease under severe conditions, but there is a possibility that it will prove a valuable supplement to other methods of control.

Previous work has indicated that the ordinary program of lime-sulphur sprays used for apple scab is of no value for fire blight, and that dilute Bordeaux mixture may be effective but tends to cause russeting of the fruit. In addition to these materials, various copper-bearing sprays were tried in 1936.

The sprays were applied to 20-year-old Wealthy trees at these stages: (1) delayed dormant; (2) open cluster; (3) early full bloom; (4) petal-fall; (5) 10 days later; and (6) two weeks later.

No plot sprayed with copper fungicides was severely blighted. On the average, the plots on which copper sprays were used had only about one-fifth as much blight as those given lime-sulphur treatment.

The 1936 season was not such as to favor russeting of fruit, and as a result none of the sprays used caused serious damage in this respect. However, apples sprayed with Cuprocide, copper oxalate, and Bordeaux had a comparatively poor finish.

This Station has not yet had enough experience with the copper compounds to warrant recommending them, except to apple growers who may want to try them in an experimental way on a few trees.—From Findings in Farm Science by the Wisconsin College of Agriculture.

Goulac As A Spreader

J. H. Lilly

MANY Door County fruit growers will recall that we suggested the use of goulac as a spreading and sticking agent in 1936. It was recommended at one-half to one pound per 100 gallons of spray, in combination with arsenate of lead at 2-50 to 3-50, as an emergency control measure against leaf roller.

A limited amount of experimental work was done with goulac in 1936 and many apple growers used it commercially according to recommendations. A few comments on the results obtained seem to be in order.

Arsenate of lead at 3-50 plus goulac at ½-50 was used for leaf roller control on two experimental plots in comparison with various dormant oil treatments. The applications were made in the pink stage just after most of the eggs had hatched, and the kills compared favorably with those of the oil treatments. Naturally the coverage was very thorough.

Several growers who used this material expressed complete satisfaction with the results. Only one or two complaints were heard by the writer and these were caused by the efficiency of the product in forming a foamy spray which resulted in poor pressure in certain spray rigs. Goulac was the material used because of the previous favorable results that had been obtained with it in the State of New York and also its cheapness. Possibly some other cheap spreader such as powdered skim milk would have been just as effective.

The only point we wish to emphasize is that the use of a cheap spreader and sticker seems to be desirable from the insect control standpoint, especially in the pink, calyx, and 10-day stages.

Goulac was also used in place of calcium caseinate (Kayso) in 1936 as the emulsifying agent in our experimental cold-mix dormant oil sprays. It gave excellent results at rate of 1½ lbs. to 100 gallons. It is favored for this purpose due to its efficiency, low cost, and availability.

ORCHARD TOUR PLANNED BY THE AMERICAN POMOLOGICAL SOCIETY

THE American Pomological Society is promoting a tour of the principal orchard sections in the western part of the United States this year.

The tour will leave Chicago or St. Louis on July 5th, 1937. There will be a visit to the Calhoun County, Illinois, fruit growing section, and from there to the St. Joseph, Missouri, district.

Boarding a special train the orchardists will then proceed to the Grand Valley district of Colorado, next the Utah fruit district; the Citrus and walnut sections of southern California; the Gravenstein apple, wine grape, prune, Bartlett pear, and sweet cherry districts north of San Francisco; the summer red raspberry and vegetable area of western Washington, and the Yakima and Wenatchee Valley. There will be stops in Idaho.

The cost of the tour will be as follows: Railroad fare from St. Louis and return, $81.50, round trip. Berth and special pullman cars which can be occupied throughout the trip, $40 for a lower berth (can be shared by two people); $32 for an upper berth. Side trips and bus trips will be extra and will be approximately $15 to $25 per person. We will have more details in our June issue.

For further information write Mr. J. T. Bregger, Chairman, 209 West Main Street, Waynesboro, Pennsylvania.

The Cherry Leaf Spot Control Program

G. W. Keitt

WITH the improved crop and market conditions that now seem in prospect for 1937, Wisconsin cherry growers have reason for giving special consideration to the problem of leaf spot control. The purpose of this article is to present briefly the control program that has been developed out of the work of the Wisconsin Agricultural Experiment Station and the experience of the growers over a considerable period of years.

The development of leaf spot is very variable, and the problems of its control vary greatly with seasonal, regional, and other conditions. It is therefore desirable to use methods that have stood the test of thorough trial under our conditions and for a sufficient term of years to give reliable results.

ORCHARD SANITATION

Turning the dead leaves under by thorough harrowing before the blooming period is a desirable aid to leaf spot control if clean culture at this time fits in with good horticultural practice. However, in situations where early clean culture is not feasible or does not fit in with other desired features of horticultural practice, leaf spot can be well controlled by spraying alone.

THE FUNGICIDE TO USE

In spraying experiments at Sturgeon Bay, Bordeaux mixture has been tested over a long period of years in comparison with lime-sulphur, various wettable sulphur preparations, and various copper and sulphur dusts. Of these materials Bordeaux has given distinctly the best results. Lime-sulphur in suitable concentrations and a sufficient number of applications can be made to control the disease, but it gives a shorter period of protection per application than Bordeaux. None of the wettable sulphur or dust materials tried gave satisfactory results. Beginning last year, several of the recently proposed copper substitutes for Bordeaux (Coposil, Cuprocide, Basicop, and Cupro-K) were included in the tests. The season was not favorable for bringing out differences in the efficiency of fungicides. Leaf spot was easily controlled; and, there being no cherry crop, it was impossible to study the effect of the sprays on the size of the fruit. Under these conditions, none of the substitutes showed any superiority to Bordeaux. Further tests will be required before conclusions can be reached regarding the merits of these several newer copper materials under Wisconsin conditions.

EFFECTS OF BORDEAUX AND LIME-SULPHUR ON THE SIZE OF FRUIT AND THE FRUITFULNESS OF THE TREES

Various workers have reported that Bordeaux spraying dwarfs cherry fruit, and the use of Bordeaux on cherries has largely been discontinued in most sections of the United States. Comparative studies of the relations of Bordeaux and lime-sulphur spraying programs to the size of cherry fruit have been conducted at Sturgeon Bay for 13 years. Since 1931 this study has included effects of the programs year after year on replicated plots. The results have shown very little evidence of dwarfing of the fruit by Bordeaux; but an abnormal enlargement of unsprayed and lime-sulphur sprayed fruit was found in cases where there were outbreaks of leaf spot shortly before harvest. Since the Bordeaux controlled the disease efficiently, the fruit sprayed with it was not abnormally enlarged and was, therefore, smaller than the fruit from the lime-sulphur sprayed or unsprayed trees. In some cases the abnormally large fruit was very inferior in quality.

In comparing the results obtained in Wisconsin with those from other states, such factors as program of treatments, methods of application, and conditions of disease development should be considered. With the program and methods of application commonly used in Wisconsin, Bordeaux has not seemed to cause severe dwarfing of cherry fruit. Any dwarfing so far observed has been much more than offset by the increased fruit production of the Bordeaux sprayed trees over those sprayed with lime-sulphur.

RECOMMENDATIONS FOR WISCONSIN

Leaf spot can be controlled by either Bordeaux or lime-sulphur, though control by lime-sulphur is much more difficult than by Bordeaux, if the disease is severe. No single program is best for all conditions. Under present conditions in Wisconsin the following program is widely used, and is recommended as a guide for spraying, subject to intelligent modification to meet local or seasonal conditions: Bordeaux mixture, 3-4-50 (using high-calcium hydrated lime), applied **(1) when about three-fourths of the petals have fallen, (2) about two weeks later, and (3) just after harvest.**

Growers who have used lime-sulphur successfully may prefer to continue to use that spray. The usual dosage is 1-40. The same timing as for the Bordeaux program may be followed, with an additional treatment about two weeks after the second.

Until further experience has been obtained under Wisconsin conditions from experiments with the proposed copper substitutes for Bordeaux, the Experiment Station is not justified in making recommendations concerning them.

Whatever the program used, lead arsenate is added to the fungicide for insect control. The requirements vary with conditions. Recommendations for insect control may be obtained by Wisconsin growers from the Department of Economic Entomology.

SPRAYING WITH A STATIONARY SYSTEM

Theo. Bakke, Gays Mills

WE have approximately 350 acres all piped, using six Friend Stationary Sprayers. Our pipe lines consist of a main line which starts out with 1½ inch pipe and gradually reduced down to 1¼ inch and then to 1 inch. Lateral lines are of three-quarter inch pipe placed every eighth row. (Our rows are 24 feet apart both ways). Valve outlets are also eight rows apart.

We use what is called a "Globe Valve" which can be repaired, after having experience with Gate Valves, which we found were not suitable for spraying systems. Lateral pipe line outlets have the three quarter inch size valve, and on the main line shut off valves are from 1½ inch down to 1 inch.

We use 125 foot lengths of high pressure hose which will spray an area of 56 trees from a hose connection.

The "Pecan Spray Gun" we find the best we have ever used.

We cover our entire acreage of apple trees in about 2½ days, using thirty-two men as operators, one man to operate each stationary plant and one supervisor of sprayers for each spraying crew. There is one spraying crew for each stationary sprayer.

Sod vs. Tillage For Conserving Moisture

AS a means of cutting the cost of production in the Door county apple and cherry industries, it has been proposed that sod be grown in the orchards instead of cultivating them. This raises the question whether sod would satisfactorily retain soil moisture, which is one of the most important factors determining fruit yields.

Tests by L. Langord and R. H. Roberts (Horticulture) during the summer of 1936 showed that soils under sod cover contained less moisture than those which were summer tilled, but in some cases the differences were small. Bluegrass apparently is among the more desirable types of sod cover, for where this crop was grown the soil below the surface six inches contained more moisture than where sweet clover or quack grass grew.

Studies showed that Kentucky bluegrass gave off less moisture into the atmosphere than quack grass during the driest part of the summer, which probably explains in part why more moisture remained in the soil where the former was grown. On the other hand, bluegrass transpired at a faster rate than quack grass late in the summer after heavy rains had soaked the soil. The leaves of apple trees growing in sod were found to transpire more slowly than those of trees grown under cultivation.

Mulch Valuable

A thick straw mulch was found particularly effective in conserving moisture. In one orchard the top six inches of soil was found on July 8 to have more than twice as much moisture where a straw mulch was used, in comparison with unmulched soil; on August 3 the mulched top soil contained three times as much moisture as the other. Differences were not so great deeper in the ground, but nevertheless favored straw mulching.

This investigation, therefore, indicates that where straw is available it may be desirable to use it for mulching small orchards; that summer tillage is next best in conserving moisture; and that fairly good results may be secured at a saving of labor and expense with bluegrass sod. Further trials will be necessary before sod culture can definitely be rocommended.—From Findings in Farm Science by the Wisconsin College of Agriculture.

DANGER IN HANDLING ARSENATE OF LEAD

PROF. C. L. Fluke, Entomologist, warns operators to be careful when adding arsenate of lead to the spray solution so as not to breathe the dust. Too much of this might eventually cause lead poisoning. One would take more lead into the system from breathing the dust in one day than by eating 100 bushels of apples.

Strategic

Rastus was sent to the general store: "My boss," he said to the clerk, "wants a pane o' glass nine by 'leven."

"Haven't got none that size, Rastus," said the joking clerk, "but will a 'leven by nine pane do?"

"I'll try 'er," replied Rastus. "Maybe if we slip 'er in sideways nobody'll notice it."—Log.

EXTRA Orchard Brand News EXTRA

VOL. 1, NO. 3 MAY 1937 EASTERN EDITION

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In the Orchard

ZINC ARSENATE FOR CODLING MOTH

ZINC arsenate, on the basis of its performance during the last two seasons, one dry and one normal, appears to be a satisfactory substitute for lead arsenate in codling moth control. The control has been practically equal to that obtained with lead arsenate, and the lead residue was eliminated, although arsenic was not. Since lead is the more difficult material to remove, this development is of distinct promise. — From Michigan Experiment Station Report.

ROBINS IN THE ORCHARD

ROBINS are protected by state and federal law. It is possible to obtain a permit to kill robins if it can be proven that they are destructive. To do this application should be made to the U. S. Bureau of Biological Survey, Washington, D. C. Request should be made as to the method of procedure.

After a Federal permit has been issued application should be made to the Wisconsin Conservation Commission, State Capitol, Madison, which department will also give a permit, subject to the permit of the Federal Government. The Federal law supersedes the State law.

Inasmuch as robins do not fly far and become established in orchards by nesting it may be possible to control the damage done by shooting a relatively small number of the birds.

The grackle or starling is probably as destructive as the robin. There is no law protecting the grackle so these may be shot at any time.

MULCHING KEEPS DOWN WEEDS, CONSERVES MOISTURE, AND ELIMINATES CULTIVATION

"AS experience with the system broadens, mulching orchards with crop residues, such as wheat straw, gives a better account of itself as a method of orchard soil management. An application of about 4 inches of mulch annually will keep down weeds, conserve moisture, and is a substitute for cultivation."— Professor R. J. Barnett, Kansas Experiment Station.

ORCHARD SHOULD PRODUCE 400 BUSHEL PER ACRE

A MATURE apple orchard which produces an average of less than 200 bushels per acre is likely a borderline case so far as profit is concerned, says American Fruit Grower. As it reaches 350 to 400 bushels over a long-time average, and the acreage unit is sufficiently large, the venture should be successful.

This means a favorable soil, that is, a deep, fairly fertile, and fairly well-drained one, and a site reasonably free from frosts and severe winter injury, and with good marketing facilities.

"The poorly-located orchard and the one with unprofitable varieties should go, but one cannot compromise with a relatively high yield per acre, and experience a profitable business."— From American Hortigraphs & Agronomic Review.

The laziest woman lives in Eldorado. She puts popcorn in her pancakes so they will turn themselves.

CLEFT-GRAFTING SMALL TREES GIRDLED BY MICE

CLEFT-GRAFTING is recommended by the Michigan Department of Horticulture for trees under two inches in diameter which have been girdled by mice in an article on the subject by T. A. Merrill in the Michigan Station Quarterly Bulletin.

Mr. Merrill states that the roots of freshly girdled trees have not yet suffered from starvation and will promote cion growth in cleft-grafts which will make tops as large as if new trees had been set, or even larger. Bridge grafting is very difficult on small trees and cutting back and cleft-grafting will require less time than digging out the old trees and planting a new one, and of course is less expensive.

The trees are cut off below the girdled portion, and the cion is cleft-grafted into the stump. The trees so treated made a better growth than similar trees which were bridge-grafted when less than 2¼ inches in diameter.

With larger trees, of course, the situation is different and they should be bridge-grafted.

Due to the very vigorous growth of the cion the first year, there may be some danger of winter injury. Weed growth or a cover crop should be encouraged during the summer and in September grasses and weeds should be removed for a foot or so from the collar to favor the ripening of the wood, but not eliminated beyond that distance. In November a mound of sand may be placed around the base of the trunks, covering the basal six inches. A screen should also be placed around the trunks to prevent further mouse injury. Mice should also be poisoned.

ORCHARDISTS SHOULD COOPERATE WITH THE BEEKEEPERS

AT a large beekeepers meeting in western Wisconsin this spring, a commercial beekeeper who has over 600 colonies of bees made this statement: "A few years ago I placed 100 colonies of bees near a large orchard. I will never do it again. The grower paid little attention to whether or not he sprayed while the trees were in bloom. If some varieties were in full bloom when he got to them, he sprayed them. The arsenate of lead in the spray killed a large percentage of the bees. In fact, the colonies were so weakened that I had to move them away and obtained no honey from the yard that year, though other yards did well."

Wisconsin fruit growers have not paid much attention to bees in the past. There were enough bees in the neighborhood to pollinate the orchard and of course there were bumble bees too. With a decrease in the number of small beekeepers, an increase in the size of orchards, and the gradual killing off of bumble bees, the situation is going to be different in the years to come. In fact, spraying during full bloom may kill off bumble bees and honey bees alike near orchards. If in the meantime beekeepers have become antagonized and convinced that it is dangerous to have their bees near orchards, then the situation will become serious. Start now by encouraging the beekeeper. Never spray when there are flowers on the trees. In the long run it will pay.

We've all heard about the absentminded professor who poured the syrup down his back and scratched his pancake, but the one who worries us is he who poured the catsup on his shoe and tied his spaghetti.

OATS BAIT FOR FIELD MICE EFFECTIVE

THE Wisconsin Horticultural Society still has on hand a supply of poisoned oats bait for mice in orchards and field. This bait was prepared by the U. S. Bureau of Biological Survey. The price is $1.20 for 10 pounds, $2.50 for 25 pounds.

The best way to get rid of mice in the orchard is to put out the bait in stations. Mice multiply rapidly during the spring and summer and it might be well to control them in the spring if there is a large population.

RACINE COUNTY FRUIT GROWERS ASSOCIATION HAS LARGE MEMBERSHIP

MR. Lyman H. Skewes, Secretary of the Racine County Fruit Growers Association, sends to the Wisconsin Horticultural Society 167 names of members of the Racine County Association for 1937.

This is the largest membership of any county association in the southern part of the state. The Door County Fruit Growers Co-op is the largest in the state with a membership of 216.

Jefferson County, Milwaukee County and Ozaukee County are the next largest, each having memberships very close to 100.

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WAUPACA, WISCONSIN

We Saved the Garden With Canvas Hose Irrigation

By Helen M. Kees, Roberts, Wis.

ANTICIPATING a dry summer in 1936 (and how!) and wishing to save our raspberry and strawberry crop we decided on trying a canvas hose for irrigation on the advice of Mr. Rahmlow, our Secretary.

We purchased eight yards of 12 oz.—48 in. duck canvas—tore it in 8 inch strips—pulled the canvas across a warm stove and rubbed it with a cake of paraffin until it was saturated. We sewed the ends of the strips together (flat fell stitched twice) using No. 40 thread. We folded a double edge, stitching it twice, thereby making a tube. When stitched we had 144 feet of canvas hose about 2 inches in diameter.

The water will soak through the canvas thus treated and the paraffin prevents rotting. Even so there are some sections of the hose that we will have to cut out before using again. Rotting doubtless could be prevented by drying each time after using. (Editor's note: An asphalt paint mixture described in the next article is better.)

We attached fifty feet of rubber hose to the faucet at the back of the house. We then tied the canvas hose on to the rubber hose. The berry patch is about 80 feet from the house—4 rows 48 feet long and on a down grade. It is no small matter to place the hose along the upper side of two rows and with no twists—because a twist stops the water.

We turned on the water and let it run two hours—usually in the morning or late afternoon. When the water was turned off we left the hose lying an hour or more to let the water seep out. We usually watered two rows each day but if there was indication of rain we skipped a day—but indications were all wrong last summer.

We picked 100 qts. of raspberries off our patch of good quality berries — Latham and Chief). Most of the berries we saw from other patches were small and seedy.

We used the hose on our strawberry patch, tomato patch, lima beans, string beans and beets, squash and onions, and on our hedge of small lilacs and geraniums also.

Trenching Didn't Work

One of our neighbors borrowed our hose and irrigated his garden, pumping the water with a gasoline engine. He had tried trenching but the ground was so parched that it took up the water so fast that the water didn't get anywhere. We had no rain from July 1st to September.

Most of the gardens were total failures and the vegetables and fruits, if any, of poor quality owing to the drought and heat. We had a good garden and saved our fruit thanks to the canvas hose.

IRRIGATION BY CANVAS HOSE SYSTEM

ANYONE interested in irrigating fruits, flowers or vegetables by the porous hose irrigation method should send for bulletin No. 133, Michigan State College, East Lansing, Michigan, entitled "Porous Hose Irrigation." This bulletin describes many features of the method which are important.

Treating Hose for Durability

This bulletin states that the life of a canvas hose may be prolonged by treating the canvas with a mixture of asphalt paint, 1 gallon; kerosene, ½ pint; gasoline, ½ pint. The mixture should be stirred thoroughly and may be applied with a sponge, or the hose may be run through a tank of the solution. Then pass through a clothes wringer to squeeze out the excess. It should be allowed to dry 24 hours before being used or rolled.

Capacity Required

The bulletin states that for each 100 feet of hose line, a pump capacity of 10 gallons per minute is needed. Thus for a line 500 feet long the pump should have a capacity of 50 gallons per minute.

U. S. GROWS MOST APPLES

THE United States is the largest producer and exporter of apples in the world, according to the Bureau of Agricultural Economics. On an average, during the five years, 1931-35, approximately 31 per cent of the world apple production of 500 million bushels was produced in the United States.

Of the average of 155 million bushels of apples produced in that five-year period in the United States, the Bureau reports approximately 84 million bushels (54 per cent) were consumed as fresh fruit, about 6 million bushels (4 per cent) were canned, roughly 3 million bushels (2 per cent) were used for making brandy, about 7 million bushels (4.5 per cent) were dried and evaporated, and about 55 million bushels (35.5 per cent) were used for other apple products (including vinegar and cider), used on the farm, fed to stock, or left unharvested.

There are a total of roughly 450 million apple trees in the world, one-fourth of which are in the United States. — From Better Crops with Plant Food.

FERTILIZERS FOR STRAWBERRIES

THE most noticeable fact about this question of commercial fertilizers for strawberries, is the lack of marked results obtained in any tests which have been carried on.

Experiments have been carried on in a number of states. A few of them found that nitrogen was of benefit. Others found that phosphate slightly increased the yield. But the results were not very marked.

All of this leads us to conclude that we can easily waste money by applying too much or the wrong kind of fertilizer on strawberries. If the results were as noticeable as in the case of potatoes for example, where an application of potash often doubles the yield, or by the application of nitrogen to fruit trees which greatly increases tree growth; if, we repeat, results on strawberries were noticeable, then we could make definite recommendations. As the matter stands, however, we are forced to conclude that what strawberries need most of all is plenty of humus in the soil so that the moisture may be retained especially if the weather turns dry during the picking season.

We know that 60% of the roots of the strawberry plants are in the top four inches of soil. During a dry spell, therefore, the yield of strawberries may be cut down very seriously. Soil without humus drys out very quickly and especially on sandy types there is danger of greatly decreased yields during dry seasons.

Barnyard manure therefore becomes the best fertilizer we can use. In Wisconsin where most farms are dairy farms we should be in an especially good position to keep up our soils for strawberries. A heavy application of manure applied to such crops as corn or potatoes which can be cleaned up by keeping them well cultivated, may be followed by strawberries the next year.

Rye or soy beans may be sown on the land following a crop which is removed early such as peas or even wheat, rye or barley. These green crops can be plowed under in the fall or spring, giving additional green manure for the strawberry crop.

Ammonium Sulphate for the Old Strawberry Bed

If commercial fertilizers are to be used we believe that nitrogen is the most important element for strawberries in Wisconsin, especially for the old bed. If ammonium sulphate at the rate of 200 pounds per acre is broadcast as soon as the strawberries have been picked and the tops mowed off, the nitrogen will stimulate the growth of the plants in mid-summer and increase the size of the crowns which form fruit buds in September and October. Ammonium sulphate is probably best because it leaves a slight acid reaction in the soil and strawberries seem to do best when the soil is silghtly acid.

The important thing for strawberry soils is to increase the humus supply. If you haven't enough manure use a green manure. The mulching material spread between the rows in the spring will also help to conserve moisture until after the picking season.

HOW MINNESOTA WILL IMPROVE ITS POTATOES

THE Minnesota Potato Improvement Association was organized recently at St. Paul. They adopted the following methods for improving potatoes in Minnesota.

1. By selecting and disseminating information concerning the growing, harvesting, storing and handling of potatoes and the control of diseases and insect pests.

2. By selecting and breeding varieties for increased yield and quality.

3. By aiding in the testing, introduction and distribution of new varieties.

4. By serving as a means for exchange of ideas affecting the welfare of the industry.

Strawberry and Raspberry Plants

Inspected, Heavily Mulched. Beaver, Fairfax, Dorsett, Premier. Latham Raspberry plants. Chris Laursen, Warrens, Wisconsin.

RASPBERRY AND STRAW BERRY PLANTS

Latham and Chief Raspberries, strong disease free certified plants that will grow. By the hundred or thousand. Beaver strawberry plants, priced to sell. Relyea Dahlia Gardens, Taylor, Wisconsin.

SUPPORT FOR RASPBERRIES

RASPBERRY canes may be made self-supporting by drawing together the upper parts of all the canes in a hill and tying them together tightly at a point about three to three and one-half feet from the ground. Some growers use two ties about six inches apart. The tips of the canes are cut off a few inches above the tie. The work of tying must be done before the buds start growth or injury may result.—From The Minnesota Horticulturist.

Wise Prof.: "And so, students, we can come to the conclusion that nothing is impossible."

Fresh Frosh: "Well, I'd like to see you run this umbrella down your throat and open it."

With the Small Fruit Grower

GREEN MANURES FOR STRAWBERRIES

AS AN aid in preparing the land for strawberries, green manures are about as satisfactory, although possibly results are not as quick. Clover, beans, peas, lespedeza and other legumes are fine. Oats, wheat, rye, millet are also good. Legumes are preferred if a heavy crop can be grown. However, the nitrogen creating advantages of legumes may be offset by the heavy growth possible with non-legumes under some conditions. A heavy growth of ordinary field corn sowed broadcast and plowed under green when the growth was from three to five feet in height has given fine results in a few cases and is worth considering. Rank growth of weeds and grass if plowed under green are also valuable in adding humus and retaining moisture. Weeds and grass should not be allowed to go to seed, especially if a hoed crop like strawberries is to follow. Soil preparation for strawberry plants starts so early in the spring that winter cover crops should be selected which make a large amount of growth in the fall and if possible have a fairly large root growth. For this purpose we have found nothing better than rye planted early. We have used rye to precede strawberries more than any other green manure crop. It has been found desirable, where large fields are planted, to disc the rye sod before plowing in order to get the ground in finer condition for the strawberry plants. — From Allen's Book of Berries.

Strawberry Day at Alma Center

Plans are being made for a Strawberry Day at Alma Center early in June. Details in next issue.

STRAWBERRIES AT WARRENS

H. H. Harris

FROM what I have seen and heard others say, I think the stand of plants on last year's setting is somewhat thinner than usual. I am quite sure the dry spell last summer delayed the plants in taking root until later than most seasons—which may decrease the yield of fruit to some extent.

The roots of all plants I have examined are bright and there is scarcely any discolor to the crowns, and roots cling firmly to the crowns I have cut open. Some say they have seldom seen better roots.

We uncovered most our new setting April 15. We use a pitch fork, walk between two rows, pulling a portion of the covering from each row, so that we can walk on the hay in every space. Some on the sandy land have dug and shipped plants this week. Our ground is too wet to handle yet—some frost in places under the mulch where it was real thick.

We have never practiced spring cultivation or regular hoeing. I generally go over the field with a hoe if dandelion or clumps of clover show up and cut them out.

Some of our growers here are getting orders for plants from Kansas, Colorado and northern Wisconsin.

COOPERATION

"Cooperation," says Prof. F. B. Paddock of Iowa, "is to so conduct yourself that the other fellow can work with you.

"The State Association," he says, "should be the mouthpiece of the industry."

MULCHING INCREASES SIZE OF RED RASPBERRY CANES

J. Harold Clark

A STRIKING comparison of the effect of mulching upon the growth of red raspberries can be seen in New Jersey on the farm of Mr. Howard DeCou who has been interested in the use of mulch for raspberries since the Experiment Station demonstrated that a mulch of salt hay would greatly increase yields on certain soil types.

In the spring of 1936 about half of a 10 acre field was mulched with grass cut from a nearby farm which was not being cultivated. This material was put on at the rate of about 4 to 5 tons per acre. By late summer it was quite evident that the mulched half of the field was making better growth than the unmulched. The difference in size of canes is quite evident.

It is a well known fact that the first essential in producing a good crop of raspberries is to produce large, sturdy canes the year before the crop is to be picked. The difference in size of canes at the present time, therefore, will in all probability be reflected in yields during the coming summer. In order to obtain a definite measure of the differences in cane size, 100 canes were measured on March 1, 1937, on the mulched and the same number on the unmulched areas. Representative rows were selected for measurement adjacent to the dividing line between the two treatments.

Size Increased 30%

The average height of the canes on the unmulched plot was 48.0 inches as compared to 62.4 inches on the mulched plot, a difference of 14.4 inches. The av-

erage caliper of the canes, 6 inches from the ground, was 0.318 inches on the unmulched plot compared to 0.365 on the mulched plot, a difference of 0.047 inches. Figured on a percentage basis, the canes averaged 30 per cent higher in the mulched rows and 15 per cent greater in diameter. These measurements confirm previous results secured by the Experiment Station showing that the moisture conserving effects of the mulch will cause better cane growth on dry soils. In addition the mulch will keep the soil cooler during very hot spells and much needed organic matter will be added as the mulching material decays.—From New Jersey State Horticultural Society News.

NEW LOGAN AND QUILLEN RASPBERRIES LOOK PROMISING

TWO recently introduced varities of black raspberries compare favorably with Cumberland, which is the variety commonly recommended for Wisconsin. This indication appears from trials by J. G. Moore (Horticulture).

The new varieties are a comparatively early raspberry called New Logan, and a later one named Quillen. Both appear to be as hardy as Cumberland at Madison, and both are more resistant to anthracnose than the latter. Quillen is the most anthracnose-resistant of the three varieties.

New Logan has yielded better than Quillen in the trials at this Station, probably in part because weather conditions during the past few years have been more favorable to early than to late raspberries.—From Findings in Farm Science by the Wisconsin College of Agriculture.

Tree Injection For Disease and Insect Control

A. G. Ruggles, Minnesota

THE tree doctors and surgeons are essential people to have around. Unfortunately some of them through ignorance or deceit try to sell materials and inject them into the tree as medicines.

I have been interested in this problem of injecting trees for the control of insects and diseases for many years, and have been in close touch with much of the work of "injecticides" that has been going on in this country since 1910.

Near the beginning of this century, experiments began to be made, injecting different substances into trees with the idea that something could be found that would kill any insect or fungus growth in or on the tree.

No Results Good or Bad

When Professor William Moore was with our division here at University Farm (Minnesota), he and I bored holes in oak trees, injected potassium cyanide in the holes and plugged them up. The immediate incentive for using this material was that a learned professor in a state west of us had reported that this procedure in peach trees had given wonderful success in the control of scale insects. Our experiments showed that the oak trees took no appreciable amount of the material. Later a chemical from a southern firm was put on the market in the form of a red tablet. If the tablet were put in a tree it was asserted that no insects and no disease would work on that tree. We experimented with this material on a number of apple trees at University Farm and found that the material was not absorbed; nor could we find the slightest effect on the tree, no good or bad results.

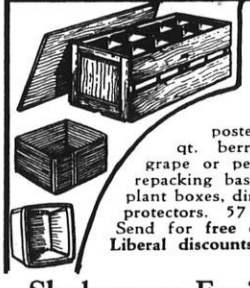
Just last summer, on an estate near Brainerd, some tree doctors put an arsenical into holes bored into pine trees, the ostensible reason being to control white pine blister rust and other diseases and insects. I am told that one of our good medical doctors here in the Park were persuaded by a tree doctor to treat his trees in this manner last summer. I haven't heard the sequel.

Chemicals May Kill Trees

In this experimental work carried on so long, trees have been made to take up all sorts of materials and in quantities. These materials, however, are never equally distributed over the tree and rarely, if ever, made to get out into the leaves and smaller twigs. No chemical that a tree will take up has yet been discovered that will kill the insect or disease without killing the tree. The forest insect division of the United States Bureau of Entomology has found that zinc chloride can be injected into a dying tree in sufficient quantity to kill insects in the wood and prevent other insects from attacking. But the tree is killed in the process.—From April issue The Minnesota Horticulturist.

Note: Mr. Ruggles is State Entomologist for Minnesota.

Berry Boxes and Crates



SAVE at Sheboygan on your box and crate needs. Check our made up or K. D. berry boxes, crates. Be posted on our American qt. berry baskets, Climax grape or peach baskets, till or repacking baskets, pansy baskets, plant boxes, dirt bands, veneer tree protectors. 57 years in business Send for free circular with prices. Liberal discounts on early orders.

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Horticultural News

A. F. Yeager, North Dakota

THE Maryland Fruit Grower says that 500 pounds of water are taken up by the roots of an apple tree for each pound of dry matter it produces. A crop of 6 bushels of fruit means 42 pounds of dry weight. A 30-year old apple tree produces 33 pounds of dry weight in the form of roots, wood and leaves. This amount of dry matter would require 37,500 pounds of water per year, or almost 19 tons. Applied to our conditions this should mean (if I interpret it correctly) that our trees must have plenty of room from which to draw this moisture.

The Mississippi Agricultural Experiment Station reports that planting seed of round radishes deep has a tendency to cause the radishes to have a longer shape. Since the rounder type is preferred shallow planting is recommended.

Dr. Brierly of the University of Minnesota recommends a 4x6 foot spacing for raspberries grown on the hill system and tied to stakes, or a space of 6 to 8 feet apart between the rows with 2 to 3 canes per foot of row if the hedge row system is to be used. The hill system has the advantage in ease of cultivation and also in that the canes may be left longer. Shortening the canes in the hedge row system is necessary, even though it does tend to reduce the yield.

Growers of field crops think it impossible or at least unprofitable to get along without proper seeding and cultivating machinery, but think they cannot afford the special tools for taking care of the garden. The result is that hours of unnecessary labor are expended upon it with an indifferent control of weeds, seed wasted, and poor stands obtained. In other words, the garden work becomes drudgery and the crops secured comparatively poor.

The English Gardeners' Chronicle presented a splendid illustration of practical growers observing an effect but attributing it to the wrong cause. The statement is made that some growers have been transplanting tomato plants into cardboard boxes with attractively colored pictures on the outside for the purpose of making them sell better. It was noticed that plants in such paper boxes did not grow and turned purplish in color. Growers attributed the effect to the colored pictures, but experiments showed that growing tomato plants in ordinary pots and inserting an ordinary piece of cardboard in the soil gave the same effect. The damage is due not to the colored picture, but to the cardboard itself. This particular article states that their experiments have not revealed the real cause. However, I believe there is no secret about it in the light of experiments done in the United States which have shown that such stunting is due to bacteria which in decomposing the cardboard rob the soil of nitrogen. Hence we have typical yellow stunted plants such as would be obtained from soil poor in this element.

In place of the old fashioned method of cutting out fire blight cankers the following method, developed in California, is suggested: Apply the following solution to the diseased area without cutting away any bark and covering not only the diseased spot but 6 to 10 inches beyond the apparent edge of the damaged tissues. The recipe is as follows: To one quart of hot water in an enamelled container add 3 ounces of concentrated hydrochloric acid and stir thoroughly. In this mixture dissolve 9 pounds of zinc chloride powder. When cooled, add 7 pints of denatured alcohol. This material should be applied before growth starts in the spring. — From March North and South Dakota Horticulture.

TIMELY TOPICS

A FEW rhubarb plants should be in every garden. Rhubarb doesn't come true from seed so if a true variety is wanted, roots should be purchased and planted. Two excellent home garden varieties are the MacDonald Crimson and the Ruby.

In pruning currants and gooseberries, remove the wood that is 4 years old or more and thin out the weakest of the 1 year old shoots.

Perennial plants sown last summer should be moved to their permanent positions as soon as possible, thus enabling the plants to take hold of the soil before hot weather arrives. If the plants are small, it may be advisable to postpone transplanting until fall.

Neither creeping bent grass nor any kind of fertilizer will prevent weeds from appearing in a lawn. An application of a good grade fertilizer, however, will thicken the stand of desirable grasses and render it more difficult for weeds to obtain a foothold.

Snapdragon, larkspur, zinnia, and many other annuals, will be improved by pinching off the leader when four or five inches high.—From Minnesota Horticulturist.

Experience With Roses

Fred C. Lienemann, Milwaukee

I HAVE been growing a lot of Hybrid Teas—Bush and Tree roses and in my opinion there is no flower like a rose.

To watch developing the bud of a fine variety, its beauty, and then the opening of the full flower with its fragrance—is simply incomparable to the other lovely flowers Nature presents to us.

Tree Roses

As I live less than a block off cool Lake Michigan I have decided to cut out Tree roses although they were grand as long as they lasted. I was often very much amused with people who came into my garden who had never seen and could not trust their own eyes when they saw roses growing in trees!

Tree roses must be carefully bent and pinned down to the ground late in fall, the tops tied together and the whole plant covered with ground.

My bush roses I also tie up when they get older and larger. I put soil around them 8 to 10 inches high at least.

In order to keep the soil from washing down, the ground should be covered with marsh hay and some sticks to hold it down.

A nurseryman in California asked me how tree roses stood our Wisconsin climate. There the stock remains green, here they get brown, burst open and often in two or three years they die—at least near Lake Michigan. Friends who live from 5 to 6 miles from the lake have plants 15 to 20 years old—but as the stocks get from two to three inches in diameter, it's more than a man's job to lay them down in fall and cover them up.

Tree roses are expensive and costly to replace. Bush roses are inexpensive and easier to handle.

On the East side of Lake Michigan they do not have to put soil around their plants, they just sprinkle them with a little fresh horse manure.

In order to have success with roses they should have a covering of old cow manure, plenty of water and sunshine, should not be obstructed by trees or shrubs. A covering of two inches of peat keeps out weeds and keeps the ground damp. In spring when the frost is all gone bush roses should be clipped down to 6 to 8 inches after the soil placed around them in fall is removed.

I have grown the following varieties of roses: Dame Edith Helen, Rev. E. Page Roberts, Ed. Nellie Perkins, Etoile de Holland, Johanna Hill, E. G. Hill, Mrs. E. P. Thom, Mme. Alex Drew, Duchess of York, Splendor Golden Glow, Frau Druschkie (white), Hoover, Los Angeles, Imperial Potentate, and some climbers.

EXPERIENCE WITH TRITOMAS

AT A recent meeting of the Milwaukee County Horticultural Society the question was asked, "Why do Tritomas refuse to bloom when plants are large enough?"

Perhaps my experience with Tritomas will help answer this question.

"I had tritomas in the garden for five years, with never a single bloom. At first I took them into the house in fall, and set them out in the spring. (Now I have them out all winter, covered with four inches of leaves and branches to hold the leaves down). Two years ago in mid-July, I gave the plants a good soaking. That year I had five blooms. Last year I repeated this, and had twenty-three flower stalks, with nine late in fall, after the fall rains. It seems that they want lots of moisture when the ends are forming, and this year I am experimenting by setting one plant aside, and not watering it—just to see what will happen."—Mrs. W. F. Roecker, Milwaukee.

A NEW THRUST AT THE DANDELION

PROFESSOR Carl D. La Rue, of the University of Michigan, claims that if the flowers of dandelions are mowed off or otherwise removed anytime before the white down, or "pappus" to botanists, began to show above the closed green sheath, that the seeds would not germinate under any circumstance. The dandelion is, of course, a perennial and more rigorous methods must be used to rid the lawn of plants already established, yet the results of Professor La Rue's studies are an important method of preventing the spread of this pest.—By W. R. Ballard, Extensions Horticulturist, Maryland.

ZEPHRANTHUS ROSEA

WE are advised to treat the Fairy lily bulb (Zephranthus) is the same manner as one treats the gladiolus bulb. We go one step further as we plant our Fairly lily bulbs in pots and keep them in the house all winter. The great advantage of this is that our bulbs multiply during winter and as a result we always set out twice as many bulbs the following spring as we took up in the fall. Like an Amaryllis, they bloom not only in the yard during the summer but in the winter in the house.—N. E. Schmidt, Sarona, Wis.

EDITORIALS

FIRST LIFE MEMBER IN 1937

MRS. E. L. Roloff of Madison was the first to answer our appeal for more life members in the April issue of Wisconsin Horticulture. We take pleasure in welcoming Mrs. Roloff as a life member of the Society. She was given the honorary recognition certificate of the Society during the convention of the Wisconsin Garden Club Federation at Madison last October.

Mr. E. L. Roloff has been a life member of the Society for many years.

Life membership dues are $10.00. This money is invested and the interest used to defray the cost of sending the magazine to life members.

WE APPRECIATE THIS

A LETTER from Deanette M. Small, editor of Hands Across the Nation and the garden page of the Chicago Herald and Examiner, states as follows:

"I got so much out of the last issue of Wisconsin Horticulture. I don't know what it is I like about the articles appearing in the magazine except that it must be the straightforwardness — that is, they tell you something you didn't know before and are not an endless repetition of what you have read in a half dozen other places."

Cherries Will Bloom in Door County the Latter Part of May. Don and Karl Reynolds Examining the Blossoms in Their Cherry Orchard.

NATIONAL STRAWBERRY FESTIVAL

Bayfield, July 2

FRUIT growers and businessmen of Bayfield and adjoining communities are planning a National Strawberry Festival on July 2nd. The event may be continued each year. Mr. Karl Reynolds, president of the Wisconsin Horticultural Society, spoke before various organizations in Bayfield, Ashland and Washburn on April 14th and outlined plans for the festival, including a strawberry king contest and a strawberry shortcake queen contest. The Society will cooperate by helping with the plans, judging, and awarding of recognition certificates and premiums.

During the past two years a Strawberry Festival has been held at Bayfield which included a parade, games and similar events.

VISIT ROSENDALE, THE PEONY TOWN, IN JUNE

ROSENDALE, Wisconsin, is rapidly becoming known as the peony town. It will be the mecca of peony lovers during the month of June.

The president and the clerk of the Village of Rosendale invite all of our members to visit Rosendale during the peony blooming season the middle of June. The Wisconsin Dahlia Society has already decided to have their June meeting there and many garden clubs may do likewise. Bring your lunch and spend the day. For luncheon visit the Village Park or the Vista Vale Perennial Gardens. The latter has many varieties of roses and other flowers.

Mr. Lawrence T. Hoyt, Village Clerk, Rosendale, will be glad to send anyone the best dates to visit the peony gardens.

WAX EMULSIONS FOR NURSERY STOCK

A NEW bulletin entitled "Wax Emulsions for Spraying Nursery Stock and Other Plant Materials" has just been issued by the Michigan Experiment Station, Michigan State College, East Lansing, Michigan. The bulletin describes the method of using wax emulsion for all types of nursery stock including evergreens in order to prevent them from drying out following transplanting or to prevent mold and drying in storage. The bulletin will be quite valuable for nurserymen who contemplate thus protecting their stock.

THE AMERICAN DELPHINIUM SOCIETY PUBLISHES BOOK ON DELPHINIUM

"DELPHINIUM" is the title of a beautifully illustrated book on this flower by the American Delphinium Society. Dr. Leon H. Leonian, Morgantown, W. Va., is editor. The book may be obtained by joining the Society. Miss Elizabeth Brown, 139 E. 59th Street, New York City, is Secretary.

The book contains so much valuable information that delphinium fans cannot afford to be without it.

AN ATTRACTIVE BULLETIN ON HOUSE PLANTS

"HOUSE Plants" is the title of a new bulletin released as No. 20 by Robert Van Tress, published by the Field Museum of Natural History, Chicago. It is one of the most attractive bulletins on the subject of house plants we have ever seen. Each page contains an attractive illustration of the plants described on that page.

FREEPORT IRIS SHOW

June 5-6, Freeport, Ill.

Home Landscape Short Course

Madison—June 4-5

A TWO-DAY short course on the landscaping of home grounds will be offered by the Department of Horticulture, Wis. College of Agric., on June 4 and 5. The object of the course will be to consider the problems of planning and planting as related to improving the art values of home grounds and gardens. There will be also an opportunity for the mutual exchange of ideas and experiences of those in attendance.

The forenoons (Friday, 9 to 12 and Saturday, 8 to 12) will be devoted to discussions of the practical problems of home ground development as related to design, planting, and maintenance. The afternoon sessions (1:30 to 5) will be devoted to garden clinics. Visits will be made to gardens chosen to illustrate the subject matter discussed during the forenoon sessions.

Instructional work will be conducted by the landscape staff of the Department of Horticulture, consisting of James G. Moore, Chairman; Franz A. Aust, in charge of instruction in Landscape Design; G. William Longenecker, Executive Director of the University Arboretum and Wild Life Refuge; and L. G. Holmes, Extension Specialist in Landscape Design. In addition, it is planned to have as special guest speakers, Professor P. H. Elwood, Chairman of the Department of Landscape Architecture, Iowa State College; and Miss Hazel Hankinson, editor and writer on flower and garden subjects.

Anyone interested in the problems relating to home landscaping may enroll for the course. The instructional work will be designed especially for those who have a gardening background.

The registration fee will be $1.50. Only those actually registered will be permitted to attend. A registration blank together with the fee must be filed with the Department of Horticulture not later than noon of May 27. The course will not be given unless there is a registration of at least 40. Enrollment will be limited to 75 accepted in the order of their completed registration.

Anyone interested may receive a registration blank, program, and additional information from Franz A. Aust, Department of Horticulture, University of Wisconsin, Madison.

IRIS SOCIETY ELECTS OFFICERS

3rd Annual Show June 5-6

AT the annual meeting of the Wisconsin Iris Society on March 31st, the following officers were elected to serve for the coming year.

President: Mrs. W. F. Roecker, Milwaukee.

Vice-pres.: Mrs. R. H. Sewell, Wauwatosa.

Secy.-treas.: Mrs. L. P. C. Smith, West Allis.

Corresponding Secy.: Dr. G. A. Kriz, Milwaukee.

The Society is planning its 3rd annual Wisconsin Show on June 5th and 6th in the Milwaukee Public Service Building.

NEWS

THE Chinese cabbage took the place of lettuce during the lettuce strike last fall. Chinese cabbage was grown throughout the central states and housewives who couldn't get the head lettuce liked it. Therein lies the real danger of failure to supply the market.

About the Home and Garden

Mrs. C. E. Strong, West Allis

SPRING

"A subtle something in the air and sky,
Tells us, who watch, that Spring is nigh."

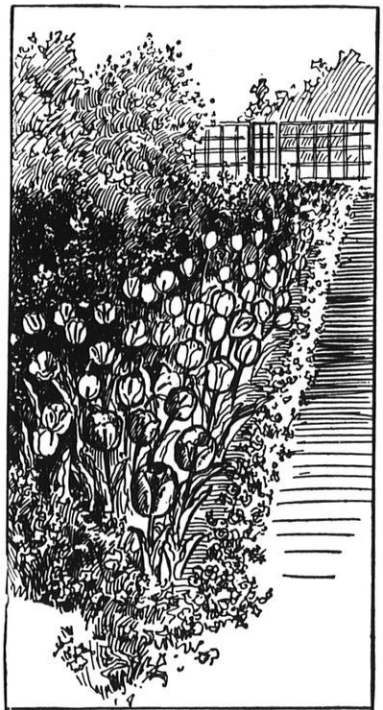
NOW wasn't that a clever heading for a little nursery folder, one of those reminders that many of the nurserymen are using these days to supplement their regular catalogs. Just a way of keeping some of the newer plants and shrubs before you just at planting time, tempting the gardener just when they are quite sure there will be vacant spots because of winter damage.

At this date, April tenth, the frost is not out of the ground in Milwaukee County, and we are quite sure that the very heavy coating of ice that covered our gardens for many days, did much damage. Because of the necessity of moving some plants and bulbs I found that many were rotted. So, if the garden is to have its usual display of bloom, these must be replaced with others.

Varieties We Should Grow

Hyacinthus Candicans, while not new—is not grown as much as it should be. The bulbs are not as much trouble to care for in winter as the Gladiolus. The giant **Ismene** is another little-known bulb with immense creamy white flowers.

For the rock garden or the border the **Fairy lilies,** as they are commonly called (if we want to call them by their proper names we will say Zephyranthes) are most delightful, for they bloom all summer long. Every little shower brings a rift of bloom—sprinkling with the hose



TULIPS PLANTED WITH LOW GROWING PERENNIALS.

has the same effect. They come in pink, white and creamy yellow. For ease in taking up in the fall, you may plant the bulbs in pots, sinking pots below the level of the soil.

Pink, white and yellow **Oxalis** make nice edgings, as they bloom constantly all summer. The foliage is very attractive.

The **Yellow Pink;** this contradictory name belongs to one of the species of hardy garden pinks, Dianthus Knappi. It is not pink, but a clear shade of lemon yellow; is in bloom for about two months and is hardy.

The **Tahoka Daisy** is a rather new annual with a most interesting description. Flowers of blue lavender, fading to rose, with golden yellow centers, good for border and for cutting. Like the annual Larkspur it should be sown early while the ground is cool and damp.

If you have not tried **Aster Hybridus Lutea,** be sure to add it to your list this spring.

If you want to give yourself a real treat, set out a border of the **Chrysanthemum Amelia,** or Pink Cushion; they are one and the same. Even if they were not perfectly hardy, you could not help being delighted with them, just mounds of lovely pink flowers for weeks and weeks, a real early blooming variety that is still blooming late in the season.

Lemon Lilies

Are you reading the new lists of **Hemerocallis?** They are most fascinating. Imagine a blossom of old rose with a deep yellow base. Of course it is priced at ten dollars! Also a creamy white one. And that is not all; some of the growers are offering to send buds of the Hemerocallis in season to Garden Clubs. What a splendid chance to really see some of these newer varieties and order from real blossoms instead of from catalog descriptions.

Are you interested in knowing that the little **Azaleas** I have been growing for several years, (Azalea Mollis) have come through the winter unhurt with not one bit of covering. There were many buds, but alas a rabbit or two nipped off many of the buds before I had a chance to protect them.

I understand the U. S. Department of Agriculture is sending out some new, very hardy **hybrid Azaleas.** We plant testers should try them out.

I am so very glad that flower borders in your front yard are becoming fashionable. You see

they were fashionable in my family for something like three hundred years. Like many other things they got to be sort of a habit. How nice to think such lovely things as flowers are not to be banished from any place where they can be grown.

AN AMATEUR GARDENER VISITS THE FLOWER SHOW

PERHAPS never again will Milwaukeeans and near-Milwaukeeans have an opportunity to see the National Flower Show without traveling a goodly number of miles. Like the traditional blind men and the elephant, one could see only a portion of it.

Many people seemed discouraged because they could not achieve equal results in their back yards. The show should have had the opposite effect. Perfect roses on very long stems, giant sweet peas, wax-like gardenias, masses of tulips, colorful anemones, dainty ranunculus, perhaps even the beautiful all-white gardens are not for us in this climate.

This renunciation should not hurt. We possess scenes equally beautiful. Crowds stood longest watching a replica of Wisconsin rocks and woods with a water fall, dead saplings, shrubbery turning a delicate green, and the wild flowers unfolding. If we cannot have this wilderness in our back yards, we can go to see it, and we can help to preserve it for later comers. Its beauty is all around us, if we have eyes to see.—An Amateur Gardener, West Bend.

WISCONSIN IRIS SHOW

MILWAUKEE, JUNE 5-6

PUBLIC SERVICE AUDITORIUM

HORTICULTURE IN THE GARDEN CLUBS

Is Your Club Horticulturally Active?

By Merle Rasmussen

THE study of Horticulture in Garden Clubs may be most interesting and worthwhile, giving the flower grower facts of value in many ways. The National Council of State Garden Clubs offer these suggestions:

Follow the discoveries in horticulture which include not only rare new plants and hybrids but new and better ways of growing plants, and new methods of controlling pests.

Urge the study of methods and results of the work the hybridizers are doing.

Prepare a monthly calendar of Horticultural events.

Urge the growth of our rarer wild flowers from seed. Encourage the study of special plant families or genera; or the plants of a special country that the origin of our common garden flowers is known.

Make a list of the plants of your region.

Take advantage of all botanical and horticultural courses.

Stress horticultural perfection in all Flower Shows, and the judging of flowers by horticultural standards.

Encourage the study of ecology—the relation of plants to their environment.

Prepare and distribute plant study questionnaires.

In Wisconsin we have through our Plant Testing Project accomplished some results that should be of much benefit to Wisconsin gardeners. There can be much more testing of varieties as to hardiness and adaptability of the plants to Wisconsin conditions. As a Horticultural project for your club this year test some of these recommended varieties in your gardens, exhibit them at the Flower Shows with label as to name and then make a report to the State Federation as to what the plant did in your garden. Our Plant Testing has received favorable comment from out of the state organizations. Plant a new variety this year as your part in this Horticultural project.

Editor's Note: Miss Merle Rasmussen has been appointed Horticultural chairman of the Wisconsin Garden Club Federation by the Board of Directors.

Control Blights and Mildews with

Poma-Green with Nicotine

•

Pomo-Green with Nicotine is a material which can either be dusted or sprayed on the plants. It is, therefore, an ALL PURPOSE material which may be applied with any available equipment.

Pomo-Green with Nicotine because of its leaf-green color, eliminates that unsightly appearance on foliage which results from the use of many spray materials.

Pomo-Green with Nicotine carries the highest endorsement of the American Rose Society and is used by the leading amateur and professional floral hybridizers and nurserymen.

•

Use one of our small hand dusters in the garden.

•

Niagara Sprayer and Chemical Co., Inc.

J. Henry Smith, Sales Representative

Waupaca, Wisconsin

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400 So. 7th Street

Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

Walter C. Krueger, Oconomowoc, President
B. A. Robinson, Kenosha, Vice-Pres.
H. J. Rahmlow, Madison, Cor. Sec.

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G. A. Barrer, Cudahy
M. J. Rahn, Green Bay

FROM A HOBBY NOTEBOOK

Walter C. Krueger

BEFORE me is a notebook, one that only a glad fiend would keep. In it are listed the yearly plantings of the King of Flowers, and the notes that go with each variety. Perhaps a few of the facts hidden in this notebook would be of interest to others. On this assumption, I will put forth some rambling notes.

The only glad that is listed for each year from 1930 through 1937 is Dr. Bennett. For all around purposes this variety is hard to beat. This year, I will try Hector, Ninth Symphony, Regent, and Beacon in this color class. Aflame, Red Phipps, Tip Top and Flaming Meteor are rivals. John Bach is splendid for exhibition. Del Ray will get its second trial. The same is true of Smiling Maestro. The latter, like most Phipps seedlings, should be planted for September bloom. I like Amador, but for me it is red. If Dr. Bennett was not a scarlet, I would use it for pollination purposes.

It took me three years to be convinced that Betty Nuthall and Minuet were super glads. In each case I had to buy new stocks. It seems as if some bulbs sent out are not fair to the variety, and the moral is to be fair in testing a newcomer to your garden.

While I do discard varieties for other reasons than failure to win in competition, I have for the 1937 planting (except new additions) only seven varieties that did not win when shown. They will be discarded when a large bulb specimen fails to place in a major competition.

WISCONSIN GLADIOLUS SHOW

AUSPICES WISCONSIN GLADIOLUS SOCIETY

EAGLES CLUB
OSHKOSH

AUGUST 14-15

Of the one hundred twenty-five varieties which I will plant this year sixty percent are 1936 or 1937 newcomers. This means that an old timer has to be good to survive such a turnover.

Heaviest Prize Winners

My heaviest prize winners are Nuthall, Com. Koehl, Mary Elizabeth, Minuet and Picardy. (This result is naturally affected by quantity of stock.)

The following varieties have won two or more first places for me and have never placed lower: Morrocco, Dream O' Beauty, Golden Goddess, Oregon and Pirate. Dr. Hoeg, Arabella, John Ramsay, Blue Admiral, Lotus, Netherland Prince, and Tip Top while shown only once came out in first place.

The varieties that have withstood four years of evaluation are—Aflame, Albatros, Bagdad, Nuthall, Koehl, Bennett, La Paloma, Lindesta, Marmora, Morrocco, Mary Elizabeth, Minuet, Mother Machree, Pearl of California, Picardy, Pirate and Red Lory. These must be true aristocrats! While they were surviving—one hundred sixty varieties were discarded.

Six 1934 releases were discarded in the fall of 1936. While this may be hard on the pocketbook, it is the only way to prevent the planting from being cluttered up with false values.

La Paloma like most prims does not bloom any earlier by extra early planting. Plantings a month apart often bloom at the same time.

Bleeding Heart seems to be a consistent prize winner in color classes that have separate classes for distinctly marked varieties. How will it fare now that most prize schedules do not differentiate between marked and unmarked kinds. (The Wisconsin prize schedule may also thus couple up the color classes.)

While I have grown Christobel and Fata Morgana two and three years respectively, I have not been able to hit a show date with either one. Maybe August 14 and 15, 1937, will break the spell.

Notes On Varieties

Most reports seem to indicate that Pelegrina is sterile. I have not found this to be true.

Some reports indicate that Phipps does not set seed. My memory indicates an opposite conclusion.

Shirley Temple will indeed have to be super excellent in or-

der to live up to its supposed quality.

It took me three years to see, in my garden, a bloom of the following varieties: Wasaga, and Pelegrina.

Some forty-five hybridizers contributed to my 1937 glad garden. In this group, Palmer, Pfitzer and Ellis are responsible for about twelve each.

Because of the description by catalogers, I was forced to buy ten new varieties to use as a comparison to certain seedlings to see if the latter were worth the time to increase the stock.

CONTROL OF GLADIOLUS THRIPS

By F. E. Carroll, Entomologist Agicide Laboratories

THE Gladiolus Thrips, a tiny black insect, less than one-sixteenth of an inch in length, is the newest and most destructive of all gladiolus pests. Once established in a field it is capable of causing total crop destruction before a single flower spike develops. The insects are so minute and secretive in their habits that it is difficult for a grower to notice a lightly infested plant. By the time the injury is conspicuous it is usually too late for the plant to be saved.

Thrips presence can usually be detected before leaf feeding on the open has begun, by a slight browning which shows along the grooves of the inner edges of the leaves. When this browning occurs the plants should immediately be treated with a reliable thrips controlling material in order to protect them from furthere damage.

For the past 18 months the Agicide laboratories have studied this insect problem with a view to discovering a practical and economical control. Experiments in the field and in the greenhouse with balanced mixtures of newly developed thrips controlling insecticides have given nearly perfect control. As a result of these studies the gladiolus grower can now obtain a ready mixed dusting powder for thrips control from the Agicide laboratories.

Agicide is a ready **mixed dusting powder containing derris or cube** in correct combination with all the spreading, wetting, sticking, penetrating and inhibiting materials that are necessary for effective gladiolus thrips control. This material although extremely effective against thrips is non-injurious to human beings, warm blooded animals and is non-injurious to gladiolus foliage and flowers.

Treatments should be made at five to seven day intervals beginning at the time the first indication of injury is noticed, in order to cover the new leaves and flower spikes. The plants should again be treated after driving rains.

See the Agicide ad on this page.

PICARDY'S GROWING HABITS

Miss C. G. Jones, West Bend

BEING an amateur grower, making up for lack of skill by enthusiasm, I am giving my experience with Picardy.

The past two years have been very difficult ones for the "glad fans," especially for those who have a heavy clay soil. Last summer the plants just seemed to wait and hope for rain. Some, among them Phipps, gave up in despair, while the bravest were Picardy, Golden Dream, Albatross, Betty Nuthall and F. E. Bennett. There were many crooked stalks, and Picardy had its share, but so many grew straight and tall that the bent ones did not seem to matter.

REGAL LILY BULBS

11 medium sized Regal Lily bulbs or 6 large bulbs, $1.00; 24 medium or 13 large, $2.00; 100 medium, $7.00; 100 large $11.00. All prepaid with planting instructions. Limberg Nursery, Plymouth, Wisconsin.

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Use Proven Safe Insecticides for
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108 N. Water St., Milwaukee, Wis.

FAIRYLAND HYBRID LILIES

I have seedlings ready to transplant to their permanent location in May and June of Price's (early) **Lillium Formosanum,** Wilson's type (August to December) and my new **hybrid Dream lily** that fills the usual gap of a month or more between Regale or Price's Formosanum and the late type. **8 each of above for $2.00.**

Dream lily separate or second generation color crosses 15 for $2. Dream lily will bloom all through the Northern states before frost. Wilson's type may be only half through. Write for list of crosses.

Seedlings should bloom well this fall and from June to frost each year thereafter. Can be safely mailed anywhere in United States. Disease free. Hardy. 20% discount for club orders of $5 or more to one address.

LESLIE WOODRIFF
205 S. Inglewood Ave. Inglewood, Calif.

ANEMONES

Mrs. J. A. Connaughton
Madison Garden Club

WE all think of Anemones or Windflower as being spring flowers, and how happy we are to find them on the edge of wooded hillsides almost as soon as the snow disappears.

This lovely Pasque flower was called Spring Cup or Spring Crocus by the early settlers, as it was one of the first of wild flowers found throughout the Dominion of Canada and in various mountainous and prairie sections of our own states. They still thrive here and are more at home than if planted in our own gardens.

But we have the cultivated varieties which grow successfully, the bulbous anemone. These poppy-like flowers are unusually large and with a wide range of rich and brilliant colors. Plant bulbs early in the spring about six inches deep and give protection each winter.

The Japanese Anemone

The Japanese Anemone which I have grown quite successfully for several years, is a beautiful late flowering perennial, gaining strength and beauty each year. These single and double flowers come in pure white, and the lovely pastel shades. After once established they will give abundance of bloom from September until severe frosts. The long stems are excellent for cutting and combine well with the late flowering delphinium. They grow from two to three feet high. The dark green foliage is an attractive feature of this flower, having a broad cut leaf which dresses up the border long before the flowers appear.

Good garden soil will suit most varieties. They prefer a well drained location and are more satisfactory in partial shade. Plenty of moisture during hot, dry weather is an important point to be remembered. Bone meal and peat moss are beneficial worked well into the soil. Plant early in the spring or fall 12 to 14 inches apart. Best results are obtained by protecting with leaves or hay the first winter.

During the summer when you are cultivating and weeding, you will find tiny little plants coming up around the parent plant. These can be carefully lifted and planted elsewhere in the garden.

Presented over station WHA, the Garden Club of the Air, Tuesday, April 20.

TIPS FOR THE DIRT GARDENER

Iris Leaf Spot

IRIS leaf spot can be controlled by starting to treat the young plants about once each week and following every rain with a lime sulphur dust or spray. We recommend a dust especially because it is easy to handle and the duster is always available and ready for use.

If you cannot buy a duster suitable for garden use at your local stores, ask your storekeeper to stock them. There will be a demand for them as people become acquainted with their value. Refer to the ad in this issue of the Niagara Sprayer Company, Mr. J. Henry Smith, representative, Waupaca, Wisconsin.

All leaf diseases may be controlled with sulphur dust. Dust the peonies, phlox, delphinium, in fact, all perennials, once a week as you make a trip of inspection around the garden. Remember, you cannot cure a plant of diseases such as leaf spot, rust, mildews and scab after they have attacked the leaves. The dust must be applied in advance as a protection. Cure is impossible.

Garden Soils Need Humus

What our garden soil needs more than plant food, is probably humus. After the soil has been cultivated for a number of years the humus decomposes and disappears, leaving the soil in a very raw condition. It then begins to bake after a rain and dries out quite rapidly. It may bake so hard as to be difficult to work. This condition cannot be overcome by the use of mineral fertilizer. Manure is the best fertilizer we can apply but is not always available. Peat moss can be used but since it contains very little plant food, mineral fertilizers should be used in addition. Dried sheep manure or pulverized manures of other kinds contain humus, as does also brann. Brann is a complete fertilizer with small amounts of nitrogen, phosphate and potash and provides humus as well. In using brann, apply at the rate of 50 to 100 pounds per thousand square feet. It is, of course, recommended for the small garden only.

THE PURPLE LEAF BEECH

E. L. White, Fort Atkinson

IN front of the Masonic Temple in Fort Atkinson is a Purple Leaf Beech tree that is one of the most beautiful trees I have ever seen. It is the only one I know of in Wisconsin, although I hope there are others as it is such a fine tree.

Botanically it is known as Faugs sylvatica, var. purpurea. It has smooth gray bark; is ovate and symmetrical in shape, leaves are a purple bronze color, entirely unlike any other; grows to 80 feet tall. Being a tap root tree, it is somewhat difficult to transplant. Nurseries furnish this tree, root pruned, and balled the same as are evergreen trees, to stand transplanting better.

"Seasonable" Suggestions With Herbs

Mrs. W. A. Toole, Baraboo

BORAGE—(annual) Delicate, cucumber-like flavor. The leaves and blossoms are used in salads and cooling drinks. Flowers are lovely as a garnish.

Caraway — (biennial) Seeds used in cakes, cookies, and candies; bread, cheese, salads, and sauces. Add a few to clear soups; also baked apples and other baked fruits.

Chives—(perennial) Mild onion flavor, useful in sandwiches, salads and many other dishes.

Lovage — (perennial) A little known celery like plant. It is delightful in soups, sauces and stews. Finely chopped Lovage, Marjoram, Chives and Mint, used with a French dressing in lettuce salad is delicious. A small portion of Lovage, combined with Chives, is very satisfying in cottage cheese. Try lima beans with chopped ham, a little Lovage, Chives and a dash of brown sugar. A meat stew is made "choice" with Lovage, Marjoram and Thyme.

Marjoram — (perennial) Tender tips of stems, leaves and flowers are used, both fresh and dried, for flavoring soups, roasts, stews, fish, meat sauces, dressings and salads. Used alone, or with a small portion of Chives and a pinch of Marjoram it goes especially well in dishes of beef, lamb or mutton.

Spearmint or **Lamb Mint**—(perennial) The leaves are used in various mint sauces to accompany lamb, and mint jelly; as an addition to carrots and peas, either separately or in combination; also beets; requiring either fresh or dried leaves. The fresh leaves are also used in cooling drinks, punches; and either candied or natural, as a garnishing for various dishes.

Sage—(perennial) Leaves are dried to flavor poultry, pork, cheeses, and many other things. Use sage sparingly, especially if combined with other herbs, for the flavor is strong.

Winter Savory — (perennial) The leaves, either fresh or dried, are used as flavor in stews, meat sauces, meat leaves, stuffing and gravies.

Summer Savory—(annual) Is used the same as the perennial. The leaves and the flowers are sometimes added to salads, also cooked with fresh peas, string beans, and lima beans.

Thymes—All Thymes have a wide variety of uses. The leaves, either green or dried, give a delicate but distinct flavor to various egg dishes, vegetables, meat sauces, dressings, gravies, sausages, soups, stuffing, cheeses, and with poultry, pork and veal.

Herb flavoring should have a subtle, intriguing quality, and seldom be so strong that one is instantly aware of it. Simple dishes are made joyous with herbs. Every garden should have its herb corner. It adds zest to life.

DESIGN OF FLOWER ARRANGEMENT

ANOTHER good book has just been published on the subject of flower arrangement. This time it is on design. The author is John Taylor Arms, who has been lecturing widely on design of flower arrangement during the past few years. Mr. Arms is an artist and gives flower arrangement an opportunity to become an art by the same standards of design and composition as painting and sculpturing.

The ideal flower arrangement he points out is one which is still a design if reduced to black and white from which nothing can be taken away and nothing added without hurting it. Color is the happy addition. Some twenty arrangements of foremost masters are analyzed. It is published by the Macmillan Company, New York City, price $2.75.

We cordially invite you to visit our Nursery at any time during the season

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FRUIT FARM AND NURSERIES
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Offering a Complete Landscape Service and a full line of Nursery Stock in well grown specimen plants in all varieties.

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

A LETTER FROM THE PRESIDENT

DEAR Garden Club Members: The garden clubs of Wisconsin can feel proud indeed to have played such an important part in the National Flower and Garden Show.

That the garden clubs were a valuable, contributing factor to the great display of beauty and grandeur was evidenced by the favorable comment, unusual enthusiasm and interest of the thousands of show visitors.

About 100,000 persons attended the show, which means that the amateur gardens, shadow boxes, table settings and other entries of our garden clubs were viewed and admired by the greatest attendance in the history of Wisconsin garden clubs.

The Federation officers are grateful to every garden club and to each individual member for the interest and sincere cooperation tendered, thereby making possible the finest and most successful flower and garden show Milwaukee or Wisconsin ever had.

Special tribute is due Mrs. Ralph Hibbard of Wauwatosa, Chairman of the Amateur section, for the great task she so ably directed in staging this garden club exhibit.

Mrs. Chester Thomas, Pres.,
Wis. Garden Club Fed.

NATIONAL COUNCIL MEETING

SEVERAL officers of the Wisconsin Garden Club Federation, including Mrs. Chester Thomas, president, will attend

the National Council of State Garden Club's annual meeting to be held at Cleveland, Ohio, May 25-28. The program will include visits to outstanding gardens, estates and nurseries in Cleveland and vicinity. Only delegates may attend.

Any Wisconsin garden club member wishing to attend should write to Mrs. Chester Thomas, Route 2, Thiensville, for registration blank.

TWO-DAY SUMMER MEETING PLANNED FOR FEDERATION

A VISIT to two important Wisconsin parks, a tour through one of Wisconsin's most beautiful counties, camp fire meetings, outdoor services, talks by park experts, nature lovers and geologists, are among the plans for the two-day meeting of the Wisconsin Garden Club Federation to be held late in July.

The two parks to be visited are the Potowatomi State Park at Sturgeon Bay, and the Peninsula State Park in northern Door county. A new wild flower preserve may also be included. Late in July Door county will be especially beautiful with the orchard filled with luscious red cherries. The cherry canning factories will be operating at full speed.

The meetings will be held on Saturday and Sunday. Plans are to assemble at Potowatomi State Park on a Saturday forenoon with an outdoor picnic luncheon at noon. After a short business meeting until 2 p. m., a tour of the park and beauty spots will be held.

Saturday evening there will be a camp fire meeting. Sunday forenoon there will be an outdoor service in the Peninsula State Park where there is an outdoor amphitheatre. Prominent speakers will appear for the service.

Following a noon luncheon in the park, the afternoon will be devoted to a tour of the interesting points of this region where guides will explain the geology and plant life.

The Wisconsin State Horticultural Society has extended an invitation to the Wisconsin Garden Club Federation to hold the meeting as outlined above. It will be considered by the Federation officers at their meeting May 11th.

OFFICERS CITY CLUB GARDEN CLUB, MILWAUKEE

President: Dr. C. M. Schwendener, 1722 No. 48th St.

Secretary-treasurer: Leo Tiefenthaler, 2425 W. McKinley Ave.

Meeting: 4th Thursday of month.

WAUKESHA TOWN GARDEN CLUB REORGANIZED

THE Waukesha Town Garden Club reorganized this year and has again joined the Wisconsin Garden Club Federation and the Horticultural Society. The following officers were elected:

President: Mrs. Geo. Peterson, 119 W. College Ave.

Vice-pres.: Mrs. C. F. Schuetze, 1202 E. Broadway.

Secretary: Mrs. P. H. Leininger, 615 Beechwood Ave.

Treasurer: Mrs. Matie Christoph, 102 West Ave. N.

We wish the club a successful season.

WEST BEND CLUB ELECTS PERMANENT OFFICERS

THE West Bend Garden Club, one of the newest clubs in the state, elected officers early in April as follows:

President: Rev. A. H. Otto, 208 S. 7th St.

Vice-pres.: Mrs. Ida Wiebe, 322 N. 8th St.

Secy.-treas.: Miss Zella Loomer, 226½ S. Main St.

The club is planning some interesting programs for the coming season.

WANTED! FLOWER SHOW DATES

WE would like to carry the announcement of any flower shows to be held in Wisconsin in this magazine.

The next issue will come out about June 8-10. The dates, locations and descriptions of any shows to be held after this time will be appreciated. Since there will be no magazine in July, the July-August magazines are combined, and will appear about the last week in July, we would also like to carry any notices of shows to be held up until the last week in July.

IMPORTANT COMING FLOWER SHOWS

Wisconsin Flower Shows

May 22-23, Town and Country Garden Club of Lake Geneva, Spring Flower Show, Horticultural Hall, Lake Geneva.

June 26-27. Racine Flower Show by the Racine Garden Club, Memorial Hall, Racine.

Out-of-State Shows

May 9-15. Nashville, Tenn. Fifth Annual Iris Festival when gardens will be open, and Iris Show on May 11 and 12 at the Hermitage Hotel.

May 14-16. New York, N. Y. Annual Exhibition of the American Rock Garden Society, with the Horticultural Society of New York cooperating, in the American Museum of Natural History.

May 14-16. New York, N. Y. Annual Tulip Show of the Nassau County Horticultural Society under the auspices of The Horticultural Society of New York at the American Museum of Natural History.

May 28. Roanoke, Va. The Annual Rose Show of the Garden Club of Virginia.

June 9-10. New York, N. Y. Annual Sweet Pea and Rose Show of the Nassau County Horticultural Society under the auspices of The Horticultural Society of New York at 598 Madison Avenue.

June 12-13. Lincoln, Nebr. Annual Show of the American Peony Society under the auspices of the Garden Club of Lincoln.

June 14-15. Cleveland, Ohio. The Annual Spring Exhibition of the American Rose Society.

June 15-16. Boston, Mass. Annual June Flower Show of the Massachusetts Horticultural Society featuring peonies at Horticultural Hall.

GARDEN CLUB RADIO PROGRAMS

State Stations WHA and WLBL every Tuesday at 10:15-10:45 a. m.

Garden Club programs will be broadcast every Tuesday during May and half of June by Wisconsin Garden Clubs. We urge every garden club member to listen in because there will be something of interest each Tuesday at 10:15 a. m.

May 4. Cambridge and Lake Ripley Garden Club. Program in charge of Leander Lillesand.

May 11. Wisconsin Garden Club Federation, Executive Committee. Talks by Mrs. E. R. Durgin, Racine, honorary president; Mrs. Chester Thomas, president; Mrs. J. Martin Johnson, Ripon, Vice-president; Mrs. Robert Alder, Elkhorn, 2nd Vice-president; Mrs. E. A. St. Clair, Wauwatosa, Rec. Sec.-Treas.

May 18. Elkhorn Garden Club, Mrs. Chas. Jahr, President.

May 25. Fort Atkinson Garden Club, Mrs. Chas. Vosburg, President.

June 1. La Belle Garden Club, Oconomowoc, Mrs. Chas. Schuele, President.

June 8. Town and Country Garden Club, Lake Geneva, Miss Betty Blackwood, President.

June 15. Whitewater Garden Club, Mrs. Thomas Purcell, President.

BE SURE TO TRY SOME PLANT TESTING VARIETIES

IN the March and April issues of Wisconsin Horticulture a list of varieties recommended by the Plant Testing Committee was published with prices as offered by the Rasmussen Nurseries of Oshkosh and the White Elm Nursery of Hartland.

We sincerely hope that a great many of the members will try some of these varieties this year. The committee recommended some very choice things in which we are sure you will not be disappointed. Refer to the past two issues for prices.

FLOWER SHOW ENTRY TAGS AVAILABLE

THE Wisconsin Horticultural Society has available for member clubs, two types of entry tags for flower shows as follows: 1. Competitive judging style entry tag at 75c per 100; 2. Non-competitive or new system of judging entry tag at 40c per 100. We will also send on request copies of the circular describing the non-competitive or new system of judging.

SAVE
YOUR TREES
Pruning — Cavity Treatment
Spraying — Cabling
Fertilizing — Tree Moving
WISCONSIN TREE SERVICE
2333 N. Murray Ave. Milwaukee, Wis.
LAKESIDE 2907

Cheer Up—Spring Is Here

Mary A. Lowerre

AS Chairman of the Junior Garden Section of the Wisconsin Federation of Garden Clubs I feel prompted to sing out my challenge to the world, as does the song sparrow—"Cheer-up, Cheer-up, Spring is here!" For, there is a challenge in it to every Father, Mother, and to every counselor of childhood and of youth; a challenge to them to listen, to observe the mighty unfoldment of this reel of LIVING pictures which Nature is now releasing to us and to impress the wonder and the beauty of it upon the minds of all children.

Here—those who have been so fortunate as to have their senses of appreciation opened in youth—or who have come into the world imbued with a love and an affinity for and with Nature in all her moods, are watching the most interesting drama of all time—the drama of growth; and you are setting the stage, as it were, for the troupe of rollicking, colorful, fragrantly beautiful players—your flowers—who are going to dance across your stage from the time of the first snowdrop to the last chrysanthemum when Jack Frost comes to close the season for you.

Friends—I am writing this as a request for your co-operation. Asking you, as counselors of youth—for such is every adult of the race—"Believe it, or not"—to help us in the great task of bringing every child to see, feel, hear and smell the beauties of Spring, and of all the seasons to follow. You can do this by helping your child to make a garden.

Remember—as the years roll on, and your knees begin to creak a little, and you feel tempted, between wheelbarrow loads, to drop down upon that garden bench you so lovingly placed for an accenting note in the vine-draped niche—it is your boy and

girl who are going to carry on in the garden, providing you have revealed to them the joy of it—if you have taught them the blessing of it.

Every child loves Nature—instinctively—but it is a closed book to him until some one has opened it. Your garden may have, within its small confines, the laboratory of a Burbank or the sanctuary of a Burroughs. When your homely interpretation of the omnipresent forces, of methods of gardening and all that pertains to making and keeping one, you may carry the torch which will lighten the inner chamber of his soul to untold joy—and more—to the art of raceful, contented living.

Will you not give your child a little plot of ground to have for his very own? A place where he may dig, and plant, and reap under your direction? If you will, you will be forwarding a very worthy cause in America—the growth of the Junior Garden movement—and you will be helping your child to become an intelligent and a worthy citizen.

OFFICERS HALES CORNERS GARDEN CLUB

President: Mrs. Harry Berger, R. 1
Secy-treas.: Mrs. W. R. Oelschlager

JUNEAU HEIGHTS GARDEN CLUB HAS MOST INTERESTING PROGRAM

The Juneau Heights Garden Club of West Allis is one of the few garden clubs in Wisconsin composed entirely of men. Mr. A. D. Flohr of West Allis, chairman of the program committee, sends an account of the program conducted by the club, which is most interesting.

The club meets in the homes of members and the first 15 minutes of each meeting is devoted to an original form of entertainment provided by the host. The entertainment is along horticultural lines. The next part of the program is a guessing contest with prizes. Thirty minutes is devoted to this contest. Illustrations of this contest are as follows:

1. Requiring each member to name a flower starting with the letter "a" and running through the alphabet.
2. A contest answering questions on growing some flower, as roses.
3. 24 pictures of flowers are cut from a catalog, 12 annuals and 12 perennials. The contest consisted of identifying the varieties.

A light luncheon is usually served and then the real discussion is started. Usually this consists of answers to a set of 10 questions presented at the close of the previous meeting relating to anything in horticulture. In answering these questions there is real excitement.

An essay contest on the subject "What my garden means to me" is also carried on.

They will distribute seeds of the new annuals in order to test the plants. The club stages small flower shows featuring flowers from tulips to chrysanthemums.

The Juneau Heights Garden Club will welcome more men as members. The Secretary is Mr. Gordon Chromasta, 6324 W. Oconto Place, West Allis.

Samples of Questions Asked at Meetings

How does a plant feed itself?

Why are flowers removed from a sick room at night?

Why do morning glory seeds have such a hard shell?

Is there a double Gladiolus?

Is the Polyantha Rose a specie or a hybrid?

What are borken tulips?

What is meant by wilt-resisting strains of plants, and how did they come into being?

Why do plants consist largely of leaves?

Name one good climbing rose. Be careful now.

Why is sulphur so effective in preventing fungus diseases?

Why were the battlefields of Europe useless for farming purposes directly after the war?

What is the difference between a narcissus and a daffodil?

What is a sport?

Awards At National Flower and Garden Show

Amateur Section

Exhibits were judged by the scoring method. All exhibits scoring from 93-100 were rated excellent (blue ribbon); from 85-92, very good (red ribbon); from 80-84 good (white ribbon); from 75-79, fair (pink ribbon).

Gardens

Rating: *Excellent*

Garden with Water Feature, Sum-Mer-Del Garden Club
Dooryard Garden, Countryside Garden Club of Thiensville
A Bird Refuge, Hales Corners Garden Club
Terrace Garden, Wauwatosa Garden club.

Rating: *Very Good*

Garden with Water Feature, Blue Beech Garden Club
A Spring Nook, West Allis Garden Club
A Dooryard Garden, Post Office Employees Garden Club
Terrace Garden, Racine Garden Club

Rating: *Good*

Garden with Water Feature, Juneau Heights Garden Club
Garden with Water Feature, Hillcrest Garden Club
Garden with Water Feature, Art Institute Garden Club
Garden with Water Feature, Nature Club of Milwaukee
Dooryard Garden, La Belle Garden Club of Oconomowoc
Little Corner, Milwaukee County Horticultural Society
Garden with Water Feature, Green Tree Garden Club

Exhibits on Saturday, April 10

Niches With Still Life Arrangements

Excellent: Mrs. A. H. Taylor of Blue Mound Garden Club; Mrs. David Weart of La Belle Garden Club.

Very Good: Miss Ivy Allman of Fox Point Garden Club.

Fair: Mrs. Floyd Patrick of Racine Garden Club.

Silhouettes

Excellent: Mrs. Harry Wilson of Racine Garden Club; Mrs. A. H. Taylor of the City Club Garden Club.

Very Good: Mrs. Conrad Biebler of Art Institute Garden Club; Mrs. John C. Stevens of La Belle Garden Club.

Artistic Arrangements

Excellent: Mrs. David Weart of La Belle Garden Club; Mrs. S. Sorenson of Racine Garden Club.

Very Good: Mrs. Walter Tieche of Whitefish Bay Woman's Club; Miss Betty Blackwood of Town and Country Garden Club of Lake Geneva.

Good: Mrs. C. Biebler of Shorewood Garden Club; Mrs. Cyril Colnik of Art Institute Garden Club.

Fair: Miss Catherine Morris of Sum-Mer-Del Garden Club; Mrs. Oscar Conrad of Hawthorne Garden Club.

Still Life Pictures

Excellent: Miss L. A. Seaman of Green Tree Garden Club.

Very Good: Miss Celia Dix of Milwaukee County Horticultural Society.

Tables

Very Good: Miss Emma Schipper of Art Institute Garden Club; Mrs. Walter Tieche of Whitefish Bay Woman's Club; Miss G. Colnick of Art Institute Garden Club.

Good: Mrs. Gordon McGeogh of Green Tree Garden Club; Mrs. Geo. Adami of Wauwatosa Garden Club; Mrs. Max Schmitt of Wauwatosa Garden Club.

Exhibits on Monday, April 12

Artistic Arrangements

Excellent: Mrs. C. A. Chase and Mrs. J. M. Kennedy of Superior Garden Club; Mrs. Pearl Johnson of Elm Grove Garden Club.

Very Good: Mrs. H. Staff of Whitefish Bay Woman's Club; Mrs. Henry Konrad of Wauwatosa Garden Club.

Good: Mrs. Geo. Schroeder of Elm Grove Garden Club.

Fair: Mrs. Elmer Sevringhaus and Mrs. Chas Sakrison of Madison West Side Garden Club; Mrs. W. Bruhn and Mrs. A. Bastian of Hillcrest Garden Club.

Still Life Pictures

Excellent: Mrs. W. F. Roecker of City Club Garden Club; Mrs. A. L. Noerenberg of Art Institute Garden Club.

Very Good: Mrs. R. Pulford and Mrs. W. Williamson of Racine Garden Club.

Exhibits on Tuesday, April 13

Tables

Excellent: Mrs. A. H. Taylor of City Club of Milwaukee; Mrs. Steven Cushmand of Art Institute Garden Club; Mrs. Arno Krieger of Wauwatosa Garden Club; Mrs. Frank Weyenberg of Countryside Garden Club of Thiensville; Mrs. A. H. Kartack of Baraboo Garden Club.

Very Good: Mrs. Pearl Johnson of Elm Grove Garden Club.

Exhibits on Wednesday, April 14

Artistic Arrangements, Japanese Influence

Excellent: Hawthorne Garden Club, Mrs. George Leverenz.

Very Good: Wauwatosa Garden Club, Mrs. A. H. Knorr.

Good: Hales Corners Garden Club, Mrs. Earl Dewey and Mrs. Maurice Fitze.

Still Life Pictures—Spring Flowers

Excellent: Wauwatosa Garden Club, Mrs. George Adami; Ripon Garden Club, Miss Clare Mears and Mrs. A. W. Hargrave.

Very Good: Wauwatosa Garden Club, Mrs. Arno Krieger.

Good: Art Institute Garden Club, Miss Alma Hoffman.

Still Life Pictures—Fruits and Flowers

Excellent: Art Institute Garden Club, Miss Gretchen Colnik.

Exhibits on Friday, April 16

Artistic Arrangements

Excellent: Elkhorn Garden Club, Mrs. Geo. O'Brien and Mrs. Edw. Sorenson; Elm Grove Garden Club, Mrs. Pearl Johnson; Fort Atkinson Garden Club, Miss Abbie Kyle, Mrs. Chas. Vosburg, Mrs. Theo. Ward.

Very Good: Wauwatosa Woman's Club, Mrs. Edw. Corrigan.

Good: Wauwatosa Garden Club, Mrs. Louis LeMieux.

Fair: Wauwatosa Garden Club, Clarence Haasch; Wauwatosa Woman's Club, Mrs. E. C. Haasch; Town and Country Garden Club, Lake Geneva, Mrs. Hugh L. Burdick.

Still Life Pictures

Excellent: City Club of Milwaukee, Mrs. Arthur Taylor.

Good: Art Institute Garden Club, Mrs. Arthur Poenisch.

Tables

Excellent: Elm Grove Garden Club, Mrs. Pearl Johnson; Hales Corners Garden Club (Oriental Table), Mrs. Harry Oelschlager, Mrs. George Weber, Mrs. Earl Miller.

Very Good: Elkhorn Garden Club, Mrs. Robert Alder "Thee in Gartenhaus"; Fort Atkinson Garden Club, Mrs. Theo Ward; Wauwatosa Garden Club, Miss Helen Haasch.

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

GARDENS OPEN FOR VISIT THIS SPRING

Milwaukee

Mrs. John Le Feber, 3900 N. Lake Drive. All season.

Mr. Andrew McCabe, 3590 N. Lake Drive, spring garden.

Mrs. Arthur Jaeger, Graham Drive, Green Bay Rd. May and June.

Mrs. H. H. Thomas, Spring Rd., Fox Point.

Mitchell Park and Conservatory, Mr. Davidson.

Grant Park with nursery. Mr. Wolf.

Racine

J. B. Simons, 1013 Lake Ave. Spring and summer.

Mrs. Thomas Powers, 1744 Wisconsin St. Wild flower garden, May.

Mrs. Elmer Voigt, 3225 Michigan Blvd., spring.

Mrs. L. R. Clausen, 1121 Lake Ave., rock garden and spring garden.

Mrs. Elmer Durgin, 1815 Park Ave. June.

Mrs. John Wiechers, R. 2. Early and late.

Mrs. F. H. Firks, 1614 N. St. Claire. Early and late.

The above are the gardens open for visit this spring submitted to the chairman of the visiting garden section, Miss Alma Hoffman, 1002 N. 21st street, Milwaukee.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

OFFICERS

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Walter Diehnelt, Menomonee Falls, Vice-president
H. J. Rahmlow, Madison, Cor. Secy.
Mrs. Millie Francis, West Allis, R. 4, Box 608 Recording Secretary-Treasurer

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

VOL. XIII MAY, 1937 No. 5

LACK OF POLLEN HAMPERS BROOD REARING IN MARCH

THE past winter was one of the best for wintering bees which beekeepers enjoyed for many years. Colonies in good condition last fall came out very strong this spring.

The first week in March we examined a few colonies to see their condition and found them strong in old bees, with some eggs and a little sealed brood. The month of March proved rather cool.

About the first of April these colonies were again examined and to our surprise found that they had no more if as much sealed brood and eggs as they had the first week in March. On further examination these colonies were found to have very little pollen in the combs. The reason for this was probably that brood rearing was so heavy last fall that all the pollen brought in was used up.

Spring Dwindling

According to Dr. Farrar's Experiments in Wyoming, if there is plenty of pollen and honey in the hives, the queen lays eggs practically all winter and brood rearing starts on a small scale quite early, even in February. As a result, the supply of young bees is kept up and the colonies come out in good condition in the spring. Furthermore, such colonies do not suffer from "spring dwindling" which is probably

nothing more than a lack of young bees in the hive and the old bees dying off on their flight.

Fortunately the bees begin to get some pollen from the field about the middle of April which changes conditions entirely. From then on brood rearing increased.

Letter From A. J. Schultz, Ripon

Mr. A. J. Schultz of Ripon, president of the State Association, wrote on April 15th: "The first week in April our colonies that had some of last season's pollen in the hive, had considerable brood, capped, and some larva. Others that had no pollen left from last season had only a few cells of capped brood and a lot of eggs, but no larva.

"Now after a day or two of good pollen gathering, we find that there has been quite a change in the condition. All of the colonies now probably have eggs and larva with some capped brood. There is no question in my mind but that the amount of open larva in the colony is dependent upon the amount of pollen left in the hives in the fall. **Stores alone will not increase brood rearing. We must have pollen.** Our bees were all very heavy with feed.

"Clover has been damaged more than at first appeared early this spring. Red clover and alfalfa where cut late suffered the most, sweet clover the least."

Conditions at Appleton By Edward Hassinger, Jr.

"Years ago I opened my hives for observation and study before natural pollen was brought in by the bees. Occasionally a queen was balled in my presence and others were missing on the next examination. Therefore I do not now go into my brood nest until natural pollen is brought in, and then only on days when they are bringing it in. The first pollen this year was from Tag Alder on April 14th which is the average date here.

"Most of the average colonies are strong in bees this spring.

"I believe that if we have ten days or more at a time after April 15th when bees cannot get natural pollen it would be to our advantage if it were possible and practical to feed the colonies inside of the hives with pollen so as to stimulate brood rearing. We must find the right substitute and then make an easy way for large beekeepers to feed it."

THE APPROPRIATION FOR FOULBROOD CONTROL

SO far the bill before the Wisconsin Legislature to appropriate $31,000 annually to eradicate foulbrood from Wisconsin has had favorable action.

During the first week in April the Agricultural Committee of the Assembly reported the bill favorably and recommended it for adoption to the Assembly. Through the efforts of Assemblyman Douglass of Waukesha County, the Assembly passed the bill and referred it to the Finance Committee for consideration.

It came up for hearing before the Joint Finance Committee on April 28. What action this committee is still a problem. They are confronted with a great many requests for funds that will probably not be available, and they are making every effort to reduce appropriations to avoid increased taxes.

However, the committee is approving funds to those projects which are of the greatest value to the people of the state. The beekeepers as a class have asked for but very little. In addition, they are paying rather high taxes on their bees and are willing to pay it because they are in hopes that they will soon be protected from the great danger of foulbrood in their vicinity.

Officers of the State Association and others who appeared in favor of the bill made a very good impression before the Finance Committee.

The bill will come up for final passage in the State Senate in the near future. Have you written your State Senator about it?

POLLEN SUBSTITUTES

A LETTER from Dr. M. H. Haydak of the Minnesota Agricultural College who has been working on pollen substitutes for some time, states that a mixture of soy bean flour, finely ground (4 parts) and skim milk powder (1 part) is a satisfactory pollen substitute. This mixture was added to 4 parts of honey by weight and then poured into the cells of combs.

Perhaps it will be possible to add a pollen substitute in some way to the colonies in the fall so they will have plenty before it comes from the field the following spring.

SUMMER MEETING OF STATE BEEKEEPERS ASSOCIATION PLANNED

THREE very successful district meetings of the State Beekeepers Association were held early in April. The attendance and interest was very good.

At these meetings the question of a summer meeting was brought up. It was the opinion of a large majority in attendance that a one-day meeting be held instead of a two or three day meeting.

Invitations were received from the Shawano County Association that the eastern meeting be held in Shawano. Shawano Lake provides an excellent place for an outdoor meeting and the city has good facilities for an indoor program.

In invitation for the western meeting was received from the Buffalo County Association, Mr. H. O. Rodeske, district vice-chairman, urging that the meeting be held in the park at Fountain City on the Mississippi River.

The officers are cooperating with Prof. H. F. Wilson in working out a program.

Spraying Fruit Trees

Ask your neighboring fruit growers to be sure not to spray during the blooming season. Apples and other fruits should be sprayed just before the petals come out, and again when 90% of them have fallen.

FROM EASTERN WISCONSIN

Walter Diehnelt
Menomonee Falls

WE observed many of our colonies when we unpacked and examined some of our yards and found that there was but little more brood the first part of April than there was the first part of March. This may not be entirely due to a lack of pollen because we found some hives with quite a bit of pollen and still no more brood than the others. With the blooming of soft maples they will build up rapidly I am sure.

HONEY WANTED

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

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Be guided by the experience of others and consider these vital points:

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Get our free samples and quotations on quantity orders.

INDIVIDUAL SECTIONS of comb honey are preferred by many hotels, restaurants, etc. Write us about them or any other special size sections.

August Lotz Company
Boyd, Wisconsin

In the Apiary

Those Weak Colonies

What to do with the weak colony is a problem. Every beekeeper knows that a weak colony is a border colony. It probably builds up to be a good colony by fall but produces no honey to pay for the labor spent. We are going to use all weak colonies to make two-queen units this year as outlined by Dr. Farrar of Laramie, Wyoming. In that way the double colony should give a good amount of honey and in the fall they will be separated so there will be no loss of units. Requeening will be done.

Your Neighbor's Bees

It might pay every beekeeper to make a trip to visit all the neighbors within a mile of his bee yard to see if they have any dead colonies and if they do, to help them dispose of them. Such dead colonies may have foulbrood and could easily infect all colonies within a distance of one mile if robbing started. One might earn a good salary for the time thus spent.

Outdoor Feeding

The old system of feeding syrup outdoors is no longer practiced by most beekeepers. We know that if a colony has **plenty of pollen and enough honey** it cannot be "stimulated" to increase brood rearing by outdoor feeding. The bees will create just as much brood as they possibly can without this "stimulation." Furthermore, outdoor feeding excites the bees, starts robbing and all the bees within a mile may visit the yard. It also wears out the bees. The best type of feeder is a 10 lb. pail inverted over the inner cover. Sugar is the best feed. Use equal parts of sugar and water or 1½ parts sugar to one of water for spring feeding.

Don't Spread Brood

Now is a good time to go through all the colonies to see if there is any disease present and to clip the queen. **Do not spread the brood early in the season.** In other words, you can't make the queen lay any faster than the bees can cover and keep warm the brood they have.

WOMAN'S AUXILIARIES ELECT OFFICERS

THREE District Woman's Auxiliaries are now organized and have elected officers. At the meetings early in April the Southeastern District elected Mrs. V. G. Howard, Milwaukee, Chairman, and Mrs. Millie Francis, R. 4, Box 608, West Allis, Secretary-treasurer.

The Western District, meeting in Menomonie, elected Mrs. S. P. Elliott, Menomonie, Chairman, and Mrs. Frederick E. Nabor, R. 3, Chippewa Falls, as Secretary-treasurer.

The Fox River Valley District was organized last year with Mrs. Andrew Stevens, Stockbridge, Chairman, and Mrs. A. J. Schultz, 835 Liberty Street, Ripon, Secretary-treasurer.

Miss Mercedes Cranston, commenting on the meetings, stated: "I was very much pleased to find that the ladies were so interested in the meetings and judging by the free and animated discussion at all sessions, I believe that these organizations are 'going places'."

The ladies will meet with the beekeepers regularly in the future.

FOR SALE

24 Cases of 60-lb. second hand honey cans, two in the case. Good as new. H. M. Schultz, Waterloo, Wis.

YOUNG QUEENS HAVE STRONGEST COLONIES THIS SPRING

LAST September we made a record on each colony stating the age of the queen, her vigor and whether the bees were ugly or gentle. On going through the colonies this spring we found that different methods of packing had little influence upon the strength of the colonies but that all colonies with young queens laying well last September had larger colonies than any of the queens over one year old. This was quite noticeable in many cases. In fact, wherever a colony was inspected that was somewhat weak, the record showed it was an old queen over one year old.

Mr. Henry Schaefer of Osseo stated at the district meeting at Menomonie that a similar observation led him to requeen every colony each year.

ORDER YOUR FOUNDATION EARLY

Ship us your wax to be worked into foundation now before the busy season starts.

Every sheet of our foundation is perfect. Let the bees test it for you and abide by their verdict.

Let us quote you prices on lots of 300 lbs. or more.

We carry a full line of supplies.

Price list on request.

◆

GUS DITTMER COMPANY
Augusta, Wisconsin

Swarm Control

(Continued from April)

"Supers should be added as they are needed. Operation (3), on the seventh or eighth day replace the wedge on the upper right and remove the one below it, then remove the one on the upper left. The bees returning to the entrance on the right side will be forced to enter the lower hive and work in the supers. There will still be an entrance to the outside on the left side of the hive.

"Operation (4)—On the fifteenth day replace the wedge on the upper left and remove the one below, then remove the upper one on the rear of the hive. About this time a queen will emerge from above and in a few days fly from the rear entrance to mate. A small colored lighting board will be of advantage if placed immediately below this entrance.

"Sometimes a queen will fail to mate and return. To take care of such colonies a few queen mating hives with nuclei should be on hand so that queens can be reared there to replace the queens lost."

A POUND OF POLLEN REQUIRED FOR A POUND OF BEES

IN a letter received from Mr. M. J. Deyell, editor of Gleanings in Bee Culture, recently, he remarked that he talked with Mr. Todd of the University of California who said that it requires one pound of pollen to produce one pound of bees. Mr. Todd worked with Dr. Farrar in some of his experiments.

FROM WESTERN WISCONSIN

H. A. Schaefer, Osseo

"APRIL 14th was the first day the bees brought in new pollen. This was about a week later than last year. A few of our colonies needed a little more food which was given them. We found that there was very little more brood in the two or three hives we looked in on March 1st. We had very little loss in our colonies this year."

FROM WASHINGTON COUNTY

Miss Clara G. Jones, West Bend

BEES wintered very well here. Stores were very short last fall but they did not seem to use as much honey as usual. Honey was badly granulated, yet there is little trace of dysentery.

Clover was not all killed by the ice so we have hopes.

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.

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Watertown, Wisconsin

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

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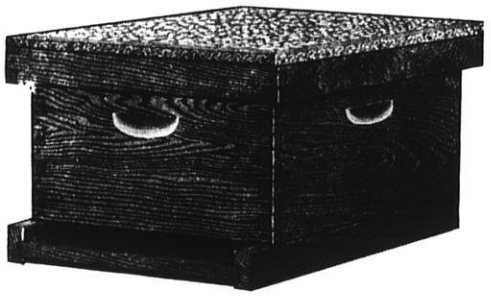
Ohmert Honey Co., 380 Wartburg, Dubuque, Iowa
Standard Lumber Company, Winona, Minn.
O. J. Weisensel, Sun Prairie, Wis.
W. T. Bosworth, R. 2, Merrill, Wis.
Chas. Jakel, Curtiss, Wis.

Our peonies will be blossoming all through June and we invite you to come and see them any day convenient for you. Write for best date. We have early, mid-season and late varieties in many hundreds for the student of the peony to study. We run to varieties and not to acres although we have several acres.

Sisson's Peonies

ROSENDALE, WISCONSIN

Highways 23-26 Intersection



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Material—Clear soft white pine.

Bottom Boards—Red cypress.

Factory pressed corners on metal roof with holes punched for mailing

High quality workmanship assured by experienced workmen employed every day in the year, manufacturing only bee supplies.

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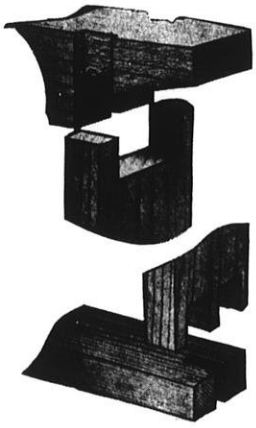

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This ornamental annual grass not only adds interest to stream borders and swamps, but furnishes food and protection for water fowl as well.
At the Morton Arboretum.

JUNE, 1937

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Spray Materials
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Grafting Materials
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Aunt Jane: "I want you to promise me never to use two certain words. One is swell and the other lousy. Will you promise?"

Mary Jane: "Sure, Auntie. What are the words?"

Failure of lilacs to bloom may be due to overcrowding with suckers, lack of plant food, insufficient water, too much shade, or pruning at the wrong time. Always remove dead flowers, but leave the short plump buds at the base of the old flower spike.

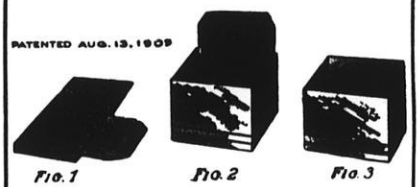

Fig. 1 Fig. 2 Fig. 3

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Crates, Bushel Boxes and Climax Baskets

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Dept. D, Cumberland, Wis.

Wisconsin Horticulture

The Official Organ of the Wisconsin State Horticultural Society

Established 1910

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TABLE OF CONTENTS

	Page
The Later Sprays for Codling Moth Control	243
A Practical Method of Thinning Apples	244
Cost of Straw Mulch in the Orchard	245
In the Orchard	246
Derris Controls Striped Cucumber Beetles	247
In the Berry Patch	248
Boysenberry On Test	249
Response of Plants to Hormone-Like Substances	250
Helps for Delphinium Growers	251
Horticultural News	251
Editorials	252
Observations in the Garden	253
About the Home and Garden	254
How Garden Clubs Make Money for Their Treasuries	255
Gleanings from the Gladiolus Patch	256
The Wisconsin Gladiolus Show	257
The Flower of the Month	257
The Best of the New Iris	258
The Wisconsin School Children's Forests	259
State Garden Club Federation News	260
Federation Summer Meeting	261
What Is So Rare As a Day in Spring?	262
Gardens Open for Visit	263
Federation Treasurer Report	263

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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.

Later Sprays for Codling Moth Control

Questions Answered by C. L. Fluke

Question—Following the calyx spray, what are the important cover sprays for codling moth control?

Answer—In order to keep the fruit pretty well covered with poison, one should put on three cover sprays approximately 10 days after the calyx, 20 days after the calyx, and 30 days after the calyx. These sprays will control the first brood, and if the work is thoroughly done, it may not be necessary to spray for the second brood. If a grower puts on only the 10 and 30 day sprays, perhaps an early August spray will be necessary for winter varieties.

Question — Often when bait traps are used, it has been noticed that there is sometimes a constant catch of moths with no definite peak; how would you time the spray accordingly?

Answer—It is impossible to conceive of no peak in the catch if the infestation is normal. Sometimes with very few moths there will be no peak. Under such conditions keeping the fruit fairly well covered with spray is all that can be done.

Question—Should a spreader be used and why?

Answer—If lead arsenate is used with lime sulfur in one form or another, no spreader is essential. If lead arsenate is used alone, it is improved by using some simple spreader, such as dried milk or even skim milk. If dried milk is used, add about ½ pound to each 50 gallons of spray.

Covering the inside of a large apple tree for better scab and worm control

QUESTIONS ON APPLE MAGGOT CONTROL

Question—Did the heat and drought of last season affect the population of the apple maggot?

Answer — We have learned from studies of the apple maggot at our Gays Mills Laboratory that dry, hot weather during July will retard emergence of the flies. They will remain as pupae in the soil until the following season. This means that 1937 will probably be a maggot year.

Question — On the average, when do the flies emerge in the following locations—Gays Mills, Southeastern Wisconsin, Door County, and Central Wisconsin?

Answer—Generally speaking, cages for fly emergence should be established in all of these localities before making definite statements regarding fly emergence. In answering this ques-

tion, we can only make general statements regarding most of the territory with the exception of Gays Mills. At this place the peak of emergence occurs somewhere between July 17 and 30. This time should be slightly later in all other sections, although in South-central Wisconsin it might be a little earlier. Along the lake shore and in Door County, perhaps 10 days to 2 weeks later.

Question—When is the proper time to spray, and how should it be done?

Answer—The spraying should begin whenever the flies appear in large numbers. Generally, this will be the last week in July along the western part of the state, and from 5 days to 2 weeks later in other sections. Lead arsenate is the material and should be put on at the strength of 1 pound to 50 gallons of water.

POLLINATION

AN interesting phase of the pollination problem is discussed by Prof. A. E. Murneek of Missouri. He states that it has been estimated that a single apple blossom may produce 70,000 to 100,000 pollen grains, and that a bee may carry as many as 50,000 to 75,000 pollen grains on its body. It requires about 10 pollen grains to pollinate completely, one apple blossom. Dr. H. B. Tukey of Geneva (N. Y.) Experiment Station, states that Delicious in the second highest group, and Cortland, McIntosh and Wealthy in the low group. Delicious contained as high as 9,675 pollen grains in a single pollen anther, and an average of 7,906 pollen grains per anther. There are usually 15 to 20 anthers per apple flower. Jonathan flowers may have as many as 6,899 pollen grains per flower.—From Maryland Fruit Grower.

A Practical Method Of Thinning Apples

THE "graduated space" method of thinning apples is the title of a bulletin by the Michigan Experiment Station, East Lansing, Michigan, by Gaston and Ricks. The authors establish accurate experimental evidence in support of common sense methods of operations which have been followed by intelligent fruit growers. The following is the summary of the thinning methods used.

Weak Branches—Small Apples

A study of the performance records of more than 2,500 thinned and unthinned branches of eight standard varieties of apples in Michigan during 1932-1935 established these facts:

(a) The natural tendency of weak branches—those with thin wood—is to produce small apples, and the tendency of strong branches is to produce large apples.

(b) Slender wood cannot be made, even by severe thining, to produce good fruit of merchantable size, and those branches should be removed by pruning.

(c) On the intermediate and more stocky wood the spacing of the fruit left at thinning should be inversely proportioned to diameter and apparent vigor of wood—that is the stouter the wood, the more apples which can be left.

(d) The different classes of bearing wood tend to be localized in different areas of the tree.

Value of Graduated-Space Thinning

"Graduated - space" thinning, which leaves the fruit spaced according to the diameter of the branch, compared with "uniform space" thinning, which leaves the fruit more or less uniformly spaced regardless of diameter of branch:

(a) Effects a slight decrease in total yield (about 10 per cent) as compared with no thinning, while "uniform space" thinning effects a considerable decrease (about 17 per cent).

(b) Effects a marked reduction in the yield of small fruits (about 84 per cent) as compared with no thinning, while "uniform space" thinning effects a smaller reduction (about 56 per cent).

(c) Effects a marked increase (about 99 per cent) in the yield of medium sized and large fruits, as compared with no thinning, while "uniform space" thinning effects a much smaller increase (about 56 per cent).

(d) Costs less per tree and per bushel of harvested fruit than "uniform space" thinning.

(e) Effects a substantial increase in monetary returns over and above thinning costs, as compared with no thinning, while "uniform space" thinning effects only a slight increase.

Thinning should be commenced as soon as the June drop is over and should, if possible, be completed within three or four weeks. For best results "graduated-space" thinning should be used in conjunction with the "thin wood" method of pruning.

Out Where the Tall Cornfeds Grow

The Carlson sisters are not afraid of the cold. They have walked to school all winter, when the mercury was as much as 30 below zero, bareheaded and with their stockings rolled down a distance of two miles. (Item appeared in Iowa paper.)

COST OF STRAW MULCH IN THE ORCHARD

COMMENTING on experiments on the cost of straw mulch in the orchard at the Purdue Experiment Station Orchards, at Bedford, Indiana, Prof. C. L. Burkholder states that the fertilizer value of straw is considerable. Wheat straw contains 10 pounds of nitrogen, oats straw 12 pounds, and rye straw 9.3 pounds. In addition to this there is a small amount of phosphate and considerable potash.

The fertilizer value of the straw is therefore from $1.67 to $2.74 per ton based on fertilizer prices.

Commenting on the amount of straw used, Prof. Burkholder states. "To maintain a desirable straw mulch on mature trees requires at least two bales per tree to start with a bale per year thereafter. The Bedford Orchard has actually averaged only two-thirds of a bale per tree per year, but regardless of this fact the straw mulch has evidently been sufficient to prevent a high per cent of water run-off, and this has been noticeably reflected in tree vigor during dry seasons, such as 1930 and 1936."

The average delivered price of straw purchased at Bedford was 22½c per bale. This is probably much cheaper than it can be purchased for in Wisconsin orchard sections.

CAUSE OF APPLE DROPS

MISSOURI Bulletin 379 entitled "Pollination and Fruit Setting," gives interesting data on general fruit pollination. It shows that there are four different drops in the apple, the first two being grouped together as the "first drop" and the last two constituting the "June drop." These drops occur at approximately 2 week intervals.

While information as to the causes of these drops is incomplete, the first drop is known to be that of flowers that lack pollination or some that are self-pollinated. The second drop composed of small fruits, is evidently due to embryo weakness and poor growth of the fruit, due to faulty nutrition. The third and fourth drops are composed of fruits about ½ to 1 inch in diameter, and is believed to be due to poor food supply and competition for food, by the various fruits. Individual limbs and branches will differ in the amount of drop at this time. Very often the grower worries about the June drop, but overlooks the earlier drops which may have been heavier. Judicious use of nitrogen fertilizer and provision for pollination by bees, are recommended as a help in control of fruit drop.—From Maryland Fruit Grower.

NITROGEN USED BY FRUIT TREES

BULLETIN 363 of Missouri Agricultural Experiment Station, Columbia, Missouri, entitled "Fertilizing Fruit Trees with Nitrogen" deals with a general discussion and recommendations regarding nitrogen fertilizers as applied to the orchard. An interesting able is shown in this bulletin giving the nitrogen loss and needs of a 20 year old apple tree. The figures are expressed in pounds of fertilizer containing 20-21% nitrogen, and run as follows:

	lbs.
Nitrogen removed with fruit crop	2.0
Nitrogen removed by pruning	.5
Nitrogen loss from autumnal dropping of leaves	2.0
Nitrogen loss from dropping of flowers and young fruits	.3
Nitrogen required for maintenance (growth)	1.0
Total	5.8
Nitrogen return to tree from decay of flowers, fruits leaves	1.2
(Net requirement to be applied)	4.6

From April Maryland Fruit Grower.

NIAGARA KOLOFOG

A Non-Caustic Sulphur spray material developed expressly for growers who desire control without injury.

Kolofog plus Niagara Arsenate of Lead is the ideal combination for Calyx application.

Kolofog sticks better and remains on foliage longer than many Sulphur sprays.

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WAUPACA, WISCONSIN

In the Orchard

WINTER INJURY ON DELICIOUS

WHILE calling at the orchard and greenhouses of MacLean Brothers near Madison, Mr. George MacLean made this statement to the editor: "I'll never plant another Delicious. About 20 years ago we planted 50 trees and now have only about 20 of them left. The rest have all been winterkilled. Even those that survive have many injured branches."

He then called attention to Delicious grafted onto hardy stock which were injured during severe winters. About eight or ten years ago Delicious was top-worked on Patten Greening and Wolf River trees. Several of the branches were top-worked to McIntosh. This later variety is doing very well indeed, but on practically every Delicious branch there is injury and some of the branches have died completely.

"Delicious will do well during favorable winters," stated Mr. MacLean, "but when a very severe winter comes along like that of a year ago, the branches are injured and then the tree begins to fail."

SPRAY RESIDUE TOLERANCE

SECRETARY H. A. Wallace of the U. S. Department of Agriculture announces that the tolerance of lead on apples will be 0.018 grain per pound during 1937 and until further notice. The tolerance of arsenic and fluorine are in each instance 0.01 grain per pound.

It is an asset for the apple grower to be able to tell his customers that this stringent Federal law precludes any danger of apples containing too much lead or arsenic for human use. It would require eating many bushels of apples to even slightly effect a person.

WILL IT PAY TO ADVERTISE APPLES?

SOME years ago it was reported that the Colgate Company, manufacturers of soap, etc., was spending one million dollars that year for advertising. Someone asked an official of the company if it would not be wise for them to keep the money in the treasury for a year. The reply was, "No, because if we did, at the end of the year we would have the million dollars but our sixty competitors would have our business."

Some apple growers claim that that is what is happening to the apple industry. Apples have not been advertised and the competitors, the growers of oranges and other fruits, have the business.

A number of states have organized independent apple institutes to advertise apples on their markets. The American Apple Institute is trying to advertise apples nationally. The Wisconsin Horticultural Society is helping to support the National Apple Institute, but it takes a great deal of money to advertise a product, especially over a wide area.

GOOD ROOT CELLAR VALUABLE

ON May 1st Dr. S. R. Boyce of Madison, who operates a large orchard at Gays Mills, brought to the Society's office some McIntosh and Delicious apples which were still in very good condition. Dr. Boyce had kept these apples in a cold place in his basement in which there was sufficient humidity to prevent shriveling.

The value of good storage conditions is being appreciated more and more. As food prices go up, farmers and city dwellers alike find root cellers of value in keeping vegetables and fruits which they can purchase in quantity lots.

Humidity is very important in such root cellars.

TOUR FOR FRUIT GROWERS

THE American Pomological Society Western Trip for fruit growers promises to be a trip of great interest. Some of the points which will be visited are as follows:

Grand Junction Colorado fruit district; the Utah fruit district; Citrus and English walnut district in southern California; the apple, wine grape and pear districts north of San Francisco; the Rogue River Valley district, Medford, Oregon; Hood River Valley District, Oregon; Puyallup area of western Washington; the Wenatchee district of Washington, and the Idaho fruit district at Fruitland, Idaho.

Round trip railroad fare will be $81.50 from St. Louis, with an upper berth at $32.00, or a lower at $40.00 which two can share.

The tour will leave on Monday evening, July 5th, from St. Louis, and return on July 25th to the same point. For complete information address Mr. J. T. Bregger, 209 West Main Street, Waynesboro, Pennsylvania.

Ikey: "Will you please explain to me the difference between shillings and pence?"

Abey: "You can walk down the street without shillings."

Derris Controls Striped Cucumber Beetles

THE earliest insect damage to truck crops in the Racine area each spring is caused by the striped cucumber beetle, which attacks early plantings of squash, melons, and cucumbers. Injury in 1936 occurred shortly after May 15.

On the basis of one season's results secured by T. C. Allen (Economic Entomology), derris appears to give satisfactory control of the cucumber beetle. When 10 lbs. of derris containing 4.8% rotenone was mixed with 90 lbs. of talc, this combination applied as a dust gave considerably better results than either 20 lbs. barium fluosilicate and 80 lbs. gypsum, or 8 lbs. calcium arsenate and 92 lbs. gypsum.

Laboratory trials showed that derris produced a 99% kill, in comparison with 70% for barium fluosilicate and 40% for calcium arsenate.

No data are available to show the relative effects of these insecticides on the yields of truck crops. However, untreated rows were completely destroyed by the cucumber beetle.

From Findings in Farm Science by the Wisconsin College of Agriculture.

WILD APPLES

WILD apples were originally the basis of all our New England apple growing. The early orchards were all of this "wild fruit" — of these "seedlings," "Les sauvages-uns," as the French-Canadians call them. From these fruits were made the hundreds of barrels of hard cider to warm the cold New England winters, to help through the haying or to speed the barn raising.

About 1857, a religious revival swept this section and hundreds of farmers took their axes and cut down their entire apple orchards because, forsooth, they had no other use for the fruit except to make the iniquitous hard liquor. Today, we may commend their religious zeal, while we regret their ignorance of pomology.

Some twenty years later, another series of orchards were planted; but these were generally "grafted fruit." The Baldwin and the Rhode Island Greening, the Belleflower and the Pound Sweeting were coming in; a new era was dawning; apple pie and Brown Betty were coming to their own. (Imagine a time when apple trees were cut down and Yankee kitchens were bereft of apple pie?) — From Horticulture Illustrated, by Frank A. Waugh.

NuREXFORM is unusually effective in controlling codling moth and many other chewing insects. It is the ideal Arsenate of Lead for combining with Lime Sulphur, the natural reaction being reduced to a minimum.

NuREXFORM remains in suspension. No settlings in the tank of your sprayer—no sediment to be scraped off the bottom and thrown away.

NuREXFORM is of uniform strength always. The coverage is not too thin and watery on the first trees sprayed —nor too heavy on the last trees. This even coverage leaves no unprotected gaps where chewing insects may attack.

NuREXFORM will not clog screens or nozzles when used in a clean tank. NuREXFORM assures uniform protection for the entire orchard. Every ounce put into the sprayer tank reaches your trees—no waste.

CALCIUM ARSENATE— is used to control Leaf-Eating insects on cotton, potatoes, tomatoes and similar hardy plants.

DUTOX — A non-arsenical insecticide that controls Beetles and Leaf-Eating insects on vegetables, fruit and tobacco. Applied as dust or spray.

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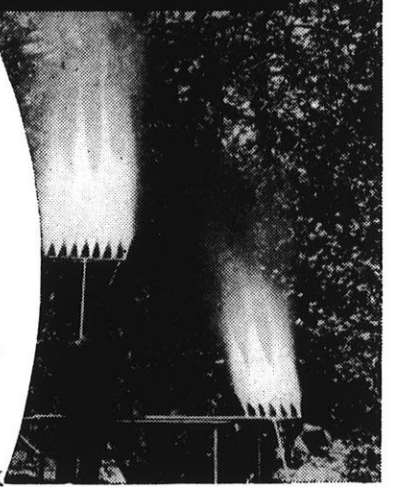
Arsenate of Lead
. . . A High Suspension Lead Compatible with Lime Sulphur



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In the Berry Patch

HOW TO RENEW THE STRAWBERRY BED

H. H. Harris, Warrens

IF strawberry beds are to be renewed for a second crop, this should be done as soon as possible after the berries are all harvested.

It may not be absolutely necessary to mow the old bed, but it will be much easier to clean out the weeds among the plants if it has been mowed and all old mulch and leaves raked and drawn from the field.

We never burn over the old beds. There would be danger of injuring the crowns of the plants and the added danger of the fire getting out of control. The mulch and leaves are valuable either as fertilizer or bedding in the stables.

We plow a furrow from one side (only) of each row just deep enough to turn on to one side of the adjoining row to the right. If the bed is long and narrow, it is best to go back without plowing, so the furrows will be turned the same way for each how or plow to one side of the bed going and the other side returning. Of course the rows could be narrowed with a cultivator but that would take plants from each side where younger plants are and to get any of the loosened soil into middle of narrowed row it would have to be hoed in.

We use fine spike toothed harrow, harrowing lengthways of the row first and then crossways. I think there would be some danger of digging out too many plants by using a spring tooth harrow.

We have at times spread manure or litter from the calf pens or chicken coop on the beds on top of the winter cover after the ground was frozen—using the spreader. We have no records as to whether it was of any decided benefit to the second crop.

If the rows in the old bed are about the width we like we do but little narrowing with the plow especially if it is late when we finish picking the berries. We like to plow the furrow and use the harrow as stated whether we narrow the rows or not.

Bayfield Strawberry Festival
Bayfield, July 2
Strawberry Queen Contest
Strawberry King Contest
Show of Leading Strawberry Varieties

EXPERIENCE WITH STRAWBERRIES

Virgil Fieldhouse, Dodgeville

OUR strawberry plants have come through much better than we at first expected. Premier, Dunlap, Beaver and Aberdeen still had the old leaves so green that they closely resemble the new ones. Blakemore leaves are the only ones showing an unhealthy yellow color.

The foliage of Fairfax and Dorsett, which is very heavy, turned black and formed a close mat over the crowns, and there seems to be some injury.

All parts of beds with the rows terraced a few inches and with a heavy stand of plants are in perfect condition, though where water stood there is some damage. I have often noticed that fresh stiff straw sticking up out of an icy crust causes the ice to thaw providing air holes for the plants beneath.

We had some loss where we used old straw of a year ago.

We had a record year for strawberry plant sales. Our plants showed no black root or crown whatever. There was a large demand for Beaver variety on account of my ad in Wisconsin Horticulture.

We will have a "Strawberry Day" at our nursery in June on some Sunday and wish to invite any members who care to run down with their families.

KEEP THE BERRIES OUT OF THE SUN

BERRIES, whether strawberries or raspberries, should be picked early in the morning and taken to a cool, shady place immediately.

Temperature records kept by the Missouri Experiment Station during the picking season, of the temperature of strawberries and of the air, gave the following results.

At 6 a. m. the temperature of the berries on the vines was 45° F. the air 45° F. At 8 a. m. the berries were 53, the air 50 degrees. At 10 a. m. the berries 68 degrees, the air 54 degrees. At 12 noon the berries 77°, the air 60°. At 2 p. m. the berries 79°, the air 63°. At 6 p. m. the berries 63°, the air 61°.

This indicates that during the heat of the day the berries are much warmer than the surrounding air because the sun shines on them and they absorb the heat. Consequently on being placed under cover in the shade, they will cool off to the temperature of the surrounding air.

They should of course be kept cool in order that they keep as long as possible on the market. Picking in the early morning is important.

Experiments have shown that with each increase in temperature of about 15 degrees F. the life of the berry, everything else being equal, is decreased by one-half.

Boysenberry On Test

BOYSENBERRY plants on trial in various parts of Wisconsin during the past year are doing well. Seven of our members report that their plants came through the winter successfully.

The Boysenberry is a cross of the Loganberry, raspberry and blackberry. Last spring plants were obtained from California by the Society for members who wished to try them in this state.

This past month we asked those who are growing the Boysenberry plants how the plants came through the winter. Some of the growers had trouble getting the plants started in the heat and drought of last summer, but those who were able to get the plants to grow report success.

Mr. C. R. Nutt, Plymouth, Wisconsin, writes: "I am pleased to report that the Boysenberry plants set out last spring came through the winter in perfect condition as far as I can determine."

Mr. Frank Viney, Evansville, R. 1, writes: "The Boysenberry plants I received last year came through the winter in good shape and are now looking fine. I covered them last fall with horse manure and quite a little straw mixed with it."

Mr. Julius Popko of Mellen, Ashland County, writes: "The plants came through fair. Two of the plants had only the tips injured. On four of the plants they were about two-thirds frozen back and the rest were frozen almost to the ground but they are budding out just the same. The plants had no winter covering whatsoever, and the location is fairly well exposed to the wind." Since this is in one of the cold sections of the state, we feel that had they been covered they would have come through all right.

Mr. Norman Koelsch of Jackson states that about one-half of his plants came through all right. He covered them with top hay and straw and after the winter rains came they were frozen in solid ice. He is planting some more for further trial.

Mr. F. D. Randall of Waupaca covered his plants with leaves and tomato vines and finds that plants came through all right.

The Boysenberry plants make a considerable growth, as much as 8 to 10 feet during the season, and are propagated by tip-layering the same as black raspberries.

We realize of course that the past winter was not severe and do not recommend planting this variety excepting for trial.

STRAWBERRIES LOOK GOOD AT WARRENS

JUDGING from our own beds and from the other beds I have seen, both the 1936 setting and the renewed 1935 set rows are narrower and more open and broken than usual. All plants look bright and healthy and with a favorable fruiting season I would look for big berries on what vines we have. Several growers have sold more plants than usual and as there are less plants in a row they have reduced area to fruit. My trial bed south of the house looks grand. —H. H. Harris.

One man working for 13.4 hours will do the same amount of work as one kilowatt hour of electricity. The price of a 10-cent cigar will pay for enough electricity to run a washing machine the required number of times each month.—Professor I. P. Blauser, Ohio Extension Service.

McINTOSH APPLE HAS MOST INTERESTING HISTORY

No apple has a more interesting history than the new Wisconsin favorite variety McIntosh. The history is that John McIntosh came to what is now Dundela in Dundus County, Ontario, Canada, in 1796. While clearing some forest land he came upon a clump of wild apple trees. Since apples were a luxury then, he planted them near his home in a clearing. Mose of the trees died after a few years, and in 1830 only one tree out of the 20 remained.

Mr. McIntosh then named this tree the McIntosh Red and the quality of the fruit soon attracted attention. It was situated about 15 feet from the house and in 1893 the house burned. The tree received its share of the fire and one side was badly burned.

However, it continued to bear until 1908 when it began to wilt and the leaves to fall off.

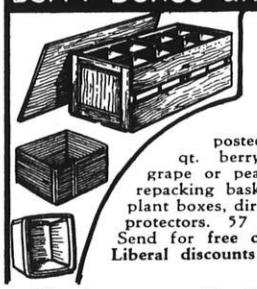
Thus the tree wintered the storm of 112 years.

However, a son of John McIntosh, Allen McIntosh, most fully appreciated the fruit and wishing others to enjoy it, he began propagating from the original tree in 1836 which gave it wide distribution.

Proud Mother: "Yes, he's a year old now and he's been walking since he was eight months old."

Bored Visitor: "Really? He must be awfully tired."

Berry Boxes and Crates



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Response of Plants to Hormone-Like Substances

Dr. P. W. Zimmerman

THE growth and development of plants and animals are known to be regulated by special chemical compounds called Hormones. These are made in endocrine glands of animals and are dispatched to distant places where they exert a controlling influence on growth and regulate certain functions.

Our temperament and very thinking are conditioned by the physiological balance of hormones in the system at any particular time. During fright, the heart beats faster due to over secretion of a special hormone by a gland at the base of the brain. This chemical messenger excites the heart which in turn may aid the victim to take care of emergencies. A heart stimulant has been isolated from the suprarenal gland and called adrenalin. This is only one of many known animal hormones and we can look forward to the time when practically every function of the body will be definitely associated with a known chemical compound.

Time of Bloom

There must be a good reason why the poinsettia flowers at Christmas time instead of the long days of summer; why chrysanthemums flower in autumn; why still others prefer the long days of summer. It appears that the regulators are in some way affected by relative length of day and night and that there is considerable variation among species and varieties. The problem appears not to be one of food manufacture or all plants would flower during the long days of summer when light conditions are best for making food. The logical assumption seems to be that flowering is controlled by special hormones which can be made during long or short days according to the inherited nature of the species. This view is given more standing now that we know something about growth promoting substances which actually induce organs (roots) wherever applied to the plant.

We now know more than 30 chemical compounds which may be said to modify or regulate growth and development of the plant. Some of these are known to occur naturally in the plant but most of them must be looked upon as hormone-like and may in time be found in the plant. At present they are synthetic preparations which are made in our laboratories or manufactured on a commercial scale by chemical companies.

Like animal hormones these growth promoting substances induce varied responses in plants. If applied along one side of a young stem, bending occurs within an hour or two due to local acceleration of growth. When applied on one side for a distance of several inches the stem curls around sometimes making a complete circle. Applied to the upper side of a leaf, downward bending soon follows; an application to the lower side makes the leaf grow upward. If a strong solution is used the substance travels for some distance through the tissues, gets out into the leaves causing a systematic response.

Induces Root Growth

For some unknown reason the upper side of leaves is more sensitive than the lower side and leaves move downward nearly paralleling the stem. This type of response occurs when a water solution of the substance is added to the soil. The second noticeable response occuring in 24 to 48 hours is swelling and whitening of the tissue due to cell division and cell enlargement. This continues for several days or until the third and most important response is evident—the production of adventitious roots. The stems and leaves become literally covered with roots. Any part of the plant can be made to produce new roots, except possibly flower petals. Fruits (beans, etc.), flower stems, ovaries, leaves, and other roots can be made to form new roots. Even the top of a plant can be made to grow a generous root system. It is this root inducing capacity of the hormone-like substances which makes them so important from a practical standpoint.

Practically any species of plants can be propagated from cuttings with the aid of the substances. To induce responses as described for the aerial parts of the plant the chemicals are mixed with vaseline or lanolin and applied with a stick or a glass rod. For cuttings a water solution is used. The most important root inducing substances known are naphthalene acetic acid and indolebutyric acid. (These substances can be supplied together with directions by Merck & Co., Inc., Rahway, N. J.). When dissolved in water these are effective in low concentrations.

Though species vary in sensitivity, most of them respond when treated with a range of concentrations around 1 part of the substance to 40,000 parts of water. Some of the most stubborn varieties need as much as 1 to 5,000. Roses are among the most susceptible being induced to root with a 1 to 100,000 or less.

The cuttings are made in the usual way and then the basal ends are placed in an inch or more of the solution for 6 to 48 hours depending on the species and the concentration of the substance. After this period of treatment in solution the cuttings are handed in the customary way, either placed in rooting media or planted directly in soil. Many species of plants have been tested with growth substances to determine the possibilities of the chemicals for commercial propagation of plants.

Successful On Many Varieties

To convince those who have had experience that the hormone-like substances have root-inducing power it will suffice to mention a few difficult types which have been successfully propagated from cuttings treated with water solutions of the compounds: Japanese Maple, Azaleas, blueberry, Clematis, dogwood, hazel nut (fil-

berts), Daphne, holly, Magnolia, apples, elms, rose and cherry. Most of the tests have been made with leafy cuttings during the summer. Taxus and other evergreens were successfully handled during both summer and winter months. In a few cases dormant, leafless cuttings of peach, poplars, hydrangeas, privets, hibiscus, and grapes have been induced to root while the controls treated with only water did not. It appears that when the best concentration and treatment are known both hard and softwood cuttings can be rooted any time of the year. It is believed, also, that since larger and more efficient root systems can be induced this new method of propagation offers new possibilities in the establishment and growth of plants on their own roots. It is not assumed that grafting will be discontinued but some varieties, now grafted, might well be on their own roots if cuttings of these species can be induced to develop an adequate root system.

Condensed from N. Y. Hort. Society Report by North and South Dakota Horticulture.

CHEMICALS DO NOT LENGTHEN LIFE OF CUT FLOWERS

Many different chemicals have been tested by experiment stations in an effort to find one that will help prolong the life of cut flowers. Reports of these experiments indicate that so far none has been found which will help in any way. In fact, the addition of certain chemicals to water which has been recommended in the press as being beneficial, actually shortens the life of cut flowers. About all that we can do to really help is to pick the flowers early in the morning before they have become wilted and keep them in as cool a place as possible, changing the water frequently. Cutting the stems, the pores of which may have become clogged, may also help.

The next time we hear of something which is suggested as prolonging the life of cut flowers, why not cut two bouquets at the same time of the same flowers. Set them side by side—one in plain water and the other with the treatment. That should prove if the new method has any value.

HELPS FOR DELPHINIUM GROWERS

From The Book of the American Delphinium Society

YEARLING delphiniums should not be allowed to carry too many spikes; the number varying from one to three according to the variety and vigor of the plants. As a general rule two stems are best for most varieties, but where the shoots are at all weak, a single stem only should be allowed. Exceptionally robust varieties, such as Rose Marie, will support three stems, but weaker varieties like Nora Ferguson should be restricted to one stem. Early in March (England) when the shoots are three or four inches high, is the time to commence thinning. The strongest shoots should be selected to grow on, allowing one or two more than will ultimately be required, to be removed later on, when they are about twelve inches high; the remainder being used for cuttings.—Frank A. Bishop.

Staking

I have tried many methods and condemned them all. Tall, square stakes are not only unsightly but serve to batter the blooms or a good spike to pieces in a gale. Bamboo in a light and wet soil fails to hold and sometimes topples over together with the plant; a string or strings connecting several stakes may sever the tops of spikes during a heavy wind. Therefore I have concluded that the safe method is to limit the number of spikes, and to stake each individually. This method for the small grower is as nearly ideal as one could wish. I use ¾ x ¾ inch stakes long enough to get a good hold in the ground and to reach the first bloom on the spike; to this the stem is securely tied. From this point I secure with a couple of twists of wire a split bamboo long enough to reach the top of the spike, tying loosely but securely as growth proceeds. By this means the lower portion is held firmly while the upper sways with the wind without danger of its snapping or damaging the blooms.—E. Phillips.

HORTICULTURAL NEWS

A. F. Yeager, Secretary
Fargo, N. D.

A MACMILLAN book which should be interesting to some of our members, though perhaps not worth much as a money maker, is **The Garden of Gourds,** by H. L. Bailey. Price $2.50.

* * *

In an extension circular of the Michigan State College, I note the following method for eradicating ants in the lawn: Either 2 ounces of calcium cyanide in ½ gallon of water, or 1 ounce of sodium cyanide in 1 gallon water, poured into the ant nest. This treatment will kill both adults and brood. From past experience, this method sounds like a good one.

* * *

The question is asked as to whether grapefruits grow in bunches as do grapes. While grapefruit does not grow in exactly that kind of a bunch, when they are young they do present something of the appearance of a bunch of grapes. Hence, that is supposed to be the reason why the name was applied to them.

* * *

A correspondent asked what to do with an extremely rich garden plot, one perhaps too rich for tomatoes. We suggest vine crops such as squash or melons, or corn. In normal years if it is not too hot even tomatoes would likely make a good crop provided they were watered sufficiently. Much of the failure of our tomato crop last year was due to extremely high temperatures which destroyed the blossoms even though irrigation was used.—From North and South Dakota Horticulture.

EDITORIALS

PLANT TESTING COMMITTEE APPOINTED

THE Plant Testing Committee of the Wisconsin Horticultural Society for 1937 has been appointed by Pres. Karl Reynolds and will consist of the following: James Livingstone, Milwaukee, chairman; Karl Reynolds, Sturgeon Bay; Miss Merle Rasmussen, Oshkosh; W. A. Toole, Baraboo; W. A. Dustrude, Hartland; Mrs. E. A. St. Clair, Wauwatosa; J. C. Ward, Fort Atkinson; Prof. G. Wm. Longenecker, Madison; H. C. Christensen, Oshkosh; Miss Margaret Reynolds, Sturgeon Bay; H. J. Rahmlow, Madison.

The work of this committee will consist of studing varieties of trees, shrubs and flowers during the coming season, and reporting their findings at a meeting to be held in the fall or early winter. At that time they will make recommenadtions for a plant testing list which will be recommended to all members of the Society.

NO MAGAZINE IN JULY

IT HAS been the policy of the Wisconsin Horticultural Society for the past few years to combine the July and August issues of the magazine.

Members will therefore not receive a magazine the first week in July, but the combined July-August issue should reach you about August 1st.

IMPORTANT EVENTS

The Wisconsin Garden Club Federation annual summer meeting and tour. Door County, Wisconsin, July 17-18. See program page 261.

Wisconsin Beekeepers Association summer meetings. Shawano, Friday, July 23; Fountain City, Sunday, July 25.

WISCONSIN BEEKEEPERS ASSOCIATION TO HOLD SUMMER MEETINGS

COOPERATING with the Fox River Valley District and the Western Wisconsin District, the State Beekeepers Association will hold two summer meetings. The first will be held at Shawano, Friday, July 23, and the second at Fountain City, Sunday, July 25. Out of state speakers will be Mr. M. J. Deyell of the A. I. Root Company, editor of Gleanings in Bee Culture, and Mr. H. C. Dadant of the American Bee Journal, Hamilton, Illinois. Others on the program will be Prof. H. F. Wilson, Mr. E. L. Chambers, Mr. C. D. Adams and H. J. Rahmlow of Madison. All members invited.

MOTION PICTURE FILM OF SPRAYING WISCONSIN APPLES BEING MADE

THE Wisconsin Horticultural Society cooperating with the Bureau of Visual Instruction of the University is preparing a motion picture of apple spraying methods in Wisconsin. The film will show in detail by the use of colored film, the various stages at which apples are sprayed according to leaf development; the proper way for mixing spray materials, and various types of spray machinery in use. The film will be shown gratis to affiliated organizations of the Wisconsin Horticultural Society, after which it will be added to the library of the Bureau of Visual Instruction, and will be available to schools and other organizations in the state.

THE NATIONAL BEEKEEPERS CONVENTION

EXTENSIVE plans are being made for the National Beekeepers Convention to be held in Washington, D. C., October 25-26-27, with headquarters in the Washington Hotel. Many Wisconsin beekeepers are planning to attend.

It has been suggested that the Wisconsin State Convention be held the week following the National in order that Wisconsin beekeepers who attend the sessions may be able to report some of the important papers presented. This would mean that the convention would be held the first week in November.

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. Recording Secretary-Treasurer

DISTRICT CHAIRMEN

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

Vol. XIII JUNE, 1937 No. 6

Summer Beekeepers Meetings Wisconsin State Beekeepers Association

Cooperating With

THE FOX RIVER VALLEY DISTRICT

and the

WESTERN WISCONSIN DISTRICT OF THE STATE ASSOCIATION

Shawano, Friday, July 23 **Fountain City, Sunday, July 25**

Out of state speakers for our summer meetings will be Mr. M. J. Deyell of the A. I. Root Company, Medina, Ohio, editor of Gleanings in Bee Culture, and Mr. H. C. Dadant of the American Bee Journal, Hamilton, Illinois.

Other speakers will include Prof. H. F. Wilson, Mr. E. L. Chambers, Mr. C. D. Adams and H. J. Rahmlow, Madison, and officers of the District and State Association.

The program this year will consist of visiting nearby beeyards, social gatherings of beekeepers and their families at the park at Shawano Lake and on the Mississippi River at Fountain City. The speakers will answer practical questions which will be compiled by the State Association submitted by beekeepers. This should make the program of great interest and value.

LADIES AUXILIARY MEETING

The Ladies Auxiliaries in eastern Wisconsin will have a special meeting at Shawano on Friday, July 23rd, and the Auxiliaries of western Wisconsin will meet at Fountain City, Sunday, July 25. Mrs. Malitta Jensen or Miss Mercedes Cranston of the American Honey Institute will speak at these meetings. Mrs. Andrew Stevens, and Mrs. S. P. Elliott will preside. Full program will be announced later.

PICNIC LUNCHEON

Each family is requested to bring one hot dish and enough sandwiches for the family for the picnic luncheon at noon at each of these meetings. This method was very successful last year. Lemonade, coffee and ice cream will be provided by the district officers. **More details by mail in July to members.**

ASSOCIATION MAKES NEW ARRANGEMENTS FOR GLASS, PAIL AND LABEL ORDERS

THE Board of Directors of the Wisconsin Beekeepers Association has made arrangements with our Vice-President, Walter Diehnelt of Menomonee Falls, to handle the orders of glass, tin pails and labels for members.

The advantage of this plan is that Mr. Diehnelt will have the stock in his warehouse and can ship orders out immediately, thereby giving members much quicker service and a lower freight rate than when shipped from the factory.

It was felt by the Board of Directors that it will be necessary for the Association to continue handling these supplies in order to provide enough money for the treasury to enable us to have successful meetings and provide funds for other activities of the association. While the profits are small, the annual business bringing in only about $150 above costs, nevertheless this has made it possible for the organization to pay speakers' expenses at conventions and other items.

Mr. Diehnelt will have a list of all the members of the State Beekeepers Association and will pay to the Association a percentage from the sale of glass, tinware and labels from these members. This is a very generous offer. A price list and order blank will be mailed to all members in the near future. Orders may be addressed to Honey Acres, P. O. Box 60, Menomonee Falls, Wisconsin.

Swarm Control Methods In Wisconsin

REVERSE BROOD CHAMBERS AND RAISE BROOD

SEVERAL successful methods of swarm control are used in Wisconsin. Discussing the problem with a number of the most successful beekeepers in the state, we find that two underlying principles are behind any method used. First, providing plenty of room to avoid any crowding whatever from the beginning of the season to the end; second, providing a young, vigorous queen in each colony.

Reversing Brood Chambers

A number of beekeepers were very much interested in the method used in Wyoming as described by Dr. C. L. Farrar in his lectures at Madison during Farm and Home Week. This method makes use of the fact that the tendency of the queen is to concentrate egg laying in the upper of the two-hive bodies provided in the spring. Oftentimes we find the upper brood chamber crowded and the lower empty. Before there is any crowding, the two are reversed, the lower one being placed on top. This simple process is repeated throughout the season at ten-day intervals. In other words, instead of manipulating frames, reverse brood chambers. Young queens having been provided the year before, Dr. Farrar maintains that there is no swarming problem if plenty of supers are added early for the honey coming in.

By reversing the brood chambers every 10 days he maintained that no queen excluder was necessary because the queen stayed in the two lower bodies.

Raising the Brood

With old queens or in certain localities this method may not work, although it should be tried out. If there is any indication of swarming such as building queen cells, it is necessary to raise most of the brood above several extracting supers, confining the queen to two lower bodies with plenty of empty combs by queen excluders.

Comb Honey Production

The new method being tried out for comb honey production consists of raising about three-fourths of the brood above an inner cover or above a wire screen cover, and providing a new entrance above. This separates the brood entirely from the colony, the field bees going back in the old entrance. A new queen or cells are given the brood. Then after about ten days or two weeks the top entrance is changed so that the new field bees join the original colony, strengthening it for honey production, while a new entrance on a different side of the hive is given the nucleus above. More brood from below can be added from time to time to the nucleus and eventually a new colony can be made from it or the old queen killed and the new one united with the colony. This is probably less work than killing queen cells and watching for swarms.

The object of all new methods is to cut down the amount of work and the number of swarms.

OBSERVATIONS OF STRONG COLONIES

SEVERAL important observations have been made this spring as to the reasons for strong and weak colonies.

First, in observing colonies the last part of May, it was found that colonies headed by young queens of last year are uniformly stronger than those with older queens. Second, colonies wintered outdoors during the past winter with top entrances well insulated on top, were much stronger than any other colonies in the yard. Third, this spring at least outdoor wintered colonies are stronger than those wintered in the cellar, at Madison.

We do not maintain that these results will be the same every year, especially the results as to cellar wintering. However, other beekeepers have observed that colonies headed by young queens are usually the stronger in the spring.

The matter of the top entrance is an interesting observation and should be tested several more years before drawing definite conclusions.

HONEY WANTED

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

LOTZ SECTIONS The World's Best...

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Be guided by the experience of others and consider these vital points:

- Best available material
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All of these things are true of LOTZ SECTIONS

Get our free samples and quotations on quantity orders.

INDIVIDUAL SECTIONS of comb honey are preferred by many hotels, restaurants, etc. Write us about them or any other special size sections.

August Lotz Company
Boyd, Wisconsin

MRS. FRANCIS RESIGNS; MRS. VOIGHT APPOINTED RECORDING SECRETARY-TREASURER

MRS. Millie Francis, Recording Secretary-Treasurer of the Wisconsin Beekeepers Association, sent her resignation to President Arthur Schultz on May 20th. The Board of Directors was notified of the resignation and gave their acceptance and appointed Mrs. Ernesttine Voight, Box 60, Menomonee Falls, to fill the unexpired term of Mrs. Francis.

Mrs. Voight is the daughter of Mr. Walter Diehnelt of Menomonee Falls, our vice-president. Inasmuch as Mr. Diehnelt has agreed to handle the pails and supplies of the Association formerly handled by Mrs. Francis, having his daughter as Recording Secretary-Treasurer will make it quite convenient in that they live near each other and can work together conveniently. Mrs. Voight is an enthusiastic beekeeper, helping her father in the beeyards throughout the season.

Mrs. Francis resigned because of lack of time to do the work.

WANTED! ABNORMAL BEES

THE Southern States Bee Culture Laboratory of the U. S. Department of Agriculture is anxious to have beekeepers send to them information about bees showing such abnormalities as drone eye color, one-eyed bees, etc. Information as to the locations, history of the colony and the description of the abnormalities should be sent to the Southern States Bee Culture Laboratories, University Station, Baton Rouge, Louisiana.

If these abnormalities are of interest the laboratory would like to have the queen of such colonies in order to study the inheritance of the characteristics.

Foundation

For perfect cells and nice straight combs use Dittmer's foundation. Try it and you will find that the bees will agree with you and work it out beautifully.

Ship us your wax to be worked into foundation. Let us quote you prices on 300 lbs. or more.

We carry a full line of supplies and will be glad to send you a price list on request.

GUS DITTMER COMPANY
Augusta, 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

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Central Wisconsin Seed Co., Waupaca, Wis.
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O. J. Weisensel, Sun Prairie, Wis.
W. T. Bosworth, R. 2, Merrill, Wis.
Chas. Jakel, Curtiss, Wis.

NEW DISTRICT OFFICERS ELECTED

THE district meetings of the State Beekeepers Association held at Waukesha, Appleton and Menomonie the first week in April were very successful. There was a good crowd in attendance and the interest was excellent. At each meeting Miss Mercedes Cranston of the American Honey Institute held a separate meeting for the ladies.

Election of officers for the district was held at Appleton for the Fox River Valley District, and the following officers elected:

Mr. Edw. Hassinger, Jr., Greenville, Chairman.

Mr. George Jacobson, Kaukauna, Vice-Chairman.

Mr. Leonard Otto, Forest Junction, Secy.-treas.

At the Waukesha meeting, Mr. Ivan Whiting of Rockford, Illinois, Route 9, a member of the Rock County Wisconsin Association, was elected Secretary-treasurer in place of Mr. Arno Kraetsch, resigned.

Beekeepers located in either of the four Wisconsin districts may join the district and State Beekeepers Association and the State Horticultural Society by sending $1.00 to the district secretary-treasurer. These are as follows:

Southeastern Wisconsin: Mr. Ivan Whiting, R. 9, Rockford, Illinois.

Fox River Valley: Mr. Leonard Otto, Forest Junction.

Western Wisconsin: Mr. Frederick E. Nabor, R. 3, Chippewa Falls.

Southwestern District: Mr. Ralph Irwin, Lancaster.

QUEENS

We have 25 Italian Queens from the Head Apiaries, Winnfield, Louisiana, at 75c each. This is an excellent opportunity to secure a good queen and at the same time assist in supporting the Institute. American Honey Institute, Madison, Wis.

THE APPROPRIATION FOR FOUL BROOD CONTROL

AS we go to press, the Joint Finance Committee of the Legislature has not yet taken action on the bill to appropriate $31,000 for the control of American foulbrood in Wisconsin.

It is quite evident that many Legislators are heartily in favor of this bill because the beekeepers in their section have impressed upon them the need for a concentrated drive to get rid of foul brood in Wisconsin in a short period, rather than to spend a small amount year after year with the disease creeping back in and endangering the investment of all beekeepers.

The beekeepers have impressed upon their representatives in the Legislature that something must be done. The Finance Committee, however, is finding it difficult to meet all the requests for appropriations, and we understand they are not recommending for passage any recent bills for new appropriations before they know that the money to pay for them will be available.

The beekeepers, on the other hand, feel that since they are paying high taxes for protection, that such protection should be provided.

If you have not already written to your State Senator, drop him a line expressing your wishes in this matter. The bill will soon come before the Senate for action. Simply address your State Senator at the State Capitol, Madison.

SOUTHERN WISCONSIN MAY HAVE POOR

All clovers and alfalfa were entirely killed out in many southern Wisconsin counties by the ice sheet of the past winter. Alfalfa fields have been plowed up and there is no alsike or white clover to be seen. This is especially true south and east of Madison. Northern sections report favorable conditions. In fact, the clover is as spotted as was the ice sheet. Wherever there was snow protecting the clovers from the ice they are in good condition. The honey flow therefore is still an unanswered question.

The honey flow from dandelions and fruit bloom was very good in southern Wisconsin and continued over a long period. Bees, however, did not build up well during the month of April and many colonies are weak.

Swarming

With a light honey flow from white clover, there may be considerable swarming during June, especially if there is much cloudy and rainy weather during which the bees cannot fly. Beekeepers should remove brood from the hive body in which the queen is laying as early as possible, depending upon the strength of the colony. Such brood if placed at the top of the colony will provide room for the queen to lay and remove the nurse bees from the hive body containing the queen and prevent swarming.

SUPERSEDURE

THE controversy about the supersedure of package queens continues. Some southern breeders claim that it is the fault of the purchasers in the north who may install the packages during cold weather and in such a way that the queen is chilled in introduction. Many northern beekeepers, on the other hand, claim that it is the fault of the breeder and is especially bad when the queens are mated during a spell of cold or rainy weather.

Both may be right. If there are a large number of complaints from experienced beekeepers who know how to introduce the packages properly, then it is probably the southern breeders fault. But if the beginner introduces the queens so that they become chilled, he will probably have supersedure for that reason.

Smoke

One can always tell a beginner by the amount of smoke he uses. Place a smoker in the hands of a novice and he will pump large quantities of it into the hives without considering the bees. A good beekeeper uses smoke very sparingly.

Observations In the Garden

A VISIT to Rosendale to see the peonies in June will be most interesting. Write the village president, or W. A. Sisson, Rosendale, as to the best time to come.

We have had wonderful growing weather this spring, with plenty of rain. Rains, however, bring plant diseases, so keep your flowers well covered with lime sulphur, spray or dust, to prevent fungus diseases. Remember that diseases cannot be cured, they must be prevented so that the dust must be applied in advance.

Aphids can be controlled quite successfully with the new dusting material called Derris. We found it very effective to control aphids on the new growth of evergreens last year. Applying it liberally on an ant hill in the lawn we found that in about a week there were no ants left. We are going to try it again this year. It is also valuable for the control of red spider on phlox and other plants. Lime sulphur dust can also be used for red spider.

Most gardeners had no difficulty at all in establishing a new lawn this spring. The reason was that the relatively cool weather and plenty of light showers which kept the soil moist, furnished ideal conditions for the seed to grow.

If the lawn doesn't seem to do as well as it should, give a light dressing of ammonium sulphate or nitrate of soda during a rain, or apply it and then sprinkle liberally with the hose. Nitrogen peps up the growth of grass or leaves on any plant. Do not apply it liberally in the flower border, however, as the flowers may grow too tall and rank, having a tendency to fall over as a result of winds and rain.

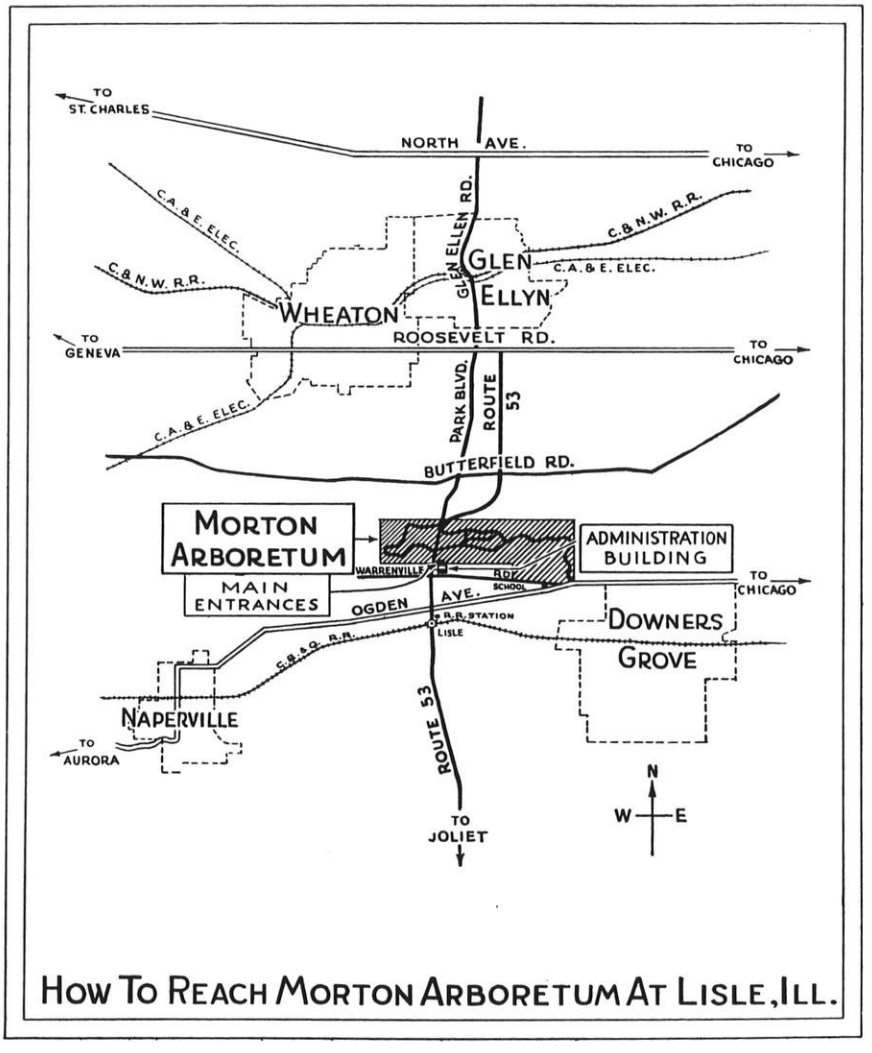
We hoe off the tops of the tulips the last week in June, or as soon as the leaves begin to turn yellow. Then we loosen up the soil and set annuals for midsummer bloom. If we desire to move the tulips they can be set in their new location at the same time, that being easier than to store them over summer for planting in the fall. We plant only the larger bulbs.

Most gardeners have given up trying to eradicate crab grass entirely. They content themselves with raking the lawn before mowing so that the seed heads are raised and are mowed off, and then add Kentucky blue grass seed each spring to get a good thick stand of grass which together with a little fertilizer will keep the lawn in good condition, crowding the crab grass.

OUR COVER PICTURE

Our cover picture this month shows a view at the Morton Arboretum, Lisle, Illinois. The Society greatly appreciates the courtesy of the Morton Arboretum in loaning the cuts in this and the May issue of Wisconsin Horticulture.

The Midwest's Largest Arboretum is the Morton Arboretum at Lisle, Ill. Visitors Are Always Welcome.



HOW TO REACH MORTON ARBORETUM AT LISLE, ILL.

About the Home and Garden

Mrs. C. E. Strong, West Allis

Green glints on the far off horizon;
Rose and gold in the morning sky;
The scent of sweet honeysuckle;
Homecoming birds circling high;
The song of the South wind drifting;
Butterflies posed on gay painted wing;
The miracle days roll round again
In the magic of each new spring.

SPRING is my favorite season. Even a Milwaukee spring has many things that are most delightful; almost enough to make you forget those chilling winds that sweep up from the lake.

Daffodils, Anemones, Alyssum, Phlox subulata, Saxifrage, Iris Pumila blooming in the rock garden are bravely trying to make up for all those other treasures that have not survived the winter. Every visitor tells the same story, "The plants I have lost! My garden seems empty."

Iris even seem to have suffered. Columbines, Phlox, many Delphiniums, Shasta Daisies seem to have gone from every garden.

That lovely early daisy we call the Elder Daisy will surely be appreciated this year, for it has come through bravely, even in the wettest, coldest spots. Lilies have suffered severely in my garden, even old established clumps of Regals have rotted. Madonnas—of which I was the proud owner of at least one hundred bulbs that bloomed beautifully—only about a dozen remain. Concolor, Tenuifolium, Martagon, superbum, are coming along blithely. Primulas—they just are not. Old clumps of Pulmonarias, seemingly as hard as a rock, have disappeared.

Chrysanthemums, in spite of coverings and well drained spots, are just memories—but memories that we hope to bring back once more.

These Survived

But there are a few nice things to tell you. The Red Bud is alive to the tips of the branches and ready to burst into bloom. The few remaining buds that the pesky rabbits left on the Azalea Mollis are swelling up cheeringly. Tree Peonies have fat buds and every Hemerocallis seedling has come up as thriftily as any one could wish.

Though some visitors mention losing Viburnum Carlesii, am happy to say my plant came through nicely, am still hoping that I may live to see it bloom.

Rose Blaze is alive to the tips. Here is hoping that it may cover itself with bloom several times this season.

I feared that some of the Clematis had been killed, but it looks as though they were all coming. Watchful waiting is a good motto for the gardener. Many times when you think your Phlox has been entirely killed out—if you do not dig up the spot, small plants will come up after a while. These can be transplanted to rich soil; soon you will have nice clumps again.

If your garden borders are quite empty—you can do one of three things—plant annuals to fill in—order new plants from the nursery, or visit nurseries this summer and choose plants that you like to fill up—OR—you can do a bit of all three, that's what I hope to do. I also am hoping to add many of the delightful summer bulbs.

At the Flower Show

At the flower show the rose gardens attracted much attention. Again and again I heard this remark, "I am going to plant more of the Polyantha roses. Somehow I never thought of them as a mass showing before—only as one or two plants for Easter or Mother's Day. Wouldn't a row of those lovely pink ones be beautiful in front of the peonies, beat petunias and zinnias."

The color harmony of mixed tulips was another much admired exhibit. "Never again," said one of the spectators, "am I going to worry myself sick keeping the tulips so carefully separated. That's a lovely sight—that blending of colors."

And said one woman to her companions, "Will you look at that fat man? He looks as though he had reached heaven right now, and never wanted to go away." He did look as though he was blissfully happy, but his wife could see no beauty in the scene before him. "It's just rock and wild stuff."

"Oh, gee," said a small boy, "what you want to hurry so fast for? I can't see things at all. I

like to look." And then, "I thought you said it was educational. If I can't see what the names are what good is it?" The small boy was interested but his mother and her companion were discussing a bridge party.

Many of the children were as keen to notice the different shrubs and plants as were the most enthusiastic gardeners—a most hopeful sign.

To My Friends

To the many friends and readers of this page who wrote me such kind letters—gladdening my heart by saying they missed my little informal visits about flowers and gardens in general. Telling me they hoped soon to see me again on the page, pleasing me so very, very much by saying that I had helped them to have better gardens, and that they always turned to this page with pleasant anticipation — I want to thank you one and all, I can never quite tell you how happy it made me to get these letters, to feel that I had in some measure really healped to do something for each one of you. In all humility I cannot feel that I deserve quite all the nice things you have written me—but I CHERISH THEM. I AM HAPPY BECAUSE YOU HAVE SAID THEM TO ME. Again I say to each one, Thank YOU.—Caroline E. Strong.

GROWS TRITOMAS SUCCESSFULLY

"I HAVE several hundred Tritomas and find it no mork work to dig them and pack them for winter than dahlia roots. I wanter mine a bit during the winter and when I put them in the garden in spring they are growing. Even last year during the dry season my Tritomas blossomed early, even earlier now than when I first started growing them. I have never tried leaving them in the garden over winter. They are kept in the coolest part of the basement. "My Aladdin Chrysanthemum winter killed in the garden, but a plant I had in the house blossomed all winter and still has nice flowers."—Emma A Sundt, Manitowoc, Wisconsin.

GOOD VARIETIES FOR THE GARDEN

Amelia Weber, Fond du Lac

LOOKING over the list of shrubs and plants recommended for trial, I noticed the Viburnum Sieboldi which I have had for 15 years or more. Mine has never bloomed although it has grown into a large bush. It has good looking foliage or I should have discarded it a long time ago. I also have a Viburnum Lantana which does not bloom and consequently has no berries.

I am trying the rose Dr. Eckener again. So far three have died without blooming.

Of the annuals on the list I have grown Aster Aurora Golden Sheaf for the past two summers successfully. They have a quilled center and are cream color fading to white. Cosmos Sensation is a great improvement over the old varieties. They came through the over 100 degrees without wilting last summer. The plants were only about 27 inches high, but started to bloom early. Had much larger flowers and many of them, and withstood the first frost. I'm trying the Tahoka Daisy, Marigold Crown of Gold, "Rudbeckia My Joy," Centaurea Jubilee Gem, this year, also several other new ones not on the list.

HOW GARDEN CLUBS MAKE MONEY FOR THEIR TREASURIES

IN the Year Book of the New York Garden Club Federation, we find that many clubs in New York make considerable money carrying on various projects. The bulletin states: "From available records, the favorite and probably simplest way for garden clubs to make money is to have a card party and tea. Plant sales are the next most popular source of funds, and the third being food sales. Other money raising projects are as follows: Garden pilgrimages; rummage sales; an annual village ball; fashion show; bridge party; a Swedish buffet supper on the lawn. One garden club made 201 jars of rose-geranium jelly and fresh mint jelly which they sold at 20c each."

JUNIOR GARDEN CLUB WINS HONORS

THE "Wide-a-Wake" Junior Garden Club of Superior, organized by the Superior Garden Club, won one of the awards under the Educational Fund of the Junior Garden Clubs of America. The club consists of 24 girls and boys averaging 10 years of age, with Mrs. W. J. Bemrick as councilor. This club won the award in recognition of its practical gardening projects, both indoors and out, notebook preparation, its bird and tree study activities, and Christmas conservation decoration work.

More than 74,000 junior garden clubs were registered in this competition, which indicates the high quality of the junior work being done in Superior.

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Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

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Gladiolus Breeding and Virus Diseases

MR. E. F. Palmer, Vineland Station, Ontario, prominent gladiolus breeder, writing in the New England Gladiolus Society's 1937 Year Book, gives a number of illustrations of varieties which appear to do well in some localities, but are hopeless in others. Lowered vigor, flecked color and other disappointing experiences have been noticed by many growers. Still varieties which have not done well in one garden may be seen at shows in perfection.

Mr. Palmer in this connection continues as follows:

"Many growers no doubt have noted similar conditions, and have noted also that the bulbs of these abnormal plants present no outward appearance of disease. They seem to be perfectly normal.

"I have gradually come to the belief that our old friend "virus" disease is the nigger in the woodpile, and responsible for all or most of the troubles given above. Different varieties may react in different ways to the disease and in fact there may well be more than one virus present, with different plant symptoms. There is now ample evidence to show that virus disease is extremely common in the gladiolus, probably existing in all gladiolus stocks **except those recently grown from seed.** This is important as we shall later see. In 1935 I grew bulbs of various varieties secured that spring from several countries—England, Holland, New Zealand, Australia, and several Canadian and United States points. The plants were carefully examined by a competent plant pathologist familiar with virus symptoms, within three weeks of above ground growth and **every plant** was affected. They must have been affected before leaving the country of origin, indicating the widespread occurrence of the disease.

"This would seem to be a dismal picture and as well having little to do with hybridizing. Have patience and be of good cheer.

WISCONSIN GLADIOLUS SHOW

Auspices

WISCONSIN GLADIOLUS SOCIETY

EAGLES' CLUB

OSHKOSH

August 14-15

What Shall We Do?

"In the first place I believe I may safely say that most and perhaps all bulbs of all stocks of Picardy will, to the eye of the pathologist, show virus symptoms, usually a faint mottling or 'mosaic' appearance in the younger leaves. (Virus symptoms are seldom obvious to the uninitiated.) But Picardy is apparently not adversely affected by the disease, certainly not to the point of destroying its usefulness as a variety. And most varieties probably can be affected with virus, and still remain good varieties. This is reassuring.

"Now most virus diseases are not seed borne, and so when seedlings are grown a fresh start is made. The seedlings are free of disease until it is contracted from older affected plants. The question is as to whether the hybridizer should try to keep his seedling stock absolutely free of virus disease or 'let nature take its course.'

"Personally I am for the latter method, since the seedling which is later named and introduced, must eventually get the disease. Better to have it early in life, to aid in the weeding out process because, if it is a seedling that is later going to partially succumb to the disease, whether in vigor, color, spike formation, etc., it might far better never be introduced. I believe that new varieties are being rushed on to the market too quickly—before they have had time to 'settle down' as it were, to what will be their virus affected performance. I have no doubt that a year or two more in the test garden would have saved us all a considerable number of introductions, one or two of my own included, which have failed to live up to their earlier promise. Let's test thoroughly before introducing."

THE WISCONSIN GLADIOLUS SHOW

SO far this season moisture conditions give promise of splendid quality gladiolus blooms for the Wisconsin Gladiolus Show which will be held at the Eagles' Club Oshkosh, August 14-15.

Copies of the revised premium list have been submitted to members of the premium list committee for approval, and will be ready for distribution in a short time. Copies will be sent to all members of the Wisconsin Gladiolus Society.

New Committee Members

In addition to the list of committees published in the April issue of Wisconsin Horticulture, the following have been named since that time.

Banquet Entertainment: W. C. Krueger, Ben Robinson, E. H. Ristow.

Finance: O. A. Kapschitzke, Chester Harrison.

Hall Decoration: E. H. Ristow, W. E. Menge, K. J. Timm.

Junior Naming Contest: W. E. Menge.

Publicity: H. J. Rahmlow, E. H. Ristow.

Classification Committee: George Morris, M. J. Rahn, C. H. Melk, A. S. Haugen, Frank Thomas.

GLADIOLUS SOCIETY SUMMER MEETING

BECAUSE of the uncertainty of the season, and when the gladiolus will be in bloom we are unable to make a definite announcement of the dates for the summer meeting of the Wisconsin Gladiolus Society. However, it will be held in the gardens of Walter Miller, Sun Prairie. Full announcement will be sent to each member of the Wisconsin Gladiolus Society by mail, about the middle of July. Everyone is invited.

The Flower of the Month

W. A. Sisson, Rosendale

JUNE is the month of peonies and roses. I have selected the peony for my flower because it is the better cut flower. Most all peonies are as deeply fragrant as any roses. Yes, peonies are almost without exception very fragrant, a fact of which the public is not aware.

Look for These Varieties

If I were to select the five best peonies in my garden I would select LeCygne and Mr. Edward Harding, both white. Therese and Edulus Superba are my favorite pinks, and Cherry Hill the red. This variety sometimes comes semi-double. All are good standard varieties and inexpensive.

What is there in the new varieties and what are the best? I could not venture a reply to this question. Many a new variety is proving itself just another peony but we cannot be sure about this until we have lived with them ten years. The latest introduction is Will Rogers, a white. It should be good.

The Japanese and single peonies are becoming more popular year by year. They do not "shout" at you. If you do not stop to study them you will never know their beauty. In the Japs, Mikado is the best red, Isini Gidui is the best white and Gold Mine the best pink. In the singles I like the Anomala, an early single red, foliage perfect the season through. Darkness is a fine later single red. Helen and Nellie are pinks and my choice for whites are The Bride and Edith West.

The peony is not known at all by the general public. If I wanted to drive around our state to see peonies growing, I cannot think where I should go to find an assortment of named peonies which were properly taken care of and which were in perfect health and a delight to the eye. I do know where I could go and see acres of peonies but they would be made up of a dozen or so common varieties.

An Invitation

An invitation is extended to all people seriously interested in peonies to visit our gardens. We will pick and tag name flowers for any town giving a flower show and sending a committee to us, free. However, we do not give flowers to visitors because we find they usually do not appreciate them. So far as our time and strength will permit, we give flowers to worthy objects and to the sick. We have discontinued giving any flower show ourselves outside of Rosendale. The Vista Vale Perennial Gardens and Sisson's Peonies invite all flower lovers to visit Rosendale in June.

College Chum: "What are you going to do this summer?"

College Pal: "Work in my father's office. What are you doing?"

College Chum: "Oh, nothing either!"

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The Best of the New Iris

Mrs. Douglas Pattison, Freeport, Illinois

I AM often asked which color I like best. I like them all, but must admit a preference for blue iris. Almost any shade of blue. In my opinion the finest blue in existence today is the glorious **Missouri.** Of superb form and heavy substance, it tops them all. Black Wings, Dymia, Mrs. J. L. Gibson, The Black Douglas are fine examples of the deep blue black shades. Blue Velvet, older but never superseded although it has been out ten years, is a fine Dominion derivative. Winneshiek, a frilled and velvety violet blue, is receiving its just deserts after being overlooked for some time. Brunehilde is, in our opinion, the last word in violet blue. Of fine form and excellent growth, it ranks high. Blue Dusk is a velvety deep and rich blue.

Blue Triumph, a superbly branched medium blue of heavy substance is without doubt the best of the in-between shades. Shining Waters runs it a close second. Sierra Blue is of fine coloring and clean cut form. Narain, a recent introduction, is a velvety beauty of the shade used in the paintings of the old masters.

The Yellows

Much progress has been made in yellow iris in the past few years. Not so long ago we had washed out, small flowered short varieties, but now we have tall, large flowered sorts, in all shades from the palest cream yellow to deep gold. Selecting a yellow is a matter of personal preference. Our selection of the best all around yellow, taking into consideration color, form, size, branching and above all hardiness would be the new **Jasmania.** When it becomes better known and stocks are increased, we predict a big demand for it. Happy Days, California Gold, Lucre,

Lucrezia Bori, are some of the new and best yellows. The California varieties are not quite recommended for hardiness until further testing. Eclador is a fine velvety ruffled beauty, perhaps the best of the medium priced varieties. Alta California is hardy and a good grower. Alice Harding, Eilah, Lady Paramount, the finely formed and tall Welcome, Robert, a beautiful yellow with soft blue flush, and Sunmist, a cream yellow with deep golden heart, are lovely beyond words. Desert Gold, Helios and Chromylla are soft yellows which blend well with any color in the garden.

Reds

We doubt very much that we shall ever have a true spectrum red, but what could we do with it if we had it? I cannot imagine using a true red iris with the lovely pink, blue and softly shaded June flowers. It would appear harsh and out of place. *Garden Magic* is the finest red we have ever seen; of fine form and rich coloring. Red Douglas, of deeper red, is the next contender. Both are very scarce. Ethel Peckham, Junaluska and Marco Polo are good examples of the rosy red shades; Burning Bronze, a streamlined smoothly finished deep red, Beowulf, introduced last year, and Piute, a perfectly formed pure colored deep red of medium size are the best examples of the deep so called reds. Cheerio is a brilliant, tall bit of red velvet with pale tan standards that stand out like a headlight. Shirvan, an older iris of the same type is rich and velvety. Grace Sturtevant, Red Radiance, Uoycette are all outstanding in this color range.

We have no true pink irises. We might as well admit it. Pink Satin is still as pink as any. Eros, Dog Rose and Thais are a few of the rose pinks.

Whites

A number of good white iris have made their appearance the past few years, topping the list is the beautiful *Snow King.* Tall, stately, well branched of fine flaring form and pure coloring, it is a picture in any garden. Gudrun, shorter, but of fine garden value is perhaps the next best known white. Crystal Beauty, Eastern Morn, Purissima are fine whites; the latter two not quite hardy, however. Venus di Milo is a splendid all around white and Cincinnati is a taller and larger and newer white like it. Wasatch, a huge heavy texture white marked blue, Los Angeles, and San Francisco, are good plicates, meaning a solid color stitched and dotted another color.

Marquita is one with cream yellow standards and watermelon colored falls. It has fine garden value.

Blends

There are many gorgeous blends, but I will mention the most outstanding. Persia and Depute Nomblot are two of the best of the old ones. Mary Geddes, the Dykes Medal winner of last year, Genevieve Serouge, President Pilkington, Anna Marie Cayeux, K. V. Ayres, are some of the best blends.

In closing there are a few varieties I wish to mention which are outstanding, but not definitely in a color class. Violet Crown is a tall stately violet blend, Red Dominion, a velvety mulberry red, Seduction has a thick creamy background with fine lilac veins and dots; Rosy Wings is a luscious rose red blend, Brown Betty a copper tinted blend with pink shading. Copper Lustre the last word in copper tones and the new Morocco Rose to be introduced by us this year, the lovliest of pink blends. Jean Cayeux is a brown and biscuit blend of much merit.

From Garden Glories, by the Garden Club of Illinois.

Wisconsin School Children's Forests

By Mrs. Frank K. Quimby,
Director

THE Wisconsin School Children's Forest had its first birthday on Arbor Day, May 7, 1937, and the Director wishes to report that this child of the Wisconsin Garden Club Federation is steadily gaining in size and definitely aprpoving in appearance. Wisconsin school children are planting this forest in the Nicolet National Forest under the slogan of "four pines for a penny."

This plantation embraces a total of 1240 acres. Of this total 612 acres consists of stands naturally established, these varying from stands of young reproduction to more or less open stands of trees apropaching merchanable size. Approximately 60% of these stands are of conifer type, the remaining 40% being of the hardwood type. The remaining 628 acres consist of 108 acres planted to White and Norway Pines in the fall of 1936, and 520 acres in need of planting.

Species Now Growing

Species now growing on the School Children's Forest are: White Pine, Norway Pine, Jack Pine, White Spruce, Black Spruce, Tamarack, Balsam Fir, Hemlock, Hard Maple, Basswood, Elm, Yellow Birch, Paper Birch, Aspen, Red Maple, Pin Cherry, Ironwood and Service Berry.

Great care was exercised in determining the species to plant in the children's forest. The soil was definitely better for White Pine. However, White Pine planted in the open is very susceptible to injury by exposure and if it should survive this early stage and get to be five to ten feet high, in pure stands without a protective overstory it is almost certain to be attacked by the White Pine weevil. These two hazards were eliminated by planting White Pine in the Aspen stands and Norway Pine in the open. At the end of the first, third and fifth years after planting, survival counts will be made to ascertain the success of the plantation. Replanting will be done to keep the number of planted live trees per acre up to normal.

The Eagle River-Alvin Road passes through the heart of the forest and Forest Service trucktrails and work roads make the area quite accessible. The Anvil Lake Tower, which is a 100 foot stair type tower, is less than three miles north of the area and commands a striking view of all the surrounding country.

There are excellent recreational facilities at the Anvil Lake Campground, Franklin Lake Campground, and Four Mile Campground. All of these camps are very near to the school children's forest.

Eventually this forest will be a show place in northern Wisconsin and the Garden Federation as well as the children will feel proud of this plantation. Pennies are beginning to arrive at the Forest Service office to pay for this year's planting. Are you, as Garden Club members, doing your part by checking up with your local schools to see if the children in your community are being given an opportunity to participate? The children sent in enough pennies to plant 121,500 trees last year. Will the forest grow that much this year? If we are to plant 520 acres by Arbor Day 1940 we will have to do our part to spread the gospel of reforestation.

During the course of a year, a normal person should eat about 650 pounds of vegetables. For a family of five that means more than a ton and a half of this kind of food.—Massachusetts Extension Service.

GARDEN CLUB PAGEANT

THE Wauwatosa Garden Club will present a "Pageant of Flowers," June 15th, on the lawn of the R. Ferge residence, 8036 Milwaukee Avenue, in Wauwatosa.

The pageant will consist of a cycle of scenes combining music, poetry, dancing and flower arrangements.

The following program has been arranged: 1. Solo "Trees" by William Peterman; 2. Garden Styles for Children; 3. Colonial Days; 4. The Gay Nineties; 5. Modernistic. Intermission, Solo, Garden Song by Ruth Lefeber; 6. Picnics; 7. Garden Styles for 1937; 8. Japanese; 9. Wedding Bells; 10. The Silver Wedding; Finale.

You are invited to attend.

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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

FEDERATION EXECUTIVE BOARD MEETS

THE Executive Board of the Wisconsin Garden Club Federation met at Madison in the offices of the Wisconsin Horticultural Society on Tuesday, May 11th. After broadcasting over WHA the Board transacted a number of important matters of business.

It was decided to go to Door County on May 24-25 to make arrangements for the annual summer meeting. The dates for the annual summer meeting were set at July 17-18.

The recording secretary-treasurer presented a financial report and the budget for 1937. She pointed out that the annual dues received by the Federation amount to only 10c per member after the 5c dues to the National Council have been paid. This amount is not adequate for carrying on a program. After paying the actual expenses of Board members to meetings and such expenses as bank service charges, secretary's bond, etc., there is nothing left for speakers at summer meetings or the annual convention.

The committee discussed the plan of charging a 25c registration fee at the annual convention in order to help pay the expenses of the speakers and provide more funds for making these meetings successful.

Clubs Asked to Hold Election of Officers Early

It was voted that a letter be sent to all garden clubs later in the season asking them to change their constitution if necessary to provide that the annual election of officers be held at the last meeting of the calendar year, the new officers to take over their duties the first meeting of the next calendar year. This is quite important and we hope all clubs will comply. During January and February each year the recording secretary-treasurer sends out membership blanks, membership cards and instructions to the secretaries for the coming year. She has found in many cases that if an election is held after this time the secretaries are changed, the new secretary does not receive the material. The corresponding secretary sends information and requests to the presidents about this time, which often do not reach the hands of the new president. Furthermore, a directory of officers could then be published in either the January or February issue of this magazine.

It was voted that new clubs affiliating with the Federation and the Society for the first time be allowed to pay one-half year dues for the balance of the calendar year beginning July 1st, such dues to be 30c per member.

NOTICE! RESERVE ROOMS EARLY FOR FEDERATION SUMMER MEETING

GARDEN Club members planning to attend the summer meeting of the Federation in Door County should write the Secretary of the Chamber of Commerce, Sturgeon Bay, Wisconsin, and reserve a room for Saturday evening, July 24, as early as possible. Door County is crowded with tourists during this season and it will probably be necessary to find rooms in private homes in Sturgeon Bay. The Chamber of Commerce has agreed to help with such reservations.

The program is so full that it will be difficult to get away to look up rooms during the day.

FLOWER SHOW BULLETINS AVAILABLE

A BULLETIN entitled, "Non-Competitive Flower Show Judging" has been revised and is now available free of charge to member clubs from the Wisconsin State Horticultural Society, 1532 University Avenue, Madison. The bulletin describes in some detail the method of non-competitive judging which has become so popular in this state and is now being used in many other states.

Copies of the bulletin entitled, "Wisconsin Flower Shows — Their Management and Schedules," are still available. This bulletin, paid for by the Wisconsin Garden Club Federation, will be sent for 15c per copy, or two for 25c, by the Horticultural Society.

ANNUAL SUMMER MEETING WISCONSIN GARDEN CLUB FEDERATION STURGEON BAY — DOOR COUNTY

Saturday and Sunday, July 17-18

Program — Auspices Wisconsin Horticultural Society

SATURDAY A. M., JULY 17

10:00 a. m. — 12:00 M. — Assemble at the observation tower in Potowatomi Park. (Follow marked signs to left of highway 57 in Sawyer before crossing bridge to Sturgeon Bay). Tables available for luncheon. Drinks and ice cream will be available, but bring your lunch.

12:00 M. — 1:30 p. m. — Luncheon, visiting, see wonderful view from Observation Tower. Swimming possible.

1:30 — 2:30 p. m. — Short program. Announcements and organization of tours for the afternoon. Mrs. Chester Thomas, president of Federation, presiding.

2:30 p. m. — Tours of Potowatomi Park. Cherry orchards being picked. Visit a cherry canning factory. Stop at interesting gardens. Tours in small groups with guides.

5:30 — 7:00 p. m. — Dinner in Sturgeon Bay.

7:00 p. m. — Camp fire meeting and program near shelter house in Potowatomi Park.

Program: Speakers, Mr. H. R. Holand, Ephraim, President Door County Historical Society; Dr. R. Bagg, Geologist of Lawrence College, Appleton; Prof. J. G. Moore, Madison; Karl Reynolds, Sturgeon Bay, President Wisconsin Horticultural Society.

Mrs. Chester Thomas, president, presiding.

SUNDAY, JULY 18

9:30 a. m. — Sunday morning services in outdoor amphitheatre in Peninsula State Park. Near Eagle Terrace in northern Door County.

Speakers: Jens Jensen, landscape architect, Ellison Bay; Prof. Franz Aust, Madison.

12:00 M. — Dinner. Open air whitefish fry.

2:00 p. m. — Tour of Peninsula State Park in organized groups with guides.

In case of rain all meetings will be held in the Sturgeon Bay High School, Superintendent J. A. Van Natta, cooperating.

AND SO—HOME.

AN INTERESTING FLOWER SHOW

A SPRING flower show in a beautiful garden created a great deal of interest in Madison during May. It was staged by the West Side Garden Club of Madison in the garden of Mr. and Mrs. C. A. Sakrison.

Arrangements, shadow boxes and tulips, together with an educational exhibit of garden books, magazines and tools were staged in the large garage and sun parlor. Dinner tables were set in the dining room. Over 200 boutonniers were sold by small girls and refreshments were served on the lawn. Held on a Saturday afternoon and Sunday such a show can be made very interesting, educational and provide a good social time. It greatly stimulates the interest in gardening and flowers among the people of the community. Funds to meet expenses were obtained by the sale of refreshments and flowers.

WISCONSIN FLOWER SHOWS

June 11-12. South Central District of the Wisconsin Garden Club Federation spring flower show Armory, Jefferson.

June 12-13. Wausau Garden Club flower show. Ball room of the Hotel Wausau, Wausau.

June 18-19. Elkhorn Garden Club flower show. Masonic Temple, Elkhorn.

June 19-20. Madison Garden Club flower show. Woman's Building, 240 W. Gilman St., Madison. Small admission fee.

June 26-27. Racine Garden Club flower show. Memorial Hall, Racine.

August 14-15. Menomonee Falls Garden Club flower show. Menomonee Falls.

August 18-19. Baraboo Garden Club flower show. Parlors of Methodist Church, Baraboo.

POTOWATOMI STATE PARK

Potowatomi State Park located at the junction of Green Bay and Sturgeon Bay, is a recent addition to Wisconsin's chain of state parks. The area of approximately 1,100 acres, has interesting historic significance indicated in the name of Government Bluff which has been applied to the locality for many decades. The park was purchased from the United States War Department in 1928.

For a long distance Potowatomi State Park extends along the shoreline of Sturgeon Bay. From a well-wooded shore the land gradually slopes to the high bluffs from the top of which the climber can revel in a majestic view across these two great bodies of water, Sturgeon Bay and Green Bay.

From the top of the bluff the observer can see the full length of the city of Surgeon Bay, and for many miles along the Door county coast of Green Bay. Immediately across Sturgeon Bay are the high limestone cliffs which present a never-to-be-forgotten sight, particularly if viewed late in the afternoon when they are resplendent in the light of the setting sun.

The shorelines of Potowatomi State Park are interesting. At places the limestone bluffs reach the water's edge and great chunks of them have fallen in. At other places the beach is more gradual.

Potowatomi State Park is exceptionally well timbered. There are several acres of virgin timber left of many interesting varieties. Both conifers and hardwoods are abundant and at certain times of the year flowers grow profusely. The daisy field has long been famous and attracted visitors for many years before the area was set aside as a park.

From Bulletin by the Wisconsin Conservation Commission.

PENINSULA STATE PARK

Peninsula State Park was acquired by the state by purchase in 1910. It is located 25 miles north of Sturgeon Bay on a prominent point extending into Green Bay between Fish Creek and Ephraim harbors. This area,

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which contains 3,400 acres of picturesque country, was selected from many proposed park sites in the eastern part of Wisconsin as being outstanding in scenic beauty, accessibility, and historic value.

From a geological standpoint Peninsula State Park offers an excellent place for students to observe shorelines, present and abandoned. The region includes the higher, western part of the Niagara cuesta. The escarpment rises abruptly above the waters of Green Bay with a bluff 150 feet high on the west coast. Niagara limestone underlies the peninsula and corals are sometimes found in the higher ledges.

For the most part the terrain in Peninsula State Park is gently rolling, but there are three distinct bluffs —Sven's Bluff, Norway Bluff, and Eagle Bluff. Each of these rises gradually from the south side, but on the side facing the sparkling waters of Green Bay, they drop abruptly forming precipitous cliffs of limestone which range from 10 to 200 feet above the water level. Sven's and Eagle Bluffs lie close to the edge of the bay, but Norway Bluff is back a quarter of a mile from the shoreline.

Peninsula State Park is exceptionally well timbered, and the plant life is intensely interesting. Virgin white and red pine, hemlock balsam, and hardwoods are abundant, and several stands of beech show a forest type unusual to Wisconsin. Dense groves of white cedar or arbor vitae are found along the shore and on the damp ledges, while in some of the open parts of the park juniper and more rarely the shrubby yew, give almost the effect of formal planting. Both foot and bridle trails which prove delightful to the nature lover, have been constructed in the park to points of chief interest. There are many attractive drives, more of which are being built, to some of the more outstanding attractions.

The state game farm operated by the department of game of the conservation commission, is located within the park. Here the visitors may see thousands of ring-necked pheasants, and other wild fowl including wild American turkeys, Hungarian partridge, sharp-tailed grouse, quail, and several kinds of ducks which are being propagated. At the game farm there is also a zoo in which many of the birds, animals, and reptiles native to the vicinity, are caged for exhibition.

From Bulletin by the Wisconsin Conservation Commission.

The blood vessels of an adult person have a combined length of approximately 100,000 miles. To tie them end to end would make a continuous blood-vessel string that would encircle the globe four times.—Gib Swanson in "Capper's Farmer."

What Is So Rare As A Day In Spring

HAVE you made your garden a Sanctuary for Birds? Truly, there is no greater joy than this. Today—May 12th, Coronation Day—when the great crimson jewel shone in the crown of the newly crowned king, we have Royalty to sup with us! Looking down the lawn where the crimson tulips rioted in the breezy sunshine, I lifted my vision to the cherry tree beyond, and there—among the budding branches sat a Scarlet Tanager! Surely, no jewel in all the world can rival him for color—and no king's robe could be worn with greater ease and joy.

The air seems alive with bird life and song. The final migration of the season must have arrived with last night's shower, and we are reveling in the welcome presence of regular homesteaders, as well as those who will visit for a day and pass on to northern homes.

Bird Friends

Today I have seen Tanagers, Orioles, Thrashers, Robins, Ruby-throated Grosbeaks, Mourning Doves, Flickers, Grackels, Blue Jays, Redwinged Blackbirds, Redstarts, Humming Birds, Kinglets and a cloud of Warblers and Gnat Catchers. Who can resist inviting these gaily colored songsters to your garden? The way to invite them—and they will not refuse to come—is to plant the trees and shrubs they love and to set a bountiful table to satisfy their ravenous hunger.

Of course, many of these birds have been "dropping in" for several weeks and have established their homes—the varieties we call the "early birds." In fact, we are looking for babies in the robin's nest on the cistern pipe and another on the support of the porch; and Mrs. Mourning Dove has been setting for days! Johnny Wren is very busy carrying sticks into ALL of the wren houses about the place; and I saw the Cat Bird perched in the center of his last year's nest singing as if his heart would burst. Such happy little people, for neighbors, just drive dull care away. Open your gardens and invite them in. Teach your children to love and protect them NOW, before it is too late, for, unless we make a place for them in our home grounds, they cannot come to us, since their natural habitat is fast passing away. Give them a drink and a place to bathe for they are lovers of cleanliness. Put a cord with a bell about the neck of your cat to warn them of his presence—then watch how joyously these glorious songsters will establish themselves about your home. They will assist you in ridding the garden of pests.

Feed the summer birds! Boiled potatoes will bring deep-throated warblings from the oriole—and a crumb of cake will bring a deluge of song from the cat bird or thrush. Scraps—just scraps—but they will repay you a thousand fold.

—Mary A. Lowerre, Chairman Junior Garden Section, Wisconsin State Fed. of Garden Clubs.

Gardens Open For Visit

Milwaukee

Mrs. Alfred James, Thorne Lane, Fox Point.

Mrs. Harold Seaman, River Road, River Hills.

Mrs. Gordon McGeogh, Zieder Road, Thiensville.

Mrs. A. L. Noerenberg, River Road, R. 9, River Hills.

Mrs. F. L. Weyenberg, Range Line Road.

Mrs. Joseph Uhlein, 3218 N. Lake Drive. All season.

Miss Marie Bloomer, End of N. Lake Drive. Fairy Chasm.

Mrs. Arthur McGeogh, County Trunk 99, Eagle, Wisconsin.

Mrs. Henry Gehrig, 4746 N. Cumberland Blvd. All season.

Lake Park, Milwaukee.

Washington Park, Milwaukee.

Racine

Mrs. Willard Walker, 42-9th St. August.

Mrs. E. C. Pfeiffer, 3701 Kinzie Ave., rose garden, June 21-23.

Mrs. A. M. Faucette, 205 Lake Crest; Doorway garden.

Mrs. W. H. Pugh, Lake Crest. August.

John Johnson, 1966 Linden Ave. Delphinium last of June.

Mrs. J. Rothschilds, 1021 Lake Ave. Early June and August.

Mrs. Carlyle Morris, Sunset Heights. July and August.

Mrs. C. H. Laing, R. 2; annual garden.

Mrs. Samuel Lowe, R. 2; spring and summer.

Mrs. H. Anderson, 317 West Blvd. June.

Oshkosh

Menominee Park, Oshkosh.

F. J. Sensenbrenner, East of Menasha, Highway 114.

Neenah

A. C. Gilbert, 620 E. Wisconsin Ave. Iris.

C. B. Clark, 617 E. Wisconsin Ave.

Madison

Mrs. Louis Hanks, 525 Wisconsin Avenue, large landscaped garden, rock, wild and rose garden. Any time.

Mrs. Oscar Jensen, 1121 Waban Hill, Nakoma. Wall garden, perennial and annual borders. June.

Mrs. E. J. Kallevang, 4130 Iroquois Drive, Nakoma. June.

Mrs. Freas Long, 206 Virginia Terrace. Charming borders and iris. June.

Mrs. Hans Reese, Circle Cove, Shorewood. Any time.

Mrs. Emilie Roloff, Mendota Beach. Wild and bulb garden. June.

Mrs. C. A. Sakrison, 4206 Mandan Crescent, Nakoma. June and July.

Robert Zwerg, Arlington Heights. Any time.

H. L. Bostock, R. 7. August and September.

Dr. W. T. Lindsay, 942 Lake Court. Any time.

Mr. Benson Paul, 102 Grand Ave., Shorewood Hills. Any time.

Mrs. J. A. Connaughton, 705 Riverside Drive. Any time.

University trial gardens, Campus.

University of Wisconsin Arboretum.

Baraboo

Open at all times:

Devil's Lake State Park, H. 123.

Skillet Falls, H. 12.

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Mirror Lake.

Wisconsin Dells.

Reinking's dahlia, delphinium, iris, peonies. 9th Avenue, Baraboo. All summer.

Toole's Gardens at Garry-Nee-Dule, Highway 12.

Schoeninger Gardens, Wisconsin Dells. Private garden open week-days or by appointment.

Door County

Washington Island has natural settings at extreme end of peninsula like the harbors.

Potowatomi State Park.

Peninsula State Park.

Whitewater

Mrs. Mattie Shepard, 805 Main St., July 1 to Oct.

Chippewa Falls

Northern Wis. Colony and Training School, H. 29.

Irvine Park, 300 acres of natural beauty.

Superior

Mrs. Geo. Newton, Billings Park.

Mrs. C. A. Chase, Billings Park.

Billings Park, along the St. Louis River, Superior.

Patterson State Park, H. 35.

Bardon Park, H. 13 at Amnicon.

Wauwatosa

Mrs. H. E. Freudenberg, 1507 N. 68th St. Early and late.

Ernest Lefeber, 7500 Hillcrest Drive. Tulips.

Mrs. Nora Vander Hoogt, 7909 Stickney Ave., July and August.

Mrs. W. H. Peterman, 8206 Milwaukee Ave. July and August.

Mrs. H. Konrad, 7917 Stickney Ave. July and August.

Mrs. Aug. Peter, 1621 Church St. Roses, June.

Mrs. R. Ferge, 8036 Milwaukee Ave. July and August.

Mrs. Arno Krieger, 6526 Hillcrest Drive. July and August.

COMING EVENTS

June 11. Garden Walk and Horticultural Show, Lake Forest Garden Club, Lake Forest.

June 12-13. Lincoln, Nebraska. Annual show of the American Peony Society under the auspices of the Garden Club of Lincoln.

June 14-15. Cleveland, Ohio. The Annual Spring Exhibition of the American Rose Society.

TREASURER'S REPORT, MAY 10, 1937

GENERAL FUND

DEFICIT, January 1, 1937		$ 2.65
RECEIPTS: 1621 Federation Dues @ 15c	$243.15	
1621 Horticultural Dues @ 35c	567.35	
TOTAL RECEIPTS	$810.50	
DISBURSEMENTS: 1617 Horticultural Dues @ 35c	565.95	
BALANCE		$244.55
EXPENSES		
Marine Nat'l Bank, Service harge	5.23	
Junior chairman, postage	17.74	
Printing of stationery and cards	12.50	
State Seal for Federation	3.25	
Sec'y-Treas. for postage, stationery, post cards, journal and minute book	17.35	
Dues to Nat'l Council of State Garden Club Federations — 5c per member	76.25	
TOTAL EXPENSES		132.32
Balance on hand		112.23
DEFICIT, 1936		2.65
BALANCE IN GENERAL FUND		109.58

FLOWER SHOW FUND

Balance on hand Jan. 1, 1937	$232.37
Balance from the National Flower and Garden Show	27.14
BALANCE ON HAND MAY 10, 1937	$259.51

No Disbursements

SPEAKERS FUND

DEFICIT, January 1, 1937	$ 12.72
RECEIPTS: Donations from two clubs	3 00
DEFICIT, May 10, 1937	9.72

By Mrs. E. A. St. Clair, Rercoding Secretary-Treasurer.

Our peonies will be blossoming all through June and we invite you to come and see them any day convenient for you. Write for best date. We have early, mid-season and late varieties in many hundreds for the student of the peony to study. We run to varieties and not to acres although we have several acres.

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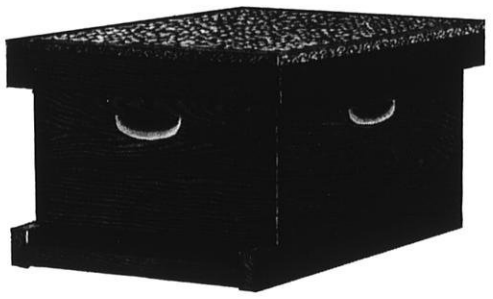

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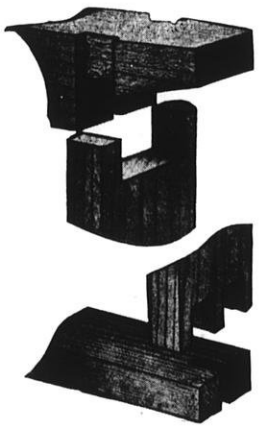

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JULY - AUGUST, 1937

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"As I was crossing the bridge the other day," said an Irishman, "I met Pat O'Brien. 'O'Brien,' says I, 'how are you?' 'Pretty well, thank you, Brady,' says he. 'Brady!' says I, 'that's not my name.' 'Faith,' says he, 'and mine's not O'Brien.'

"With that we again looked at each other, an' sure enough it was naither of us."

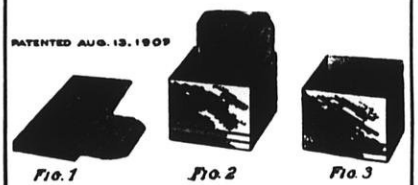

Fig. 1 Fig. 2 Fig. 3

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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

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TABLE OF CONTENTS

	Page
What Can Be Done About Undersized Fruit	267
Shall We Spray in August	267
How We Pick and Grade Apples	268
Sweet Clover For White Grub Control	268
Protecting Cherries From Birds	269
Apple and Cherry Outlook	270
New White Clover For Lawns	270
Raspberry Prunings Cut with Ensilage Cutter	271
In the Berry Patch	272
This Season With Strawberries	273
Strawberries in Door County	273
Horticultural News	274
The Formosa Lily	275
A Community Flower Project	275
Editorials	276
Strawberry Queen Crowned at Bayfield Festival	277
About the Home and Garden	278
Gleanings From the Gladiolus Patch	280
In My Garden	282
New Insecticides	282
The Gas-Plant	283
State Garden Club Federation News	284
Flowers of the States	285
Garden Gossip	286
Ten Recommended Perennials	287

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Subscription to Wisconsin Horticulture is obtained by membership in the Wisconsin State Horticulture Society for which annual dues are $1 per year or $1.50 for two years. Garden Clubs, Horticultural Societies, and other Horticultural Organizations are affiliated at a reduced membership rate.

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.

What Can Be Done About Undersized Fruit

V. R. Gardner, Director Michigan Experiment Station

EVERY experienced producer knows that there is no money to be made from culls, that B grade or second grade fruit barely pays raising and handling costs, and that profits, if any, come from the A-grade portion of the crop. Yet the records of individual growers and of community packing houses in Michigan (and doubtless in other states as well) show that all the way from 20 to 80 per cent of the crop, with an average of about 50, fails to meet the A-grade specifications — the percentage varying with season, variety, age of tree, and above all, with the individual grower.

Studies at the Michigan station several years ago and, more recently, studies conducted at a number of other stations, have shown that almost half of the culling done at the packing house is occasioned by small size.

The results of our study may be summarized as follows: (1) The size of a given apple tends to be directly proportioned to the diameter of the branch upon which it is borne and at the same time the thicker, stockier branches bear more apples per foot or length and those apples are better colored than those produced on relatively slender branches. (2) What has come to be the conventional method of pruning bearing apple trees consists principally in the removal of the stouter, thicker wood that bears fruit and leaves in the tree most of the thin wood that by no method can be made to bear large apples. (3) What amounts to essentially a diametrically opposite method of pruning, consisting of the removal of all slender, 'thin" wood and leaving all the stocky, thick wood, regardless of how brushy it may leave portions of the resulting top, reverses this tendency of conventional pruning methods and saves all of the large apples while doing away with the small ones. (4) This new pruning system is light in character, and removes principally slender, horizontal or downward growing wood in the lower and central portions of the tree. (5) It requires less time and is less costly than the more conventional methods in common use, facilitates spraying, thinning and harvesting.

SHALL WE SPRAY IN AUGUST

Questions Answered by Dr. C. L. Fluke

QUESTION: Is it advisable to spray apples in August? If so, what should be used?

Answer: Because of residue problems it is always well to avoid an August spray if possible. If the first brood of the codling moth has been well controlled the August spray can be omitted and of course should never be put on nearly maturing varieties.

If the codling moth is quite active as shown by numerous worm holes of by **catches of the moths in bait pens,** a spray around the 10th to 15th of August on winter varieties should be applied.

Beware of Apple Maggot

In those territories, however, where apple maggot occurs, it is necessary to spray around the last of July or the first of August. Some growers prefer to combine these two sprays, delaying the apple maggot application a few days and putting the codling moth spray on a little early, so that they put on an application along about the first week in August.

Lead arsenate is the material and should not be used stronger than 1 pound to 50 gallons of water. Those who add a fungicide should be careful of the material they use if the weather is hot.

White Grub Control

QUESTION: What crops can be used in a rotation for strawberry beds that will help to check grub worms?

Answer: It is well known that June beetles, the adults of white grubs will not lay their eggs in sweet clover or alfalfa land. Therefore these crops can be used in the rotation and should be in the soil the year the beetles fly. In most northern counties the years will be 1938, and every 3 years thereafter. If strawberries are planted on such land in the years of 1939, etc., they should be free from grub attack.

C. L. Fluke

CRANBERRY CROP LOOKS GOOD

CROP prospects on cranberry marshes are very good up to the present time. (July 8) It looks like a 75,000 barrel crop again. However, we cranberry folks are not inclined to count chickens before the hatch for much can happen. So far there is plenty of water in reservoirs and not too long between showers so it has not been necessary to raise water in the ditches to wet up the bog. Last Saturday a heavy hail storm missed this cranberry township by a few miles. It would have been just too bad for us if it had been through this territory, instead.

There was a heavy fire-worm hatch this year but with plenty of water and cool weather, earlier, they were pretty well taken care of. In a week or so about 200 acres of vines will be dusted by air-plane for control of the blunt nosed leaf hopper—carrier of false blossom disease.

Our annual summer meeting will be held at Wisconsin Rapids August 9.

Our past mistakes always bother us, especially at night when we sit around wishing we were young enough to repeat some of them.

HOW WE PICK AND GRADE APPLES

J. C. Schubert, Gays Mills

WE pick three-fourths of our fruit for color and ripeness which of course compells us to pick these trees as many as five times. For this reason we do better by bringing the apples to a central point for packing.

We pick into the 9 ply Wenatchee picking bags and empty into standard bushel baskets in which they come to the packing tables. We then sort in two ways. The regular packers pour these apples onto a canvas table, and sort and pack into two grades by picking these apples from the tables right into the packing forms. The rush packers that we have to put on from time to time sort the apples right from the picking baskets into the forms.

We use full liners for all grades of fruit. On some varieties of apples that ripen and color enough to pick clean, we pick into pails and pack close to the pickers, in which case the picker delivers the apples to the packing tables. They are then packed right from the pail into the forms for the various grades. We grade only 2½ up to 2¼. The balance is either sold bulk or unclassified. Hand picked fruit is kept separate from the drops by the pickers.

We think the full basket liner with the 56 inch top fringe and top cushions gives us best results. Apples packed in good tub baskets show the least damage when taken out of cold storage. We like a bushel basket for orchard containers better than crates.

We use the pointed orchard ladder mostly, but at times we use a step ladder to get apples that hang out on the trees. It saves some fruit being knocked off wherever you pick a tree 4 or 5 times for color.

SWEET CLOVER FOR WHITE GRUB CONTROL

MANY times the question is asked, "What can we do to get rid of white grubs which ruin our strawberry fields?"

In this issue Dr. C. L. Fluke answers the question — "What crops can be used in the rotation to check grub worms."

In discussing the matter with Dr. Fluke he states that the June beetle which lays its eggs in the northern part of the state during July and in southern sections, during warm seasons, probably from the middle of June on, prefer to lay their eggs in sod and grain fields, **particularly quack grass fields.** They do not like sweet clover. If the June beetle lands where sweet clover is growing it gets restless and flies away.

Sweet clover is the best soil builder we have and also one of the best crops for mid-summer pasture for cattle during the dry spell in July and August. We believe the tendency to substitute sudan grass is unfortunate because sudan grass is a soil robber. If this country is going on a program of soil improvement, we certainly cannot recommend sudan grass, millet and similar crops which are very hard on the soil, leaving little to be turned under of any value.

If sweet clover is sown with a grain crop early in the spring, it will make sufficient growth by July so that it will protect the field so that the June beetle will not lay their eggs in the soil which hatch into white grub. The following year the sweet clover can be pastured and the following spring it can be plowed under, leaving the soil in a much improved condition due to the heavy root system and the nodules on the roots which will make an excellent field for strawberries or raspberries.

Protecting Cherries From Birds

AN automatic acetylene exploder is recommended by Michigan State College to protect cherries from birds. The report from this automatic exploder resembles that of a 12 gauge shot gun and is inexpensive to use.

A complete description of the method is given in circular No. 160 entitled "Protecting Cherries from Birds," published by Michigan State College, East Lansing, Michigan. The summary of the bulletin is as follows:

The loss occasioned by birds, especially robins and starlings, attacking ripening fruit often is very heavy.

Methods of protecting individual trees or whole plantations from those attacks heretofore available have been relatively unsatisfactory and expensive.

A device that frightens birds away by means of regularly-timed explosions has been tried and found effective in cherry orchards against the depredations of robins and starlings.

The cost of using this device is very low in comparison with the savings effected.

During the 14 to 17 days that seem necessary to afford protection to a sour cherry crop, there is no evidence that those birds become more accustomed to the exploders in the end than at the beginning of the period.

In the case of other types of crops that may require much longer periods of protection against those or other types of birds, the preliminary trials afford no assurance.

We always called a spade a spade until we hit our foot with one the other day.

Fruit Growers Summer Picnic

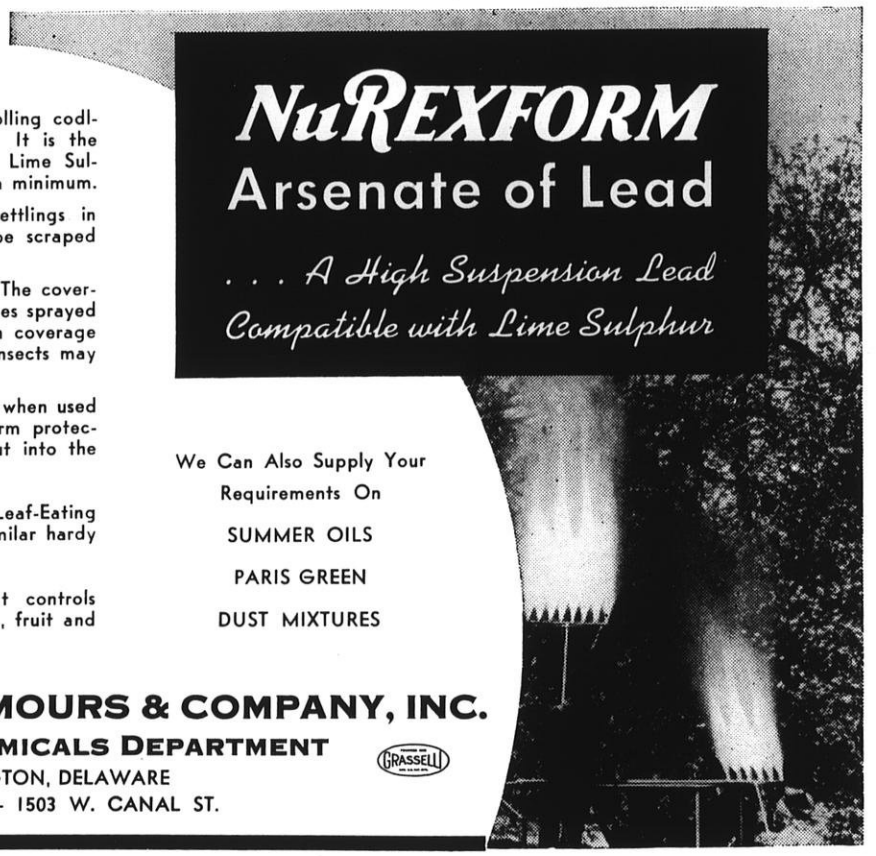
Milwaukee County, Thursday, September 2

THE Southeastern Wisconsin Fruit Growers Association will hold a fruit growers picnic at the Alfred J. Meyer farm, corner of Highway 41 and Ryan Road, Milwaukee County, on Thursday, September 2nd.

There will be a tour to nearby apple orchards, a picnic luncheon at noon, and a program with speakers beginning at 1:30 p. m.

As we go to press, the committee has not yet met to make detailed plans, but there will be an out-of-state speaker as well as several from the Wisconsin College of Agriculture. There will also be exhibits of spraying and harvesting equipment.

All members of the Wis. Horticultural Society invited. Bring the family.



NuREXFORM is unusually effective in controlling codling moth and many other chewing insects. It is the ideal Arsenate of Lead for combining with Lime Sulphur, the natural reaction being reduced to a minimum.

NuREXFORM remains in suspension. No settlings in the tank of your sprayer—no sediment to be scraped off the bottom and thrown away.

NuREXFORM is of uniform strength always. The coverage is not too thin and watery on the first trees sprayed —nor too heavy on the last trees. This even coverage leaves no unprotected gaps where chewing insects may attack.

NuREXFORM will not clog screens or nozzles when used in a clean tank. NuREXFORM assures uniform protection for the entire orchard. Every ounce put into the sprayer tank reaches your trees—no waste.

CALCIUM ARSENATE— is used to control Leaf-Eating insects on cotton, potatoes, tomatoes and similar hardy plants.

DUTOX — A non-arsenical insecticide that controls Beetles and Leaf-Eating insects on vegetables, fruit and tobacco. Applied as dust or spray.

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GRASSELLI CHEMICALS DEPARTMENT

WILMINGTON, DELAWARE

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THE APPLE AND CHERRY OUTLOOK

EVERY fruit grower knows, of course that the apple and cherry crop in Wisconsin will be larger than the short crop of last year. This is especially true of the cherry crop.

The Federal and State Crop Reporting Service estimates that the 1937 cherry crop for the United States will be 159,560 tons compared to 150,160 tons produced last year.

The apple crop in Wisconsin is estimated at 84% of normal compared to 61% of a year ago. The estimate for the United States as a whole indicates a crop somewhat larger than average.

The nation's peach and pear crop will also be larger than a year ago.

SMALL SIZE APPLE GRADER WORKS WELL

WE like the Buttler Grader for its simplicity of operation. It can be placed in action and likewise stored away in but a few minutes. Folds together similar to a card table, takes up very little space and yet it is durable. It can grade approximately 3 to 4 hundred pickers bushel boxes per day (9 hours) with 4 people. In our opinion it is a good grader for an individual apple grader and packer.

We pack in 3 sizes and in bushel baskets. ave never tried the packages. Would be interested to hear other opinions. We pick in boxes containing approximately one bushel. We use a picking ladder made in California. It's an exceptionally good ladder.

GILLETTE GO!

Barber: "What's the matter? Ain't the razor takin' holt?"

Victim: "Yeah, it's taking holt all right, but it ain't lettin' go again."

EARLY HISTORY OF THE TOMATO

THE tomato, a present-day vegetable favorite, was originally found in South America, which is indicated by the names given to the plant by 16th century botanists. Guilandinus of Padua, in 1572, called it "Tumatle Americorum" and Anguillara, in 1561, named it "Poma Peruviana." It is said that Columbus brought a specimen from America as a present to Queen Isabella of Spain.

De Martius found the plant growing wild in the neighborhood of Rio de Janeiro and Para.

Tomatoes were eaten by the Nahua tribes and by wild Mexican tribes. They were called "Tomatl." Hernandez, in 1651, wrote a chapter describing several varieties of tomato.

Rumphius had seen the plant in gardens in the Malay Archipelago. The Malayans called it "Tomatte," an American name.

In Europe the earliest mention of tomatoes was by Matthiulus, in 1554, who called them "Pomi D'Oro." They were, however, considered poisonous.

Parkinson, in 1656, speaks of the plant as grown in England for ornament and curiosity only.

The first attention given the plant in American gardens was apparently by Jefferson, who saw it in Virginia, in 1781.

Tomatoes were introduced into Salem, Mass., about 1802, by an Italian, but he found it difficult to persuade people even to taste them.

In Connecticut the first tomatoes were raised about 1832, only as a curiosity. Our great-grandmothers called the pretty fruit "Love Apples" and believed them to be poisonous.

A monument should be erected to the brave man who first ate the sun-reddened shiny tomato.

The use of the tomato became general about 1835 to 1840. Now it is grown and eaten all over the world. It is a principal crop for canneries and is used to make catsup, chili sauce, tomato juice, tomato pulp, etc.—From The Farm Journal.

NEW WHITE CLOVER FOR LAWNS

A NEW white clover, which promises to be superior to all other clovers for lawns, has recently come into use. It is known as Kent wild white clover and is described by Professor Ralph W. Curtis of Cornell University as being smaller in leaf than Dutch white clover. It also forms a more compact, finer-textured sward. Still another advantage that it has over Dutch white clover is that it spreads more quickly and is more persistent.

Kent wild white clover is a true perennial and will survive indefinitely if kept closely mowed, whereas Dutch white clover seldom survives more than two years, although the plants often reseed themselves. The Kent wild white clover is, therefore, suggested to those who like clover in the lawn in preference to Dutch white clover, which has been commonly used in the past.

Like all clovers this plant will manufacture its own soil nitrogen by means of bacteria in the nodules on the roots. Therefore, no nitrogen fertilizer is needed on a clover-filled lawn.

The dense clover leaves also have the advantage of shading the soil in hot summer weather and keep the soil temperature down lower than in a lawn planted only with grass. The result is that the grasses in a mixed clover lawn grow better than in a lawn without clover. In this way the person who does not object to clover can have a lawn which is greener and one which requires no nitrogen in the fertilizer program. — From May Horticulture.

Raspberry Prunings Cut With Ensilage Cutter

THE problem of keeping up the humus supply in the soil is being given more and more attention. In the May issue of the Michigan Quarterly Bulletin, Mr. H. A. Cardinell of the Horticulture Department gives the results of an experiment in Michigan whereby raspberry prunings were cut up with an ensilage cutter and used as a mulch in the raspberry field. Mr. Cardinell states:

"Michigan has been experiencing a gradual reduction in raspberry yields, as was pointed out by Teske, who wrote: 'It is a common remark in the raspberry section of the southwestern part of the state that raspberry yields are not what they once were, that the patches do not last, that they run out in a few years.'

Require Humus

"The raspberry in the wild state prefers moist, well-drained soils, high in humus content, but when such new lands are put under cultivation with raspberries they soon fall off in performance. Part of this reduction in yield is due to disease, cold winter, and other causes, but a large share is undoubtedly due to **reduced natural soil fertility** and to **reduced organic matter content of the soil.**

Tops Provide Two Tons Humus Per Acre

"A somewhat novel way of maintaining the supply of organic matter in the soil in a raspberry plantation has been employed by Carl Schweikert of Hopkins, Mich. By weighing the green prunings after removing the old canes in the summer following harvest he found that the average weight of green canes and leaves was two tons to the acre and he estimates that the spring pruning removes another half ton per acre. To prevent this loss in humus-forming material Mr. Schweikert since 1933 has used his ensilage cutter, hauled and powered by a tractor, to grind the prunings and deposit them in a finely chopped condition beneath and behind the machine as the equipment passes down the rows. The rows are 50 rods long and the tractor and 'brush-eater' shreds all the prunings from each row in 15 minutes and leaves the residue in such a finely chopped state that it can scarcely be seen on the ground. Apparently this finely chopped refuse is quickly decomposed in the soil, for very little coarse material is found during the following season's cultivation.

"No sooner was the plan considered of returning shredded prunings to the soil than arose the question of possible virus disease spread. Plant pathologists and nursery inspectors were consulted. The majority did not believe that mosaic-carrying aphids would be present on old canes that late in the season. The owner has kept the acreage rogued and during the four years the prunings have been returned to the soil, there is no evidence that disease has increased. There is, in fact, six years after planting, almost a perfect stand of plants."

THE "THIN WOOD" METHOD OF PRUNING BEARING APPLE TREES

NO commonly employed orchard operation has been characterized by such great diversity in practice or technique as that of pruning. Though it has varied in amount from practically nothing at all to extremely heavy cutting, and both extremes have their vigorous supporters, the general or conventional practice has been to prune heavily, especially in the upper portion of the trees. Earlier investigations led to the conclusion that much pruning given bearing apple trees is too heavy and results in distinct financial loss to the grower through reduction in yield. The publicity given to these findings resulted in distinctly less severe pruning in the state. This study was followed by a later investigation of the bearing capacity of wood of different types found in trees. It has been found that for the most part the thick, stocky, more upright growing branches—two to five years old—produce fruits of relatively large size and good color, while the slender or "thin," more horizontal or drooping branches produce fruits of small size and poor color. Most of the fruit that requires culling because of unsatisfactory size or color is borne on wood of this latter type. These facts have been made the basis of a pruning system that differs materially from what have come to be conventional practices. This system involves removal of practically all the slender branches, regardless of how open it makes the center of the tree, and leaves practically all the stout, stocky branches, regardless of how thick and bushy it may make the outside and top portions of the tree. Experiments that have extended over several years show that this method of pruning effects a substantial improvement in grade of fruit without any considerable reduction in quantity. Publicity that has been given the results of this study is bringing about a general change in the method of pruning bearing apple trees in Michigan.—From Michigan Experiment Station Report.

THE GATES OF EDEN

Little Town Girl (who has spent day in country for first time, having hitherto played only in parks): "Daddy, what time do they shut the country up?"

In the Berry Patch

BAYFIELD HOLDS STRAWBERRY KING CONTEST AND STRAWBERRY SHOW

WISCONSIN'S first strawberry king contest was held in connection with the Bayfield Strawberry Festival at Bayfield, July 2nd. Entries from various sections of Bayfield county were judged by County Agent R. J. Holvenstot of Washburn and H. J. Rahmlow, Secretary of the Horticultural Society.

The winner was Mr. William Luttman of Herbster who won the title and the prize of $15 on a three-fourths acre of Beaver and Senator Dunlap strawberries grown on a new breaking. The patch was in perfect condition, withstanding the drought conditions in that section very well due to the large amount of humus in the soil.

Second prize was won by Mr. J. L. Brautigan of Bayfield on a one-acre patch of the new variety Dorsett. These plants stood up even better than those on the Luttman Farm, but unfortunately there were some missing hills due to white grub injury.

Mr. Luttman was crowned the strawberry king of 1937 at the beginning of the parade during the Festival on July 2nd. In addition he was presented with an honorary recognition certificate of the Wisconsin Horticultural Society, and a prize of $15 by the Bayfield Peninsula Fruit Growers Association, the award being made by Carl Sundquist, manager.

Dorsett Outstanding at the Show

A strawberry show of crates of all the leading varieties and also a class for four quarts brought out some very fine berries. Dorsett was the variety that attracted the most attention. The champion crate in the show was the first prize crate of Dorsett exhibited by Mr. J. L. Brautigan of Bayfield. In the opinion of the judges who were County Agent G. I. Mullendore, Sturgeon Bay, and County Agent J. F. Magnus, Ashland, and H. J. Rahmlow, this was the best crate of berries they had ever seen. The Fairfax and Catskill varieties also looked well, greatly surpassing the older varieties in appearance at the show. Other prize winners were Mr. and Mrs. J. M. Black, Mrs. C. J. Turner, J. J. Smith, Ola Bakke, and Ed. Betzold all of Bayfield, and William Luttman of Herbster.

A very large crowd attended the festival. Strawberry growers took a leading part in the parade which followed the crowning of the king.

CROWNING THE STRAWBERRY KING

Left to right: Carl Sundquist, Mgr. Bayfield Pen. Fruit Growers Assn., who presented Wm. Luttman, Herbster (center) with check. Right, Mr. Karl Reynolds, Pres. Horticultural Society who announced the winners and crowned the king.

An Irishman's attic caught fire. His wife, running for the nearest available water, seized the kettle from the fireplace. On her way up the stairs she was met by Paddy. He stared aghast at the kettle in her hand. "Mrs. O'Toole," he said sadly, "but it's a fool ye are. Fancy trying to put out a fire with hot water!"

SPACING STRAWBERRY PLANTS PAYS

DR. Geo. M. Darrow of the U. S. Department of Agriculture states that the reason why some Eastern growers obtained as high as 12,800 quarts of strawberries per acre, was due to plant spacing.

The plan is to set the plants slightly farther apart in the rows than usual, and cultivate well. Then, he states, "After a good many runner plants have formed the grower sets or pushes the runner plants into the soil in the place where they should grow, in two rows 12 inches apart if the double-hill system is used, or spaced 6 to 11 inches apart if in the matted row. All extra runners are removed."

The runners must be clipped at least once a month through September depending upon the condition of the soil and how the plants grow. Returns per acre on the Blakemore variety at the experiment station at Willard, North Carolina, gave no profit per acre from **a 30-inch densely matted row,** $281 per acre where plants were spaced 6 inches apart, and $302 profit per acre where the plants were spaced 9 inches apart.

What we need is larger and more vigorous plants with less crowding of plants. In case of very dry weather as it was this year at Bayfield during the picking season, densely matted rows on sandy soil just "went to pieces." The leaves wilted and the berries failed to reach any size. Where there was more humus in the soil and varieties such as Dorsett with a more vigorous root system were used, the crop was better. A heavy hay or straw mulch, of course, is a big factor in moisture conservation during dry weather.

This Season With Strawberries

H. H. Harris, Warrens

I NEVER saw nicer Beaver and Premier strawberries than this year. The Beaver stands up the better of the two in hot or wet weather.

Catskill Good Producer

The Catskill was surely a wonderfully productive berry again this year. Mr. Victor Orchard says he is going to set an acre next year. They seem to carry well. They have rather a tough stem to pick and are inclined to pull off some of the unripe fruit. The heavy loaded stems are often a foot tall and fall over in the paths. They look nice in the crate.

We had plenty of rain to carry our crop through the season.

Mulch Important

The hay mulch surely helps hold the moisture so it does not run off as it falls and protects the moisture from the sun.

Everybody seemed to be hungry for strawberries this year. Patch pickers came every day. The well cared for second year fields were fully equal to the new. I guess the general feeling is to continue growing strawberries.

Yield Records of New Varieties

We kept a yield record of the new varieties this year with the date of picking and the number of quarts of each variety picked each day. The following is our yield record.

The Catskill — an 84 foot row produced 85 quarts or at the rate of 664 crates per acre.

Dorsett, 84 foot row produced 55 quarts or 440 crates per acre.

Fairfax, 66 foot row, 52 quarts or 520 quarts per acre.

Grand Champion, 84 foot row, yielded 64 quarts or 500 crates per acre.

Senator Dunlap, a 66 foot row yielded 32 quarts or 320 quarts per acre.

We did not have any Beaver or Premier in this plot.

The Grand Champion, however, is too soft for shipment and has not an especially good flavor. Most people choose the Dorsett flavor. However, some of the early blossoms of the Dorsett were injured by the cold as they are borne high up above the leaves.

STRAWBERRIES IN DOOR COUNTY

Don Reynolds, Sturgeon Bay

THE strawberry crop here was just about finished on June 9 except for a picking or two on the muck land and irrigated beds.

Experience With Irrigation

The total rain fall from May 22nd to July 8th inclusive amounted to only 2.72 inches, which amount certainly was not enough to produce even a fair crop of berries. In our own case, we added as much as 8 inches of water in applications not exceeding more than 1.3 at any one time. This was always added to the beds in the late afternoon and early evening. We found that our yield was far superior to any unirrigated beds, but we feel that our success with irrigation would have been much more pronounced had we added a liberal supply of nitrogen either late last fall or early this spring. We believe that when irrigation is used, a much greater quantity of available plant foods are necessary to produce the maximum crop which should be obtained.

Varieties

At the beginning of the picking season, the Beaver and Premier varieties stepped right out ahead of the old reliable Dunlap and Warfield, but after the first three pickings the Dunlap and Warfield came into their own. The final results show that on a like acreage under similar conditions they produced the greater number of cases. The actual figures on this are not yet compiled.

We were disappointed with the Dorsett variety for several reasons. In the first place, the heavy frost of June 10th seemed to take an exceptionally heavy toll from the Dorsetts. Although we got several large berries from our one row of Dorsetts, the average size was no better than any of the other varieties. There were several small mis-shapen berries at the end of the season which were, no doubt, caused by frost injury.

Straw Mulch

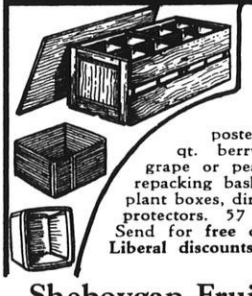
We firmly believe that a heavy mulch of straw between the rows is absolutely necessary in conserving moisture even when irrigation is used. We would not think of raising berries without it.

SKEPTICAL

The one-ring circus was visiting a town in the hills. The folks there recognized all the instruments of the band except the slide trombone.

One old settler watched the player for quite some time, then, turning to his son, said, "Don't let on that you're watching him. There's a trick to it; he ain't really swallerin' it."

Berry Boxes and Crates



SAVE at Sheboygan on your box and crate needs. Check our made up or K. D. berry boxes, crates. Be posted on our American qt. berry baskets, Climax grape or peach baskets, till or repacking baskets, pansy baskets, plant boxes, dirt bands, veneer tree protectors. 57 years in business Send for free circular with prices. Liberal discounts on early orders.

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Horticultural News

A. F. Yeager, North Dakota

SEED stalks from rhubarb should be removed as fast as they appear.

The Central Experimental Farm, Canada, reports that a deficiency of potassium in the soil greatly reduces the hardiness of strawberry plants.

In cultivating garden crops do not cultivate any more deeply than is absolutely necessary in order to destroy weeds. Continual stirring of 3 or 4 inches of soil will prevent any roots from growing in this area or else cut them off after they have occupied it. The result is that any rain which does not penetrate through the upper 3 or 4 inches of soil will not supply moisture to the roots. Repeated cultivation experiments have shown the desirability of shallow cultivation and with most crops there is no benefit from any cultivation beyond that necessary to kill weeds.

"House and Garden" calls attention to the fact that lilacs do not need to be pruned back each year after blooming as do many other shrubs. In fact, it is detrimental. They do best when given plenty of room and plenty of sun.

Carl D. LaRue in "Science" reports a test with dandelion flowers to determine at what stage dandelions' heads cut from the plants would produce seed which would grow. He found that a dandelion flower could fully open, the head close and the corollas (the yellow parts of the flower) falling before cutting without the seeds being far enough along to germinate. He says that apparently until the white of the dandelion pappus (down on the seed) begins to extend beyond the closed flower tip, the heads may be cut and allowed to dry on the lawn without danger.

From North and South Dakota Horticulture.

The Garden Club Exchange calls attention to the fact that if in competition a classification calls for a bouquet with "blue predominating" the bouquet must contain not a single pink or yellow flower because if either is present it will dominate any quantity of blue. Incidentally, The Garden Club Exchange, Des Moines, Iowa, publishes a garden club handbook which sells for 50c, and which should be in the library of every garden club.

From North and South Dakota Horticulture.

THE SHELTERBELT

THE 100-Mile Shelterbelt has proceeded with success in the last two years in spite of adverse weather conditions. A Dakota nurseryman who recently made a survey of plantings made in the project in 1935-36, reports a very large survival in most of the area. Apparently the terms of the agreement with farmers has included careful planting and continued cultivation. Ultimate success of the project will doubtless result in a large amount of similar planting on the prairie sections of this state. —From the Minnesota Horticulturist.

If you plan on cutting out some trees next year and do not wish them to sprout from the stump, girdle the trees right now. In that way the roots will be weakened so they will not have the strength to produce many sprouts next year.

INSTEAD OF GRASS

Victor H. Ries
From Nature Magazine

HOW can I grow grass under my maple tree? How can I have grass on my front terrace?

How often these questions are asked. The answer: Don't try to grow grass in impossible places, but use some other plant better adapted to these adverse conditions; some plant that you do not feel you have to mow, thereby loosening its foliage and reducing its vigor and vitality.

There are a number of different plants we can use for this purpose. In fact, the whole subject of ground cover plants is becoming more and more popular as gardeners realize the importance of these grass substitutes.

One of the toughest and surest of all these ground cover plants is Ajuga or bugle-weed. Ajuga reptans has dark green leaves an inch wide and several inches in length, growing in rosettes. From this, very much as in some weeds, side shoots grow out an inch or more, root, form a new rosette of leaves and so on. In this way a considerable area is soon covered solid with this rich, dark green foliage. From each cluster of leaves there arise, several inches above the foliage in the spring, clusters of dark blue flowers. There is a horizontal-leaved variety and a variegated-leaved variety.

The bugle-weed seems to grow equally well in sun or dense shade, being satisfactory under beech or maple trees. It can, in the sun, when growth is adequate be mowed as grass. Propagation is easy, being done merely by digging and transplanting the new rosettes of leaves as they develop.

In Garden Digest.

DON'T FORGET

the Fruit Growers Summer Meeting on Sept. 2. **See page 269.**

The Formosa Lily

Introduced From Formosa Many Years Ago, It Wins Sudden Popularity

ALTHOUGH Lilium formosanum was introduced by the late Dr. Ernest H. Wilson in 1918, ittle was heard of it until recently. Now it seems likely to become as popular as the Regal Lily, which Dr. Wilson also introduced and which is the most widely planted of all lilies, at least in America. The introducer believed this new lily to be a form of L. philippinense, but the tendency now is to class it as a separate species. Whether or not this is botanically accurate, it is at least horticulturally convenient. The Formosa lily is unique in that it will bloom the first year from seed if the seed is sown early under glass.

There are three recognized varieties of L. formosanum: a dwarf kind (Price's variety) that blooms in mid-summer; an intermediate form that blooms later, and grows a little taller and which should be technically considered a form of Wilson's variety; and a large-flowered, tall, late-blooming variety (Wilson's). Price's variety is found far up the mountainsides and is considered hardier than Wilson's variety, which is found at lower altitudes, where it is said to be in bloom every month of the year.

Some ardent supporters of this lily have declared it as hardy as regale. Hardiness is a comparative quality and other things than low temperatures may cause loss of bulbs, but I do not class it with the hardy lilies. It will go through the winter safely with protection, however. Propagation of this species is so easy from seed that no other method is necessary.—By C. L. Shride in Horticulture.

A COMMUNITY FLOWER PROJECT

"ROSES will line the highways into Birmingham, is a story which comes from that city where the first of 5,000 rose bushes were planted in January on Birmingham's Rose Trail," writes Mr. C. P. Holway of Milwaukee.

Mr. Holway thinks that Wisconsin cities could well afford to follow the example of other cities in the country in using flowers to promote their community, especially since we are trying to attract tourists during the summer. He writes further:

"San Diego's newly organized Heaven-on-Earth Club is promoting the poinsettia, and plans an annual poinsettia festival. Park authorities will be asked to plant the flowers in parks, and citizens are being urged to do the same in their yards and gardens.

Azalea Trail

"Back again in Alabama, we find that Mobile has a seventeen-mile-long Azalea Trail. It was begun in 1928 under the sponsorship of the Mobile Junior Chamber of Commerce. Last year, by actual check, 59,839 persons passed over the trail. This year, during the Azalea season in March and April, greater crowds are expected, and gardeners state that favorable weather promises a bigger bloom than ever before.

"With Wisconsin now engaged by law in a program to attract more tourists to the state, it would seem to be a good time to suggest that Wisconsin regions, cities, towns and counties look into the opportunities to follow the examples cited above.

"Perhaps some native flowers may be employed more fully to produce something as distinctive as the Azalea Trail and the Poinsettia Fete."

Wisconsin Rapids is doing a great deal with their lilac planting. Several cities are planting hollyhocks. Whichever plant is chosen, it is our opinion that the plant must be distinctive and beautiful—as beautiful as the rose, poinsettia or azalea. It must also lend itself to street and highway planting as well as in the garden.

KINNIKINNICK

THE Kinnikinnick (Arctostaplylos uva-ursi) or, as it is sometimes called, the Bearberry, is a lovely low trailing evergreen, flourishing in a wide range of latitude and altitude, and withstanding almost any degree of cold. The plants have roundish, glossy leaves and grow in thick masses completely covering the ground, rock, walk or old logs over which it trails. The small flowers are white tinged with red. The fruits give a brilliant effect, which is even more valuable than that produced by the foliage and flowers. The fruit is a bright red berry which persists during the autumn and early winter and is a favored bird food. Exempt from pests, good the year round and in every respect pleasing and satisfying it is by some considered the very best ground cover for the north, and because of its merits should be used more than it is in northern gardens. Well drained soil, in shade or position not exposed to dry winds—especially in winter when not covered by snow, are desirable.—Merle Rasmussen, Oshkosh.

Sipper: "Boy, take your thumb out of that soup."

Messman: "Dat soup ain't hot, captain."

EDITORIALS

NEWS ABOUT THE SOCIETY

OUR Vice-president, Mr. R. L. Marken, Kenosha, returned his salary check as Vice-president of the Horticultural Society which is $25.00 per year, asking that we place this amount in the endowment fund of the Society.

This fund is growing steadily. Life membership dues and profits from the sale of English walnuts are added to it.

Mrs. H. H. Reese of Madison became a life member of the Wisconsin State Horticultural Society recently. We appreciate Mrs. Reese's interest in our work.

Mr. P. G. Beer of Port Washington, Wisconsin, became a life member of the Wisconsin State Horticultural Society during June. We welcome Mr. Beer as a life member of the Society.

INTERNATIONAL HORTICULTURAL EXPOSITION WILL NOT BE HELD THIS YEAR

A LETTER from the Union Stock yards, Chicago, states that the International Horticultural Exposition which was held last year in September will not be held this year at the International Ampitheatre.

We are sorry to hear that it has been necessary to discontinue this show since it was felt that such an exposition had considerable value for horticulture throughout the United States.

WINNERS OF STRAWBERRY CONTEST AT BAYFIELD

Left: J. L. Brautigan, Bayfield, who won second prize on his acre of Dorsett berries and exhibited the grand champion crate of berries, Dorsett variety, at the show; shown above. Right: Mr. Wm. Luttman, who was crowned strawberry king at the Festival.

COMING EVENTS

AUGUST 18-19. Boston, Mass. The Annual Exhibition of the New England Gladiolus Society at Horticultural Hall.

August 28-29. Rochester, N. Y. Annual Exhibition, Empire State Gladiolus Society.

September 18-19. Indianapolis, Ind. Annual Meeting, American Dahlia Society.

August 14-15. Wisconsin Gladiolus Show, Eagles Club, Oshkosh.

August 21-29. The great Wisconsin State Fair, State Fair Park, West Allis.

LEGISLATURE INCREASES APPROPRIATION OF SOCIETY

THE Wisconsin Legislature and the Governor's office this year recognized the work of the Wisconsin Horticultural Society by increasing our appropriation in Budget B by $1,000 per year. The officers of the Society greatly appreciate this consideration which will help to make up the deficit in our last year's budget for which we were drawing on our reserve fund, and will enable us to spend more money on projects such as fruit and ornamental testing throughout the state, provide better programs at meetings, and develop our new project of preparing motion pictures on horticultural subjects to be shown to the members of our 91 affiliated organizations throughout the state.

We do not definitely know as yet just what portion of the $1,000 we will get because the law provides that it can only be given if the income of the state is sufficient to meet the increases under Budget B.

In addition, the Society is increasing its Endowmen Fund through life memberships, donations and revenue from the sale of Carpathian English walnuts. It is the plan of the Society to build up this fund to an amount which will cover the life memberships sold in bygone years so that the income when this money is invested to draw interest will pay for the cost of the magazine which is sent to the life members.

Wisconsin Beekeeping

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPER'S ASSOCIATION

Supplement to Wisconsin Horticulture

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Vol. XIII | JULY - AUGUST, 1937 | No. 7-8

Sweet Clover Necessary For Large Honey Flow

WE do not believe it possible to obtain a large honey crop in Wisconsin year after year unless a yard it located near sweet clover pasture. Other sources of nectar are too variable and of too short duration for a large crop. White and alsike clover may bring in a good crop but it is of short duration and usually the colonies are not at their best the latter part of June. Sweet clover, however, blooms for a long time and colonies have more time to become strong.

Just what we can do to induce dairy farmers to plant more sweet clover for pasture is a problem. Just now we understand there is a tendency to recommend sudan grass (which is a soil robber) as a summer pasture because it is an annual crop. It will be very unfortunate for the beekeepers if sweet clover is abandoned. Sweet clover is certainly of greater value than sudan grass because it is a soil builder, leaves nitrogen in the soil on the nodules of the roots, and is available for pasture over a longer period than is sudan grass. During the heat of July and August it is safer than alfalfa because it does not cause bloat.

Experience With Locations

A small orchard or dense woodlot is an excellent place for the bees during the cold windy weather of spring. We found yards in orchards to build up faster this spring than those more exposed. We have one yard which was not doing well during April and May so we decided to move half the colonies to a better yard and we took all the stronger colonies away. They did a little better during May and early June in the new yard, but in July we discovered that the weaker colonies in the old yard were bringing in the most honey. On investigation we found them flying to an 8 acre sweet clover pasture of which we had not been aware. The farmer was pasturing it only lightly in the hopes of raising a crop of seed and the bees were getting the benefit.

Unfortunate Beekeepers

There are two kinds of beekeepers who do not make money. The one who takes good care of his bees but does not get a crop due to a poor location, and the one who does not take good care of his bees and does not get a crop no matter what the location is. To make a living from bees one must be a good beekeeper and have his bees in a good location. That may mean that the commercial beekeeper depending entirely upon his bees for a living will be at least partially migratory, moving to a better location when necessary.

It's a sure thing that we can't get honey when there aren't any flowers to get it from.

STATE PROVIDES $31,000 ANNUALLY FOR BEE DISEASE CONTROL

THE appropriation of $31,000 annually for the next two years for the control of American foulbrood passed the Legislature and was signed by the Governor on July 12th. There is considerable rejoicing among the beekeepers of Wisconsin as they now feel that the disease will be driven from the state and honey production become a safe industry without constant fear of loss from disease.

The officers of the Wisconsin Beekeepers Association wish to express their appreciation to the members for their support of this bill. If you followed the newspaper reports of the final days of the session, you will have read that over 400 bills died due to adjournment of the Legislature on July 2nd. The fact that this appropriation bill was singled out and put up for passage the last few days of the session, shows how strong was the sentiment for it. This simply means that the beekeepers back home wrote and telegraphed their State Senators asking their help on this bill.

While a number of individuals did valuable work in guiding the work through to final passage, nevertheless it was the strength and support of the organized beekeepers of Wisconsin that made it a popular measure for which the Assemblymen and Senators wished to cast their vote.

We would like to mention the names of a number of those who helped greatly in securing the

passage of the bill, yet for fear that we will overlook someone who did a great deal, we think it best not to mention any names with the exception of that of Assemblyman Douglas of Waukesha County who, while not a beekeeper, nevertheless introduced the bill and used his influence at all times to secure its passage. He was supported by Assemblyman Millar of Dunn County, Senator Leverich of Sparta, and a number of others.

Mr. Chambers or Mr. Adams will no doubt tell us at our summer meetings what the plans are on this great drive to clean up the state.

Even if the State Association didn't do another thing, it has justified its existence by its work in the year 1937.

With this lesson before us, let us proceed to other important measures for the improvement of the industry. We can even help our neighboring states in securing adequate appropriations as the bees do not regard the state line.

DON'T FORGET THE AMERICAN HONEY INSTITUTE

THERE isn't a beekeeper in Wisconsin who is not in favor of the American Honey Institute and who does not know what it is doing for the producers.

The big handicap the Institute has is in obtaining enough funds to carry on their splendid work. That is always the case with organizations depending upon public support for their funds.

We believe every member of the State Association should become a member of the Institute. Just write the American Honey Institute, Madison, Wisconsin, for an application blank and a pamphlet on what they are doing. Or better still, send in a check at the rate of $1.00 per ton of honey you expect this year as your membership fee.

A MESSAGE FROM THE PRESIDENT

"THE Governor has just signed the bee bill." Those were the happy words that I received in a telegram on July 12th. This is the result of a great purpose that our honey producers started out to accomplish. At each of the hearings it was brought out that producers were backing this measure. Each Senator and Assemblyman received from his district letters and telegrams asking his support for the bill. Fruit growers and clover seed producers were interested in the measure. It would be very hard to say who had the most to do in the successful passage of this bill.

As President of the State Beekeepers Association I would therefore like at this time to thank each and every one of you that helped to put this across, for I am sure that it is the combination of our entire efforts that now bears the fruit.

The next step will be the successful administration of the measure and I would like to ask that all beekeepers give their support and cooperation to the inspectors under the direction of Mr. Chambers and Mr. Adams, when they call at your yard.

A. J. Schultz, President, Wisconsin State Beekeepers Association.

FOR YOUR HONEY CONTAINERS

REMEMBER that the State Association is handling tin and glass honey containers for members at very reasonable prices. The small profit made on these transactions helps the State Association to carry on its work and provide interesting programs at our meetings.

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

HELP WANTED

Strong young man of clean habits to help extract our crop of honey. Write Edw. Hassinger, Jr., Greenville, Wisconsin.

For Sale: 100 standard 10 frame comb honey supers—take $4\frac{1}{4}$x$4\frac{1}{4}$x$1\frac{7}{8}$ sections, painted. Chester Keister, Clarno, Wisconsin.

EQUIPMENT FOR SALE

For sale or trade for honey: Standard 10 frame equipment. Herbert Reim, 924 Labaree St., Watertown, 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

THE SWARMING PROBLEM

REPORTS from all over the country in July stated that there was "heavy swarming" this season due to the cold, rainy weather.

There also was considerable supersedure of queens earlier in the season which is usually the result of "failing" of queens.

It is not always the strongest colonies that swarm, but quite often a relatively weak colony with plenty of room will begin building queen cells. This is probably an effort at supersedure, but if it comes during the swarming season the colony may swarm.

We had a few of these colonies this year and handled them in a very easy manner, using the wire screen cover which has been described at meetings by Henry Schaefer of Osseo.

If we found a colony building queen cells we put all the brood with the queen cells above the colony on one of the wire screen covers. The old queen was left below on one or two frames of brood without any cells. For a few days the inner cover was allowed to remain under the wire screen so that there was no contact between the brood above and the original colony. The field bees return to the old colony making the nucleus above rather weak. We raised a number of young queens in this way though this practice might not be a good one, because we believe in breeding from colonies which do not swarm. We have marked these few queens so raised and will observe them next year to see if they have a stronger swarming tendency than others. A better plan is to kill all the queen cells and substitute a grafted cell from the best queen in the yard.

As soon as the queen above has started laying, the wire screen can be removed and the two colonies united if the lower queen is kept below with a queen excluder. Then when the colony has plenty of brood the old queen is killed and the colony thus requeened with a young queen.

The advantage of this method is that there is no weakening of the colony. If brood with cells is set on a separate bottom board, then the field bees may join the original colony when they are reunited. We have found the method very satisfactory and an excellent one for raising young queens. The wire screen cover is a fine invention because it regulates the temperature in the nucleus.

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

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Schlafer Supply Co., Appleton, Wis.
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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.
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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.

AROUND THE STATE WITH BEEKEEPERS

Members of the Board of Directors Report on Conditions. From N. E. France, Platteville

"I SURELY hope other Wisconsin beekeepers have a good honey crop. Not so with me. The ice of last winter with no snow resulted in no white clover bloom. Early dandelion bloom yielded a fair crop of honey and pollen. Colonies were strong even up to basswood bloom which kept the bees busy for three days, but with the scorching hot sun and temperature up to 98 degrees F., the honey flow stopped. Sweet clover is not furnishing any surplus."

From S. P. Elliott, Menomonie

"Unless we get rain soon our honey crop will be very short. Basswood has just started to open (July 13th) and may give a surplus. We still have 18,000 pounds of last year's honey left. We are very glad to hear that the appropriation bill has passed."

From Edward Hassinger Greenville

"July 13th and we think that our bees have around an average of 125 pounds per colony on the hives, and they are still working. Have had 1,100 sheets of foundation drawn into comb, but colonies of equal strength given drawn comb have a lot more honey, so it does take honey, time and labor to have foundation drawn into the comb.

"Have not had much swarming, only from colonies reaching their peak of strength before the honey flow. Sweet clover is our main crop here and without it we think we would not have much of any honey. Second crop of alfalfa may yield if the weather is favorable and if left to blossom long enough.

"Unfortunately farmers are damming sweet clover as just another weed and are getting rid of it as fast as they can."

(Something must be done about that—Editor)

From F. J. Paepke, Burlington

I am happy over the success of the appropriation. It was quite a struggle and we should all appreciate it very much.

It seems to me that in this section the beekeepers should not complaint about crop prospects so far. Bees built up wonderfully on the early bloom, and although cool weather induced swarming, yet the bees are working overtime now on sweet clover, white clover and catnip.

IN THE BEE YARD

WOOD shavings are the best smoker fuel in our opinion. They are very easy to light, the smoke is clean, and they keep fire well. A bale will last many years and the cost is small.

The Wisconsin College of Agriculture has planted a field of Hubam, annual sweet clover, as a soil builder. It is sown with barley and is plowed under late in fall or early in the spring. The cost of the seed is small, 10 lbs. per acre being used. What better soil builder can the farmer get for humus and nitrogen from the nodules of the roots. We will watch if it yields any honey this fall.

It is in seasons like this, at least in southern Wisconsin, that the production of comb honey decreases. During a slow honey flow, bees simply won't work in sections on foundation, while they will store honey in drawn comb. The beekeeper soon realizes that he cannot afford to produce comb honey alone unless there is a heavy honey flow.

Perhaps a combination of comb honey and extracted honey should be used, putting on the comb honey supers during a heavy honey flow, and taking what we get of the crop.

If you have old queens in the hive which didn't build up very fast this spring, August is the time to requeen—either buy a new queen, or raise one. The young queens will lay vigorously this fall and build up a powerful colony for the winter. That's doing a great deal to solve the wintering problem.

FOR SALE

Subject to inspection. 75 colonies bees with equipment for extracted and comb honey. All standard 10 frame in A. 1 condition. Reasonable price. A. W. Perlick, Suring, Wisconsin.

AMERICAN HONEY PRODUCERS LEAGUE MEETING

DON'T forget that the International Beekeepers Conference and the annual meeting of the American Honey Producers League and the American Honey Institute will be held in Washington, D. C., October 25-27.

INDIANA BEEKEEPERS ROUND-UP

"ALL Wisconsin beekeepers are invited to attend the Wabash Valley Round-up by the Indiana Beekeepers Association," is the message sent us by the American Honey Institute.

There will be a special meeting of beekeepers on August 27th and a Round-Up on the 28th, arranged by the Indiana Beekeepers Association. A copy of the program may be obtained from L. R. Stewart, Newport, Indiana.

Prizes are being offered to beekeepers entering honey in a special show, and the ladies have a chance to win some valuable prizes for a prize-winning pound cake.

STRAWBERRY QUEEN CROWNED AT BAYFIELD FESTIVAL

MISS Ruth Paddy of Bayfield was crowned Strawberry Queen for 1937 at the Bayfield Strawberry Festival on July 2nd. Ruth won the strawberry shortcake baking contest held during the forenoon of the Festival in competition with entries open to the entire state. She had won first in the Bayfield County elimination contest in which there were thirteen participants.

Second prize was won by Miss Kate Mallory of Ashland County, and third prize by Miss Catherine Long of Sturgeon Bay. Miss Irene Chape of Bayfield and Miss Mary Nose of Ashland were also prize winners.

The contest was held in the windows of the Public Service Building in Bayfiled in which electric stoves had been placed for the use of the contestants. The spectators watched the demonstration from the sidewalks with much interest.

The queen and her retinue led a special parade in the evening. The prize was a week's trip to Chicago together with a cash prize.

This event, together with the crowning of the Strawberry King and the strawberry show as well as the big parade at 1:30 p. m. drew a large crowd and greatly stimulated interest in Wisconsin strawberries.

A Prize Winning Recipe

2 cups flour
4 tsp. baking powder
4 tbs. shortening
¾ cup milk
1 tsp. salt
1 quart strawberries
1 cup sugar
1 cup whipping cream

Method

Sift dry ingredients, cut in shortening with pastry blender. Add liquid and mix to a soft dough. Toss on slightly floured board or pastry canvas, pat into shape and cut with biscuit cutter. Bake 15 minutes in hot oven (450 degrees F.)

While biscuits are baking, cut berries, which have been hulled and washed, and mix them with one cup of sugar. When the biscuits are baked, break them apart, spread one-half with butter and cover with berries. Then butter second half, place it on top, and cover generously with berries. Top with whipped cream if desired. Shortcake should be served immediately.

This recipe was used by Miss Kate Mallory of Ashland County.

THE STRAWBERRY QUEEN CONTEST

Winners in County elimination contest shown above with the shortcake they baked in the State Contest. Left to right, back row: Dean Chris L. Christensen, Wis. College of Agriculture, Assemblyman Laurie Carlson, Bayfield and H. Treloar, Gen, Chm., Strawberry Festival. Front row: Mary Nose, Ashland Co.; Catherine Long, Door Co.; Irene Chape, Bayfield Co.; Ruth Paddy, the strawberry queen, Bayfield Co.; Kate Mallory, Ashland Co.

OUR COVER PICTURE

THIS month our cover picture shows the Gas Plant Dictamnus—a very choice garden perennial. We wish to thank the Missouri Botanical Gardens, St. Louis, for their courtesy in loaning us this cut.

In this issue will be found an article by Paul Cole, floriculturist, giving some interesting information about the Gas Plant. "It really does burn," says Mr. Cole.

WISCONSIN STATE FAIR AUGUST 21-29

THE Wisconsin State Fair is the greatest exhibition of agricultural products in this section of the United States. It is well worth attending. The admission fee is low. The Horticultural Building is beautiful and well worth the price of admission alone.

The building housing bees and honey is worth another price of admission. In these buildings one meets horticultural and beekeeping friends. It is a great round-up.

WISCONSIN GLADIOLUS SHOW

August 14-15

Eagles' Club — Oshkosh

About the Home and Garden

Mrs. C. E. Strong, West Allis

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.

Molly Anderson Haley

FOR the first time in a number of years, I have had to consider my garden as a part of other folk's gardens and homes. We have a low spreading stone home on the north, a brick colonial house on the south. Luckily the owner of the brick home was a tree lover—and carefully instructed the builder to be careful and not cut a single tree unless absolutely necessary. The result is a perfect setting for the severe line of his home. But my border was dwarfed, the picket fence too obvious. Something had to be done. Lilacs, Mock Orange, Forsythia, Cotoneaster, Hydrangeas, Climbing Roses, were moved, the border widened —and both my own garden and the neighbor's improved.

A big Honeysuckle bush that had been doing its best to hide my favorite pear tree was to be taken out. We started by cutting it nearly to the ground. They are so vigorous, nothing seems to set them back. A deep trench was dug around the bush and it was sawed into sections, each one about all a man could lift. We wanted to save them, for several new gardeners wanted one or more sections as a background for other shrubs. So they were dragged to the back of the yard where a new mulch pile was in the process of making and covered with the cut off branches,

some discarded Christmas trees, etc., until we were ready to use them.

A Lily Bed

The deep yawning spot under the pear tree was to be made ready for a Lily Bed—into it went stones, some tin cans, gravel, coarse manure, more gravel, then a mixture of loam, sand and peat. Into this went pots and pots of lilies that had been growing in the cold frame while the bed was being made ready. These bulbs were not disturbed, but simply sunk deeply, where they have been growing as though they had been there for years. After they are all through blooming, they will be carefully taken from the pots and replanted in the bed.

A Bog Garden

When the cement in a pool starts to crack, it means there will be a never ending job of repair work, or the rebuilding of the entire cement work. After repairing my pool for several years I decided to make a bog garden out of it. All the surplus stone and refuse were thrown into it and then a load of spent hops mixed with some clay, garden loam and peat. There are a number of things growing in it at present, just fillers in for the present, while I am trying out the things I really want to grow. I found that small tiger lily bulbs lived over nicely in this bog, so have planted one or two large bulbs in there.

A friend came with a husky plant of swamp Laurel, (Kalmia) also a swamp Huckleberry. Both plants are growing nicely and the huckleberry has small green fruit. There are several varieties of Primroses that are said to like that sort of a home. Lady Slippers and Pitcher plants can perhaps be coaxed to grow there also.

Hemerocallis

Have I mentioned that Hemerocallis are splendid for the garden? Really when they have grown to good sized clumps—they are nothing short of gorgeous. Unless you have something especially expensive that you wish to increase, do not divide Hemerocallis. Let your clumps stool out until you are getting a hundred and fifty to two hundred blooms. Groups of early and later flowering varieties at intervals through the borders are striking. You may add plants of color contrast, lavender, blue, white or pink near them, making pictures to your liking.

Siberian Iris

Siberian Iris with Hemerocallis make a picture to be long remembered. Plant the early Hemerocallis to bloom with the Iris, later ones to add color to the green foliage of the Iris.

Coral Bells

Heuchera, (Coral Bells) are a splendid edging plant, either in or out of bloom. The foliage is of

good color, plant compact, needs no pinching back, the dainty spires of pink bells harmonize with all flowers. Iberis (Hardy Candytuft) is another good bordering plant. You must shear this one however when through blooming, else it inclines to be straggly. The Iberis blooms early in the spring, but keeps its deep green foliage all season. Heuchera blooms from early June until September.

Astilbe

Astilbes are fine plants to use in one part of your border. where you wish a large display of tulips, first plant your Astilbes irregularly, then plant your tulips. The foliage of the Astilbe will hide the dying tulip tops and make a good display of their own a little later, with no trouble of transplanting. Delphiniums with white Phlox make a harmonizing background.

Planning For Next Year

Are you studying your catalogs nowdays? You should if you are planning on growing perennials. Now is a good time to sow many varieties, in a well shaded, well watered cold frame. Unless something unusual happens, there are to be many Violas growing and blooming in the borders next year. Am also planning many more Concolor Tenuifoliu,m and Golden Gleam Lily bulbs, they are so easily grown from seed.

These are to be planted in pots, and when the rock garden is beginning to look bare of flowers, we will slip these potted Lilies in here and there in drifts. I tried eit this year with Concolors and Tenuifoliums. There were not enough to get the effect wanted.

Bulbs

Some Hyacinth bulbs that had the centers entirely rotted out, were carelessly tossed into a small heap of sand. The other day when I went to get some of this sand, I was surprised to see many small bulbs formed around the outside of these shells. They were promptly planted in a sandy spot, where they can grow their small bulbs.

Begin to think of ordering new bulbs for the garden and house. Plan where you want to put them while your garden is growing and in full leaf.

If you are like myself—moving plants to form your garden pictures while they are in bloom—you must make note of any changes you may wish to make right now. Else you are liable to forget something very important when you start replanting this fall, or next spring.

DERRIS DUST EFFECTIVE FOR CONTROL OF ANTS, APHIDS AND RED SPIDER

FOR the second consecutive year we have found Derris dust to be very effective in the control of aphids and red spider on plants in the garden. Most important of all, we found that it controls ants better and more easily than anything we have ever tried.

We used a formula given us by Mr. J. E. Dudley, Jr., of the U. S. Bureau of Entomology and Plant Quarantine, Madison, which they used in experiments for the control of aphids on peas. Applying this to ant hills which are such a nuisance on the lawn, we found that all the ants were gone about one week after a liberal dust had been applied on the top of the hill. The same thing was true with ant hills which formed about the roots of flowering plants in the border.

We had been unable to control aphids on the new growth of a Concolor fir until we used Derris dust. Within four days after it was applied, there wasn't an aphid left on the fir tree which had in previous years been stunted, because of the damage to the new growth. We started dusting the underside of the leaves of phlox early in the season with Derris and so far have had no trouble with red spider. We anticipate that Derris will become an important insecticide.

We suggest that all garden club members buy a hand duster because it is so easy to use in the garden.

Lime sulphur dust may be used in controlling plant diseases such as leaf spot, mildew, as well as red spider. Lime sulphur, however, does not control other insects, but arsenate of lead should be added which will control the leaf eating insects.

THE AMERICAN IRIS SOCIETY MEETING

THE 18th annual meetin of the American Iris Society was held in Wilmington, Delaware, May 25. Dr. H. H. Everett of Lincoln, Nebraska, presided.

The following varieties received special attention at the Iris Show: Gudrun, San Francisco, Meldoric, California Gold, W. R. Dykes, Dauntless, Pink Satin, Vishnu, Sachem and Indian Chief.

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Gleanings From the Gladiolus Patch

CONDUCTED By The WISCONSIN GLADIOLUS SOCIETY

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1710 Illinois Ave., Sheboygan

Regional Vice-Presidents
Karl Timm, Markesan
F. P. Thomas, Kenosha
G. A. Barrer, Cudahy
M. J. Rahn, Green Bay

A GREAT GLADIOLUS SHOW IN PROSPECT

A WONDERFUL array of gladiolus will be shown at the Wisconsin Gladiolus Show at the Eagles Club, Oshkosh on August 14-15.

The season has been favorable for excellent blooms. Wisconsin Gladiolus Society members are now growing all the leading and best varieties known to the gladiolus world. In fact, Wisconsin ranks at the top in the growing of the best varieties.

This means, therefore, that the Wisconsin Gladiolus Show will be second to none in the United States in quality.

The Fox River Valley is an excellent place in which to hold a show and the attendance is expected to be very good. The Oshkosh Horticultural Society and the Oshkosh Garden Club will take part in putting on amateur exhibits, luncheon tables and shadow boxes.

The exhibit of seedlings alone will be worth making the trip to Oshkosh. We have in the Wisconsin Gladiolus Society some of the leading hybridizers in this section of the United States. So come and see the new things and the best gladiolus in the world.

ADVANCE SALE OF TICKETS FOR WISCONSIN GLADIOLUS SHOW AT REDUCED PRICE

TICKETS for the Wisconsin Gladiolus Show may be obtained in advance at 15c per ticket. The regular admission charge at the door will be 25c.

Tickets will be on sale at various points in Oshkosh and will also be sent to anyone on request. They will be sent by mail to anyone requesting them on application to the Wisconsin Horticultural Society, 1532 University Avenue, Madison, at 15c each, or may be obtained from Mr. Edwin Ristow, 1516 Oregon Street, Oshkosh, or from Mr. O. A. Kapschitzke, 1710 Illinois Avenue, Sheboygan.

WISCONSIN GLADIOLUS SHOW

Auspices

WISCONSIN GLADIOLUS SOCIETY

EAGLES' CLUB

OSHKOSH

AUGUST 14-15

Admission 25c

Advance Ticket Sale, 15c

SUMMER MEETING OF WISCONSIN GLADIOLUS SOCIETY

MEMBERS of the Wisconsin Gladiolus Society are invited to meet at Walter Miller's gardens, Sun Prairie, on **Sunday, August 1st.** This will be the summer meeting of the Society.

Mr. Noel Thompson, Madison, Regional Vice-President, has prepared an interesting program. From 11 a. m.-1:30 p. m. members will inspect the many varieties of flowers growing in Mr. Miller's garden, and eat a picnic lunch. At 1:30-2:30 p. m. there will be a program of talks by leading growers on new varieties, insect control and other topics on gladiolus.

At 2:30 p. m. the Board of Directors will hold a short meeting to discuss the annual show and convention plans.

CHANGES IN GLADIOLUS SOCIETY CONSTITUTION PROPOSED

The special committee, appointed as the result of a motion passed at the last meeting of the Wisconsin Gladiolus Society, has been working on a revised constitution. The following are some of the principal changes in the new constitution which will be presented for consideration of the members of the Society at the annual meeting following the banquet at the time of the Wisconsin Gladiolus Show at Oshkosh, August 14-15.

1. Creation of an Executive Committee to consist of the President, Vice--president at Large, Recording Secretary-Treasurer and Corresponding Secretary, to have charge of the affairs of the Society when the Board of Directors, or the Society is not in session and subject to their approval.

Annual Meeting

2. The annual meeting shall be held in the fall of the year at such time and place as the Board of Directors may direct. This means that a special annual meeting will possibly be held as was held last year the first part of October. It was felt that the banquet at the time of the convention should be devoted to good fellowship and discussion of gladiolus varieties rather than a business meeting and election of officers.

Election of Officers

3. The election of officers shall be carried on as follows: The President with the approval of the Board of Directors shall annually appoint a nominating committee of three members. Such appointments shall be published in the official magazine not less than two months preceding the annual election. The committee shall nominate not less than two candidates for each

vacancy on the Board of Directors, indicating which director each group of candidates is to succeed. All nominations shall be published in the magazine at least one month preceding the time set for the election.

The election shall be by ballot. The ballots shall contain the names of all nominees, one blank line for each vacancy for additional nominations by the members.

Membership Dues

4. This provision has been added to the article on dues. The Board of Directors shall have the power to discontinue the affiliation of this Society with the American Gladiolus Society at their discretion, in which case the annual membership fee shall be $1.00. They shall also have the power to make the affiliation optional to members. Membership dues may be paid at the annual show, the annual meeting, or in January to expire one year from such time.

The above are the principal changes recommended by the committee. Copies of both the old and the new constitution will be provided all members for discussion at the annual meeting.

HISTORY OF THE GLADIOLUS

Forman T. McLean New York

THE first known gladiolus was the wild cornflag, G. communis, of the grain fields of southern Europe, which flowered in early June. Its cerese, pink, or white flowers were little esteemed by the ancient gardeners, being roadside weeds, and were not greatly changed by cultivation. This primitive gladiolus thrives in any cool, sunny situation with good drainage, and is winter hardy, so may be worthy of more consideration than it has ever received. This cornflag and its dozen or so close relatives are all inhabitants of Europe, Asia Minor and North Africa, and constitute a distinct branch of the gladiolus family, only distantly related to the garden strains.

The first imported gladiolus species from South Africa were similar in blooming habits to the native European species, being early spring flowering. But they made their principal growth during the long winter months, prefering to grow in a cool greenhouse. So they were novelties for the fancier and for the most part these dainty species and their hybrids are but fragrant memories, scarcely recognized as gladiolus at all by modern fanciers.

The real beginning of gladiolus popularity came with the summer - flowering, winter - resting Parrot Gladiolus, which blossoms in August from May planting of the corms. The opposite-flowered gladiolus, the purple-eyed G. purpureo-auratus, the dull lavender Parrot Gladiolus, and the bright scarlet little showy gladiolus, G. Saundersii quickly followed. All proved easy to intercross and soon populated European gardens with a bright array of Gandavensis, Lemoini and nanceanus hybrids, which thrive in the mild summer climate of Western Europe, and still form the backbone of the old heavy exhibition type of gladiolus, still favored by such hybridizers as Mair in Scotland, Diener in California, and various breeders in Australia and New Zealand.

From the Gladiolus, 1937, by the New England Gladiolus Society.

WOOD SHAVINGS BETTER THAN SAND FOR STORING BULBS

DURING the past winter tuberous rooted begonia bulbs were stored in both sand and planer shavings. Those stored in sand were totally dried out and did not grow last spring, while those in shavings came through in good condition. They were stored in a medium-warm basement in which there was a furnace. Under such conditions the packing material must retain moisture very well or the bulbs will dry out and be ruined. At least a foot of shavings should entirely surround the bulbs for best protection.

NEWS ITEMS

A little sprig of garden herbs may add that elusive, delicate flavor to salads, soups, meats, dressings, and drinks, which make them delightful to the epicurean taste. Try a few in your garden this year. Basil, borage, chives, peppergrass, fennel, marjoram, mint, parsley, sage, terragon and thyme are a few of the ones most easily grown and most generally used in the culinary arts.

A new variety of Leptosyne that has received very favorable reports from writers in florists trade journals is burdened with the name Leptosyne stillmanni Golden Rosette. As many know, the Leptosyne is one of our really good yellow cut flowers. The new variety is double and blooms practically throughout the summer.

One of the best yellow flowering plants for the flower border is Linaria maroccana; a new color and form of this plant is offered this season under the name "Fairy Bride." It is dwarf and bears numerous white flowers. If true to description, Fairy Bride should be a valuable acquisition to our low growing border plants.—By Professors Alderman, Sando and Hutchins, in The Minnesota Horticulturist.

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In My Garden

By the Editor

THE **Beauty Bush,** Kolkwitzia amabilis, was the most attractive shrub in my garden this season. While not at all attractive the first two or three years after planting, as it gets older it has beautiful long, arched branches completely covered with pink flowers about the time the Iris are in bloom. It should be planted where it will have considerable sunlight.

Cotoneaster soongarica is unusually heavily loaded with fruit this season and should make a gorgeous showing when the fruit turns red in September. This shrub grows rather tall. Growing behind a seat in one corner of the garden it arches gracefully over the seat and forms a canopy.

Visiting with John Hauser at Bayfield, we noticed again this year that certain perennials do well in dry, sandy locations. **Gaillardia** is probably the outstanding example. In several gardens at Bayfield we saw it growing on light sand. The season was very dry but the Gaillardias were gorgeous, the flowers being very large and standing up with straight, stiff stems.

Some flowers do well on light and sandy soils, while others prefer the heavier and richer types. Peonies are probably in the latter class and are at their best at Sisson's at Rosendale and at Walter Miller's, Sun Prairie, where they had a very fertile soil.

The Perennial **Phlox** is blooming, and again we repeat, perennial Phlox in a variety of colors is not excelled by any flower for mid-summer bloom in the border.

It is rather difficult to have something blooming in the garden all the time. We think it is better to specialize with plants blooming in two or three seasons. We can, for example, have a tulip show followed by an August showing of annuals and perennials such as Phlox. We may specialize in Iris, peonies and June perennials which can also be followed with annuals and phlox in August. Or we may wish to have a late fall garden of annuals with Chrysanthemums and other perennials.

Have you a written record of plants in your garden. It is an excellent idea. Go into the garden with a permanent record book, make a drawing of the border and note the location and names of all the flowers excepting the annuals Then if the labels are lost during the winter, or with the removal of the mulch in the spring, another label can easiy be made.

JAPANESE IRIS

ABOUT four years ago we set out five Japanese Iris plants and they have come through each winter and seem to be almost as hardy as the German Iris. They have bloomed well although their season of bloom, coming right after July 4th when the weather is usually quite hot, has been short.

When first set out a liberal sprinkling of alum was applied to the soil and this has been repeated twice during the past four years. Alum acidifies the soil which is what Japanese Iris like.

NEW INSECTICIDES

FOR the past fifty years insect control has been accomplished chiefly through the use of paris green, arsenates, florine compounds and the like. Recently the insecticide industry has been revolutionized through the use of derris, cube and similar botanicals.

These materials carry as their toxic agents rotenone, deguelin, tephrosin and toxicarol. Products carrying these materials have been known in a general way for many years, but only until a few years ago has there been enough information available to permit their general usage.

The field of intensive study relating to these products is so new and the results so encouraging that it was impossible last year for the derris and cube suppliers to meet the demand. As a result a great deal of variation occurred in the strength of raw materials retailed to users.

Raw derris and cube products can be used either in a spray suspension or in a dusting powder. The effectiveness of either the spray or the dust depends largely upon the rotenone content and the other extractives.

This year finished products containing derris or cube are available for both sprays and dusts. These commercial preparations are specially processed with spreading, wetting and sticking materials in the proper proportions and standardized as to insect killing strength.

For additional information regarding organic insecticides and their uses consult the secretary of the State Horticultural Society. — F. E. Carroll, Agicide Laboratories, Milwaukee.

MODERN TIMES

Foreman: "How about carrying more bricks in a hod than that, O'Shaughnessey?"

O'S.: "I can't—I feel sick—I'm trembling all over."

Foreman: "Get busy with the sieve, then."

THE GAS-PLANT

From Missouri Botanical Garden Bulletin

THE term "gas-plant" (see picture on front cover) which is applied to one of the most permanent of perennials, frequently evokes the question—just why is it called the gas-plant? This question is answered in gardening books and magazines somewhat as follows: "It is said that if a lighted match is held to the flower stalks on a still, sultry evening a flame will result." Other writers will state that only the seed stalks will ignite. The fact that horticultural writers are at variance as to the proper manner to fire the gas-plant indicates that few people ever see the plant perform. In the early evening, just at dusk, there usually is very little, if any, wind and that is a good time to experiment. There is no reason that the air must be sultry in order to ignite the plant successfully.

The slow growth of Dictamnus, as the gas-plant is botanically known, is probably the reason why it is so seldom seen in gardens. The shiny jet-black seed is about one-eighth inch in diameter. It ripens in June, and if sown in a frame in the autumn will germinate the following spring. The frame may be left unprotected during the winter, the action of the frost apparently releasing the seedlings from the seed coats. Whether the after-ripening of the seed would be hastened by placing it in the refrigerator cannot be stated, as that method has not been tried. If the seed is sown in pots in March or April there will be no germination, except for a few isolated plants, until one year later. After the seedlings are up they may be left to grow in the frame for another season, or, better still, two years, before being transplanted to other rows or into the garden. This means that if you are anxious to have some good clumps of Dictamnus within the next few years it would be better to purchase plants and save the time it would take to grow them from seed. If you buy from reliable nurseries you will receive plants that are two and three years old. If you are bargain-hunting you will get year-old seedlings, some of which you will lose, and the others will try your patience to the limit waiting for the time to try your luck at "firing" the gas-plant.

Will Burn Only Once

The flowers and seed stalks of Dictamnus exude an aromatic, resinous substance which may be seen in droplets along the stalks. When there are many of these there is an accumulation of this volatile substance which only needs a flame to ignite it. This feat can be performed but once on each stalk. The flame is of such brief duration that the flowers are uninjured but the setting of the seed is somewhat hindered. Dictamnus is not finished with its tricks when the stalks have been ignited. When the seed is ripe the pods gradually open and each pod, when dry, forcibly expels the seeds a few feet from the plant. Thus Nature, in this case, uses a mechanical device to distribute the seed. If the seed stalks are gathered when the seed is ripe, just before the pods open, and are placed in a paper bag, a regular bombardment will continue within the bag as long as the drying pods open and the seeds are expelled.

Free From Pests

Dictamnus is a perennial plant free from insect pests. It grows to about 2½ feet high and equally as wide. It increases in width very slowly and may be left undisturbed for many years. There are several varieties, a white, and various shades of pink and rosy-purple, all blooming in mid-May in this vicinity. The dark green leaves of the pink varieties and the lighter green of the white variety remain in good condition all through the summer and make a good background foliage plant in the perennial border. The plant demands no unusual soil conditions and should be left undisturbed unless it is necessary to make a change in the garden. It may be transplanted in the spring as growth commences or in the fall.

Paul A. Kohl, Florticulturist.

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STATE GARDEN CLUB FEDERATION NEWS

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Mrs. Robert Alder, 2nd V. President
Elkhorn

THE NATIONAL COUNCIL MEETING

A Total of 2,850 Garden Clubs Were Represented at the National Meeting at Cleveland

THE National Council meeting at Cleveland on May 24-28 this year was very successful. Thirty-five of the thirty-eight states in the National Council were represented, New Hampshire, Kansas and Wisconsin being absent.

The following officers were elected: President, Mrs. O. W. Dynes, Illinois; First Vice-President, Mrs. Alden Vose, Connecticut; Regional Vice-Presidents: North Atlantic—Mrs. Joseph S. Leach, Massachusetts; Central Atlantic — Mrs. Frank B. Stearns, Ohio; South Atlantic—Mrs. Frederic A. Wallis, Kentucky; South Central—Mrs. E. W. Frost, Arkansas; Central—Mrs. Forest Huttenlocher, Iowa; Rocky Mountains—Mrs. Albert G. Fish, Colorado; Pacific Coast —Mrs. Peter Corpstein, Arizona.

Recording Secretary, Mrs. Henry B. Trigg, Texas; Corresponding Secretary, Mrs. Warren W. Shoemaker, Illinois; Treasurer, Mrs. Brice P. Disque, New York.

The annual meeting in 1938 will be held in New York City the week of May 16th. There will be a post-convention trip in Bermuda. The 1939 meeting will be held at Colorado Springs.

The New York Federation announced that its next flower judging school would be held for the benefit of new beginners and will return to the fundamental principles of flower arrangement.

New Jersey held a state-wide children's flower show, planned and staged largely by children.

WISCONSIN FLOWER SHOWS

August 7-8. La Belle Garden Club Flower Show at home of Mrs. C. E. Kohl, 318 N. Main St., Oconomowoc. Admission 25c. Refreshments served.

August 14 - 15. Menomonee Falls Garden Club flower show. Menomonee Falls.

August 18-19. Baraboo Garden Club flower show. Parlors of Methodist Church, Baraboo.

August 21-22. Oakfield Garden Club Flower Show. Liberty Hall, Oakfield.

August 21-22. Plymouth Garden Club Flower Show. Fair Grounds in Woman's Building. Admission charge.

August 21-22. Sheboygan Garden Club Flower Show. Guild Hall ,Sheboygan.

August 27. West Bend Garden Club Flower Show. Evangelical Reformed Church, West Bend, 2 p. m. to 9:30 p. m.

September 10-11. Art Institute Garden Club Flower Show, Art Institute, 772 North Jefferson St., Milwaukee.

THE SUMMER MEETING

"A MOST wonderful meeting," was the unanimous opinion of everyone who attended the summer meeting of the Wisconsin Garden Club Federation in Door County on July 17-18. The Saturday program in Potowatomi Park was unusually good. Mr. Thomas Pinney, Evergreen Nurseries, Sturgeon Bay, gave an excellent talk on evergreens, while Dr. Rufus Bagg, on Geology, and Mr. H. R. Holand, Ephraim, historian, thrilled the members with their excellent talks.

Sunday the group made a trip to "The Clearing," the home of Dr. Jens Jensen, at Ellison Bay, where morning services were held. This was followed by a dinner at the Ellison Bay Orchards where Mr. S. S. Telfer, a director of the Horticultural Society and manager of the orchards, served a fine fish dinner. Prof. Franz Aust conducted the morning services.

The Annual Convention

It was decided at the business meeting on Saturday to hold the annual convention in Oshkosh at the Avalon Hotel about the middle of October. Full announcements will be made in our next issue.

Nominating Committee Appointed

A nominating committee for the election of officers was appointed by the president, Mrs. Chester Thomas. They consist of: Mrs. A. Taylor, Milwaukee; Mrs. Sam Post, Madison; Mrs. H. J. Torrence, Whitewater. The committee will welcome sugges-

tions from members for candidates for offices of the Wisconsin Garden Club Federation.

IOLA GARDEN CLUB JOINS FEDERATION

WE ARE pleased to announce that the Iola Garden Club of 31 members joined the Wisconsin Garden Club Federation and Wisconsin Horticultural Society in June.

Officers of the club are:

Mrs. J. L. Larson, President

Mrs. H. N. Jenson, R. F. D. 3, Vice-President

Mrs. Ernest A. Lutz, R. 3, Secretary-Treasurer

The officers and members of the Federation wish to welcome the Iola Garden Club to membership.

IS WISCONSIN LAGGING BEHIND?

WHILE the Wisconsin Garden Club Federation has grown from a membership of 12 to 70 garden clubs during the past eight years, nevertheless from reports of neighboring states, we seem to be lagging behind. Michigan, Illinois, Iowa and Ohio all report well over 100 clubs and most of them have a membership of over 5,000 as compared to our membership of about 1,900.

The movement is growing more and more rapidly throughout the nation. We should not lag behind. There are many communities of fair size in Wisconsin that still do not have a garden club. What can be done about it?

SPEAKERS FOR GARDEN CLUBS

MRS. R. C. Schissler, chairman of the speakers bureau of the Wisconsin Garden Club Federation, has sent in a list of garden club speakers which she obtained by writing to all the clubs in the state.

This list will be mimeographed by the Wisconsin Horticultural Society and will be available free of charge to member clubs on request. Write the Wisconsin Horticultural Society, 1532 University Avenue, Madison, Wis.

WHAT WOULD YOU LIKE TO SEE IN THE MOVIES?

AS many of our garden club members already know, the Wisconsin Horticultural Society has purchased a complete movie outfit — camera, projector and full equipment. Several educational films are now being made by the Society.

For the garden clubs, to be shown at meetings this coming winter and spring, we are preparing a film on better varieties of flowers for the garden, and also dirt garden activities. To date we have an interesting film made in the garden of Mrs. Douglas Pattison, Freeport, of new and choice Iris taken in full color, a short scene of improved Columbine, and several other perennials. Then there is a scene taken in the editor's garden showing, first, garden tools we use and how they are handled; second, dusting plants for insect and disease control; third, Mr. C. D. Adams is shown demonstrating how to dig up, divide and transplant Iris.

The question now is, what else would you like to see? As we travel around the state we can take pictures of many interesting things. We will appreciate suggestions as to where and what we should photograph which would be of educational value to the garden clubs of Wisconsin.

The Horticultural Society will keep these films until they have been shown to all organizations affiliated with the Society. After that we will turn them over to the Bureau of Visual Instruction of the University, where after some revision, they will be sent to the schools and other organizations of Wisconsin as educational movies.

FLOWERS OF THE STATES

From Flower Grower

Forty-four states have adopted more or less officially certain floral emblems. Often they are natives, but not always:

Alabama	Goldenrod
Alaska	Forget-Me-Not
Arkansas	Apple Blossom
Arizona	Saguaro
California	Golden Poppy
Colorado	Blue Columbine
Connecticut	Mountain-laurel
Delaware	Peach
Florida	Orange blossom
Georgia	Cherokee Rose
Idaho	Syringa
Illinois	Native Violet
Indiana	Zinnia
Iowa	Wild Rose
Kansas	Sunflower
Kentucky	Goldenflower
Louisiana	Magnolia
Maine	Pine cone and tassel
Maryland	Black-eyed Susan
Massachusetts	Trailing Arbutus
Michigan	Apple Blossom
Minnesota	Moccasin-flower
Missouri	Hawthorne
Montana	Bitter-root
Nebraska	Goldenrod
Nevada	Sagebrush
New Hampshire	Purple Lilac
New Jersey	Violet
New York	Rose
North Carolina	Oxeye Daisy
North Dakota	Wild Rose
Ohio	Red Carnation
Oklahoma	Mistletoe
Oregon	Oregon-grape
Rhode Island	Violet
South Carolina	Yellow Jessamine
Tennessee	Passion-flower
Texas	Bluebonnet
Utah	Calochortus
Vermont	Red Clover
Washington	Red Clover
West Virginia	Rhododendron
Wisconsin	Violet
Wyoming	Indian Paintbrush

In the Garden Digent.

WISCONSIN GLADIOLUS SHOW

Eagles' Club

OSHKOSH

August 14-15

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Garden Gossip

A SHADOW BOX PARTY

"WE had a shadow box party at my home last week," writes Mrs. James Johnson of Wauwatosa. "I have a shadow box that I use for my own arrangements. Each guest brought an arrangement. There were sixteen of us and we had a show of our own. It was a lot of fun. After each box was arranged it was discussed."

This offers a suggestion for parties and also for garden club programs.

THE PROPAGATION OF COLUMBINES

GARDENERS who grow columbines may be interested to know that they not only cross readily but that, if bees are excluded, the flowers will fertilize themselves and set seed. This is the quickest way to reproduce from seed the type of an individual plant.

Columbines are not readily wind-pollinated and, if a plant is isolated a few feet and the pistils stripped before the buds open, bees will not visit it. Caging is unnecessary, and pollen can be applied by hand with a minimum of bother. By picking an unopened bud a day or two before it is needed and letting it open indoors in a glass of water, it is easy to have a supply of uncontaminated pollen on hand.

Goldfinches will steal the seed when it is nearly ripe, but this difficulty can be obviated by picking the pods with a bit of stem and letting them ripen indoors in a glass of water.

By Jack Ingold, Madison, Wisconsin, in July 1 Horticulture.

PROLONGING THE LIFE OF CUT FLOWERS

"DIP the ends of the stems of dahlias in hot water for a minute immediately after cutting. Then place in cold water," states an article.

We have also read of experiments which indicated that this method or the use of many recommended chemicals was of no benefit.

Why not try it ourselves. It seems such a simple thing to do. Cut two dahlias of equal size from the same plant, or if not found on the same plant, two of the same size from plants of the same variety. Dip the stem of one in hot water as directed, then place both in a vase of cold water and set side by side. See which one lasts the longer. Let's not forget to mark which was treated so there will be no mistake. Why not try the same test with chemicals about which we read.

THE FAST-GROWING KUDZU VINE

NOT infrequently inquiries are made for a vine which will soon cover the side of a building or perhaps grow over the roof of on objectionable structure. Undoubtedly the Kudzu vine meets this demand to a greater extent than any other, for it has been known to grow 50 feet or more in a single season. This rapid growth is not likely to follow the first season's planting, however. One or two years are required for the Kudzu vine to get thoroughly well established, but after that its annual growth will be amazing.

The plant dies back each year to the ground and the old growth should be cut away. This is not a vine to be planted for its flowers, but for its rapidity of growth, although it is pleasant to look upon because of the large green leaves. It is a good vine to plant in dry places, because it almost never suffers from lack of water, but it prefers soil which does not contain lime. After it becomes well established, new plants can be obtained by dividing the roots.

From July 1 Horticulture.

GATHERING RARE WILD FLOWERS

MR Albert M. Fuller, Curator of Botany at the Milwaukee Public Museum, laments that intelligent "lovers of the out-of-doors" sometimes make a practice of taking rare wild flowers such as orchids from their native habitats to be transplanted in their own garden in the vain hope that they can make them grow. He states that in the past the Milwaukee Museum has conducted trips to the woods to study flowers and stimulate interest in our native plants and their conservation. The people have been told emphatically that there must be no flower picking and that the plants must not be dug up. Nevertheless they have found that later on people did dig up the plants and that areas of orchids have been destroyed in that way.

What can be done about it? We now have a law protecting wild flowers but we do not think laws will solve the problem. Let those of us who believe in conservation, practice our belief actively by teaching others that the native wild flowers belong in their native habitats; that they will not grow in our garden, and that they should be left in the forests where all people may enjoy them.

MORTON ARBORETUM OBTAINS SIGHTSEEING BUS

THE Morton Arboretum at Lisle, Illinois, will conduct bus trips through the Arboretum grounds daily at 3:30 p. m., excepting Sundays and holidays, weather permitting. The bus fare is 10c per person. This is an excellent way to see all parts of the Arboretum.

WHAT TO DO FOR RED SPIDER

IF the lower leaves of Phlox are drying up, look for red spider. They may also be bad on certain evergreens such as Junipers.

A very good control is the new Derris dust, dusted lightly on the lower sides of the leaves of infested plants and among the needles of evergreens.

Lime sulphur made for dusting purposes is also a good control. Ads in this magazine will give information as to where they may be purchased.

BOOK ON TREE FLOWERS

FROM Wisconsin comes a new book on a new subject—"Tree Flowers"—by Walter Rogers, Professor of Botany at Lawrence College, Appleton. The title is "Tree Flowers of Forest, Park and Street." In the book one is introduced to tree flowers, otherwise often unobserved through beautiful photographs, sufficiently large to show all detail. The fine plates make up about one-third of the volume.

Another mission of the book is the development of an appreciation of trees in winter. The book should greatly increase the appreciation of trees by everyone who reads it. It is published by the author, price $7.50, postpaid.

Ten Recommended Perennials

THE following ten perennials are recommended in the February 1st issue of **Horticulture,** published by the Massachusetts Horticultural Society.

The article states: "One man's selection—probably many readers will believe that they can do much better." Here is the list:

Aster Star of Wartburg
Aster Wonder of Stafa
Aster, dwarf, Snow Sprite
Chrysanthemum arcticum, Astrid
Chrysanthemum, Korean, Orange Wonder
Dianthus Loveliness
Doronicum Bunch of Gold
Phlox Daily Sketch
Tritoma Tower of Gold
Veronica Blue Spires

Comments

"The aster Star of Wartburg, which heads the list, will eventually replace **Aster alpinus** as a spring-blooming variety. This new aster grows a foot high and has flowers which are three inches across, their color being lilac-blue with an orange center. The flowers keep well when cut and are very attractive in borders but are out of place in a rock garden.

"The second selection, **A. frikarti** Wonder of Stafa, has already been tried out in many gardens and has justified the place that was given it when it was first introduced. It is considered a dwarf variety, growing about 30 inches high, but sometimes it develops a sprawling habit which interferes with its success in the border. This habit should not appear if the plant is kept pinched back at first. If this plan does not prove effective, however, a branch may be bent down to the ground and covered with a little earth, the tips being allowed to protrude, making a low, compact plant.

"Chrysanthemum arcticum is an extremely hardy, low-growing species, spreading a little each year and being readily divided. The charming hybrid which has been named Astrid is just as hardy but grows a little taller and does not spread as rapidly. Its flowers are large and are a delicate pink instead of being white like those of its parent.

"Probably Columbia has received more publicity than any other phlox of recent origin, but reports about its value differ as they come from different sections and different growers. Just now the phlox Daily Sketch seems to occupy the center of the stage. This is really an outstanding novelty, the color being light salmon pink with a carmine eye.

"Tritomas have never become very common in amateurs' gardens, but a new variety just being introduced is likely to increase the popularity of this perennial. The name of the new kind, which comes from England, is Tower of Gold."

Apple recipes can be made still better for all those who have a fondness for honey, the most delicious of all sugars, by using drizzled honey in place of brown sugar, or in place of making sugar syrup.

Wisconsin Gladiolus Show

Auspices

WISCONSIN GLADIOLUS SOCIETY

Eagles' Club — Oshkosh

AUGUST 14-15

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