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WISCONSIN HORTICULTURE

Vol. XVIII Madison, Wisconsin, September, 1927 No. 1

WHY SOME ORCHARDS PAY

The orchard question is looked at from a new angle in V. I. Gardner's bulletin from the Michigan Experiment Station. The points brought forward are out of the common line, and well worth noting carefully by anyone in the orchard business, particularly those persons who are about ready to start an orchard. The ideas are based on a study of about 100 Michigan business apple orchards. Conditions are so much like those prevailing in the orchard belt from New England to the Great Lakes that the results are of general value.

Comparing the yield and profits of the numerous orchards, it is concluded that site, soil, grades, variety, and price, in the order named, are the most important items in profitable apple production. This means that orchards, no matter how well cared for, did not pay very well unless the location and soil were right, which means planting on well-drained frost-free sites, with deep rich soil. Too many orchards have been planted on whatever land was not wanted for something else. Some of the best paying orchards were not very well pruned or cultivated, but the location, soil and variety were good.

Speaking of variety, it was found that some kinds which sold at high prices did not pay so well as some of the cheaper apples which produced bigger average crops, and graded out a larger percentage of No. 1 fruit. The winter varieties classed as the big three in Michigan as well as farther east, are the Baldwin, Rhode Island Greening, and Northern Spy. It has been the fashion lately to discredit Spy because of slowness in coming to bearing, but the author shows that in the older orchards the Spy makes up by bearing large crops over a period of years, and the fruit sells well even in years of heavy apple production. Greening also made a better showing than many people would expect, because it is not so much an odd-year bearer and begins to bear heavily at a younger age than Spy or even Baldwin. The showing made by Baldwin in this investigation is not so good as might be supposed, although the variety ranks well toward the front. The drawback seems to be that the fruit often grades out rather poorly on account of bad color, small size, and the fruit spot. Still Baldwin is considered one of the most profitable for Michigan growers. As a fall variety Wealthy was favored.

A striking feature of the report is the heavy planting of the comparatively new varieties, but some of these do not make as good a showing as the old ones when compared on the basis of year-in and year-out returns. As the author says, first, last and all the time the tree must be a heavy producer. Delicious has been heavily planted but has not proved productive. Jonathan has made heavy gains, and often pays well, but has weak points. Snow and McIntosh have proved profitable in the southern part of the state. Such kinds as Wagener, Winter Banana, Northwestern Greening, Ben Davis, Stark, and Wolf River, do not rank high, although some growers found them profitable. In fact, it seems as if on the right location and with good care almost any of the kinds made a good showing in some orchards. It was plain that nothing could take the place of the right location, fertile soil, and timely spraying.

Any grower can get a copy of this good bulletin by applying to the Experiment Station at East Lansing, Mich. It will do some good if nothing more than induce some growers to cut out or graft over the long list of varieties worthless for market—*Rural New Yorker.*

It pays to advertise in Wisconsin Horticulture.

THE HALES CORNERS GARDEN CLUB

The Secretary recently had the privilege of visiting with the new organization, the Hales Corners Horticultural Society, which though still in its infancy promises to be one of the most outstanding local societies in the state, at the regular meeting held on September 8 at the home of Mrs. Paul. There were more than a score of enthusiastic horticulturists present, all of whom took an active part in the discussion of various horticultural problems. After a considerable period of discussion refreshments were served and the party was conducted through the beautiful and well kept garden of the hostess, where the merits of some of the newer varieties of plants and shrubs were pointed out and talked over, as well as the insect pests and plant diseases which attack each plant. A small delegation consisting of four lady members was present from the West Allis Garden Club. Plans were made at the meeting for pooling their orders for the purchase of nursery stock, bulbs, and planting-out stock.

Aster yellows has been found to be carried from diseased to healthy plants by sucking insects. This disease lives over winter on many perennial plants, and if you have been having trouble with Asters look over the other plants carefully for the yellow or mottled condition and if they show it, dig them out.

Mr. H. Stanton, garden and lawn specialist, of Prides Crossing, Massachusetts, has made the unique suggestion that a radio garden club be formed to be called the Radio Garden Club of America, with annual dues of $1.00, and a secretary to prepare interesting club programs the year round.

A LITTLE ABOUT THE WINTER SHOW

On another page of this issue appears the complete premium list for the Winter Fruit, Flower and Vegetable Show, scheduled for November 30, and December 1 and 2, at Madison. Six silver cups are offered, together with a long array of attractive cash premiums, totalling nearly five hundred dollars in all.

Premiums are offered for single tray exhibits of twelve varieties of apples, and for single plate exhibits of seventeen varieties. Group fruit exhibits, flowers and vegetables come in for a big share of the prize money.

Here is a chance to show your horticultural propensities and abilities. Look the list over carefully and select your exhibits now. Put your apples in cold storage, and begin picking out and preparing your stock for the show. "Mother" gets an extra chance at the prize money, since there is a silver cup offered for the best apple pie. Show your skill as a horticulturist by taking home a couple of premiums.

An effective method of controlling red spider is to wash the plant covered with these small mites thoroughly with the hose. An inspection a couple of days later will usually show no mites remaining. Incidentally, washing plant leaves with a good dash of water at frequent intervals is a good preventative of many troubles.

Ordinary spinach remains in usable condition but a very few days. The common variety which lasts longest is "King of Denmark". The best method to provide spinach in succession is either to plant successive plantings of the same thing or else sow some New Zealand spinach which may be picked all summer.

WHEN TO SECURE ORDERS

One of the great difficulties in the flower business is the American tendency to impatience, says a Maine Nurseryman, who continues: "When the peony season is on, with the flowers just about to bloom, the attention becomes centered on peonies and people besiege the Nursery for peony plants. These people want the plants planted then and there and expect them to bloom at once. But spring is no time for transplanting peonies. They must be taken care of in the fall. And will people buy peony plants in the fall? They will not. What they want then is chrysanthemums, which ought to go in during the spring."

This tendency on the part of the planting public to want what they see was discussed some time ago by John Watson who urged that it should be seized upon by Nurserymen to secure orders for the plants to be set out at the proper time. When flowers are blooming is a better time to sell Nursery stock than when snow and zero weather prevail. Activity when the public is especially receptive should be uniformly successful."—*American Nurseryman*

Sample copies of Wisconsin Horticulture will be sent free upon request.

On a recent visit to Burlington the editor had the pleasure of visiting the gladiolus farm owned and operated by Miss Emma Patterson of that city. Miss Patterson was found busily engaged among her gladiolus, assisting in making the daily cut for shipment to the wholesale houses. Despite the dry weather, her eleven acres of gladiolus, where more than a hundred varieties are grown, presented a beautiful and vivid display. On September 9, the day of the writer's visit, she expected to ship more than 4,000 cut flowers. This she stated, however, was less than half her shipment of the same time last year. We hope in the near future to be able to furnish our readers with an article describing the unique machinery and packing methods that Miss Patterson uses on her farm.

Try a Pomegranate plant in your sunny window this winter. Its brilliant scarlet fuschia-like flowers and attractive fruit will interest you and it is as easily grown as a geranium.

Pack the container of your fernery with sphagnum moss—your ferns will appreciate the cool moisture at their roots—as this takes up all surplus water.

"Picking Scene" on the Hollis Sullivan strawberry plantation at Taylor. Mr. Sullivan is one of the most successful strawberry growers in Wisconsin.

THE FLORIST'S PAGE

Edited by Huron H. Smith, Curator of Botany
Public Museum, Milwaukee, Wis.

FLORISTS AT BADGER STATE FAIR

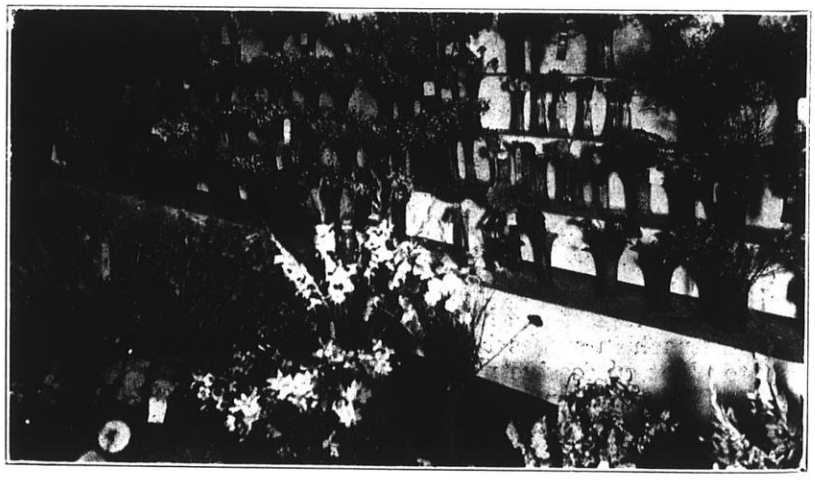
The Wisconsin State Fair is coming to mean a lot to all branches of Horticulture. The commercial apple man finds his opportunity to get Wisconsin apples before his largest audience of the year. The vegetable grower displays the pinnacles he can reach before his regular customers. The Amateur flower grower likes a chance to say "I told you so", and the professional flower grower and retailer have an opportunity to advertise to a large audience and get well paid for doing it. The nursery man gets more orders in six days than he could in a month otherwise, and the public heartily endorses the show. What more could mortals want? Everybody is satisfied, except maybe, the hard working secretary of Horticulture, N. A. Rasmussen, and his crew, and the assistant superintendent, Mrs. C. E. Strong. It's just another chance for a nervous breakdown with them.

Horticulture is not marking time, nor standing still. Every year sees some improvements. This year the apples were 200 trays more than last year. The orders in the booths were twenty percent more. The florists' premiums were $300 more, and the classes of exhibits enlarged. Next year, the new manager, F. C. Borcherdt, Jr., who by the way satisfied everybody, says they are going to complete the brick building by running through to the next street, and giving everyone more room. The tent at the north end has been a pretty permanent thing the last few years, and even now it is full to overflowing.

The Milwaukee Florists Club members, as usual, bore the brunt of the exhibits for the florists. The old faithfuls were there, and were well rewarded in dollars and cents. It seems that the florists can't take a tip from the horticulturists and farmers who come to the fair and take away the premiums, and thereby advertise their locality the more. Practically every time the Milwaukee folks have it to do, and the rest of the state does not join in. If the farmers and apple-growers pursued the same course, saying nothing of the stock men, there would be no state fair. It would be a Milwaukee fair.

This state fair reminded us of a chunk of the National Flower Show at Detroit, lifted out and set down in the Horticultural Building. Yes, it was that good. The exposition of flowers was just as well done, in as good containers and as tastily displayed. The baskets of roses had reached their full bloom ere we saw them, and they were wonderful. New kinds pleased jaded tastes. Lilies were in their glory, for there were all kinds in the building,—showy rubrums, flecked auratums, easters, tigers, and others. The made up baskets looked like fifty dollars at least. The first breath of fall was reflected in the Golden Glow Chrysanthemums. Made up stock was plentiful from huge "dripping bouquets" (showers for the bride) to the smaller colonials, corsages, and bouquets for the wrist, shoulder, ankle, and knee. We can't think of any other place to hang a bouquet.

The central part of the hall boasted the first successful fountain of the fair, and two stunning shaped beds of blooming begonias. The palm groups were fine and the flowering groups were ditto. The fern groups were healthy and cool looking. The general background was decorated by the Aug. F. Kellner Co., with lattice and trellis work, entwined with southern smilax and flat sprays of arborvitae. Each post was covered with large boughs of white cedar. With the premium list such as it is, it could not be helped, but it seems to us that the palm groups might have been placed at either end to allow a comprehensive view thru the entire exhibit. It was so beautiful that it seemed a shame to waste any vantage points. The posts don't suit the florists, and they suited the public less, for they interfered with a good view of the center. The build-

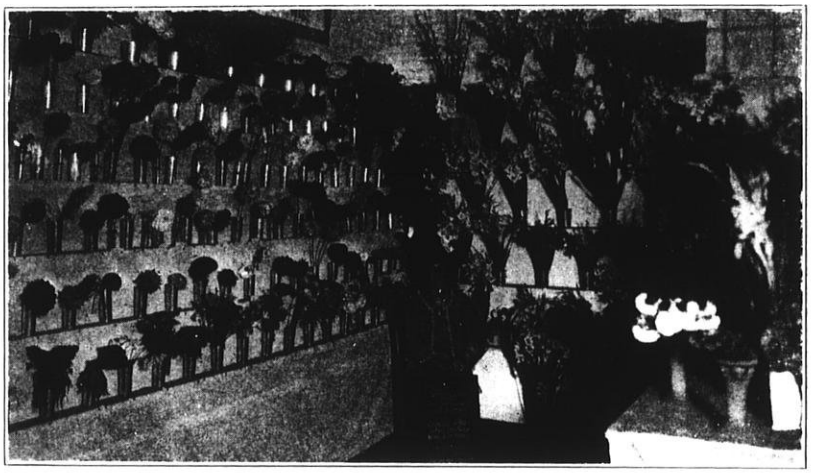


A Glimpse of the Flower Exhibit

ing could be lots better adapted to a flower show. The hanging baskets were especially good this year and put the finishing touch on the exhibit. Thanks to the powers that be, that there was no suggestion of funeral flowers this year. Wreaths were absent. Funeral suggestions are not always the most welcome to a visitor on a holiday, pleasure bent. They too often call up bitter memories, and spoil the holiday. In this day and age, everyone knows that the florist can soften the blow with flowers, without his saying a thing.

The nurserymen around the ends and side walls of the hall reaped a golden harvest of orders, ranging from 20 to 30 percent more than last year. They appeared at a disadvantage, at that, since six weeks of drought are poor preparation for good samples of their products. We have but space for a few remarks on their exhibits. The Eberhardt Sons Nursery Co., of Cedarburg, Wis., had the most comprehensive exhibit of various flowers there. They had them in the hundred varieties in dahlias, and gladiolus, with evergreens and decorative shrubs outlining their booth. Ernst Eberhardt started the business in 1904 and only three years ago sold out to his sons, Walter, Ray, and Arnold. Walter and Arnold look after the trees and shrubs, while Ray does all the bulb business.

The J. K. Rugowski Seed Co., of Manitowoc, Wisconsin, was represented by his daughter and her husband, J. Sievert, of the same city. Mr. Rugowski has a reputation as a plant breeder on his 22 acres out on 10th street, a mile west of Manitowoc. His new gladiolus "Farmers Wife" named after the magazine attracted a good deal of attention. It is a creamy white. Were we down South it would need to be a chocolate brown. They showed asters, glads and dahlias. He took two firsts on asters and a first on a vase of six glads.



One of the Commercial Exhibits at the Fair

The first prizes for dahlias this time went to the Knoelke Nurseries, situated north of town on the Silver Spring road. There was no question about this award, and it is only necessary to tell our florist readers that Wm. Bahrke, is their hybridizer. They also had some fine glads and liatris.

J. T. Fitchett, of the Fitchett Dahlia Gardens, Janesville, Wisconsin, is the greatest dahlia fan in Wisconsin, although in private life he is a printer. His three boys are as bad. Edmund, the oldest, is a chemist for the Anaconda Copper Co., at Great Falls, Montana, and has a garden with 1,400 varieties of dahlias in it. Don, the youngest, helps dad with the flowers and is getting ready to enter the "U", where he will take a straight horticultural course and follow up the business. Lawrence, in-between, is about to finish at the University and become a doctor of medicine, but he has been scouting the continent this summer for new dahlias, and found plenty. He was with the Wisconsin Glee Club, on their tour of Europe.

The Hawks Nursery Co., of Wauwatosa, are the oldest exhibitors at the State Fair in the Horticulture Building, and they had a fine showing of evergreens and foliage plants. They advertise a complete landscape service as well as a home grown nursery stock.

The Badger Dahlia Farms, situated a mile east of Hartford, Wisconsin, and owned by Adam F. Poltl and Mr. Gruenhagen, are our largest dahlia growers for commercial cut flowers. They ship to the Milwaukee market daily in season. They announce a better business this year than last.

F. M. Palmiter & Son, of Janesville, proved that they were as much interested in the amateur's success with their glads, phlox, and liatris, as they were in selling him. They have offered premiums to the amateurs ever since there was an amateur section. And Son is quite a photographer and they showed some beautiful colored photographs of their iris and other things not in bloom at this season of the year.

W. A. Toole, Route 2, Garrynee-Dule, Baraboo, Wisconsin, showed considerable progress in his rock garden plants and again had a nice little rock hill, refreshed by a rill of water to show his stuff. Mr. B. E. Harkness, a floriculture student at Cornell University, Ithaca, N. Y., is spending the summer with him and had charge of the exhibit. Mr. Toole had his usual fine selection of perennials and

straw flowers down here, and in honor of the occasion published a State Fair edition of his trade organ "Flower Lore".

The Oakwood Glad Farm, belonging to Arthur Tischendorf, of Oakwood, this county, was a newcomer at the fair, with glads alone. His own production the "Oakwood Red Glad" was there in quantity and was very well received.

All entries in the professional class were judged by James E. Taylor, of Oshkosh, Harold Baumgarten, of Milwaukee, and Axel Johnson, of Lake Geneva. Amateur flowers were judged by James Livingstone, who discussed his rulings with the exhibitors, thus making them doubly interesting to contestants. The amateur show would run away with the building if they were given enough rope. They came in with over 800 vases this time and twelve dining tables. Many exhibitors brought their own vases and own table service. The fair management was so impressed with the dining table decorations that they created extra prizes for those putting up a table, and no one went without cash reward. There were 35 amateurs that brought large exhibits this year, besides many singles. Twelve exhibited late, just to find out how the thing was run so as to be ready for next year. Lots of premiums from commercial men swelled the offerings of the state fair board. Holton & Hunkel offered a prize for the best decorative basket; Aug. F. Kellner Co. offered a prize for the best fern; C. C. Pollworth Co. offered a prize for the best specimen plant; Donel's Posy Gardens, of Waukesha, offered a prize for the best delphinium and one for the best baby's breath; Herman C. Christiansen, of Oshkosh, offered a prize of regal lilies for the best larkspur; James Livingstone, of Brown Deer offered $10 for the best six vases of cut flowers; J. T. Fitchett, of Janesville, offered prizes for the best dahlias and the best single dahlia; N. A. Rasmussen, of Oshkosh, offered a prize of $10 for the best berried shrub; W. A. Toole, of Baraboo, offered $15 for the best perennials and pansies; and J. M. Palmiter, of Janesville, offered prizes for the best glads of Leon Douglas and London Smoke. Competition was strong, and Mrs. C. E. Strong was the referee.

The Prize winners in the professional classes were as follows:

Greenhouse plants, not less than 25 varieties, to cover 50 square feet: Holton & Hunkel Co., first; Aug. F. Kellner Co., second; H. Locker & Sons, third; Chas. Menger, Inc., fourth.

Display of Palms to cover fifty square feet: Holton & Hunkel Co., first; Aug. F. Kellner Co., second; H. Locker & Sons, third; Chas. Menger, Inc., fourth.

Display of plants in variety, arranged for effect, to cover fifty feet: Aug. F. Kellner Co., first; Holton & Hunkel Co., second; C. C. Pollworth Co., third.

Display of ferns in variety, for effect, to cover fifty square feet: Aug. F. Kellner Co., first; Holton & Hunkel Co., second.

Display of Nephrolepis to cover fifty square feet: Holton & Hunkel Co., first; C. C. Pollworth Co., second; Aug. F. Kellner Co., third; H. Locker & Sons, fourth.

Display of begonias in bloom to cover 25 square feet: H. Locker & Sons, first; Holton & Hunkel Co., second; Chas. Menger, Inc., third.

Display of any other plant in bloom to cover twenty-five square feet: Holton & Hunkel Co., first; H. Locker & Sons, second; Chas. Menger, Inc., third; Otto Sylvester, Oconomowoc, Wis., fourth.

Best twelve cyclamen in bloom: Holton & Hunkel Co., first; C. C. Pollworth, second.

Specimen Cibotium fern: Aug. F. Kellner Co., first.

Specimen Nephrolepis fern: H. Locker & Sons, first; Holton & Hunkel Co., second; Aug. F. Kellner Co., third.

Specimen any other fern: Holton & Hunkel Co., first; H. Locker & Sons, second; Aug. F. Kellner Co., third.

Specimen Palm: Chas. Menher, Inc., first; Aug. F. Kellner Co., second; H. Locker & Sons, third; Holton & Hunkel Co., fourth.

Basket of plants arranged for effect: C. C. Pollworth Co., first; Gimbel Brothers, second; Holtz & Son, third; Aug. F. Kellner Co., fourth.

Best three hanging baskets: C. C. Pollworth Co., first; H. Locker & Sons, second; Holton & Hunkel Co., third; Aug. F. Kellner Co., fourth.

Best twenty-five Butterfly Roses: Holton & Hunkel Co., first; C. C. Pollworth Co., second.

Best twenty-five Columbia Roses: Holton & Hunkel Co., first; C. C. Pollworth Co., second.

Best twenty-five Red Roses: Holton & Hunkel Co., first; C. C. Pollworth Co., second.

Best twenty-five Premier Roses: Holton & Hunkel Co., first; C. C. Pollworth Co., second.

Best twenty-five any other variety roses: Holton & Hunkel Co., first; C. C. Pollworth Co., second.

Best twenty-five Easter lilies: Holton & Hunkel Co., first; C. C. Pollworth Co., second.

Best twenty-five any other lilies: H. Locker & Sons, first; Holton & Hunkel Co., second.

Best twelve chrysanthemums: C. C. Pollworth Co., first.

Best display Asters, not less than 100 blooms in variety: J. K. Rugowski Seed Co., Manitowoc, Wis.

Best vase of Asters, not less than 100 blooms in variety: J. K. Rugowski Seed Co., Manitowoc, Wis.

Best display herbaceous perennials, not less than ten varieties: Eberhardt Sons, Cedarburg, Wis., first; W. A. Toole, Baraboo, Wis., second.

Best display of not less than 100 gladiolus blooms in variety: Elmer Thiermann, N. Milwaukee, first; Eberhardt Sons, second; Badger Dahlia Farm, Hartford, Wis., third.

Best six vases gladiolus, six varieties, twelve of each: J. K. Rugowski, Manitowoc, Wis., first; Elmer Thiermann, second; Badger Dahlia Farm, third.

Best display of not less than 100 dahlia blooms in variety: Eberhardt Sons, first; Badger Dahlia Farm, second; J. T. Fitchett, Janesville, third.

Best display of not less than fifty dahlia blooms in variety: Geo. Knoelke, N. Milwaukee, first; Badger Dahlia Farm, second; Eberhardt Sons, third.

Best display of twelve dahlias in one variety: Badger Dahlia Farm, first; J. T. Fitchett, second.

RETAIL FLORISTS DIVISION

Best arrangement of flowers in vase of standard beauty design, 42 inches tall; vases to be furnished by Fair, Tuesday: Gimbel Bros., first; Bell Flower Shop, second; Rud. Preuss & Sons Co., third; Holtz & Sons, fourth.

Most artistically arranged basket of cut flowers, Tuesday: Gimbel Bros., first; Bell Flower Shop, second; Holtz & Son, third; Edlefsen Floral Co., fourth.

Most artistically arranged tumbler basket, Tuesday: Holtz & Son, first; Gimbel Bros., second; Fred Gutermuth, third.

Best bridal shower bouquet, Wednesday: Gimbel Bros., first; Rud. Preuss & Sons Co., second; Holtz & Son, third; H. Locker & Sons Co., fourth.

Three corsage bouquets in variety, Wednesday: Gimbel Bros., first; Rud. Preuss & Sons Co., second; Chas. Menger, Inc., third; Edlefsen Floral Co., fourth.

Three colonial bouquets, large, medium and small, Wednesday: Rud. Preuss & Sons Co., first; Gimbel Bros., second; Chas. Menger, Inc., third; H. Locker & Sons, fourth.

Best shoulder bouquet and wrist bouquet, Wednesday: Gimbel Bros., first; Rud. Preuss & Sons Co., second; Chas. Menger, Inc., third; North Side Floral Co., fourth.

Dining room tables, decorated for four covers: Bell Flower Shop, first; Gimbel Bros., second; North Side Floral Co., third; Chas. Menger, Inc., fourth; Holtz & Son, fifth.

September is the month for planting bulbs to flower indoors during the winter.

In 1926 the United States exported to Latin America over $1,500,000 worth of boxed apples, over $600,000 worth of barreled apples, and over $800,000 worth of pears, not to mention fair quantities of grapes, peaches, berries and other fresh fruits.

BADGER NEWS

From Wisconsin Papers

GOVERNOR NAMES EX-ASSEMBLYMAN MARKET DIRECTOR

Is Socialist Who Once Defeated Zimmerman for Legislature; Comings to be Assistant

James H. Vint, Union Grove, today was appointed commissioner of markets to succeed Edward J. Nordman who recently resigned.

Mr. Vint, who is a prominent socialist, represented Milwaukee county in the assembly during 1911, 1913, and 1915. He is at present manager of the Farmers' Co-operative Elevator company at Union Grove, Racine county. He is described by Governor Zimmerman as a real "dirt" farmer, who is living on and operating an 80-acre farm near Union Grove.

Mr. Nordman, whose term expires Sept. 6, announced his resignation about three weeks ago, because, he said, he knew he would not be reappointed. He said he would return to his former home in Antigo to resume farming. He served as commissioner of markets eight years, appointed originally by Gov. E. L. Phillipp and reappointed by Gov. John J. Blaine.

UNUSUALLY LARGE CROP OF GRAPES THIS YEAR

Washington — There will be a bumper crop of American grapes this year. The department of agriculture estimates the production at 2,500,000 tons, or at least 8 per cent heavier than last year's crop, and 20 per cent above the average production for the last five years.

This enormous crop is now starting to market and department officials asserted that the big problem confronting both growers and shippers, particularly those of California, where 90 per cent of the crop is grown, is how to dispose profitably of this enormous production between now and December.

STUDY NATIVE WILD LIFE

The native wild life of the southern Wisconsin region will be studied by an industrial fellow of the University of Wisconsin during the coming year under the terms of a $600 grant from an anonymous donor accepted by the University Regents at their August meeting.

WISCONSIN HORTICULTURAL SOCIETY HOLDING SUMMER MEETING HERE

Kenosha, August 19.—The executive committee of the Wisconsin State Horticultural society met this morning on the third floor of the court house, in the opening session of the annual summer meeting.

Extensive plans were made with regard to the program of the society for the coming year, and it was decided to hold the annual fall meeting in Madison. At this meeting the customary election of officers will take place.

CRANBERRY MEN HOLD THEIR ANNUAL MEETING AT WISCONSIN RAPIDS

Wisconsin Rapids, Aug. 12—The annual summer meeting celebrating the twentieth anniversary of the organization of the Wisconsin Cranberry Sales association was brought to a close Tuesday evening with a banquet and dance at the Hotel Witter. Covers were laid for two hundred cranberry men and guests.

CHERRY HARVEST ENDS; CROP SHORT

Sturgeon Bay, Wis.—With one of the smallest crops since the cherry industry rose to prominence here, the annual Door county cherry harvest closed this week showing a total of less than 200,000 cases, including those harvested by independent as well as co-operative growers.

In 1925, when the cherry crop was deemed almost a failure, the harvest totaled about 225,000, which is 25,000 cases more than this season. The early cherries in 1925 totaled 103,548 cases, double that of this year, but the late cherries in 1925 total 118,871, which is about 10,000 cases below this year's record. In spite of the fact that the crop was low in volume this year, the quality of the fruit has been exceptionally good.

MRS. NELSON M. BLACK DEAD AT MILWAUKEE

Milwaukee—Following an illness of several weeks, Mrs. Nelson M. Black, former president of the Wisconsin Wild Flower association, died here today. She is survived by her husband, Dr. Black.

USES IRRIGATION TO GROW BERRIES

Edgerton Man Finds Power Water Supply Nets Good Profit

Clarence E. Swenson, one-half mile north of Edgerton, has what might be called an everbearing strawberry farm under overhead irrigation system.

"I have this to say, it pays," Mr. Swenson said about his irrigation system. "You cannot always depend upon getting rain just when you need it most, for the berries won't wait until you get a shower; they just keep on ripening, getting smaller and smaller until a rain comes. Down at Mud lake, which is 1,800 feet from here, I have a 15 horsepower engine that drives a force pump which I use once a week for irrigation, whether it rains or not. The engine is run 10 hours straight, or one whole night, and during that time I get one inch of rain on my berries. The cost of running this outfit is $3 a night, covering one and one-half acres of ground.

"While there are plenty of early berries, I specialize on everbearing. Picking will begin shortly and there will be at least 50 quarts of strawberries gathered daily until it freezes up, and they will command the highest market price.

"Last spring, including labor, I tied up $250 in everbearing plants, getting the best variety known."

Besides the berries there are 10 acres of potatoes. These are Rural New Yorkers and seem to be the best variety for this locality.

Five acres more of the farm are devoted to general garden truck.

"Seventy-five per cent of the crops are sold right here at the roadside stand," Mr. Swenson said. "While tourists purchase much of the stuff, many people come from Janesville and other cities to buy berries and vegetables here."

One of the most enjoyable events for the florists of Milwaukee and vicinity was the dedication and birthday party given by the Holton & Hunkel Co. at their Brown Deer plant on Sept. 1st. It was in 1897 that Herman V. Hunkel and Fred H. Holton organized the Holton & Hunkel Co., at that time the second wholesale house in Milwaukee. In a short time they took over the C. B. Whitnall place at 126 Locust Street, and went into the growing end also. In 1911 they erected their first range of rose houses at Brown Deer and have been adding glass ever since. This year's addition consists of nine houses, plus a large shed 275 feet by 50 feet, which will be used for soil, pots, flats, packing and shipping room.

PREMIUM AWARDS AT THE STATE FAIR, MILWAUKEE, AUG. 29 TO SEPT 3

Horticulture Department

PLANTS AND FLOWERS

(See Page 6 of this issue)

GRAPES

102. Display of 10 varieties.
1. G. M. Tehan, No. Milwaukee $10.00
2. John Reis, Twin Bluffs 8.00
3. .....
4. .....
5. .....

103. Display of Five Plates 1 variety each; selected from the following list: Brighton, Concord, Delaware, Diamond, Moore's Early, Niagara, Worden.
1. G. M. Tehan..... 5.00
2. John Reis..... 4.00
3. .....
4. .....
5. .....

104. Brighton.

Canes

1. John Reis..... 3.00
2. .....
3. .....
4. .....

105. Concord.
1. John Reis..... 3.00
2. G. M. Tehan..... 2.50
3. .....
4. .....

106. Delaware.
1. John Reis..... 3.00
2. G. M. Tehan..... 2.50
3. .....
4. .....

107. Moore's Diamond.
1. G. M. Tehan, No. Milwaukee 3.00
2. .....
3. .....
4. .....

108. Moore's Early.
1. G. M. Tehan..... 3.00
2. John Reis, Twin Bluffs 2.50
3. .....
4. .....

109. Niagara.
1. John Reis..... 3.00
2. .....
3. .....
4. .....

110. Worden.
1. G. M. Tehan..... 3.00
2. John Reis..... 2.50
3. .....
4. .....

Single Plate
(Four Bunches to a Plate)

111. Agawam.
1. G. M. Tehan..... 1.50
2. John Reis..... 1.00
3. .....
4. .....

112. Brighton.
1. John Reis, Twin Bluffs 1.50
2. .....
3. .....
4. .....

113. Concord.
1. John Reis..... 1.50
2. .....
3. .....
4. .....

114. Campbell Early.
1. John Reis..... 1.50
2. .....
3. .....
4. .....

115. Delaware.
1. John Reis..... 1.50
2. G. M. Tehan, No. Milwaukee 1.00
3. .....
4. .....

116. Green Mountain (Winchell).
1. John Reis..... 1.50
2. G. M. Tehan..... 1.00
3. .....
4. .....

117. Moore's Diamond.
1. John Reis, Twin Bluffs 1.50
2. .....
3. .....
4. .....

118. Moore's Early.
1. .....
2. .....
3. .....
4. .....

119. Niagara.
1. John Reis..... 1.50
2. .....
3. .....
4. .....

120. Worden.
1. John Reis..... 1.50
2. .....
3. .....
4. .....

Plants and Cut Flowers
(For Amateurs Only)

PLANTS

40. For the best and most artistically arranged basket of decorative plants.
Donor: H. V. Hunkel, Milwaukee.
1. Mrs. Walter Weck, West Allis 6.00
2. Mrs. S. W. Poppe, Milwaukee 4.00

41. For the best and most artistically arranged display of ferns in variety to be shown in fernery.
Donor: The August Kellner Co., Milwaukee.
1. Mrs. Walter Weck..... 6.00
2. Mrs. S. W. Poppe..... 4.00

42. For the best specimen plant, any variety.
Donor: C. C. Pollworth, Milwaukee.
1. Edw. C. Haasch, Wauwatosa 3.00

CUT FLOWERS

43. Best and most artistically arranged basket of flowers for table.
1. Mrs. W. Delaporte, Milwaukee 3.00
2. Caroline Duffy, West Allis 2.00
3. Mrs. Clara Harrington, West Allis..... 1.00

44. Best and most artistically arranged vase of flowers for table.
1. Miss E. M. Goelzer, Oakwood 2.00
2. Mrs. W. Delaporte, West Allis 1.00
3. Mrs. Clara Harrington, West Allis..... .50

45. Best and most artistically arranged bouquet of wild flowers.
1. Jane Lindauer, West Allis 3.00
2. Mrs. N. C. Nelson, West Allis 2.00
3. Mrs. Walter Weck, West Allis..... 1.00

46. Best Display of Cut Flowers Annual, 12 kinds.
1. Edw. C. Haasch, Wauwatosa 8.00
2. Theo. J. Kurtz, Cedarburg 6.00
3. Miss E. M. Goelzer..... 4.00
4. Mrs. A. L. Schacht, Racine 3.00
5. Mrs. Susie Hyatt, West Allis 2.00

47. Best Display of Cut Flowers Herbaceous Perennials, 10 kinds.
1. Mrs. S. W. Poppe, Milwaukee 8.00
2. Miss E. M. Goelzer, Oakwood 6.00
3. Dawson Bros., Franksville 4.00
4. Mrs. H. G. Gay, West Allis 3.00
5. .....

48. Best Display of Pansies.
1. Miss E. M. Goelzer, Oakwood 5.00
2. E. H. Haasch..... 3.00
3. Mrs. S. W. Poppe, Milwaukee 2.00
4. Ed. Boldt, Milwaukee.. 2.00

49. Best Display of Hardy Phlox.
1. Mrs. S. W. Poppe,..... 5.00
2. Miss E. M. Goelzer..... 4.00
3. Ed. Boldt 3.00

50. Best Display of Gladioli, 6 vases 6 varieties, 3 spikes in each vase.
1. Edw. Haasch..... 5.00
2. L. A. Burmeister, Jr., Milwaukee 4.00
3. Dawson Bros..... 3.00
4. Ed. Boldt..... 2.00

51. Best 25 spikes gladiolus.
1. Edw. Haasch..... 5.00
2. Miss E. M. Goelzer..... 4.00
3. Mrs. W. Delaporte, Milwaukee 3.00
4. Dawson Bros..... 2.00

52. Best Display of Gladiolus, not less than 100 spikes.
1. Theo. J. Kurtz..... 10.00
2. Dawson Bros..... 8.00
3. .....
4. .....

53. Best 30 blooms, dahlias in variety.
1. Ed. Boldt..... 5.00
2. Theo. J. Kurtz..... 3.00
3. .....
4. .....

54. Best Display Celosia in Variety.
1. Miss E. M. Goelzer..... 6.00
2. Dawson Bros..... 4.00
3. Theo. J. Kurtz..... 2.00
4. Mrs. Susie Hyatt, West Allis 1.00

55. Best 10 Vases of Asters, 10 blooms in a vase.
1. Mrs. C. E. Schultz, Milwaukee 5.00
2. .....
3. .....
4. .....

56. Best vase of asters, any color.
1. Ed. Boldt..... 2.00
2. Arno Meyer, Waldo.... 1.00
3. G. M. Tehan, No. Milwaukee ..... .50

57. Best basket of everlastings both flowers and grasses; artistically arranged.
1. Miss E. M. Goelzer, Oakwood 3.00
2. Arno Meyer, Waldo.... 2.00
3. .....
4. .....

58. Best display of everlastings in variety.
1. Miss E. M. Goelzer..... 4.00
2. G. M. Tehan..... 3.00
3. Arno Meyer..... 2.00
4. Camille Runte, No. Milwaukee 1.00
5. Mrs. C. E. Schultz, Milwaukee ..... .50

59. Best 10 spikes of perennial delphinium.
1. Dawson Bros..... 5.00
2. Mrs. Susie Hyatt..... 3.00
3. Miss E. M. Goelzer..... 2.00

60. Best 5 vases of snapdragon, color in vase.
1. G. M. Tehan..... 3.00
2. Theo. J. Kurtz 2.00
3. Miss E. M. Goelzer..... 1.00

61. Best 5 vases of calendula.
1. Caroline Duffy, West Allis 2.00
2. Theo. J. Kurtz 1.00
3. Miss E. M. Goelzer..... .50

62. Best 5 vases of French marigolds 10 blooms in a vase.
1. Mrs. Clara E. Harrington, West Allis..... 2.00
2. Miss E. M. Goelzer..... 1.00
3. Mrs. C. E. Schultz..... .50

63. Best 5 vases of African marigolds 10 blooms in a vase.
1. Mrs. Susie Hyatt..... 2.00
2. Mrs. C. E. Schultz..... 1.00
3. .....

64. Best 4 vases of petunias, one color in vase.
1. Edw. C. Haasch..... 2.00
2. Theo. J. Kurtz..... 1.00
3. Miss E. M. Goelzer..... .50

65. Best 5 vases of zinnias, 10 blooms one color, in vase.
1. Edw. C. Haasch..... 2.00
2. Miss E. M. Goelzer..... 1.50
3. .....

66. Best vase of roses.
1. Miss E. M. Goelzer..... 1.5
2. Mrs. Geo. Leverenz, West Allis..... 1.00
3. .....

67. Best vase of Salpiglossis.
1. Mrs. Geo. Leverenz..... 1.50
2. Mrs. A. L. Schacht..... 1.00
3. Mrs. Susie Hyatt..... .50

68. Best vase of Cosmos.
1. Edw. C. Haasch..... 1.50
2. Mrs. Clara E. Harrington 1.00
3. Theo. J. Kurtz..... .50

69. Best vase of annual Larkspur.
1. Mrs. Clara E. Harrington 1.50
2. Mrs. S. W. Poppe..... 1.00
3. Mrs. Susie Hyatt..... .50

70. Best 5 vases of Dianthus.
1. Miss E. M. Goelzer..... 2.00
2. .....
3. .....

71. Best vases of Ceneuria, corn flowers.
1. Mrs. Clara E. Harrington 1.50
2. Theo. J. Kurtz..... 1.0
3. Mrs. A. L. Schacht..... .50

72. Best 5 vases phlox drummondi, one color in vase.
1. Miss E. M. Goelzer..... 2.00
2. Mrs. Clara E. Harrington 1.5
3. .....

73. Best vase of Scabiosa.
1. Arno Meyer..... 1.5
2. Dawson Bros..... 1.00
3. Mrs. Clara E. Harrington .....

74. Best vase of Perennial Gaillardia 10 blooms.
1. Mrs. S. W. Poppe 1.50
2. G. M. Tehan 1.00
3. Miss E. M. Goelzer.....

75. Best vase of Sweet Peas.
1. Miss E. M. Goelzer..... 1.5
2. Mrs. S. W. Poppe..... 1.
3. .....

76. Best vase of double Sunflowers.
1. Mrs. A. L. Schacht..... 1.50
2. .....
3. .....

77. Dining table decorations for amateurs only, to be changed once, 4 covers. There are a certain number of tables and the first entr. will be given preference.
1. Mrs. W. Delaporte, Milwaukee 20.00
2. Mrs. Clara E. Harrington, Milwaukee..... 15.00
3. Mrs. Walter Weck, Milwaukee 12.00
4. Mrs. Susie Hyatt, Milwaukee 10.00
5. Mrs. Geo. Leverenz, Milwaukee 8.00
6. Arno Meyer, Waldo.... 5.00
7. Mrs. Arthur Schacht, Milwaukee 4.00
8. Jane Lindauer..... 3.00
9. Mrs. S. W. Poppe..... 2.00
10. Theo. J. Kurtz..... 2.00
11. Mrs. H. G. Gay..... 2.00
12. Mrs. N. C. Nelson..... 2.00

PEARS

81. Collection not to exceed 15 varieties.
1. Cooper Bros., West Allis 6.00
2. John B. Moyle, Union Grove 4.00
3. Dawson Bros., Franksville 2.00

Single Plates

82 Anjou.
1. J. B. Moyle..... 1.5
2. Dawson Bros..... 1.00
3. F. B. Sherman, Edgerton 5
4. Cooper Bros..... .25

83. Bartlett.
1. Cooper Bros. 1.50
2. Lester Patterson, Franksville 1.00
3. J. B. Moyle ..... .50
4. G. M. Tehan, No. Milwaukee ..... .25

84. Clairgeau.
1. Cooper Bros. 1.50
2. Dawson Bros. 1.25
3. .....
4. .....

85. Clapp's Favorite.
1. Miss E. M. Goelzer, Oakwood 1.5
2. F. B. Sherman 1.00
3. Dawson Bros. ..... .50
4. J. B. Moyle ..... .25

86. Duchess.
1. Cooper Bros. 1.50
2. Dawson Bros. 1.00
3. .....
4. .....

87. Flemish Beauty.
1. A. C. Hauser, La Crosse 1.5
2. J. B. Moyle 1.00
3. Edw. Gassner, Rockfield .50
4. H. J. Rasmussen, Oshkosh ..... .25

88. Howell.
1. J. B. Moyle 1.5
2. Dawson Bros. 1.0
3. .....
4. .....

89. Kieffer.
1. H. W. Ullsperger, Sturgeon Bay 1.5
2. Cooper Bros. 1.0
3. F. B. Sherman ..... .50
4. Wisconsin Fruit Farm, Sturgeon Bay 2

90. Lawrence.
1. Dawson Bros. 1.50
2. .....
3. .....
4. .....

91. Louise.
1. Dawson Bros. 1.50
2. J. B. Moyle 1.00
3. .....
4. .....

92. Rossney.
1. J. B. Moyle ..... 1.
2. Dawson Bros. 1.00
3. .....
4. .....

93. Seckel.
1. J. B. Moyle ..... 1.
2. Dawson Bros. 1.00
3. E. H. Stoeber, Middleton ..... .50
4. Wisconsin Fruit Farm, Sturgeon Bay ..... .25

94. Sheldon.
1. Lester Patterson 1.50
2. Dawson Bros. 1.00
3. J. B. Moyle ..... .50
4. .....

95. Tyson.
1. J. B. Moyle ..... 1.
2. Dawson Bros. 1.00
3. .....
4. .....

96. Vermont Beauty.
1. Dawson Bros. 1.50
2. .....
3. .....
4. .....

97. Winter Nellis.
1. Dawson Bros. 1.50
2. J. B. Moyle 1.00
3. .....
4. .....

PLUMS

98. Best Collection varieties, ten specimens of each, native varieties.
1. E. H. Stoeber, Middleton 3.00
2. G. M. Tehan, No. Milwaukee 2.00
3. H. J. Rasmussen, Oshkosh 1.00

99. Best Collection varieties, ten specimens of each, Japanese varieties.
1. H. J. Rasmussen 3.00
2. Edw. Gassner, Rockfield 2.00
3. Bonnie View Farm, Sturgeon Bay 1.00

100. Best Collection varieties, ten specimens of each, European varieties.
1. G. M. Tehan 3.0
2. Wisconsin Fruit Farm, Sturgeon Bay 2.00
3. H. W. Ullsperger, Sturgeon Bay 1.00

101. Best Collection varieties, ten specimens each, Hansen hybrids.
1. Edw. Gassner 3.00
2. Dawson Bros. 2.00
3. E. H. Stoeber 1.00

SPECIAL PREMIUMS

78. Best Display of Dahlias; Dahlias roots, value $10.00.
Donor: J. T. Fitchett, Janesville.
1. Edw. C. Haasch 5.00
2. Mrs. W. Delaporte 3.00
3. Theo. J. Kurtz 2.00

79. For Largest Dahlia in diameter; 1 bulb champagne value $2.00.
Donor: J. T. Fitchett, Janesville.
1. Mrs. W. Delaporte 2.00

80. Best 6 vases of cut flowers, $10. cash.
Donor: James Livingstone, Milwaukee.
1. Edw. C. Haasch 5.00
2. Miss E. M. Goelzer 3.00
3. Theo. J. Kurtz 2.00

81. Best Display Pansies, Perennials value $5.00, Winner's choice of anything in our catalogue.
Donor: W. A. Toole, Baraboo.
1. Miss E. M. Goelzer 3.00
2. Edw. C. Haasch 2.00

82. Best Display of Perennials, value $10.00, winner's choice of anything in our catalogue.
1. Miss E. M. Goelzer 3.00
2. Mrs. A. L. Schacht 3.00
3. Mrs. Walter Weck 2.00

83. Best Large Basket of Annual Larkspur, 1 dozen Regal Lily Bulbs.
Donor: H. C. Christensen, Oshkosh.
1. Caroline Duffy .....5 bbs.
2. .....
3. .....

84 Best 3 spikes of Mrs. Frederick C. Peters' Gladioli.
Donor: F. M. Palmiter & Son, Janesville.
1. ...Gladioli bulbs, value $2.00

85. Best 3 spikes of London Smoke.
Donor: F. M. Palmiter & Son, Janesville.
1. Dawson Bros. .....
...Gladioli bulbs, value $2.00

86. Best 3 spikes, pink perfection.
Donor: F. M. Palmiter & Son, Janesville.
1. ...Gladioli bulbs, value $2.00

87. Best 3 spikes of Willis E. Fryer.
Donor: F. M. Palmiter & Son, Janesville.
1. ...Gladioli bulbs, value $2.00

88. Best 3 spikes Mrs. Leon Douglas.
Donor: F. M. Palmiter & Son, Janesville.
1. Dawson Bros. .....
...Gladioli bulbs, value $2.00

89. Best Display Blooms and Berries from shrubs, nursery stock, value $10.00, winner's choice of anything in our catalogue.
Donor: N. A. Rasmussen, Oshkosh.
1. Miss E. M. Goelzer 5.00
2. Mrs. W. Delaporte 3.00
3. .....

90. Most artistically arranged large basket of hybrid delphiniums, combined with perennial gysophilia. Perennials to the value of $5.00, winner's choice.
Donor: Donels Posy Hollow Flower Gardens, Waukesha.
1. Mrs. A. L. Schacht....
.....Perennials $3.00
2. .....

91. Best dozen spikes Montbrelia, Montbrelia bulbs value $5.00.
Donor: Donels Posy Hollow Flower Gardens, Waukesha.
1. .....
2. .....
3. .....

CULINARY VEGETABLES

1. Six Blood Beets.
1. Frank J. Lindley, Fox Lake $2.00
2. Northern Hospital for Insane, Winnebago 1.50
3. Paul Haagen, No. Milw. 1.00

(Continued on page 16)

Wisconsin Horticulture

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For term ending December, 1928
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M. S. Kellogg.....Janesville
James Livingstone.....Milwaukee
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For term ending December, 1927
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THE SUMMER HORTICULTURAL TOUR

Those who attended the summer horticultural tour of the Wisconsin State Horticultural Society held in Kenosha and Racine counties on August 20 were given an opportunity to witness many worthwhile projects. Besides being intensely interesting, the tour gave the visitors many pointers along the lines of culture and insect and disease control that in themselves made the time well spent. Among the specialists accompanying the excursion were Dr. Walker, Prof. Vaughan, Dr. Roberts and the State Entomologist. These men and others identified varieties of plants and fruits, insect pests and plant diseases, that aroused the curiosity of those in attendance. The first hand knowledge of pest control methods alone was worth the trip.

The weather man was very kind and an exceptionally beautiful day gave the occasion an ideal setting. The tour started from the million-and-a-quarter dollar county courthouse at Kenosha promptly at 10 A. M. and 15 cars were in line when the first stop was made, each one loaded with horticulturists eager to see what was in store for them along the carefully planned route.

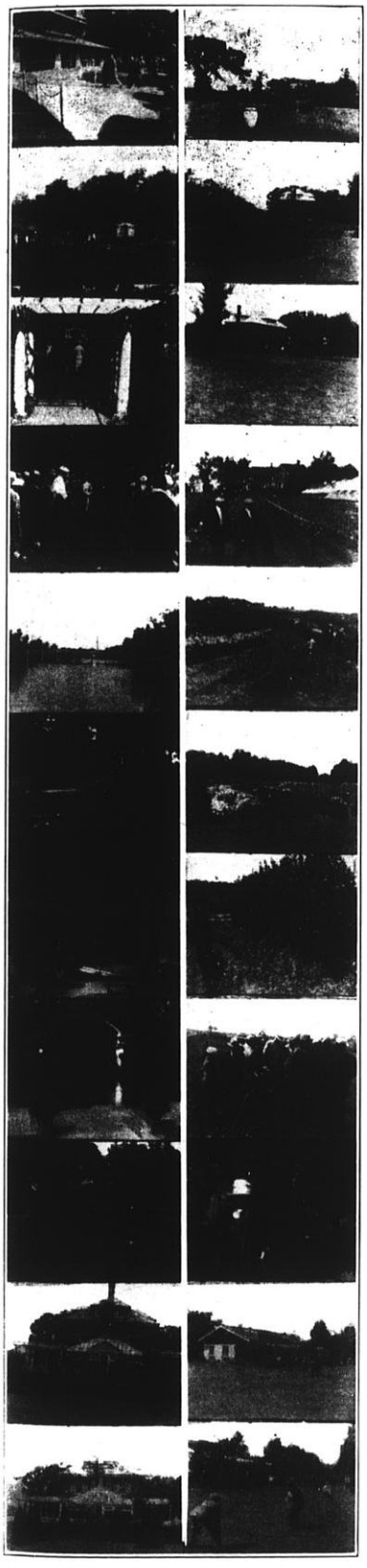
The first stop was made at a Kenosha city park where one of the most beautiful sunken gardens to be seen anywhere in the midwest was inspected. This formal garden was a mass of brilliant colors and it seemed to be timed for the occasion with its many varieties of flowers just at their height of bloom. There was no suffering from drought evident here and the twenty minutes allotted to this stop was altogether too short to begin to satisfy lovers of beautiful flowers and art. Several remarked upon leaving for their cars that if they saw nothing else all day this first stop would make their little outing worth while.

About three miles further down the road the next stop brought the crowd to the Bell Peony Farm, formerly known as the Coopers Peony Farm. Here acres of peonies of all the leading varieties were being grown, and besides the landscape work of this beautiful estate several very interesting and artistic formal gardens were seen. The manager, Mr. Bell, was on hand to show the folks around and answer their many questions.

IN THIS ISSUE

Why Some Orchards Pay
The Hales Corners Club
When to Secure Orders
The Winter Meeting
Florists at the Fair
Badger News
State Fair Premiums
The Kenosha Tour
Currants or Pine?
Market Review
Premiums for Annual Show
Library Page
A Rock Garden

Following these stops several nurseries were visited, including Turner's Greenhouses, Hoefer's Nursery and the Swartz Nursery. The Hoefer Nursery, like the others, had many things of interest to attract the visitors, among which was a planting of the new purple barberry, a hybrid of the Japanese, which grows much like the notorious common variety now under ban because of the part it plays in the spreading of black stem rust to small grains. This new purple barberry has only recently appeared on the market and has been released by the U. S. D. A. as being immune to the black stem rust. Among the varieties of trees Mr. Hoefer showed the tour followers were the new varieties of poplar and elm. He called attention to a block of moline and vase type of elms that he had recently budded. At this point in the tour Dr. Rob-



erts gave a very interesting and instructive demonstration of budding and explained the factors determining the success of such operations. Prof. Vaughan likewise pointed out and explained some of the more common diseases of ornamentals. Someone challenged the crowd to find a single weed in the Hoefer nursery and none could be found and all agreed that no space was wasted here for anything but quality stock. Mr. Hoefer pointed out some new varieties of plants he was developing, one of them being a lily.

From here the tour wound its way through the blocks of shade trees growing in the Swartz nurseries, and into the Thompson and Markham onion fields. Here a large crew of men were topping and crating seed onions. The next stop was at one of the newly acquired Kenosha county parks where the thirsty crowd was treated to a drink of wonderful spring water at the famous "Petrified Springs". From here the tour moved to the Swartz home nursery and after inspecting the orchards and nursery the folks were given a full course home cooked dinner at the school house. Nearly a hundred people enjoyed the elaborate meal prepared for them by the local community club of the Wood Road School.

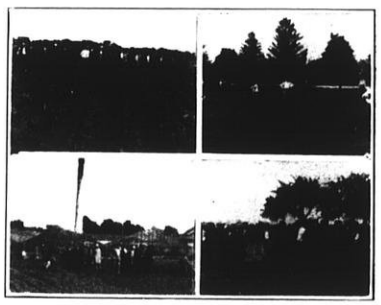
After dinner the horticulturists amused themselves at a game of baseball at which John F. Hauser demonstrated his ability to hit the ball when Dr. Roberts was able to pitch straight enough to hit the bat.

The afternoon was devoted to visiting places of horticultural interest in Racine County, the first two stops being at the experimental cabbage plots of the U. S. D. A. and University of Wisconsin where Dr. J. C. Walker explained how yellows resistant strains of cabbage were developed, and the different strains under observation were shown the crowd. Healthy resistant strains were to be found growing on sick soil alongside of strains that had succumbed to the virus disease known as "yellows".

From here under the direction of Pedar Bach the Obertin Green Houses and City Parks of Racine were visited. The Obertin greenhouse was recognized as one of the best kept greenhouses in Wisconsin.

Under the direction of Mr. Hugo Klumb of the Racine County Agriculture School at Rochester the tour was next taken to some of the local Spray Ring orchards in that vicinity. Here he was able to point out to the visitors that good apples can be grown where proper attention is given to pruning and spraying.

The last stop was made at the Fancher Nurseries near Sturtevant where Mr. Fancher conducted the tour through his blocks of well cared for trees and shrubs.



Snapshots of the Tour
(Photographed by R. E. Vaughan)

The Ninth National Flower Show conducted by the Society of American Florists will be held March 10–18 at the Kentucky State Fair Grounds, Louisville, Ky.

The peony originated in Manchuria or Siberia and its consequent inheritance of hardiness makes it the flower of the North.

The first wild gladiolus was found in South Africa.

HORTICULTURAL TROUBLES

Edited by the State Entomologist

CULTIVATED BLACK CURRANTS ENDANGER WHITE PINES

It has been determined that the European or cultivated black currant is the most susceptible host plant of the white-pine blister rust. The blister rust is a disease caused by a fungus which spends a part of its life growing in the leaves of currant and gooseberry plants, and the remainder, in the bark of white pine trees. The disease is only slightly injurious to currants and gooseberries, but kills white pines of all sizes. The rust spreads by means of wind-carried spores (like seeds). These disease spores can not spread the rust of white pines unless currant or gooseberry bushes are present. All kinds of currants are attacked, but the cultivated black currant becomes diseased more easily than other kinds, and is more active in spreading the rust.

The European black currant, while not extensively grown in the United States, is found to some extent in most sections where currants are cultivated, and Wisconsin is no exception. As the name indicates, it is of European origin. It is commonly called cultivated black currant. Under the conditions existing at the time it was first brought into the United States, this plant did no harm, but the introduction of white-pine blister rust has changed the situation.

White-pine blister rust is a fungous disease destructive to white (five-needled) pine trees. It can attack these trees only after it has undergone a period of development on the leaves of currant or gooseberry plants. This disease is comparatively new to North America. It was introduced from Europe on white-pine planting stock at various times between 1898 and 1910, and has become established in both the eastern and western portions of the United States.

European black currant is a nurse plant for white-pine blister rust. So extremely susceptible is this species to the white-pine blister rust disease, thereby favoring its rapid spread and establishment, that the U. S. Department of Agriculture recognizes the cultivated black currant as a distinct menace to the white pine timber supply of the country. It is so serious a danger to the production of white pine timber as to make this kind of currant a public nuisance in all States where white (five-needled) pines grow.

The State Department of Agriculture, working in cooperation with the U. S. Department of Agriculture, developed means for preventing blister-rust damage to white pines in certain given tracts or areas. Such local control of the blister rust is feasible only in localities where pine values are sufficiently large to warrant the expense and labor of ridding the area of wild and cultivated currant and gooseberry bushes. This work must be done before the white-pine forests are severely attacked, hence it is important to apply general control measures to retard the spread of the blister rust into uninfected regions.

Pine infected with blister rust

PLAN TO ATTEND

The Winter Meeting, Fruit, Flower and Vegetable Show to be Held in Conjunction With the Annual Convention of the

STATE HORTICULTURAL SOCIETY

November 30, December 1, 2, 1927, at Madison

Select Your Exhibits Now

Premium List Appears On Page 15 of This Issue

The principal means of delaying its spread are through enforcing quarantines which regulate or entirely prevent the movement of the host plants of the blister rust, eradication of the European black currants, regulated planting of other kinds of currants and gooseberries, and sanitation of nurseries against the disease in order that only healthy pines shall be planted. During the past summer a crew of a half dozen men were employed for eradication work in the vicinity of Range and Amery to protect white pine stands in that section of the state.

The blister rust is caused by a parasitic fungus which grows within the tissues of its host plants (five-needled pines, currants and gooseberries). It saps the life of these plants. Currant and gooseberry bushes are defoliated by the rust when infection is severe, resulting in reduction of the yield of fruit. On white pines the disease first causes the death of twigs and finally kills the trees. It kills white pines of all ages and, unless controlled, prevents the growing of these trees in areas where currants and gooseberries are abundant.

The disease does not pass directly from pine to pine, but only from pine to currants or gooseberries. However, the rust spreads from one currant or gooseberry bush to another, causing the under side of the leaves to appear as if spotted with iron rust. The spores of this currant-rust stage may retain their germinating power for several weeks. The spores from a diseased pine are also long-lived and may retain their power to infect currants or gooseberries for months.

There is still another and vitally important stage in blister rust infection—the pine infecting stage. A close knowledge of the life history of any plant pest usually discloses some point on which human intelligence can base control measures to reduce the damage caused by the pest and limit its spread. Thus our knowledge of the extreme susceptibility of European black currant to blister-rust infection is helpful in checking the rapid advance of the disease into uninfected regions. After the blister rust reaches the white pine forests, local control of the disease rests upon the peculiarity of the pine-infecting stage of the rust.

Shortly after the rust has appeared on the leaves of currant and gooseberry bushes, there is developed on the under surface of the infected leaves a felt-like mass of tiny hairs. These hairs produce blister rust sporidia, or spores of exceedingly small size, which are so delicately formed that they retain their vitality for a comparatively brief period, and can infect a pine tree only under special conditions of humidity and temperature. Owing to the short life of the sporidia, white pines are infected only within a short radius of the diseased bushes. Even the extremely susceptible European black currants seldom spread infection to pines growing more than a mile from them.

It has been conclusively demonstrated during the past ten years that under ordinary forest conditions in the eastern United States white pine forests suffer no further appreciable damage from blister rust after all currant and gooseberry bushes are removed from the pine area and from a surrounding zone 900 feet in width. In addition, European black currants must be removed within at least one mile radius of the pines, and occasionally it is necessary to remove plantations containing large numbers of plants of the yellow and red flowering currants within the same radius. More facts are

(Continued on page 20)

THE MARKET PAGE

Edited by Wm. Kirsch, State Department of Markets

MARKET REVIEW OF FRUITS AND VEGETABLES

Brighter Outlook in Potato Market. Most Products Close Lower

Several encouraging features were noted in the potato situation and markets strengthened in some places. Prices of lettuce, apples, and grapes were fairly well maintained during the week but most other products sold at lower ranges. Pear markets were unsettled. Cabbage advanced at Colorado shipping points. Total carlot movement showed little change from recent weeks. Homegrown supplies of some products were becoming very abundant and affected the sale of rail arrivals.

Bright Spots in Potato Situation

Considerable confidence in the spring potato market is suggested in a recent report of sales of certified seed stock in western Nebraska, with increased acreage prospects good for a heavy yield. A crop of 400 or 500 cars of certified seed is expected there, and half of these are already contracted at prices ranging from $3.00 per bushel at digging time to $3.80 for February delivery.

Heavy yields seem to be the rule this year. Growers in New Jersey are reported to have made some money this summer, not because of high prices but because of yields averaging around 200 bushels per acre. Production offset the moderate prices, which sometimes were as low as $2.00 per 150 lb. sack. The south Jersey crop is about finished and digging in the central part of the state may be completed this week.

Potato shipments continued at recent weekly volume, with movement increasing rapidly in the northern tier of states. Markets were somewhat irregular but strong efforts were being made toward further recovery and in many sections there was an advance of prices. Prevailing level at Jersey shipping points was around $1.65 per 100 pounds with a range of $1.00 to $1.25 in the middle west and $1.50 in Wisconsin. Colorado western slope sales were mostly at $1.15. The Wisconsin F.O.B. market was opening at 50¢ to 75¢ below the corresponding level of last season. Chicago arrivals were liberal, totalling some 600 cars during the week. Best receipts from Minnesota declined to $1.55 in that carlot market while Wisconsin and Nebraska stock averaged $1.80. Early sales of Idaho Russet Burbanks ruled $2.25. Most of the eastern markets closed at a range of $1.85–$2.25 on New Jersey and Long Island Cobblers.

There will not be an overabundance of potatoes this season if the following compilation is correct: A writer in a leading financial paper interested in potatoes, figures that the average consumption for eating purposes during recent years has been two and two-thirds bushels per capita. This is deducting from the total crop that portion required for seed and all the cull potatoes and those lost by shrinkage and decay. If the production amounts to 411,000,000 bushels as estimated in August, the quantity available for human consumption may be only 287,700,000 bushels or 70 per cent of the total crop. Assuming a population of 119,000,000 persons by January, approximately 318,000,000 bushels would be required for food at the rate of two and two-thirds per capita. This suggests that instead of too many potatoes, there may not be enough for regular requirements.

Western Peaches Active

Peach movement was becoming very active in Colorado and in New Jersey and Pennsylvania. Shipments from California points exceeded those in any other state but many California cars were rolling to canneries or drying plants. Some seasons, New York output results in quite a peak during September but estimated production in New York this year is scarcely half the five-year average for that state. Supplies probably will be moderate from now to the end of the season.

Fewer Onion Imports

Good news for onion growers and shippers is seen in a report from Spain that the late crop there may be only half of last year's volume. Acreage is 30 percent less than usual. Bulbs are rather small but quality good. Present estimates indicate probable total exports to America this season of 800,000 crates compared with 1,560,000 last season. The market in Spain was strong around $1.00 per crate. Additional cargoes are due in New York on Sept. 9. Imports during the past week amounted to only 25 carloads. Western Valencia type onions were bringing highest prices in markets of the middlewest, a few sales touching $2.75 per 100-lb. sack. Yellow stock from various producing sections ranged lower at $1.50 to $2.50 but Whites sometimes brought as much as $3.00. Connecticut valley shipping points were dull with a fairly steady market at $1.75 per sack of Japanese set. Crates of imported Spanish Valencia onions declined to a jobbing range of $1.75 to $2.25.

Foreign Products

Apple interests in America were stirred by an official cable

from London to the effect that the British crop is of generally poor quality, possibly the worst in ten years. British markets were glutted with inferior fruit, selling at 50¢ per bushel. Very few first class apples were arriving. Fruit from the United States was still bringing fairly high prices abroad, and was jobbing well at home. Bushel baskets sold in domestic markets at $1.25 to $3.50, lowest prices being on some Eastern varieties in eastern cities and the $3.50 mark being reached on Arkansas Jonathans in Minneapolis. Chicago reported barrels from the central producing area at $8.50.

Cantaloupe Supplies Were Heavy in Chicago

Standard crates from California declined to $1.50 on the Chicago market with Colorado flats at 60¢ and New Mexico Pink Meats at 50¢. General city range on flat crates of Salmon Tints from Colorado was 50¢ to 90¢. The F.O.B. cash track market declined to 40¢–50¢. Standard crates from eastern shipping sections were bringing low prices and the whole situation was weak.

Lettuce Markets Were Fairly Strong

Differences of quality and condition, as well as differences of source, caused a wide range of $2.00–$4.50 per crate of four to five dozen heads of Western Iceberg type. At Colorado shipping points, a price of $1.75 prevailed. Crates of two dozen heads of Big Boston lettuce from New York state ruled 50¢ to $1.00 in the east with New York City market as low as 35¢. (U. S. Bureau of Agricultural Economics)

Burn melon, cucumber, squash and other vines as soon as they have matured crops, thus destroying any insect pest that might overwinter in them otherwise.

PREMIUMS OFFERED BY THE STATE HORTICULTURAL SOCIETY FOR EXHIBITS AT THE ANNUAL CONVENTION, FRUIT, FLOWER AND VEGETABLE SHOW TO BE HELD IN MADISON, NOVEMBER 30, DECEMBER 1 and 2, 1927

TROPHIES

1. Best Tray of Wealthy: Silver Trophy.
2. Best Tray of McIntosh: Silver Trophy.

CASH PREMIUMS

Single Tray Exhibits

	1st	2nd	3rd	4th
Delicious	$4.00	$3.00	$2.00	$1.00
McIntosh	4.00	3.00	2.00	1.00
Northwestern	4.00	3.00	2.00	1.00
Fameuse (Snow)	4.00	3.00	2.00	1.00
Wealthy	4.00	3.00	2.00	1.00
Windsor	4.00	3.00	2.00	1.00
Wolf River	4.00	3.00	2.00	1.00
Salome	4.00	3.00	2.00	1.00
Westfield	4.00	3.00	2.00	1.00
Tolman Sweet	4.00	3.00	2.00	1.00
Golden Russet	4.00	3.00	2.00	1.00
Willow Twig	4.00	3.00	2.00	1.00

Plates

	1st	2nd	3rd
Pewaukee	$1.00	$0.75	$0.50
Baldwin	1.00	.75	.50
Plum Cider	1.00	.75	.50
Gano	1.00	.75	.50
St. Lawrence	1.00	.75	.50
Banana	1.00	.75	.50
Harvest Winter	1.00	.75	.50
Dudley	1.00	.75	.50
Scotts Winter	1.00	.75	.50
Grimes Golden	1.00	.75	.50
20 Ounce	1.00	.75	.50
Golden Delicious	1.00	.75	.50
Wagener	1.00	.75	.50
Jonathan	1.00	.75	.50
McMahon	1.00	.75	.50
Utter	1.00	.75	.50
Newell	1.00	.75	.50

	1st	2nd	3rd
Best display of three trays each of any three varieties..	$10.00	$8.00	$5.00

	1st	2nd	3rd	4th	5th
Best display of five plates each of five commercial varieties	$10.00	$8.00	$6.00	$4.00	$2.00

(A) The Score Card method will be used in judging.
(B) Trophies will be awarded only on high grade exhibits; the judge may at his option withhold award of any trophy on this account.

FLOWERS

Exhibits must be ready for the judges by 2:00 P. M., November 30, 1927.

CHRYSANTHEMUMS

	1st	2nd	3rd
(1) Best dozen yellow "Mums"	$6.00	$4.00	
(2) " " white "	6.00	4.00	
(3) " " pink "	6.00	4.00	
(4) Best double bunch Single Pompoms	3.00	2.00	$1.00
(5) " " " Double "	3.00	2.00	1.00

(6) For the best exhibit of "Mums", a Silver Cup engraved with winner's name, etc.

The exhibits entered in (1) to (5) inclusive may be entered in (6) also and may include as many other colors, varieties, etc., as the exhibitor desires. This cup will be awarded only for a **high class exhibit** and if it is the opinion of the judges that no worthy exhibit is made, no award will be made.

CARNATIONS

	1st	2nd
(7) Best fifty carnations, any color	$6.00	$4.00

ROSES

	1st	2nd	3rd
(8) Best twenty-five Columbia	$5.00	$3.00	
(9) " " " Premier	5.00	3.00	
(10) " " " Butterfly	5.00	3.00	
(11) Best three Cyclamen Plants	4.00	3.00	
(12) Best specimen Boston Fern	3.00	2.00	
(13) Best display Greenhouse Plants	8.00	6.00	$4.00
(14) Best display Everlasting (straw flowers)	5.00	3.00	
(15) Best Corsage Bouquet	4.00	3.00	

(16) Best arranged basket cut flowers—W. S. H. S. Silver Trophy

VEGETABLES

	1st	2nd	3rd
(1) Best collection, not less than ten entries—W. S. H. S. Silver Cup.			
(2) 6 Blood Turnip Beets	$1.00	$0.75	$0.50
(3) 3 Rutabagas	1.00	.75	.50
(4) 6 Chantenay Carrots	1.00	.75	.50
(5) 3 Winter Cabbages	1.00	.75	.50
(6) 3 Red Cabbages	1.00	.75	.50
(7) 6 Red Onions	1.00	.75	.50
(8) 6 Yellow Danvers Onions	1.00	.75	.50
(9) 6 White Onions	1.00	.75	.50
(10) Largest Onion	1.00	.75	.50
(11) 6 Parsnips	1.00	.75	.50
(12) 1 Hubbard Squash	1.00	.75	.50
(13) 3 Table Queen Squash	1.00	.75	.50
(14) 3 Heads Celery	1.00	.75	.50
(15) 3 Chinese Cabbage	1.00	.75	.50
(16) 6 Salsify	1.00	.75	.50
Greenhouse Grown			
(17) 3 Bunches Radishes	1.00	.75	.50
(18) 5 Tomatoes	1.00	.75	.50
(19) 3 Cucumbers	1.00	.75	.50
(20) 3 Lettuce	1.00	.75	.50

Best Apple Pie—W. S. H. S. Silver Cup.

WILD CARROTS INVADE ROADS AND PASTURES

Madison—Invasion of Wisconsin roadsides and pastures by the wild carrot is threatened today and prompt measures should be taken to get rid of the advance guard of this pest, according to a warning issued by Walter A. Duffy, commissioner of agriculture.

Plant Grows High

Prevalence of the wild carrot in Ohio, Michigan, Illinois, Indiana and New York is surprising, he stated, calling attention to its appearance in both northeastern and southwestern Wisconsin. If neglected here he believes it will soon be as bad as in these other states.

"The plant grows to a height of from two to four feet depending upon whether it is growing in grass land or in grain or corn fields and on the fertility of the soil," he explained. "The leaves are like those of the cultivated carrot and the white flowers form a flat topped spray resembling that of a carroway.

Can Be Blocked

"It is biennial requiring two years to produce seed. If it can be pulled or cut off below the surface of the soil when in bloom and before seeds are formed it can be prevented from spreading.

"The large number of complaints received this year indicates that farmers are beginning to see that it is time something was done. When people get to thinking about a problem it is not long until something happens. More active efforts to prevent the spread of noxious weeds cannot happen too soon."

The dwarf forms of the Tulip are especially charming when grown in groups among rocks.

The U. S. Department of Agriculture has devised a mechanical pressure tester for determining the maturity of fruits. A description of this tester is contained in U. S. Department of Agriculture circular 350, sent free on request.

If in search for a good edging plant, Stachys lanata, commonly called Woolly Woundwort, should not be overlooked. The plant is a perennial, perfectly hardy, and not at all particular as to the soil on which it is grown. The flowers are of but little importance, it is the foliage with its curious, whitish appearance that gives the plant its value.

The Wisconsin tobacco outlook indicates that with favorable weather the crop will be slightly larger than last year, while the production for the United States will probably fall about 14 per cent below that of a year ago.

The canning pea crop in Wisconsin this year was the shortest since 1921. Wisconsin usually packs about half the nation's peas, but this year they packed less than five and a half million cases as compared with over nine million last year.

Most deciduous shrubs can be planted in the fall if done early, as soon as the leaves fall.

(Continued from page 9)

2. Six Blood Beets, Long.
   1. Paul Haagen 2.00
   2. Hugo Koch, Hales Corners 1.50
   3. Bro. Francis Dlask, Fond du Lac 1.00
3. Six Turnips, Flat.
   1. G. M. Tehan, No. Milw. 2.00
   2. Wm. Gilster, La Crosse 1.50
   3. John Reis, Twin Bluffs 1.00
4. Six Turnips, Round White.
   1. Paul Haagen 2.00
   2. Fred Bartsch, W. Allis 1.50
   3. G. M. Tehan 1.00
5. Six Turnips, Round Yellow.
   1. Bro. Francis Dlask 2.00
   2. H. J. Rasmussen, Oshkosh 1.50
   3. .....
6. Six Rutabagas.
   1. R. R. Stephenson, Middleton 2.00
   2. Bro. Francis Dlask ... 1.50
   3. Ella Herr, W. Allis 1.00
7. Six Chantenay Carrots.
   1. Fred Bartsch 2.00
   2. Hugo Koch 1.50
   3. G. M. Tehan 1.00
8. Six Ox Heart Carrots.
   1. Bro. Francis Dlask ... 2.00
   2. Hugo Koch 1.50
   3. F. B. Tindall 1.00
9. Six Danvers Carrots.
   1. Bro. Francis Dlask 2.00
   2. Wm. Gilster 1.50
   3. Northern Hospital for Insane 1.00
10. Tray Peck Red Onions. Danvers Type.
    1. Fred Schroeder, La Crosse 2.00
    2. R. R. Stephenson 1.50
    3. F. B. Tindall 1.00
11. Tray Peck White Onions, Danvers Type.
    1. R. R. Stephenson 2.00
    2. Fred Schroeder 1.50
    3. F. B. Tindall 1.00
12. Tray Peck Yellow Onions, Danvers Type.
    1. Paul Haagen 2.00
    2. R. R. Stephenson 1.50
    3. Bro. Francis Dlask 1.00
13. Tray Peck Red Onions.
    1. Fred Schroeder 2.00
    2. Wm. Gilster 1.50
    3. Bro. Francis Dlask 1.00
14. Tray Peck White Onions.
    1. Wm. Gilster 2.00
    2. Fred Schroeder 1.50
    3. Bro. Francis Dlask 1.00
15. Tray Peck Yellow Onions.
    1. John Reis 2.00
    2. Fred Schroeder 1.50
    3. R. R. Stephenson 1.00
16. Tray Peck Prizetaker Onions.
    1. John Reis 2.00
    2. H. J. Rasmussen 1.50
    3. Wm. Gilster 1.00
17. Tray Largest Prizetaker Onions.
    1. H. J. Rasmussen 2.00
    2. John Reis 1.50
    3. Bro. Francis Dlask 1.00
18. Tray Alisa Crag Onions.
    1. H. J. Rasmussen 2.00
    2. Bro. Francis Dlask 1.50
    3. Wm. Gilster 1.00
19. Tray Onions, any other variety.
    1. H. J. Rasmussen 2.00
    2. .....
    3. .....
20. Two Quarts Pickling Onions.
    1. Fred Schroeder 2.00
    2. H. J. Rasmussen 1.50
    3. F. J. Lindley 1.00
21. Two Quarts Garlic.
    1. Bro. Francis Dlask 2.00
    2. Wm. Gilster 1.50
    3. F. J. Lindley 1.00
22. Plate, 5 specimens, red tomatoes, one variety.
    1. F. B. Tindall 2.00
    2. H. J. Rasmussen 1.50
    3. F. J. Lindley 1.00

(Continued on page 19)

LIBRARY PAGE

My Wild Flower Garden, by Herbert Durand, (48 illustrations) (G. P. Putnam's Sons, pub.)

The author takes his own garden, occupying an area of 60 by 100 feet, and originally a compact and solid mass of bare, protruding rock, and describes the various steps by which it is transformed. He worked with the idea in mind of duplicating as closely as possible on that rock foundation the soil, moisture and exposure conditions prevailing in the woods and fields of the surrounding countryside, thus making an ideal home for the native wildflowers and ferns he wished to grow there.

With the aid of similar rocks from an old stone wall he was able to produce on his lot a very natural looking woodland slope. He prepared an excellent soil for the bed above the naked rock by covering a layer of yellow clay with black mold from a nearby woods. For the rock hollows two or three feet of rich loam was used, and for the "high and dry" places woods earth was mixed with a liberal proportion of clean sand. For trailing arbutus, pink lady-slippers, etc., he made two beds of intensely acid soil, one in a shady and one in a sunny spot. He also made three beds for the lime-loving species of flowers. He added a tiny pool for aquatic plants, and made a "pseudo bog" for swamp flowers.

The author goes rather thoroughly into the subject of hunting, digging, packing and replanting the common wild flowers—half the plants in his garden came from within easy walking distance of his home. He lists the localities from which the commoner wild flowers and ferns might be collected under the two general headings of "Flowers and Ferns of the Forest" and "Flowers and Ferns of the Open Country" and tells which of these species might be looked for along brooks, on moist shaded hillsides, etc. He says the novice in wild flower culture should bear in mind that the common flowers are sufficient in themselves to make a very beautiful garden and are the easiest to grow, and that if a rare specimen of difficult culture is encountered by an amateur, the temptation to dig it should be resisted.

The problem of ground covers or live mulches was met in this specific garden by the use of the partridge berry and the thyme-leaved speedwell. Bluets, the foam flower, the robin's plantain, and the wild blue phlox were other carpeting plants recommended.

Quite a bit of space in this interesting book is devoted to the culture of wild vines and the growing of what he designates as the "finicky" wild flowers. In his chapter on "Cultural Helps and Helpers", he says, "Two or three garter snakes, half a dozen toads, myriads of lady bugs and spiders and omnipresent birds of every feather, give sure protection against ravages by chewing or sucking bugs or vermin." And later, "When I cover the plants in my wild garden, to protect them from winter storms and sudden changes of temperature, I follow Nature's method in preference to that of professional gardeners. Nature never waits until the ground is frozen to spread her mantle of fallen leaves. She begins to scatter them early in October and they continue to fall until all the trees are stripped and every growing thing beneath is snugly tucked away."

The book closes with a chapter on "Soil Acidity" in which a study of soil reactions and their relation to plant distribution and growth is discussed. A list of plants preferring acid soils is also included in this chapter.

The Cultivation of Shrubs, by Katharine M. P. Cloud, (Dodd, Mead & Co., Inc.)

The author deals definitely and individually with shrubs and their cultural requirements, giving careful attention to the special landscape uses, characteristics, general habit of growth and cultural requirements of each specific plant. The book is in two parts, Part 1 containing instructions for soil preparation, planting, pruning, propagation and the combating of insect pests and diseases applicable to shrubs in general. Part 2 discusses the special needs peculiar to the individual plant. The book is well illustrated.

The Flower Garden Day by Day, by Mrs. Francis King, (Frederick A. Stokes Co., pub.)

An accurate reminder of what those who love and work in their gardens should do throughout the year. The advice is arranged in a daily paragraph with a blank page opposite for the gardener's own comment and record.

Iris in the Little Garden, by Ella Porter McKinney, (Little, Brown & Co., pub.)

An interesting book by an authority on Iris. The contents include chapters on the following: Geographical Distribution and Botanical Classification of the Iris; Long Human Associations and Adaptability of the Iris; Dwarf Irises—Early April to Late May; Taller Irises—Early May to Late May; Tall Bearded Irises — Late May to Early June; Siberian Irises—Late May to Early June; After the Tall Bearded Irises and Before the Japanese—Mid to Late

(Continued on page 19)

WOMEN'S AUXILIARY PAGE

EDITED BY MRS. C. E. STRONG

What can I plant in a Rock Garden?
Must it be in a shaded spot?

So many questions are being asked about what to plant in rock gardens, the idea being seemingly that the garden must be in a shaded spot and the plants of a class to be grown in rock gardens only.

I do not pretend to be an authority on this sort of gardening—my wee rock garden grew because it seemed to be the solution of the problem of how to plant the ground about the little sun room. Low growing shrubbery did not appeal to me, high bushes and vines kept out the sunshine, the regulation low flower beds seemed inadequate, and besides the sun beat down and the plants soon looked rather forlorn and baked. So I built a rock garden that centered around a tiny pool and planted Sedums in variety, Allyssums saxatile and rostratum, Edelweiss, wall flowers, Saponarias, Iris primula in purple and yellow, Asperula, Gypsophila, Tumica, Columbines, mostly native, Arabis Alpina, with creeping Jenny to trail over the edges of the pool—said pool being a discarded stock tank; I planted some water lilies (they have bloomed) and the result was very pleasing indeed. In spite of drought and baking sun this little spot has been lovely all summer. The soil was made very rich and packed very solidly between the walls of stone that were built up to form a pleasing slope from the sunroom walls. It is surely going to grow, this garden around the corners, in back of shrubbery where a few real shade loving plants may grow in comfort and beauty. A rock garden to me is just like any other garden. You start it and it will grow to fit the space you have to give it, and the plants are such as grow in your borders and beds. Choose shade or sunloving plants according to your location, which may be near the house as mine is, a corner in the back yard, the terrace, or a bit of rough sloping ground that you are at loss what to do with, especially if that ground is covered with good sized stones, as was the sloping side of a lot belonging to a flower loving friend of mine. As she said "There were so many rocks and such a lot of big ones, in sheer desperation I dug around them and had more ground filled in until just the tops stuck out, then I planted everything I liked in quite thickly so as to cover them at least partially, and do you know if I had spent months in careful planning I do not believe I could have made anything as beautiful or as satisfactory. It looks as though it just grew there naturally."

So you who are longing for a rock garden, do not look upon it as a garden apart—try it out with the plants you are acquainted with and then when its fascination takes hold of you search the catalogues and haunt the nurseries for new plants to add to its beauty and interest.

PLANT A BARN

We used to grow on our own hills,
The boards to make our floors and sills,
But now-a-days we bring them on
From Arkansas and Oregon.
Looks like the sons of me and you
Must import wood from Timbuctoo
If they would build a house and stoop,
A cow-barn and a chicken coop.
To right the wrong while yet we can,
Our forestry extension man
Has got a slogan and a plan,
He's pondered long upon the question
And "Plant a Barn" is his suggestion.
If you start little trees today
Your son will see them on the way,
And your son's son may house his hay.
Two acres pine will see him through it,
One and a half will likely do it.
Your farm has got some rugged spot
That you could use as well as not.
But let us plant a little more
To build a house, roof, walls and floor,
And make that other needed shack
A little off and somewhat back,
Although I hope in days acoming
The farmer folk will all have plumbing.
Oh I am stirred by thoughts like these,
I'll bend my back, I'll bend my knees,
I'll set a lot of little trees,
I'll crown the hill with noble pine
To help my grandson house his kine,
That he may have upon his barn-site,
A better building by a darnsight.

—Bob Adams, in *Farm Bureau News*, of West Virginia.

I am sure every tree lover in the State will say "Them's my sentiments too." And while we are planting pine and maple for boards to build houses and barns for the great-great-grandchildren, let's plant butternuts—hickorynuts and walnuts too—so they may know the delights of a big pan of shaggy butternuts on a snowy winter evening. Time was when, as you drove through the country roads, every shed roof in October held its burden of butter-

nuts and hickorynuts. But most of the trees have been cut down or have died out and have not been replaced. Don't be selfish and think, even if you do not say it, "I will never live to enjoy the fruits of my labor." If you have a place to plant trees, plant them for the coming generations. I believe I would rather have it said of me that I planted the trees which beautified a certain spot, or were a benefit to the generations to come, than to have it said that I was successful in so far as making money was concerned.

(Continued from page 17)

June; Japanese Irises — Late June to July; Regelia and Oncocyclus Irises, with a Few "Miffy" Sorts; Iris Dichotoma and Some for Southern Gardens; Garden Arrangement; Irises for Pools and Water Edges; How to Carry Irises to Flower Shows—Irises in House Decoration; Hybridization and Seedling Raising; Diseases, Pests and Remedies; Through the Calendar with Iris Needs.

* To borrow these books by mail, apply to the Traveling Library Department, Wisconsin Free Library Commission, Madison. The loan period is for three weeks—with postage prepaid.

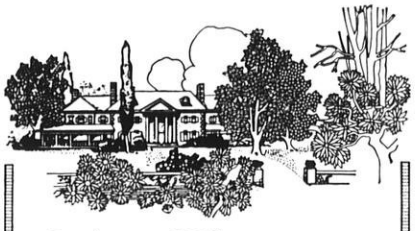
Of all vegetables, tomatoes are richest in total supply of vitamins. Plenty remain even after cooking. Leafy vegetables, cabbage, lettuce, spinaeh, endive, Swiss chard, dandelion, kale, all rank high when used green or partly blanched. Pigmented or colored vegetables are considered superior to white kinds.

Parsley plants may be potted up now and transferred from the garden to the kitchen window, to furnish garnishing for winter dishes.

September is the best time to seed down new lawns, also to plant Rock Gardens.

(Continued from page 16)

23. Plate, 5 specimens, yellow tomatoes, one variety.
    1. F. B. Tindall 2.00
    2. Bro. Francis Dlask 1.50
    3. H. J. Rasmussen 1.00
24. Plate, 5 specimens, Ponderosa tomatoes.
    1. Northern Hospital for the Insane 2.00
    2. F. B. Tindall 1.50
    3. Bro. Francis Dlask 1.00
25. Plate, 5 specimens, pink tomatoes, other than Ponderosa.
    1. Mrs. C. E. Schultz, Milwaukee 2.00
    2. F. B. Tindall 1.50
    3. G. M. Tehan 1.00
26. Largest Tomato.
    1. H. J. Rasmussen 2.00
    2. John Reis 1.50
    3. F. B. Tindall 1.00
27. One Quart Ground Cherry or Husk Tomato.
    1. Wm. Gilster 2.00
    2. H. J. Rasmussen 1.50
    3. .....
28. Tray Red Tomatoes.
    1. H. J. Rasmussen 3.00
    2. Hugo Koch 2.00
    3. F. B. Tindall 1.00
29. Tray Pink Tomatoes.
    1. Bro. Francis Dlask 3.00
    2. F. B. Tindall 2.00
    3. John Reis 1.00
30. Tray Yellow Tomatoes.
    1. F. B. Tindall 3.00
    2. H. J. Rasmussen 2.00
    3. .....
31. Tray Green Tomatoes.
    1. Paul Haagen 3.00
    2. H. J. Rasmussen 2.00
    3. G. M. Tehan 1.00
32. Five Trays Pink Tomatoes.
    1. H. J. Rasmussen 10.00
    2. .....
    3. .....
33. Five Trays Yellow Tomatoes
    1. H. J. Rasmussen 10.00
    2. .....
    3. .....
34. Five Trays Red Tomatoes.
    1. F. B. Tindall 10.00
    2. R. R. Stephenson 5.00
    3. H. J. Rasmussen 3.00
35. Five Trays Green Tomatoes.
    1. Paul Haagen 10.00
    2. H. J. Rasmussen 5.00
    3. G. M. Tehan 3.00
36. Best Display Tomatoes in variety.
    1. F. B. Tindall 10.00
    2. Bro. Francis Dlask 5.00
    3. F. J. Lindley 3.00
37. Three Early Cabbage.
    1. Northern Hospital for the Insane 2.00
    2. G. M. Tehan 1.50
    3. Bro. Francis Dlask 1.00
38. Three Red Cabbage.
    1. Bro. Francis Dlask 2.00
    2. F. B. Tindall 1.50
    3. Fred Bartsch 1.00
39. Three Late Cabbage.
    1. Northern Hospital for the Insane 2.00
    2. Bro. Francis Dlask 1.50
    3. F. B. Tindall 1.00
40. Three Savoy Cabbage.
    1. Bro. Francis Dlask 2.00
    2. ..... 1.50
    3. J. E. Hauser, La Crosse 1.00
41. Spinach, One-Half Peck.
    1. Bro. Francis Dlask 2.00
    2. H. J. Rasmussen 1.50
    3. .....
42. Heaviest Head of Cabbage.
    1. Bro. Francis Dlask 2.00
    2. Walter Ristow, Milwaukee 1.50
    3. Northern Hospital for the Insane 1.00
43. Three Head Chinese Celery Cabbage.
    1. Bro. Francis Dlask 2.00
    2. F. J. Lindley 1.50
    3. H. J. Rasmussen 1.00
44. Six Kohl-rabi, White.
    1. Paul Haagen 2.00
    2. Bro. Francis Dlask 1.50
    3. R. R. Stephenson 1.00
45. Six Kohl-rabi, Purple.
    1. Bro. Francis Dlask 2.00
    2. Hugo Koch 1.50
    3. Wm. Gilster 1.00
46. Three Pie Pumpkins.
    1. R. R. Stephenson 2.00
    2. Bro. Francis Dlask 1.50
    3. H. J. Rasmussen 1.00
47. Six Parsnips.
    1. Bro. Francis Dlask 2.00
    2. J. E. Hauser 1.50
    3. Wm. Gilster 1.00
48. One Hubbard Squash.
    1. Fred Bartsch 2.00
    2. Bro. Francis Dlask 1.50
    3. R. R. Stephenson 1.00
49. One Golden Hubbard Squash.
    1. Bro. Francis Dlask 2.00
    2. R. R. Stephenson 1.50
    3. H. J. Rasmussen 1.00
50. One Marble Head Squash.
    1. Bro. Francis Dlask 2.00
    2. H. J. Rasmussen 1.50
    3. .....
51. Two Summer Crockneck Squashes.
    1. Fred Bartsch 2.00
    2. R. R. Stephenson 1.50
    3. H. J. Rasmussen 1.00
52. Two White Bush Scallop Squash.
    1. Oscar J. Conrad, West Allis 2.00
    2. H. J. Rasmussen 1.50
    3. .....
53. Three Table Queen Squash.
    1. R. R. Stephenson 2.00
    2. F. B. Tindall 1.50
    3. Bro. Francis Dlask 1.00
54. Chicago Warted Hubbard Squash.
    1. Bro. Francis Dlask 2.00
    2. H. J. Rasmussen 1.50
    3. .....
55. Three Cauliflower.
    1. Fred Bartsch 2.00
    2. Bro. Francis Dlask 1.50
    3. H. J. Rasmussen 1.00
56. Three Egg Plant.
    1. Paul Haagen 2.00
    2. H. J. Rasmussen 1.50
    3. .....
57. Three Citrons.
    1. Bro. Francis Dlask 2.00
    2. F. B. Tindall 1.50
    3. F. J. Lindley 1.00
58. Three Rockyford or Netted Gem Melon.
    1. F. J. Lindley 2.00
    2. F. B. Tindall 1.50
    3. Bro. Francis Dlask 1.00
59. Three Emerald Gem Melon.
    1. F. J. Lindley 2.00
    2. F. B. Tindall 1.50
    3. Bro. Francis Dlask 1.00
60. Three any other variety Muskmelon.
    1. F. B. Tindall 2.00
    2. F. J. Lindley 1.50
    3. R. R. Stephenson 1.00
61. Heaviest Muskmelon.
    1. Bro. Francis Dlask 2.00
    2. F. J. Lindley 1.50
    3. F. B. Tindall 1.00
62. Two Watermelons.
    1. Bro. Francis Dlask 2.00
    2. F. J. Lindley 1.50
    3. F. B. Tindall 1.00
63. Six Red Peppers.
    1. H. J. Rasmussen 2.00
    2. .....
    3. .....
64. Six Yellow Peppers.
    1. Paul Haagen 2.00
    2. H. J. Rasmussen 1.50
    3. .....
65. Six Green Peppers.
    1. Northern Hospital for the Insane 2.00
    2. Bro. Francis Dlask 1.50
    3. Mrs. C. E. Schultz 1.00
66. Six Largest Peppers.
    1. Northern Hospital for the Insane 2.00
    2. Bro. Francis Dlask 1.50
    3. .....
67. Display Peppers in Variety.
    1. H. J. Rasmussen 5.00
    2. .....
    3. .....



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3. ....

69. Six Ears Golden Bantam Sweet Corn.
1. F. B. Tindall 2.00
2. John Reis 1.50
3. F. J. Lindley 1.00

70. Six Ears Evergreen Sweet Corn.
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2. R. R. Stephenson 1.50
3. F. B. Tindall 1.00

71. Six Ears Country Gentleman Corn.
1. Bro. Francis Dlask 2.00
2. H. J. Rasmussen 1.50
3. ....

72. One Quart Lima Bean in Pod.
1. F. B. Tindall 2.00
2. Bro. Francis Dlask 1.50
3. F. J. Lindley 1.00

73. One Quart Cranberry Bean in Pod.
1. Dawson Bros. 2.00
2. H. J. Rasmussen 1.50
3. ....

74. One Quart Pole Bean, Wax.
1. F. B. Tindall 2.00
2. Dawson Bros. 1.50
3. R. R. Stephenson 1.00

75. One Quart Pole Bean, Green.
1. Hugo Koch 2.00
2. Dawson Bros. 1.50
3. F. B. Tindall 1.00

76. One Quart Pencil Pod Wax Bean.
1. Hugo Koch 2.00
2. F. J. Lindley 1.50
3. John Reis 1.00

77. One Quart Flat Pod Wax Bean.
1. Northern Hospital for the Insane 2.00
2. G. M. Tehan 1.50
3. F. B. Tindall 1.00

78. One Quart Pencil Pod Green Bean.
1. G. M. Tehan 2.00
2. Bro. Francis Dlask 1.50
3. F. B. Tindall 1.00

The premium award list will be completed in the October issue.

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Aitkin, Minnesota

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Priced Right for Fall Delivery

DEMOCRAT PRINTING COMPANY
MADISON, WISCONSIN

(Continued from page 13)

required before the exact width of the protective zone under western forest conditions can be definitely specified. However, there is no indication that it will vary greatly from the distance found effective for local control of the blister rust in the Eastern States.

At the recent State Fair at Milwaukee one of the features of the exhibit of the Division of Insect and Pest Disease Control was an interesting display of White Pine Blister Rust arranged with living young white pines showing this disease. These disinfected characteristic swollen areas, together with various species of ribes leaves bearing one stage of the rust, gave the fair visitor an opportunity to see one of the limiting factors in reforestation.

The purpose of this exhibit was to familiarize the public with the disease and explain the necessity for its control, as well as to emphasize the importance of the nursery inspection law which prohibits the transportation of trees and shrubs without inspection.

Every effort is being made by the State Department of Agriculture to retard the spread of this disease in the infected counties of the northern part of the state. The federal government has a quarantine No. 63 which prohibits, under penalty, the movement of any white pine or black currants under any conditions outside of this state. This white-pine blister rust regulation further provides, under a heavy penalty, that no currants or gooseberries can be shipped out of Wisconsin without a special permit provided only after an inspection has been made and a certification issued showing that no black currants are present within one mile of the nursery or the ribes stock in question.

Apple scald is the most serious of the storage diseases.

WISCONSIN HORTICULTURE

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CERTIFIED POTATOES PROVE BIG MONEY CROP

By H. J. RAHMLOW

Growing certified potatoes has become one of the big money makers for Wisconsin farmers, especially those in the Northern sections. At this writing farmers are getting $2.50 per cwt. for their certified Triumphs at digging time, when common stock brings only $1.25.

For the past few years certified Triumphs have brought the most money. They are shipped to Texas, Louisiana, Alabama and other southern states for seed. It is unfortunate for growers in these sections that the disease called "Mosaic" affects the plants so they yield practically no marketable potatoes. What is the southern farmers' loss seems to be our farmers' gain. Since there has been no cure discovered for this disease the only thing the southerners can do is to get seed stock of the best quality from the north.

The Seed Inspection Department in Wisconsin requires that a field must have less than 10% of the mosaic disease to pass inspection. That it is rather difficult to meet this requirement is shown by the number of growers who fail to pass inspection each year. These failures have kept the supply of Certified Triumphs below the demand. Prices have been unusually high, but the southern grower is willing to pay them because he knows that in the long run it pays in increased yield to buy low mosaic seed. Some strains of common seed run as high as 75% in mosaic disease.

FARMERS PUT ON THEIR FEET BY POTATOES

During the past few years of depression in farming certified Triumphs have saved the day for many farmers. For example a Price County farmer raised 1,500 bushels of certified seed on five acres of new land, and sold them at $4.00 per cwt., bringing him $3,600.00. This was a profit of about $2,800.00. Several others made even more.

However, certified seed growing is not a "get rich quick" scheme. Many have made money, but some have tried and failed because they could not meet the requirements of certification.

BIG PROBLEM TO SOLVE

The story is not so rosy if, after spending considerable money for seed, fertilizer, etc., the inspector finds from 15 to 30 percent mosaic plants in the field. It means that the potatoes must be sold as "common stock" and perhaps bring less than $1.00 per bushel, or just a little above the cost of production.

The problem is to get seed that will produce a crop with less than 10% of this disease. Mosaic spreads so rapidly that on most farms the same seed is not safe for more than two years. Even then many farmers have purchased seed from fields showing a very small percentage of diseased plants, only to find that the next year their percentage was too high to pass inspection. Bad luck of this kind has discouraged a number of growers.

HORTICULTURAL DEPARTMENT HELPS

The Horticultural Department of our University has spent years of work on this problem. Dr. L. R. Jones, Professors J. G. Moore, J. G. Milward, R. E. Vaughan, and John Brann, have spent a great deal of time and have given real help to the growers.

It is now possible for a grower to send a sample of his seed to the Horticultural Department in the fall, and by February first he will know the percentage of mosaic disease in his seed. If the percentage runs high, he can still sell his seed and buy better stock for his spring planting. This service has saved the day for many a grower.

The Horticultural Department is also supplying growers with extra good seed grown at the State Experiment Station at Spooner under the supervision of Prof. Milward.

There was a feeling a year or two ago among growers that Montana, Nebraska, and other Western States, were going to supply the demand for Certified Triumphs. This did not prove true because of the work done by our Horticultural Department. Wisconsin will keep her place when it comes to quality production. We have the farmers, the soil, the climate, and the perseverance that will keep us on top.

The peony is one of our perennials and should be planted more extensively. Although this plant will thrive under the average conditions it is subjected to yet if possible ground should be selected free from shade and well away from trees. Peonies do not do well on low ground and the plant must never stand in water. Good garden soil is satisfactory for peony growing. When fertilization is found necessary well rotted manure should be used. Care should be taken not to have this material touch the plant or root on account of burning them, and it should be carefully spread between the rows. Do not plant too deeply but see that the eyes or buds are planted just a trifle below the level of the ground. Pack the dirt firmly about the roots and each rootlet and finally heap up some dirt over the top for good measure. This will prevent surface water from standing about the plant.

The Strawberry Picking Scene appearing in the September issue, while a Sullivan plantation scene, should have been credited to E. W. Sullivan of Alma Center, Wisconsin.

GOOD REPORTS ON FALL STRAWBERRIES

A recent letter from J. H. Tichenor, of Cataract, Wisconsin, who is quite an enthusiast on the subject of Everbearing Strawberries (he has been growing them since 1898) gives the following brief suggestions on their culture. He says: "Don't set everbearing plants in the Fall. Set them as early in the Spring as the ground will permit, in March or April if possible. Set the plants in rows four feet apart, with the plants twenty-two inches apart in the row. Keep all the blossoms picked off until about June 20th. Get right on the job with the cultivator after rains—you cannot create moisture by cultivation but you can conserve it. If you wish the maximum of fall berries regardless of plants then cut off all runners. You will find also that plants deprived of runners will endure more drought than those with plants to feed."

Mr. Tichenor not only can tell how to raise everbearing strawberries, but he also can raise them. Up to the date of his letter, September 30, he had sold some fifty 16-quart cases of Fall berries, averaging $3.20 per case, or a total of $160.00 worth, from a little more than a half acre of spring-set berries. He had three sixteen quart cases on hand, picked that day and ready for market, and said that his plants were simply loaded with berries, so it would seem that he is correct in his contention that it is the spring-set plants that produce bumper berry crops.

Eight of our principal garden vegetables had their origin in the Indian crops existing here before the coming of the white man. This number includes beans, corn, peppers, pumpkins, squash, tomatoes, potatoes, and sweet potatoes.

E. B. GEORGE

OHIO MAN BECOMES VICE-PRESIDENT OF MCKAY NURSERY COMPANY

E. B. George, of the Storrs & Harrison Company, Painesville, Ohio, has recently become associated with the McKay Nursery Company of Madison and Waterloo, Wisconsin, in the capacity of vice-president and general superintendant of production.

This change brings to Wisconsin a man schooled in all lines of nursery activity. He entered the nursery business under his father at Storrs & Harrison's thirty-two years ago, and at the time of his resignation, September 1, was vice-president and general manager of that company. He is very well known in the nursery field, and at the meeting of the American Association of Nurserymen at Cleveland last June was chosen vice-president of that national organization, because of his outstanding accomplishments in Nursery work.

Mr. George expects to make his home at Waterloo, Wisconsin, and has already moved his family there.

The largest individual fruit cannery in the world is in Honolulu.

ANOTHER SUGGESTION FOR CODLING MOTH CONTROL

In a desperate effort to control the codling moth and get away from the spray residue problem many mechanical methods have been suggested from time to time to bring the moth under control. Among them is the trapping method used in Colorado where the moths are attracted by a fermented cider bait and killed.

Now comes a story from the Yakima valley in Washington to the effect that the native gray bat, known to feed freely on the moth—since both have the night-flying habit — is to be reared in large numbers.

Apple growers in the Valley seem willing to try the direct-action method of killing the moths, and a movement is already under way there to build a demonstration bat roost to accommodate 20,000 bats. Inhabitants of one bat roost will eradicate all the mosquitoes within a radius of four miles it is estimated and the belief there is that the codling moth can be eradicated in the same way. "A single bat has been known to eat 250 mosquitoes and if it ate 250 codling moths that would mean the spoiling of 500,000 eggs," Dr. Miller, one of the ardent advocates of the plan, says.

Indiana and California are holding out hope that the moth can be killed by means of a small wasp parasite, known technically as the "Trichogramma minutum", and very destructive to moths; and experiments in this direction are being conducted in those two states.

The new gladiolus "Mother Machree" which was shown for the first time at the recent national exhibition in Hartford, Conn., was sold by its originator, Floyd Stevens of Laconia, N. Y., for $3000.

MUSHROOM TIME

By THEODORE T. BROWN

This is the time of the year when you may take your basket and perhaps a small supply of paper bags and sheets of waxed paper and fare forth along the city streets and into the woodlands and pastures in search of mushroom food for the home table. Whether you have a knowledge of mushrooms or not you will get some real enjoyment in hunting for them. The common edible species of mushrooms occurring in southern and central Wisconsin may be roughly divided into two groups —those which are found in the greatest abundance within the borders of cities and villages, on lawns and on unoccupied ground, and those which occur most frequently in pastures or which hide themselves in thickets and leafy beds in woodlands.

As many as two or three hundred species of mushrooms exist in the fields and woodlands in the vicinity of most of our cities. Of these some are poisonous or unwholesome, some are woody or otherwise unfit to be eaten, and a large number of others are uncommon, or hardly ever to be obtained in sufficient quantities to provide a decent mess.

Among all of this large number of fungi are only about twenty common edible species which the mushroom hunter will find it profitable to know and to collect for table use. All are well known and their forms and habitat are not difficult to learn. They are described and pictured in all of our standard books on mushrooms. In nearly every locality there are also persons who know these common species well and have feasted upon them for years. Once known there is little excuse for getting into trouble by mistaking them for others. Some are as different from each other as the tomato is different from the potato.

CITY MUSHROOMS

If you confine your mushroom gathering to the city or town keep your eyes always open for the Small Inky Cap. This is a very abundant small species growing on lawns and in curb strips about stumps and tree trunks in dense clusters from spring until rather late in the year. You are likely to come upon them most unexpectedly in your walking about the city and it will be well to keep a paper bag in your pocket for such emergencies. You will recognize this mushroom readily by its light brownish cap, its slender white stem and its white gills which turn black when the plant reaches maturity. It is a great favorite with mushroom lovers.

Its relative, the Large Inky Cap is considered to be one of the very best of all edible mushrooms. It is larger than the other with a grey or brown bell-shaped cap, sometimes scaly. It is a very common species, growing in groups or clusters on lawns and waste places. Sharp eyes are sometimes needed to see it in the tall grass or among the fallen leaves.

Both Inky Caps can be prepared for the table in the same manner. After they have been washed they may be placed in a saucepan with a small quantity of butter and fried slowly. They are then served on slices of toast. They can also be used in soups and gravies and be prepared in a number of other appetizing ways.

One of the very best of our common edible mushrooms is the widely known and appreciated Shaggy Mane. It has a white bell-shaped cap covered with shaggy scales. Its gills are at first white, turning to pink, purple and then black and finally dissolving into a black inky fluid. Its stem is white. It grows on lawns and waste lots in groups and clusters.

At Madison some of our best collecting grounds have been some marshy ground east of the Capitol which had been filled in with ashes and soil and become partly overgrown with weeds. In these places they reappear year after year.

The Shaggy Mane may be prepared like the Inky Caps. It may also be cooked in a roasting pan, the mushrooms being laid about a meat roast.

After a summer or autumn rain the little White Hypholoma can often be collected in quantity from some city lawn. It is a tender little mushroom with a cap that is at first bell-shaped and then expanded, and with a white stem that is hollow and very brittle. When water soaked the cap is a light brownish color. Its gills are at first white, becoming pinky-brown. This is also a saucepan mushroom and is as good as any.

The common Cultivated or Meadow Mushroom is well known to mushroom lovers. From summer until autumn, especially after rains, it is common along the curb strips of our city streets, also growing on lawns. Its cap is white or brownish, its gills pink then brown, and it has a ring near the middle of its stout white stem. It is prepared in many different ways. It can be cut into slices and eaten with steak, baked or broiled. It is also eaten raw by some mushroom lovers. Some can it for winter use.

In many cities the Elm Mushroom, a large stout mushroom, is found at this season of the year growing in the crotches or from the branches of elm trees. This is a finely flavored species. When old, however, it is quite tough. Often a special collecting apparatus such as a fishpole provided with a wire loop is needed to bring it down. It can be sliced and fried or stewed.

To the writer's mind one of the most delicious of our common edible fungi is the little Velvet Stem. It grows often in dense clusters on or at the bases of stumps or from decayed spots on living trees. It has a yellow-

brown cap, which is very sticky when moist, and yellowish gills. Its stem is clothed with a brown velvet.

The Velvet Stem is often abundant at the bases of willow trees along lake or river shores. This mushroom can be collected all the year round. I have frequently gathered it in the dead of winter from beneath the snow. It is cooked with meats and eaten in soups. Some persons dry it in quantity for winter use.

Pastureland Species

In pastures and similar places at this time of the year one may search for the Giant Puffball or some of its puffball relatives, all of which are edible. These are good as long as the flesh is white. When it becomes tinted with yellow they are bitter.

The Giant Puffball sometimes attains a very large size, sometimes weighing ten or more pounds. A single specimen may provide a meal for several families. In preparing puffballs the outer skin is removed and the flesh cut into slices. These are placed in a pan with a sufficient quantity of butter, browned on one side and then on the other. No pancakes ever tasted better than these. The flesh may also be cut into cubes, rolled in an egg mixture, and then cooked.

Another mushroom favorite which grows in pastures (also on lawns and other grassy places) is the Fairy Ring. It obtains its name from its habit of growing in rings of small or large diameter. It is a small mushroom with a buff-colored cap and white or brownish gills. It is used in various ways. It can be dried for winter use.

In pasture lands and woodlands which contain stumps one may look for the Honey Mushroom, one of the most abundant of our late summer and autumn fungi. It occurs in tufts or clusters of several or many individuals.

The entire plant is often more or less of a honey color. There is a prominent cottony ring on its stem. The caps usually have near their centers numbers of small sharp black erect scales. The gills are white or whitish. There are a number of varieties, some making their appearance on city lawns.

The Honey Mushroom in favorable years is often so abundant that you may need a large bag to bring home a good supply. Although one of the coarsest, it is a favorite and well known species and is collected in great quantities by mushroom fanciers. The popular way of preparing it is to cut the caps into pieces and place them in a saucepan with a quantity of butter and then stew them. A small amount of milk and flour is then stirred into the stew to produce a sauce. Honey Mushrooms may also be broiled, a bit of butter being placed on the gills. Many persons dry them or pickle them for winter use.

Growing in the same habitat as the Honey Mushroom is also found the Brick Top, almost as great a favorite. It grows in dense clusters. It has a reddish or reddish-brown cap, gills which are at first yellowish, then greenish and finally purple-brown. The Brick Top can be cut in pieces and dried or pickled.

Woodland Species

A large stout mushroom is the Purple Top or Clay-Purple Clitecylae, with a whitish or ochre-yellow cap with purple gills, and a solid pale-yellowish stem. It is a tough mushroom, but is excellent when well-cooked.

Another fine woodland autumn species is the Chantarelle, a light or bright orange-yellow mushroom with a straight or slightly depressed cap, and with similarly colored stem and gills. The gills are thick and forked. The Chantarelle is famed as one of our most delicious species.

The Blue Hat, a stout mushroom, much prized, is usually found growing in leafy beds or in hazel brush or other thickets in the woods. The entire plant is often of a lilac or purple color. The cap is smooth, grayish or brownish tinged with lilac or purple. The gills are violet or lilac when young, afterwards changing to a dull reddish-brown. The stem is stout and solid, often with a bulbous base of a deep lilac color. The Blue Hat is one of the best of our edible fungi and has a fine flavor.

The Prune Mushroom often appears in considerable numbers in some favorite spot in the woods. Its cap is of a whitish or dark grey color. Its gills are at first whitish, later changing to a salmon color. Its stem is white or whitish. Growing near the Prune Mushroom is often found its abortive form which is white and somewhat like a prune in shape. This mushroom is a fine food species. When fresh it has a mealy odor and taste. The Prune Mushroom may be cut into pieces and stewed in milk and served in the same manner as an oyster stew.

The Sulphur Mushroom is an edible bracket mushroom growing from stumps or from wounds or knot-holes in living trees. The caps are more or less fan-shaped and overlap. The tops are of a bright orange and the lower surface of a sulphur yellow color.

This is a choice edible mushroom. We have often collected many pounds from a single tree. It becomes woody and tough when old. The caps can be cut into small squares and served in a meat stew. It can be also chopped or hashed into tiny bits and made into croquettes with meat "left-overs" and rolled in cracker crumbs. Some persons enjoy eating this mushroom raw.

A related species, the Leafy Polyporus or Cabbage Mushroom, grows from the roots or about the bases of dead trees.

(Continued on page 39)

THE UNIVERSITY PAGE

NEW ORCHARD PROJECTS AT THE UNIVERSITY

By R. H. ROBERTS

The building of the new men's dormitories at the University of Wisconsin necessitated the abandonment of the old orchards in the rear of Agricultural Hall. A new orchard of approximately ten acres was started near Eagle Heights about two miles northwest of the Campus, in 1926. This area is located between two high wooded knolls, these offering good wind protection and providing good soil moisture conditions. It is, however, not a "pocket" as an inland valley on one side and the lake at some little distance on the other provide good air circulation.

The apple plantings are divided into five areas. One area is the Instructional Orchard in which trees of three varieties are planted, one-fifth each year for five years. At the end of the period this will provide trees of different ages and types for student instruction in pruning, growth character, and fruiting habits. A Seedling Trial Orchard is being developed for the trying out of promising seedlings. At present most of the more highly recommended selections from the Iowa, Minnesota, New York, and Canadian Experiment Stations have been secured. There are also some local seedlings. It would help in the development of this project if the Horticultural Department of the University would be advised of any promising seedlings so that scion wood can be secured and these new sorts tried out in comparison with other new kinds.

A Collection of Standard Varieties to be used principally for instruction work in variety identification and growth and fruiting habits has been started. A fourth area is given over to what is termed Demonstration Plantings which includes such treatments as age of plant, amount and type of pruning at planting time, and height of heading. The fifth and largest portion of the orchard includes the Experimental Plats. The largest of these is a planting of two hundred McIntosh and Wealthy trees which are being used for cultural and pruning tests. Part of this area is in clover sod both with and without commercial fertilizers and barnyard manure.

There are also plats in which different cover crops are used as sweet clover, soy beans, oats, and weeds. A test is also made of time of planting of cover crops. The influence of cultivation was especially marked in this year of summer drought. The trees in sod made only about half the growth of those which were cultivated.

As the trees in the cultural plats are planted in a rectangular filler system of 17 x 28 feet, alternate rows are being used in pruning experiments in which time, amount and type of annual pruning is being done. The permanent trees are pruned to the so-called "modified leader type".

Another lot of trees for experimental work includes some varieties with very different fruiting habits, such as Dudley, Northern Spy, and Liveland Raspberry. It is hoped that observation of the peculiar bearing habits of these kinds may throw additional light on the general question of blossom bud formation and fruitfulness. Other trees of peculiar variety characteristics in this planting are Delicious and Northwestern Greening. These are used in an attempt to employ pruning to develop better and stronger heads than are often found with these kinds.

Another experimental plat includes trees of different nursery treatments, sizes, and root stocks. The stock and scion question is particularly important at present because of the Federal quarantine which is shortly to exclude the importation of foreign seed and seedlings which at present are the main source of American nursery stocks. In this particular experiment special attention is given to the question of the relation of tree size in the nursery to its growth and fruitfulness in the orchard.

Material is being collected to give information on the much discussed question of the red and striped Snow.

A plum variety collection is being grown, also some trees of Montmorency and Early Richmond cherries for fruit setting studies.

THE MAKING OF HOUSE PLANTS FROM SLIPS

It is a simple matter to take cuttings or slips of Geraniums, Heliotropes, Coleus and other tender bedding plants before the tops are killed by frost. Tip cuttings are especially easy to handle, and some gardeners prefer them to cuttings taken lower down. To make a cutting the tip is cut off, taking about two inches of stem and cutting just beneath a joint. All but one leaf is removed, and also the large leafy stipules, as these might rot and infect the stem, causing rot and death. To root the cuttings, place them in sand or very sandy soil in a warm and shaded place. A deep box which can be covered with glass, to maintain a humid atmosphere, is the best place. One gardener keeps a warm soapstone under the cutting box, thus simulating the bottom heat provided by pipes in a greenhouse. (Horticulture).

BADGER NEWS

From Wisconsin Papers

DOOR COUNTY APPLE CROP BIGGEST EVER PRODUCED, REPORT

New York Pays Highest Prices for Boxed Apples; Crop Ready to Ship

Sturgeon Bay, Wis.—The Door county apple crop this season is one of the biggest and best crops ever raised in the county according to H. W. Ullsperger, secretary of the Door County Fruit Growers Union. Beside a large number of farm orchards, 1,600 acres in regular orchards are producing the big crop of this year. The largest preceding crop consisting of 102,000 bushels was grown in 1925. The crop this year exceeds the crop of 1925.

The Duchess crop consisting of nine carloads has already been harvested, packed and shipped. Six cars of Dudleys have also been shipped and five cars more of the same variety will soon follow. Seventy-five carloads of Wealthies and ten carloads of Wolf River apples will be harvested and shipped after the Dudleys are gone. Other varieties in the order of their ripening and the quantity are, Snow Apples, twenty cars; McIntosh, thirty-five cars; Northwest Greening, seventy-five cars. After those will come the later, winter varieties, such as the Talman Sweets and miscellaneous twenty-five cars.

Shipments are being made to Milwaukee, Chicago, Duluth, northern Wisconsin points, to the Dakotas and to eastern cities.

The apples are packed in boxes according to the western style and shipped under the Sturgeon Bay brand.

Two girls experienced in packing apples are expected to arrive in Sturgeon Bay next week to lead in the packing of the McIntosh apples in boxes for the New York and other eastern markets. Each of these girls pack 150 boxes daily containing 150 apples each. Each apple in a box has to be handled and wrapped individually.

New York pays a much larger price for the McIntosh apple than does other markets and prefers apples packed in boxes.

DOOR COUNTY APPLES LEAD STATE EXHIBITS

Door county led the state in the apple display at the State fair held in Milwaukee, taking sixty ribbons and $370 in cash prizes. Among those exhibiting were Herman Ullsperger, of the Bonnie View Farm, A. W. Lawrence and the Wisconsin Fruit Farm. The display was one of the largest ever seen at the fair and was arranged by Diedrick Peters assisted by Mr. Ullsperger.

REPORT SHORTEST U. S. APPLE CROP

Shortest Since 1921; With That Exception Least in 20 Years

Prospects that the apple crop this year will be the smallest since 1921 and, excepting that year, the smallest in 20 years, are reported by the bureau of agricultural economics, United States department of agriculture, in a special summary of the situation.

Early fall frosts are endangering the crop in some districts, and from an expected total of 26,200,000 barrels on July 1, estimates of the commercial crop have been reduced to 24,200,000 barrels, says the bureau. Similar reductions have been made for the commercial crop in Canada, where less than 3,000,000 barrels are expected.

ENROLLMENT IN COLLEGE OF AGRICULTURE GREATER

Enrollment in the Wisconsin College of Agriculture at the beginning of the fall term shows a substantial increase over similar enrollments during the past several years, according to the report issued by Dean J. A. James, in charge of student registration at the College of Agriculture. There are 71 new students in the agricultural long course, 10 freshmen in the middle course, and 86 freshmen girls entering the Home Economics division. The total student body, including graduate students in agriculture and home economics, is listed at 726.

U. S. FARM EXPORTS HIT NEW HIGH POINT

Washington — (LP) — American farm exports last year were higher than any in the previous five years Secretary of Agriculture Jardine said Saturday. Agricultural shipments abroad were 36 percent greater than the pre-war level, he said. Cotton, grains, fruits and vegetables were the principal export items.

BLACK-WALNUT HUSKER CLEANS BUSHEL IN FIVE MINUTES

Utilization of thousands of bushels of black walnuts, now wasted every year because of the expense of removing the hulls, is seen as a result of the introduction of a motor-driven husker. It is said to clean a bushel in less than five minutes, turning out each nut as bright and clean as though it had been scrubbed with a brush. The huller is made in various sizes and running water is used for cleaning. Walnut culture is being urged because of the food value of the product and the ease with which the nuts can be grown. The trees thrive in low land unsuited for other crops on account of drainage problems and the likelihood of floods.

POTATO ON IDAHO AUTO LICENSE BOOSTS PRODUCT

Idaho automobile-license tags for 1928 will bear an embossed representation of a potato in natural colors against a green background, and the words "Idaho Potatoes" will appear at the bottom of the tag. This plan of advertising a state's leading product on the auto licenses was started by Massachusetts with the figure of a codfish on the plate.

NAGLER NAMED CONSERVATION DIRECTOR

The conservation commission Saturday night named Louis B. Nagler, executive secretary to Gov. Fred R. Zimmerman, to the position of conservation director, with the declaration that "he is fully fitted and qualified to discharge the duties of that office without fear or favor." The commission was unanimous in its vote giving Nagler the position.

Mr. Nagler won the appointment from a field of 40 men who were considered for the position. Names submitted to the commission for consideration included those of Judge A. K. Owen, Phillips; W. E. Barber, La Crosse, former conservation commissioner; Louis Radtke, Horicon; William Bruce, Milwaukee; Aldo Leopold, assistant manager of the United States Forest Products laboratory, Madison; Rudolph Scheibel, former secretary of the conservation commission, and B. O. Webster, now in charge of fisheries for the state and C. L. Harrington, state forester.

Mr. Nagler will assume his new duties on Nov. 1 at a salary of $5,000 a year for the present. His appointment will necessitate the naming of a new executive secretary.

IMPROVEMENT ON WISCONSIN SEED POTATOES

(Recent Potato Tour Demonstrates Progress)

By J. G. MILWARD, Wisconsin Experiment Station

The 1927 Wisconsin Potato Tour offered an excellent opportunity to check on recent progress made in important producing potato belts, especially as relates to seed potato improvement of the Triumph, Irish Cobbler and Green Mountain varieties.

In recent years the inspection boards of the several seed potato producing states have placed particular emphasis on a group of maladies commonly designated as "virus diseases". This group includes mosaic, spindle tuber, leaf roll, curly dwarf and other less known maladies.

Attention has been directed to these maladies thru seed potato trade channels. It is generally recognized now that these maladies are closely associated with the "running out" of seed potatoes and the degeneration of seed potato stocks. The truck centers of the South especially report reduced yields from mosaic and spindle tuber.

Organized Federal and State agencies have been especially concerned, not only in research studies on these maladies, but also in the applied practical recommendations for their reduction in the seed potato stocks of the country. Official Seed Potato Inspection Departments in producing states have adopted special standards and continue to follow up the behavior of seed shipments in important truck centers of the South and East.

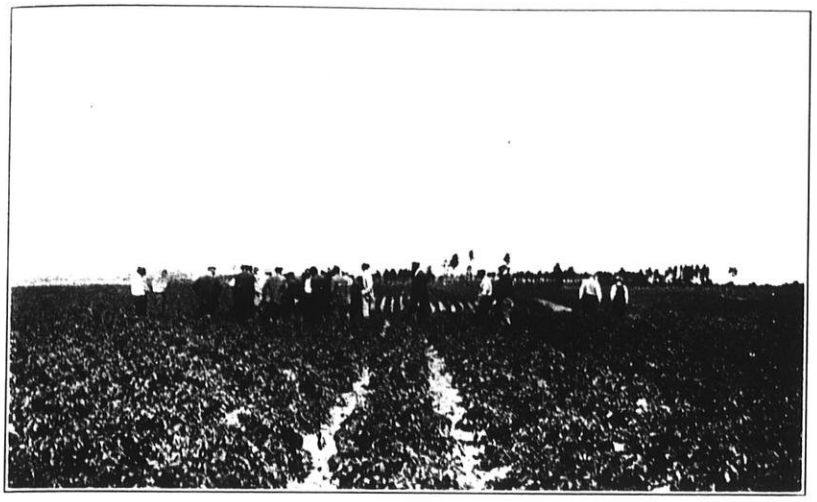
In Wisconsin special attention has been given to mosaic control with the Triumph variety, thru tuber indexing* under the direction of the Horticultural Department, Wisconsin Experiment Station. Foundation seed stocks were obtained from several northern counties. On an average around 100 bushels of Triumph seed potatoes have been indexed each winter since the work started in 1923. After removal of mosaic, the clean stock has been placed with growers for increase and has also been grown on the Spooner Branch Station.

Results to date show that the disease has been reduced on a field scale to meet the requirements of the high class seed trade. For example, the Horticultural Department distributed 700 bushels of seed this year from the 1926 Spooner crop. This season's crop represents two years removed from indexing. The mosaic counts on fields this season planted with this seed runs from 2 to 5%. Considering desirable conditions also in respect to type, general vine vigor and yield, this seed has fully met the expectations of the Department. It represents the kind of stock the seed potato markets are asking Wisconsin to produce. Several growers in the state have similar satisfactory results from seed stock indexed at the Horticultural Department and subsequently grown for increase on their farms.

On the recent Wisconsin Potato Tour scheduled stops were made in Marinette, Forest, Langlade, Oneida and Vilas counties where fields grown from indexed stock were inspected. This region comprises the most important Triumph belt in the state. Other important centers are located in Price, Oconto, Barron, Washburn, Sawyer, Burnett and Taylor counties.

Mr. J. W. Smith, who developed the famous Smith strain of Triumph potatoes

Charles Drewry, county agent of Marinette County (left) and Eric Mickelson (right) in the latter's field of certified seed potatoes



A field of Triumph in Marinette County

The interest manifested to date in these counties indicates that Wisconsin is alive to the possibilities in this type of work. The soil and climate factors are unusually favorable in upper Wisconsin in relation to type and quality production. Certain fields were inspected this year ranging from 250 to 300 bushels per acre. Favorable results in the reduction of mosaic, coupled with these unusually favorable conditions will place Wisconsin in a favorable position in interstate competition.

No potato tour in recent years presented so many definite conditions and contrasts relating to special problems. In Marinette County, for example, unusual contrasts in fertilizer results were apparent. In Forest County the Irish Cobbler seed situation was featured in the field inspections. In Langlade County Wisconsin seed stock was grown in contrast to seed obtained from Western irrigated Triumph sections. In Oneida and Vilas counties both Triumph and Green Mountain fields were featured.

In all the counties scheduled on the tour, in addition to the question of mosaic control, interesting fields were visited showing late blight, spraying and dusting demonstrations, seed potato treatment and other important cultural operations.

The Wisconsin Potato Tour is attended each year by interests representing every phase of the industry, especially growers, shippers, transportation interests, manufacturers and dealers of machinery, fertilizers, spraying material and potato growers' supplies. Various state and federal government departments join in the tour.

* Editor's note—Potato indexing is the practice of taking an eye from a tuber and planting it out under greenhouse conditions to see whether it develops mosaic. If the young plant shows the characteristic mottling the tuber from which the test eye came is discarded for planting purposes. In this way the mosaic infested and mosaic free tubers are sorted out, and the mosaic free ones saved for seed. The process resembles very much that of testing corn by taking a few kernels from an ear and observing whether or not the kernels germinate properly.

Wisconsin's 1927 cranberry crop will be far below normal, early estimates indicate.

Last fall 90,000 barrels were harvested, while this fall's crop will hardly exceed 25,000 barrels.

Stone fruits are not satisfactory unless there is a certain percentage of lime in the soil in which they are growing.

FRIENDS OF OUR NATIVE LANDSCAPE

"Their name betrays them." They are just lovers of nature and out-of-door delights, banded together to enjoy and to create a more general appreciation of these things; also to influence the preserving of natural beauty spots wherever possible.

The autumn or Falling Leaf meeting of the Friends will be held at Gibraltar Rocks, Saturday afternoon, October 29. Students from foreign countries, attending the University, will be guests. An invitation is always extended to all who would enjoy participating in a few hours and "eats" out of doors.

Gibraltar Rocks overlook the Wisconsin River from a point a little west of Okee, just off of Highway 113.

John S. Donald, President.

F. A. Aust, Sec., College of Agriculture.

A ROCK GARDEN OF HERBS

It is not a bad idea to use a rock garden for herbs. It can be made as artistic as you wish and be thus brought nearer to the house front than one otherwise might be tempted to do. Utility is not necessarily an ugly idea. Indeed, there is, to-day, a strong tendency to look for the utility feature even in the beautiful. For herb purposes the rock elevation has the advantage of being clean. The rocks of good size form a very effective mulch and, if well underlain with soil, they should carry growth well along into the dry, hot season. Then rocks are weed preventives. You only have to keep clean the soily interstices and your weed work is accomplished. A rock mound can have a hot and a cool side. It can be handy to the kitchen—a very desirable feature and, when the waterpot days arrive you can water to your heart's content without fear of water logging. No plant bed can be sweeter than the elevated rock mound. In some aristocratic English rock gardens the herbs are becoming a fashionable feature.

The herb list available is as extensive as one may wish. It embraces tonics, insecticides, perfumes and flavorings. The following can be well included if you can obtain them:—Parsley, thyme, mint, sage, lavender, chives, with their onion flavor, rosemary, with its romance of perfume, marjoram, and the long-living spearmint.

—N. Z. SMALLHOLDER.

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COVER PAGE

Yellows-Resistant Cabbage Testing Station As Seen On The Horticultural Tour

WHAT'S ON YOUR MIND?

A special committee has been laboring with the Board of Managers to provide a program for the Winter Meeting, to be held at the State Capitol in Madison, November 30 and December 1 and 2, that will meet the demands of the majority, if not all, of our members. The program is being worked out with the view of furnishing the apple growers with the kind of a meeting they have been asking for, and as much is being done for the small fruit growers, vegetable gardeners, ornamental plant enthusiasts and lovers of horticulture in general. An attempt is being made to bring some of the best authorities in these various fields to Madison for this purpose—men who can talk and who know what they are talking about. We believe that horticulture has a big place in the welfare of our state and we are attempting to better it as much as possible by attracting good speakers to our meeting and getting out a good attendance from all sections of the state. Many of our larger commercial growers have indicated their intention of attending this winter meeting and are bringing exhibits along with them that will furnish real competition.

You can get a lot out of a meeting of this kind by just attending and hanging around to see what the other fellow is doing, but you can get a lot more out of it by planning to meet the authorities on the subjects you are most interested in and having a heart to heart talk. Begin now to write down those questions that have been puzzling you and send them in and they will be entered in our "Question Box" and the entire gathering will have the benefit of the answers. Just write out your question and mail it to the secretary of the Wisconsin State Horticultural Society at Madison and we will see that you get an answer. We are here to furnish you our services and if you have any suggestions or queries that you wish to relieve your mind of don't fail to avail yourself of the opportunity. Do it today.

IN THIS ISSUE

Certified Potatoes
Everbearing Strawberries
E. B. George
Codling Moth Control
Mushroom Time
University Orchards
House Plants From Slips
Badger News
Wisconsin Seed Potatoes
The Farm Congress
Winter Meeting Notes
The New Secretary
Board Meeting
Iris Troubles
The Railroad Worm
Air Mail
Fair Premium Awards
Trend of the Market
Timely Fall Notes
Library Page
State Fair Notes

INTRODUCING THE NEW SECRETARY

H. J. Rahmlow, the newly appointed secretary of the Wisconsin State Horticultural Society, has been the county agent of Price County for the past eight years, and is well known in that part of the state.

He is a graduate of the University of Wisconsin, College of Agriculture, 1915, and taught agriculture in the high school at Bayfield for two years. When there he did considerable work with the fruit men, and was active in garden club and fruit

club work with the boys and girls.

The next two years he had charge of agricultural instruction at Northland College in Ashland. Here he was city garden club leader.

Since that time he has been engaged in county agent work at Price County, where he has gained considerable recognition because of his work with certified potatoes; Price County now having the largest number of certified Triumph growers in the state. The county was first at the State Potato Show in 1925 and held second place last year.

Mr. Rahmlow has operated a very successful truck farm and apiary as a side line for the past five years, and has a reputation for being the largest grower of fancy Big Boston and Iceberg head lettuce in the state. As a practical horticulturist and truck gardener, he is deeply interested in the work, and believes that there is a big future for Horticulture in Wisconsin.

The appointment was necessary at this time to fill the position left vacant by the appointment of your present secretary, E. L. Chambers, as State Entomologist. This latter appointment was made in June and since that time your secretary has been carrying the duties of both offices.

Mr. Rahmlow will assume his new duties on November 1st.

Additional copies of the September issue of WISCONSIN HORTICULTURE, containing the list of premium awards for the Winter Fruit, Flower and Vegetable Show, may be had upon request.

One of the largest individual strawflower farms is at Mason, Michigan. Here twenty acres are devoted to the production of some 1,500,000 flowers annually. It is the practice in this establishment to sow seed directly outdoors sometime in May. One pound of seed is sown to the acre in rows three feet apart.

BOARD OF MANAGERS MEETING HELD ON WHEELS

On Monday evening, September 19, the Board of Managers of the Wisconsin State Horticultural Society, aboard train No. 620 bound for Milwaukee, conducted an emergency business meeting at which much important business was transacted. This unusual "location" was chosen because of the fact that there were three very busy men to be brought together, the meeting had to be held—there wasn't time enough to hold it in the day time, and there wasn't time enough to hold it at night, yet the pressure of business demanded it, therefore, it was held on the run. The three men, president, vice-president and secretary, who make up the Board of Managers, had to be on duty at their respective positions bright and early the following morning. A sudden change in temperature had made it necessary for the president to tarry at his work in Sparta Monday forenoon, and the result was that he did not arrive in Madison till 5:30 Monday evening, at which time the vice-president had to be on his way home.

There seemed only one solution, and at 5:40 the Board of Managers were on their way to Milwaukee, which was the first half of the return trip for two, and the evening business session had started. The premiums for the Annual Show in November were discussed and decided upon, the program for the Annual Convention was discussed, and a successor to the secretary was elected, to fill the position made vacant by the appointment of the former secretary to succeed Dr. Fracker as State Entomologist. Other matters of business were discussed and action decided upon, and when the train reached Milwaukee at 8:10 much had been accomplished. There the meeting was adjourned and the members went on their way by returning trains each one to arrive home about midnight, to be ready for duty the next morning.

An interesting booklet has come to our attention this week —"Scenic and Historic Wisconsin" by Charles E. Brown, Secretary of the Wisconsin Archeological Society. The book is a guide to the scenic, archeological and historical points of interest in Wisconsin, and is arranged by cities and villages. It is issued as a ready reference book for those who tour Wisconsin or are interested in the landmarks of the state.

Holding the ends of the stalks of cut flowers against a gas or candle flame until the part is really charred, has been recommended as a method of lengthening the life of the flower. Another simple method for retaining the freshness of the bloom is to dip the end of the stem in boiling water for a minute before putting into the cold fresh water.

THE FARM CONGRESS

Wisconsin's first Farm Congress, held in Madison October 13th and 14th, launched a proposed new farm organization the last afternoon of session. This will make the sixth state wide organization working in the interest of agriculture. A committee to draft the new movement includes:

The commissioner of agriculture, the commissioner of markets, two representatives from each of the state farm organizations, one member from the college of agriculture and one from each of the commodity organizations that wishes to be represented.

Most of our ornamental shrubs are easily propagated either by seed or hardwood cuttings.

HORTICULTURAL TROUBLES

Edited by the State Entomologist

IRIS TROUBLES

Keeping stride with the increasing interest shown in the growing of iris have been its pest problems. Until comparatively recent years the iris was believed to be one of our ornamental perennials that was not subject to insect and disease enemies. During the past few years there have appeared two outstanding troubles affecting iris which are rapidly increasing in their virulence and are being reported from an ever increasing number of localities. These are the Iris Borer, Macronoctua onusta and the Iris Root Rot, Bacillus carotovorus.

The former trouble maker is an insect which a score of years ago was not known to exist in United States. Its introduction and spread has doubtlessly taken place through shipments of infested rhizomes and at the present time this pest has become widely established throughout the eastern part of the United States and some parts of Canada. It is believed by some authorities that this pest may have become rapidly established on the common wild blue flag before sufficient parasites had discovered it to check it. Besides feeding on wild and cultivated iris the lily plants are frequently attacked, but because of the activity of its parasites the borer has not as yet occurred in large numbers in any one place for more than a year or two. During the past summer a number of large plantings were visited that showed a heavy infestation, which naturally resulted in heavy losses, but formerly infested plantings were found to be again practically free as a result of carefully carrying out the known control measures.

The injury is done by the larval stage of a brownish moth which, although one of the largest cutworm moths, is not very conspicuous, and appears in the late fall when the females deposit their eggs on the leaves of the host plants mentioned above. Winter is passed in this egg stage on the leaves and the larvae begin hatching during the latter part of May and continue, some hatching a month later. Upon hatching, the young caterpillars at first wander about over the foliage, biting small characteristic holes here and there and then they begin working in earnest upon root and crown of the plant. Very little damage is noticed until the larvae are about half grown and then dead leaves begin to appear, indicating something wrong. Upon examination the roots will be found to be badly infested by worms ranging in length from one and a half to two inches, and varying in color from a drab cream color to a reddish tint, ornamented along the sides with distinct rows of black dots. During the latter part of August these larvae pupate and from the resulting pupae emerge the moths which lay the overwintering eggs.

The control of the iris borer obviously consists in carefully gathering up and burning all dried foliage in the late fall and early spring to reduce the number of overwintering eggs to a minimum. This should be followed up in the early spring by spraying thoroughly all young growth as it appears with calcium arsenate used at the rate of one ounce per gallon of water in which an ounce of laundry soap has been previously dissolved. During the growing season seriously infested plants should be dug up and the borer either cut out and destroyed or the entire plant burned.

Closely associated with this borer and spread to a large extent by it is a bacterial disease known as the iris root rot, Bacillus carotovorus. This disease, although a serious one, does not attack plants unless the growth is tender and soft. Care should be taken therefore to use only those fertilizers which will produce a strong and resistant growth. The best means of saving choice plants attacked by root rot seems to be removing the diseased roots where they are limited to one side of the plant and digging a hole beside the plant which will permit the aeration of the exposed rhizome. In Indiana where some work has been done with this disease it was found that where the rot occurred in the center of a clump the only method feasable of saving the plant consisted in digging up the entire clump, dividing it, cutting out all affected parts and drying the remainder of the clump thoroughly in the sun for at least three or four days before replanting.

E. L. C.

THE RAILROAD WORM

The railroad worm has been showing up quite prevalently in some of the apple growing sections in the western part of the state this season. This is one of the pests that the entomologist has not been able to bring under control by spraying.

The only means of control consists in sanitation and cultural practices. All apples falling to the ground in infested orchards should be kept picked up and fed to the hogs or otherwise destroyed. The pupa which winter in the soil can be destroyed to a large extent by cultivation.

The railroad worm is one of those insipient pests that cannot be detected by the average individual and the injury de-

The Annual Convention

of the

State Horticultural Society

Will be held November 30, December 1 and 2, at the State Capitol in Madison, Wisconsin.

The Winter Fruit, Flower and Vegetable Show in conjunction with the Convention will be held in the Capitol Rotunda, while the Assembly Chamber will be given over to the program and business session of the Society.

velops in storage. Apples that appear to be free from blemishes will be found to be so seriously infested by a network of tunnels that the product is worthless.

The adult of this worm, which causes the characteristic channels that are responsible for its name, is a fly which lays its eggs during the latter part of July or first part of August. The maggot feeds on the pulp in the apple, completing its growth after the apple falls from the tree and has become more or less mellow, then bores its way out and into the ground and remains there until the following July as a pupa. The maggot is a small whitish worm which tunnels here and there through the pulp of the apple as it ripens leaving small brown tunnels wherever it goes. In some of the thin skinned varieties of apples these tunnels are apt to show through from the outside as wandering brown tracks.

AIR MAIL

By T. CLIFFORD BALL

"Flowers by Telegraph" has become a familiar slogan among florists through the nation.

Now approaches the time when we may hear with equal interest the call of "Plants by Air."

A survey made under the direction of the American Air Transport Association, which is composed of all operators of commercial air lines in the United States, shows that florists in all parts of the country are making constant use of the Air Mail.

Shipment of cut flowers by air is not so common, but there are a few instances when this has been done. There is an instance of where a rush shipment of orange blossoms was made by Air Mail to meet the requirements of a prospective bride. There are a few other instances on record where cut flowers were sent by Air Mail to meet some particular and unusual situation, but such occasions have proved rare.

It is in the transporting of bulbs, seeds and small growing plants that the florists have found the greatest use for Air Mail. Reports on file with the air transportation companies show that this service has been heavy and that it is steadily growing.

The cost of Air Mail service —10 cents per half ounce—has been found trivial when there was a desire to meet a rush order and speed was essential. The maximum weight limit of 50 pounds has been found to meet all ordinary requirements. The flexibility of the regulations surrounding the use of Air Mail, including the use of any stamps providing the envelope is plainly marked "Via Air Mail", and the fact that the Air Mail letters may be deposited in any mail box or at any post office, has added to the popularity of this newest branch of the postal service.

Fall is the time to make a new lawn, for there is no hot sun then to burn or scorch the young plants, and the roots can get a good start for next season. A deep soil is a requisite of a good lawn, and a coating of well rotted stable manure applied before plowing, gives the grass an extra impetus. Ground bonemeal is also an excellent fertilizer. The ground should be thoroughly harrowed before planting the seed, which is applied at the rate of one pound to every 250 square feet. After the seed is in, the ground should be harrowed or lightly raked, and then rolled with a heavy roller.

THE MARKET PAGE

Edited by Wm. Kirsch, State Department of Markets

THE POTATO AND APPLE SITUATION

With half a billion dollars or more represented in the potato and apple crops now being harvested, growers and shippers are studying the various factors which may affect their net returns. The fruit market outlook is rather encouraging, but several question marks appear on the horizon of the potato situation.

Potato Movement Light; Yields Uncertain

Until most of the potatoes are out of the ground and a careful estimate can be made of the total quantity and the quality of this year's crop the market position remains rather uncertain. Blight, drought, frosts, and other field troubles have been taking their toll, with blight probably the most serious factor in several important producing sections. About 11,000,000 bushels were clipped off the August forecast, leaving a September estimate of 400,000,000 bushels for the entire country. Of that volume 276,000,000 bushels are expected in 19 leading states which furnish most of the carlot supply during fall and winter. This is not quite up to the average production for those northern states, but is 25,000,000 bushels more than they had last year. The October and November crop reports will be watched with exceptional interest this season. Production in the mountain region and far western states has recently shown marked annual gains. Most of the supply, however, comes from the north central and northeastern sections, and prospects there are for moderate sized crops.

Three things will hold the attention of growers and handlers of potatoes during the next few months: (1) the estimated per capita production, (2) the keeping quality of the tubers, and (3) the report of January 1 stocks on hand. Present prospects are for a per capita of 3.3 bushels, compared with 3 bushels last year, 2.8 in 1925, about 3.7 in 1924 and 1923, and 4.1 bushels in 1922. A crop of 400,000,000 bushels would be slightly below normal requirements. In a year of serious blight trouble it is especially difficult to estimate the probable loss from shrinkage and decay in storage. The report of January 1 stocks, indicating total supply available until new crop potatoes arrive in volume, has been an important factor in determining the spring price. The quantity and quality of potatoes remaining on January 1 are pretty sure to fix the price level after that date.

The potato market recently has registered prices one-fourth to one-third lower than those of a year ago. The season is late and shipments from northern states have not shown activity equal to that of 1926, except in Wisconsin, Minnesota, Nebraska, and northern California. Movement so far has been considerably lighter than during the early part of last season. But, by the time digging is at its height, carlot forwardings probably will catch up to the seasonal record. The excess apparent in shipment data was wholly in the early and intermediate potato states and has little effect on the market value of the late or main crop.

Apple Crop Light, Especially in East

Apples promise to be the lightest crop in 20 years, with the exception of 1921. Production estimates have been shrinking month by month, and present prospects are for only half as many apples as last season. The Canadian crop also is expected to be relatively light, particularly in British Columbia. A United States commercial crop of 24,000,000 barrels is about equally divided between the eastern and western shipping states. Usually, the East has a commercial crop about 40 per cent greater than that in the nine western states comprising the box apple region. The balance between East and West this season is simply another way of saying that eastern apples are a very light crop, and it may foreshadow an exceptionally active carlot movement from the western producing region. So far, arrivals have been greatly delayed, as the season is late in important shipping states.

Spring freezes, scab, and insect injury are partly responsible for the heavy losses in eastern sections, and prolonged drought affected the apple crop adversely in the Great Lakes region. Overbearing last year also weakened the condition of trees, particularly in the East. The commercial crop will be exceptionally light in the Ozark section, in Michigan and New York, and in the Potomac-Shenandoah Valley area. Many districts also report a larger percentage than usual of low-grade or defective fruit. This situation should enhance the market value of good quality apples. At present, the market is somewhat depressed by liberal supplies of fruit showing irregular quality and condition, but most growers and dealers feel optimistic over the outlook for the fall and winter market, after the main varieties begin to arrive. Prices so far have been higher than those of a year ago.

A three-year cycle for apples is revealed in the statistics of the last six years. Both commercial production and total carlot shipments tended grad-

ually upward from low point of 1921 to high point in 1923. Dropping again in 1924, there has since been an annual gain in crop and movement until high mark of 1926. Again this year, 1927, the production for market purposes is light. This same three-year cycle is noticeable in price trends. A close relation is seen between factors of volume and price, much higher values prevailing, of course, in seasons of light crops. Quality of the fruit, especially keeping quality for storage purposes, is another important consideration.

From 1922 to 1925, this country shipped to foreign markets slightly more than one-tenth of its commercial apple crop. Canada ships overseas a larger proportion of its production. Last season, Canadian exports dropped to a low point because of the light crop in Nova Scotia, but outbound movement from the United States was nearly double that of the preceding year, reaching the high equivalent of 7,100,000 barrels, or 18 per cent of the commercial crop. The United Kingdom took most of these shipments, but Germany also proved a splendid outlet. It is generally believed that exports for 1927-28 will fall considerably below the record of last year, because of the light crop here and the heavier production in Great Britain and on the continent. To date, shipments to foreign markets have been less than the corresponding total in 1926.

British markets have been heavily supplied with domestic apples of poor quality. Once harvesting is completed and earlier stocks have been moved, market opportunities for good American fruit should improve. Industrial conditions in England and Scotland, however, are still below normal and this may affect the purchasing power to some extent. Early supplies of United States apples in British distributing centers have been in excess of the demand. Losses have been taken by some handlers of American fruit who made purchases at shipping point. Many eastern apples were exported long before the time that they should have been picked, and more profitable markets likely could have been found at home. Those in touch with the foreign situation, however, feel that a more hopeful condition soon is due. Desirable varieties of good eating apples should meet a ready sale.

Two special reports are now available in mimeographed form from this bureau. They give greater details regarding the present situation and are entitled: "Potato Situation in 1927" and "Apple Situation in 1927."

—U. S. Bureau of Agricultural Economics.

PREMIUM AWARDS AT THE STATE FAIR, MILWAUKEE, AUG. 29 TO SEPT. 3

Horticulture Department

(Continued from the September issue)

CULINARY VEGETABLES

79. One Quart Flat Pod Green Bean.
1. F. J. Lindley 2.00
2. G. M. Tehan 1.50
3. Bro. Francis Dlask 1.00

80. One Quart Flat Pod Green Bean.
1. Fred Bartsch 2.00
2. Bro. Francis Dlask 1.50
3. H. J. Rasmussen 1.00

81. Six Celery Golden Self-Blanching.
1. Fred Bartsch 2.00
2. Walter Ristow 1.50
3. H. J. Rasmussen 1.00

82. Three Celeriac.
1. Bro. Francis Dlask.... 2.00
2. Paul Haagen..... 1.50
3. G. M. Tehan..... 1.00

83. Six Bunches Beets.
1. Paul Haagen..... 2.00
2. G. M. Tehan..... 1.50
3. H. J. Rasmussen..... 1.00

84. Six Bunches Radishes, Round.
1. Fred Bartsch..... 2.00
2. H. J. Rasmussen..... 1.50
3. .....

85. Six Bunches Radishes, Long.
1. Bro. Francis Dlask..... 2.00
2. F. J. Lindley..... 1.50
3. H. J. Rasmussen..... 1.00

86. Six Bunches Table Onions.
1. Paul Haagen..... 2.00
2. H. J. Rasmussen..... 1.50
3. F. J. Lindley..... 1.00

87. Six Bunches Table Carrots.
1. Fred Bartsch..... 2.00
2. G. M. Tehan..... 1.50
3. H. J. Rasmussen..... 1.00

88. Six Head Lettuce.
1. H. J. Rasmussen..... 2.00
2. Bro. Francis Dlask.... 1.50
3. Paul Hagen..... 1.00

89. Six Leaf Lettuce.
1. Paul Haagen..... 2.00
2. H. J. Rasmussen..... 1.50
3. .....

90. Three Bunches Salsify.
1. Bro. Francis Dlask.... 2.00
2. H. J. Rasmussen..... 1.50
3. R. R. Stephenson..... 1.00

91. Six Ripe Cucumbers.
1. Morris Kaufman..... 2.00
2. F. B. Tindall..... 1.50
3. H. J. Rasmussen..... 1.00

92. Six Cucumbers English Type Table Quality.
1. Morris Kaufman..... 2.00
2. .....
3. .....

93. Display Pickling Cucumbers.
1. H. J. Rasmussen..... 4.00
2. F. B. Tindall..... 3.00
3. G. M. Tehan..... 2.00

94. Three Lesk.
1. Bro. Francis Dlask.... 2.00
2. Paul Haagen..... 1.50
3. H. J. Rasmussen..... 1.00

95. Two Swiss Chard.
1. Bro. Francis Dlask.... 2.00
2. Dawson Bros..... 1.50
3. John B. Moyle..... 1.00

96. Two Green Kale.
1. Bro. Francis Dlask.... 2.00
2. Dawson Bros..... 1.50
3. H. J. Rasmussen..... 1.00

97. Twelve Okra.
1. John Reis..... 2.00
2. H. J. Rasmussen..... 1.50
3. .....

98. One Quart Brussels Sprouts.
1. H. J. Rasmussen..... 2.00
2. .....
3. .....

99. One Bunch Dill.
1. Northern Hospital for the Insane..... 2.00
2. Ella Herr 1.50
3. Oscar J. Conrad..... 1.00

100. Collection of Herbs not less than 6 varieties.
1. H. J. Rasmussen..... 3.00
2. Bro. Francis Dlask.... 2.00
3. .....

101. One Potted Parsley Plant.
1. H. J. Rasmussen..... 2.00
2. .....
3. .....

102. Six Slicing Cucumbers, American Type.
1. H. J. Rasmussen..... 2.00
2. G. M. Tehan..... 1.50
3. R. R. Stephenson..... 1.00

103. One Peck New Zealand Spinach.
1. F. J. Lindley..... 2.00
2. Bro. Francis Dlask.... 1.50
3. H. J. Rasmussen..... 1.00

104. Three Heads Endive.
1. Bro. Francis Dlask.... 2.0
2. H. J. Rasmussen..... 1.50
3. .....

105. Three Roots Witloff Chicory.
1. Dawson Bros..... 2.00
2. H. J. Rasmussen..... 1.50
3. .....

106. Three Parsley Roots.
1. Paul Haagen..... 2.00
2. H. J. Rasmussen..... 1.50
3. .....

107. Three Roots Horse-radish.
1. Bro. Francis Dlask.... 2.00
2. Dawson Bros..... 1.50
3. H. J. Rasmussen..... 1.00

108. Display Gourds in Variety.
1. Arno Meyer..... 2.00
2. Dawson Bros..... 1.50
3. H. J. Rasmussen..... 1.00

109. Display Vegetable Novelties not less than 6 kinds, other than specified above.
1. H. J. Rasmussen..... 5.00
2. G. L. Cook, Oshkosh... 3.00
3. .....

SWEEPSTAKES

110. Premium.
1. H. J. Rasmussen..... 20.00
2. Bro. Francis Dlask.... 15.00
3. F. B. Tindall..... 12.00
4. F. J. Lindley..... 10.00
5. R. R. Stephenson..... 5.00

(Continued on page 40)

TIMELY NOTES

Peonies may be transplanted successfully any time before the ground freezes, in southern Wisconsin. If you haven't dug up your bushes yet there is still time to do it and it is often done by nurserymen as late as the middle of November. It is usually the practice of peony growers to dig up their plants and divide the roots every third year. Why not increase your stock by digging up and dividing the more desirable varieties and replace the less desirable ones? We are frequently asked whether peonies can not be grown from seed. Of course they will grow from seed but they seldom ever come true to variety when grown that way, and unless you have lots of time and space to devote to the work it is best to increase your stock by division. Besides taking two years for the seed to germinate it takes several years for them to produce flowers that will come true year after year. As a rule the plant rarely produces blooms until three years after germination.

If you have the facilities for handling you can propagate some of your choice dahlia stock from cuttings by removing the new shoots which develop during the warm spell after the first frosts. These shoots can be readily rooted in sand by bottom heat and grown there until midwinter when a small bulb is formed and then they can be dried off and held dormant in a frost proof cellar until time for planting in the spring. Very fancy blooming stock can be secured from these cuttings in this way and the stock increased rapidly from only a small source.

Iris should be dug and divided at this season and now is the time for transplanting them if you intend to plant some for another year.

Grape vines may be pruned as soon as the leaves have fallen this fall and they can then be laid down on the ground preparatory to covering for winter protection. Cuttings taken at this time can be tied in bunches and packed in moist sand in the cellar to callous during the winter months preparatory to setting out in the spring.

Avail yourself of some of the very good books offered by our free library and listed on the Library pages of the April, May and June issues of Wisconsin Horticulture.

Don't keep your dahlia roots and gladiolus bulbs stored in a hot dry room. They require about the same temperature as potatoes.

Rhubarb dug late this fall may be forced in the cellar with fine results. Try it.

The proper time to dig dahlias, gladiolus and cannas is any time after the foliage has been killed by frost. Don't fail to burn the tops to destroy spores of the various fungous diseases that they harbor and the larval and pupal states of overwintering borers and other insect pests.

Many perennials and shrubs may be divided during this period as well as next spring and perhaps you will have more time now.

If you have space for winter window boxes don't forget to lift some of the geraniums, salvia, asters and other plants you have in your garden before the ground freezes.

Lilies require a well drained deep porous soil. Leaf mold and peat moss are valuable materials.

Clean up and paint your cultivator shovels, plow points, hoes, with a coat of heavy oil to protect them from rust until you need them again next season. A little time spent now will save hours getting them into shape when you need them next spring.

Have you cut out all of the old canes in your raspberry and blackberry patches? They are worthless and harbor disease and insect pests and should be removed and burned this fall.

Do not try to store pumpkins and squashes in a moist cellar. A dry warm place near the furnace or in the attic is most desirable.

To discourage mice about the trunks of trees the grass and weeds should be dug away at the base and the ground loosened up before it freezes.

The first sunny morning after frost has blackened your dahlia plants, cut the stems off two inches above the ground, and dig the clumps, using care not to break the necks of the tubers, since that is where the buds form next spring. Do not shake off the earth from the clumps. Dry for two or three hours in the sun, then pack, with plenty of earth, in barrels lined with newspapers, every clump upside down. Set the barrels in the cellar immediately after packing where the tubers will not freeze, and cover with burlap or old blankets.

Don't forget to drain out all of the water in your spray outfit from the engine to the lowest valve, and loosen up the packing in the pump, wash out the barrel and hose, and store it where it will be ready for use early next spring without any need of elaborate overhauling and repairing. A spray outfit is short-lived enough with the best of care without neglecting it.

LIBRARY PAGE

The Iris, by John C. Wister, (Orange Judd Co., pub.)

A well illustrated book, written by the president of the American Iris Society, and intended primarily for the amateur gardener with a limited area of ground, but of interest to all iris growers or iris enthusiasts.

The author says that there is no flower so universally adapted to the widely different soils and climate of the American continent as the Iris, and that due to its inexpensiveness, ease of culture, long season of bloom, and wide range of color it is the most practical flower for the majority of American gardens.

How to plant and care for the different types of Iris, how to choose the best varieties of any given type, and how to plant the Iris with other flowers for the best garden effect, are all discussed comprehensively in this small book.

The history of the Iris and its geographical distribution throughout the northern hemisphere are taken up in two interesting chapters. We learn that the biblical "lilies of the field" are none other than the white form of the Iris of various parts of Asia Minor, and that at one period of British history the seeds of the Iris pseudacorus were used as a substitute for coffee; while the rhizomes of the wild Iris of the hills around Florence have been used for centuries to make orris root.

The culture of the Bearded Iris, which comprise most of the garden Iris of today, is dealt with very thoroughly, together with the likes and dislikes of the different varieties with regard to heat, moisture, sunshine, soil, etc. A list of high quality Iris, for the grower who desires a representative showing for the small or medium sized garden, is included in a further chapter. Here the author staunchly supports some of the older varieties —Pallida Dalmatica and Flavescens, for instance, which have been known in gardens for nearly 200 years. He says that an Iris to be placed on his "indispensible" list must be so good that no small garden can get along without it, it must be cheap, preferably procurable in quantity; the plant must be strong and vigorous; a free bloomer under ordinary conditions; must have a good stem, a stalk fairly well branched; and the color must be clear. He suggests that if one is making a garden for display, he would use mostly the light colors.

The only troubles of the Iris that he considers especially serious (and they need not be if understood, he says,) are the Iris borer and a soft rot disease, Bacillus carotovorus, which is the same rot or a closely allied rot, to the one which is common in many vegetables.

A chapter on "Iris in the Garden" gives many interesting combinations of Iris used with other flowers. The book closes with a classified list of recommended varieties, and a list representing the different color classes of the tall bearded Iris to help the amateur in choosing varieties from catalogs. There is also included a "Black List" of those varieties which the author feels should be dropped in favor of newer and better varieties.

The Gladiolus and Its Culture, by A. C. Beal. (Orange, Judd Co., pub.)

This book contains a rather technical but thorough discussion of the propogating, growing and handling of the gladiolus out of doors and under glass. The author divides the gladiolus in its cultural requirements into two groups: the types and species which must be planted in the autumn, and those which must be planted in the spring. The latter group includes the large flowered hybrids of our gardens, developed from the African species, and their culture is taken up extensively, from digging and curing the corms, cutting and shipping blooms, to hybridizing and crossing, forcing, etc.

An idea worthy of thought is brought out in one of the early chapters where the author suggests the adoption of some flower, such as the gladiolus, as a city or community flower, to stimulate gardening interest and make the community outstanding among neighboring cities for its flowers. Some of the advantages of such a plan are the centering of attention definitely on one thing, the joint purchase of corms, bulbs, seeds or plants in large quantities at reduced prices, and the fact that the resulting feeling of rivalry pervading the community will make it possible to hold competitions at the height of the season.

Gladiolus, by F. F. Rockwell. (The MacMillan Co., pub.)

A guide to the proper planting and cultivation of the gladiolus, written by a practical gardener. Includes a tabulated description of varieties.

Shrubs, by F. F. Rockwell. (The MacMillan Co., pub.)

A very practical book for the home owner, since it gives a general survey of the whole problem; the place of shrubs in home beautification; how to plan shrubbery plantings; how and where to use various shrubs for flowers, foliage, fruits and bark; how to buy shrubs; planting, watering, mulching, pruning, and general care; protec-

(Continued on page 39)

WOMEN'S AUXILIARY PAGE

EDITED BY MRS. C. E. STRONG

WHAT DOES "STATE FAIR" MEAN TO YOU?

"Same old stuff, same old crowd, I don't know why I come. I suppose it's because it's somewhere to go. Same with you, ain't so?"

"Well," said the other man slowly, "it used to be, but I got to thinking one day there must be a reason for the state spending all this money and I began to use my eyes and ears and I've learned a lot. My family have learned a lot of things too. My wife learned a lot of things over in the woman's building. How to systematize and how to fix a house up artistically and believe me, it works fine. You don't buy everything you see just because you like it. You think it over and see if it matches up with what you have. And if you have some old furniture that your grandmother had, why you are lucky and you polish it up and put new cushions in the chairs and believe me it sure looks nice and you save money. My wife and my girl, they make their clothes too. And my wife she copied a table decoration with the table cloth and napkins to match the flowers. She sure put one over on the club she belongs to. That was a new one on them."

"I seen a couple of doll kids in this building under an apple tree. One kid says, 'We got lots of apples. My dad sprays.' "

"The other one says, 'We ain't got any. Mine don't.' "

"I didn't know what that meant, so I asked a fellow and he told me some things and told me I could read about it in the library. So I did. Then in the spring we was out for a ride and we saw a farmer putting some fearful smelling stuff on his trees. So we stopped and found out a lot more. Believe me, boy, those farmers have to be on to their job. I know now why they have such nice apples."

"You can learn a lot about how things are made up there in the Manufacturers building, and then you can read about it, and learn a lot more."

"One day my girl told a customer in the store where she works a lot about some stuff she was buying, and the boss heard her. He said, 'That's what I like to hear. You keep on and you will soon be head of the department.' She would never have started if we hadn't got interested out here."

"I've learned a lot about bees and nursery stock and cattle and"—

"Say," interrupted the other man, "what good does all that stuff do you? You're a machinist not a farmer."

"What good? Why, we are learning things. We're thinking. We have something to talk about. We don't have to go to the movies every night because we are so darn dumb we can't amuse ourselves at home. We have a nicer home, the prettiest yard in the neighborhood, and we have saved more money in the last two years than we did all the while we were married. The whole family is going to California on its vacation. That's what good it is to know something besides just your own job. Say you just go over in the Grand Stand and see what the state is teaching those kids, and then you just do some thinking for yourself."

"THANK YOU"

"I know you are busy but I just must thank you for telling me how to water my Cibotium Fern. I was just crazy about them, but they always died for me until I told you my troubles last year and you said: 'Just try watering from the top with warm water, soaking the heart of the fern. ' You should see that fern now. It's grown beautifully. I just had to stop and say thank you."

AND THE FLOWER SEEDS PLANTED SIX INCHES DEEP NEVER CAME UP

"Could you tell me why my larkspur and marigold seeds never came up? I had some nice seed sent from California, and I planted it so carefully. Funny, the sweet peas came just fine. I planted them just the same, in a row six inches deep. That's the way my friend wrote to plant the peas. I supposed the rest were to be planted the same."

She listened ruefully to explanations and directions on planting seeds, saying as I finished, "You must certainly think I am hopeless not to know that much."

"Oh no," was my cheering reply, "I know a prize winning exhibitor in this department who planted muskmelon seeds three feet deep and can laugh about it now."

"All right, I'll try again and maybe I will have some flowers to show next year. Really, I can almost laugh at myself right now. I know I feel a lot better. Muskmelon seeds planted three feet deep; actually, that's worse than I was."

WEST ALLIS SCHOOL EXHIBIT

The gardeners in the West Allis Schools held their annual exhibition at the High School on Friday, September 23rd. Considering dry weather and the rather late date, there was a very creditable showing both of flowers and vegetables. The

children were very much interested in the reasons given for awarding of ribbons.

In the evening a very interesting program was given by the members of the clubs. There was a style show and a plant demonstration, a talk by the County Agent and some very good music.

Mr. Coon, who has worked faithfully, can be positive that his work is beginning to be appreciated both by the children and their elders. Some prizes of seeds and plants are to be given the children who won first and second prizes. Let us hope that in another year they will have definite prizes to work for. Perhaps our State Society might be prevailed upon to give a special prize to schools that have creditable exhibits.

A typical harvesting scene on one of Wisconsin's cranberry bogs

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(Continued from page 37)

tion from insects and diseases; and classified lists of shrubs for home planting.

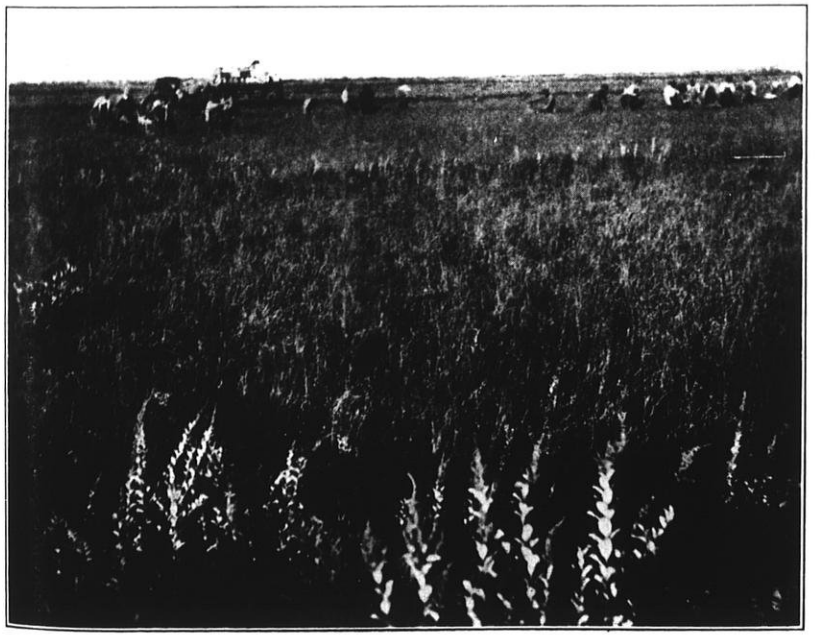
The Quince is a native of Southern Europe and was grown quite extensively by the ancient Greeks.

(Continued from page 25)

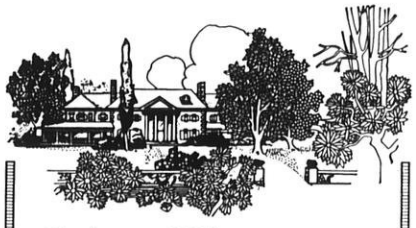
Often it resembles a large cabbage plant with many overlapping leaf-like caps. Some specimens have been found to weigh as much as fifteen or twenty pounds. This mushroom is found in late summer and autumn. When kept in a cool place it can be eaten for several days. The caps of the Cabbage Mushroom are of a gray or brown color. Its tubes on the lower surface are whitish, and the stout stem of the plant is white.

The Oyster Mushroom is so-called because its form sometimes suggests the shell of an oyster. It grows from dead tree trunks and branches, usually in crowded clusters, the large caps often overlapping. The color of the plant is white, light buff or grey, with broad white gills. It has a short stem, often hairy at its base. The Oyster Mushroom is widely known as an edible mushroom. In preparing it for the table the caps are cut into strips, stewed in a saucepan with milk and butter, and served as one would stewed oysters.

Mushroom fanciers should always remember never to eat mushrooms which they do not know well, and should not forget that none of the old-fashioned mushroom tests are reliable. Mushroom books and other literature can be consulted at every public library, so that there is no excuse for collecting or eating any of the fairly numerous poisonous or unwholesome species.



Harvesting cranberries by the raking method on a Wisconsin bog



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Try the Forest Winter Apple, as good quality as Delicious. Tree hardy, productive and a good grower. Has been grown locally in this section for twenty-five years. We also have a good stock of the Windsor, sometimes called "Wisconsin Baldwin." Plant these two varieties and have **good** winter apples of your own.

Send for our catalog, showing our complete line of Fruits and Ornamentals adapted to your needs.

Reliable agents wanted.

120 acres.

The Coe, Converse & Edwards Company

Fort Atkinson, Wisconsin

(Continued from page 35)

111. Best Display Vegetables by Amateur, not less than 10 kinds.
1. G. L. Cook, Oshkosh... 10.00
2. ....
3. ....

EVERBEARING STRAWBERRIES

112. Best Plant in Fruit.
1. E. B. Hauser..... 2.00
2. H. J. Rasmussen..... 1.00
3. F. J. Lindley..... .50

113. Best Pint Box Fruit.
1. E. B. Hauser..... 2.00
2. H. J. Rasmussen..... 1.00
3. ....

EVERBEARING RASPBERRIES

114. Best Three Fruiting Canes.
1. F. J. Lindley..... 2.00
2. G. M. Tehan..... 1.00
3. H. J. Rasmussen..... .50

115. Best Pint Box Fruit.
1. H. J. Rasmussen..... 2.00
2. ....
3. ....

APPLES

1. Display 5 plates each 5 commercial varieties for Wisconsin.
1. Arno Meyer..... 20.00
2. E. H. Stoeber..... 15.00
3. Ralph A. Irwin..... 12.00
4. Arthur Grover..... 8.00
5. Wisconsin Fruit Farms 6.00
6. Bonnie View Farms.... 4.00

2. Display 10 varieties.
1. E. H. Stoeber..... 15.00
2. Arno Meyer..... 10.00
3. Ralph A. Irwin..... 8.00
4. Leo Brueckner..... 6.00
5. Cooper Bros..... 4.00
6. H. W. Ullsperger..... 2.00

3. Display 5 Fall Varieties.
1. Arno Meyer..... 10.00
2. Ralph A. Irwin..... 8.00
3. E. H. Stoeber..... 6.00
4. Cooper Bros..... 4.00
5. A. W. Lawrence..... 2.00
6. H. W. Ullsperger..... 1.00

4. Display 5 Winter Varieties.
1. Cooper Bros..... 10.00
2. Ralph A. Irwin..... 8.00
3. E. H. Stoeber..... 6.00
4. Arno Meyer..... 4.00
5. Wisconsin Fruit Farms 2.00

5. Largest Apple (Must have good condition)
1. E. H. Stoeber..... 3.00
2. Cooper Bros..... 2.00
3. A. D. Heise..... 1.00

6. Best Fall Seedling.
1. Arthur Grover..... 5.00

7. Anisim.
1. Homer Wolf..... 1.50
2. E. H. Stoeber..... 1.25
3. Northern Hospital for the Insane..... 1.00
4. Dawson Bros..... .75
5. ....

8. Alexander.
1. Swartz Bros..... 1.50
2. Cooper Bros..... 1.25
3. Arno Meyer..... 1.00
4. ....
5. Dawson Bros..... .50

9. Baldwin.
1. Dawson Bros..... 1.50
2. Arno Meyer..... 1.25
3. J. A. Hass..... 1.00
4. John B. Moyle..... .75
5. H. J. Rasmussen..... .50

10. Banana.
1. W. H. Basse..... 1.50
2. Dawson Bros..... 1.25
3. Lester Patterson..... 1.00
4. Bonnie View Farms... .75
5. H. W. Ullsperger..... .50

11. Ben Davis.
1. Robert Nitz..... 1.50
2. W. H. Basse..... 1.25
3. Arno Meyer..... 1.00
4. Cooper Bros..... .75
4. Miss E. M. Goelzer.... .50

12. Delicious.
1. Ralph A. Irwin..... 1.50
2. Cooper Bros..... 1.25
3. Wisconsin Fruit Farms 1.00
4. E. H. Stoeber..... .75
5. J. A. Hass..... .50

13. Dudley.
1. F. B. Sherman..... 1.50
2. H. J. Rasmussen..... 1.25
3. A. H. Lawrence..... 1.00
4. Wisconsin Fruit Farms .75
5. H. W. Ullsperger..... .50

14. Fall Orange.
1. John B. Moyle..... 1.50
2. Dawson Bros..... 1.25
3. H. J. Rasmussen..... 1.00
4. ....
5. ....

15. Gano.
1. John B. Moyle..... 1.50
2. E. H. Stoeber..... 1.25
3. F. B. Sherman..... 1.00
4. Lester Patterson..... .75
5. ..... .50

16. Grimes Golden.
1. Dawson Bros..... 1.50
2. Arno Meyer..... 1.25
3. E. H. Stoeber..... 1.00
4. H. W. Ullsperger..... .75
5. ....

17. Golden Russet.
1. Cooper Bros..... 1.50
2. J. E. Hauser..... 1.25
3. Arthur Grover..... 1.00
4. Oscar J. Conrad..... .75
5. Robert Nitz..... .50

18. Hasse.
1. Homer Wolf..... 1.50
2. Cooper Bros..... 1.25
3. W. H. Basse..... 1.00
4. ....
5. E. H. Stoeber..... .....

19. Hibernal.
1. ....
2. E. H. Stoeber..... 1.25
3. Homer Wolf 1.00
4. ....
5. ....

20. Jonathan
1. John B. Moyle..... 1.50
2. Ralph Irwin..... 1.25
3. G. M. Tehan..... 1.00
4. F. B. Sherman..... .75
5. E. H. Stoeber..... .....

21. King.
1. Lester Patterson..... 1.50
2. F. B. Sherman..... 1.25
3. H. J. Rasmussen..... 1.00
4. ....
5. ....

22. Longfield.
1. Lester Patterson..... 1.50
2. Leo Brueckner..... 1.25
3. E. H. Stoeber..... 1.00
4. A. C. Hauser..... .75
5. F. B. Sherman..... .50

23. Lubsk Queen.
1. H. J. Rasmussen..... 1.50
2. C. L. Cook..... 1.25
3. A. W. Lawrence..... 1.00
4. Wisconsin Fruit Farms .75
5. ....

24. Livland Raspberry.
1. W. H. Basse..... 1.50
2. E. H. Stoeber..... 1.25
3. H. W. Ullsperger..... 1.00
4. Miss E. M. Goelzer..... .75
5. Wisconsin Fruit Farms .50

25. Maiden Blush.
1. H. J. Rasmussen..... 1.50
2. W. H. Basse..... 1.25
3. F. B. Sherman..... 1.00
4. Wm. Meyer & Son..... .75
5. ....

26. Malinda.
1. Homer Wolf..... 1.50
2. A. C. Hauser..... 1.25
3. H. J. Rasmussen..... 1.00
4. ....
5. Arthur Grover..... .50

The premium award list will be completed in the November issue.

Forest Grown Wisconsin Evergreens. Spruce, Jack and Norway pine, balsam and arbor vitae. Will grow with proper care. Write for prices.
J. B. Kurtz,
Suring, Oconto County, Wisconsin.
Box 56, R. 2.

WANTED—Hear from owner good Farm for sale. Cash price, particulars. D. F. Bush, Minneapolis, Minn.

DEMOCRAT PRINTING COMPANY
MADISON, WISCONSIN

WISCONSIN HORTICULTURE

Vol. XVIII Madison, Wisconsin, November, 1927 No. 3

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"AUTUMN WOODS" By Asa K. Owen, Phillips

To the true lover of the out-of-doors, there can be nothing more beautiful than the solemn hush of nature that comes at the close of autumn.

In "Autumn Woods" we find nature clothed in regal robes of scarlet and gold,—a silent tribute to the dying year.

PROGRAM

58th Annual Convention State Horticultural Society, to be Held at Madison, Wednesday, Thursday and Friday, November 30, and December 1 and 2, 1927. State Capitol.

Program subject to revision

WEDNESDAY FORENOON

10:30 O'clock

(1) Greetings by Gov. F. Zimmerman.
(2) Introduction of delegates from other societies.
(3) Address of President.
(4) What to Do with the Surplus from the Home Orchard—C. L. Kuehner.
(5) Discussion led by M. B. Goff, Sturgeon Bay.

WEDNESDAY AFTERNOON

2:00 O'clock

(1) Dealing with the Cull Problem—Prof. V. R. Gardner, Michigan A. C.
(2) Discussion led by D. E. Bingham, Door County.
(3) Problems in Fruit Production—Prof. R. H. Roberts.
(4) Discussion led by Paul Grant, Menomonie.
(5) Fruit Marketing—H. W. Ullsperger, Mgr. Door Co. Fruit Growers Union.

WEDNESDAY EVENING

7:45 O'clock

(1) Demonstration, Arrangement of Flowers—Mrs. Strong, West Allis.
(2) European Horticulture Illustrated—Prof. A. J. Riker.
(3) Home Grounds Illustrated—Prof. F. A. Aust.

THURSDAY FORENOON

9:00 O'clock

(1) Helps for Horticulturists—Miss Harriet Long, Madison.
(2) Growing Narcissus Bulbs in Wisconsin—James Livingstone, Milwaukee.
(3) Discussion led by Wm. Longland, Lake Geneva.
(4) Market Problems—A. W. Pommerening, State Dept. of Markets.
(5) Widening Margin Between Production Cost and Selling Price—Prof. V. R. Gardner.

THURSDAY AFTERNOON

1:30 O'clock

(1) Cost of Growing Raspberries—J. G. Seidel, Warrens.
(2) Management Methods in the Raspberry Plantation—Prof. V. R. Gardner.
(3) Discussion led by N. A. Rasmussen, Oshkosh.
(4) Profitable Strawberry Growing—E. W. Sullivan, Alma Center.
(5) Discussion led by Rex Ebert, Warrens.

THURSDAY EVENING

6:30 O'clock

Annual Dinner.

(1) Forest Conservation in Wisconsin with 96 illustrations—Huron H. Smith, Milwaukee.

FRIDAY FORENOON

9:00 O'clock

(1) Annual Business Meeting.
(2) Use of Ethylene Gas in Ripening Fruits and Vegetables—Prof. L. Regeimbal, Univ. of Minnesota.
(3) Horticultural Hazards—E. L. Chambers, State Entomologist.

FRIDAY AFTERNOON

1:30 O'clock

(1) Greetings from Minnesota Horticultural Society—Ray Speer, President.
(2) Outdoor Flowers for the Home—Prof. J. G. Moore.
(3) Discussion led by Mrs. C. E. Strong, West Allis.

ADDITIONAL PREMIUMS OFFERED AT CONVENTION

Class 1. Spray ring display of apples

CONRAD KUEHNER, Superintendent

Open to Wisconsin Cooperative Spray Rings. A cooperative ring being one in which the members of the ring own shares in the spray machine and conduct their business matters cooperatively.

Entries	Quantity
Wealthy	2 trays
Snow	2 trays
McIntosh	2 trays
N. W. Greening	2 trays
Any other one Variety	2 trays

Prizes

1st	2nd	3rd	4th
$4.00	$3.00	$2.00	$1.00
4.00	3.00	2.00	1.00
4.00	3.00	2.00	1.00
4.00	3.00	2.00	1.00
4.00	3.00	2.00	1.00

Class II. Silver cup to County winning the highest number of points on a basis of quality, total number of trays shown, and percentage of total number of spray rings participating as follows:

Quality	50 points
Number trays shown	30 points
Percentage of spray rings showing	20 points

POTATO GROWERS ADOPT "WISCONSIN HORTICULTURE" AS OFFICIAL ORGAN

We are pleased to announce that the Board of Directors of the State Potato Growers Association adopted this magazine as their official organ at their convention November 1–4.

Membership in the State Potato Growers Association now includes a year's subscription to WISCONSIN HORTICULTURE. We believe this arrangement will be of benefit to both the potato growers and to this society. The growers will be kept informed each month of new developments in the potato industry. WISCONSIN HORTICULTURE will extend its sphere of usefulness in the state by enlarging its family of readers and benefits to its advertisers.

We expect and hope several other organizations will follow the example of the Potato Growers.

MARKETING DOOR COUNTY APPLES

By H. W. ULLSPERGER

General Manager Door County Fruit Growers Union

The harvesting and marketing of Door County's largest apple crop has just been completed. The total crop for the county exceeded 175,000 bushels or over 300 carloads. Eighty-five per cent of this fruit was marketed cooperatively through the Door County Fruit Growers Union.

ALL FRUIT GRADED

To realize full value for this fruit grading, plants have been established in various parts of the county. Among the larger plants are those owned and operated by the Ellison Bay Orchard Company at Ellison Bay, Guernweal Farm and the main plant operated by the Door County Fruit Growers Union at Sturgeon Bay.

Apples are graded for size and color, into U. S. No. 1 or U. S. No. 2, unclassified or cider grade. Prices ranged from 20 cents a bushel for cider apples to $3.00 a bushel for good No. 1 apples properly packed. The growers realize that every apple must be placed in its proper package in the right grade. With the range in prices as shown above every one realizes that apples worth $2.00 a bushel should not be sold as cider apples worth 20 cents. Yet the average farmer who has an orchard in the state mixes No. 1, 2, and cider apples together and then expects to sell them at a high price.

The consumer is educated to demand good quality and is willing to pay well for good apples, but culls always injure the sale of fruit. All cull apples from Door County go to the cider or vinegar manufacturer or are made into apple butter, jellies or preserves. All cull apples are picked up in the orchards. This practice partially removes the source of infection for apple scab or other diseases and insects, makes a cleaner orchard and returns some profit.

PACKAGING

Apples are sold in baskets, barrels, boxes, and bulk. The trade demands an attractive package. Apples should be of uniform size in a package. A two inch apple mixed in with a three inch apple is out of place. It spoils the appearance. A bushel of all two inch to two and a quarter inch apples makes a very attractive package. Therefore, our apples are placed in baskets, barrels or boxes with a quarter inch variation in size by means of sizing apparatus or an apple grader. Right sizing pays big premiums.

Next, the top of the basket is ring faced with well colored apples to make it attractive in appearance. The trade demands it. We must satisfy their demands.

A new feature in Door County is placing apples in boxes similar to boxes packed by Western Fruit Growers. Two girls experienced in box packing were secured. These in turn educated two Door County girls who assist in box packing. Prices for box apples have netted on the average 45 cents a bushel more than the same apples packed in barrels or baskets. Door County fruit growers are thus taking advantage of the established reputation and advertising done by Western growers.

BRANDS

Door County apples are marketed under the Sturgeon Bay brand. All apples sold under this brand must conform to certain standards and regulations regarding defects, scab, color and size. Rigid inspection by two impartial state inspectors assures the Door County Fruit Growers Union and the consumer, that the fruit will comply with these rules and be strictly up to grade. Fruit which does not come up to the necessary standards is not sold under this brand. It is marked No. 2 or unclassified, and is sold at a price commensurate with the grade. The producer thereby gets a fair price for a product properly graded and packed.

VARIETIES

The principal varieties sold are: Duchess, Wealthy, Snow, McIntosh, Northwestern Greenings, Tolman Sweet and Delicious. However, there are about forty more varieties marketed but the tendency is to concentrate on a few kinds. McIntosh and Greenings are particularly suited to Door County conditions and are more profitable than others.

Fruit growers in Door County will realize a profit on their apple crop this season. Proper grading and packing, supervised by impartial inspectors has created consumer's confidence. It has created a steady market demand which reflects itself in profitable sales.

MINNESOTA HORTICULTURAL SOCIETY MEETS

The Minnesota Society presented a very interesting program for their 61st annual meeting. It was held November 15–18, in the city of Rochester.

Several speakers from this state took part. Prof. J. G. Moore spoke on "The Importance of Small Fruits". Dr. Geo. Hidershide of Arcadia had the topic "Our Fruit Breeders Are too Modest". Mr. N. A. Rasmussen of Oshkosh spoke on the subject of "Hotbeds".

Peach production in the southern states has increased so greatly in recent years that growers are faced with the necessity of letting many trees go out of bearing, or meeting intense competition in overcrowded markets.

WINTER PROTECTION

Are Your Trees Safe From Rodents?

Now is the time to provide young fruit trees with protection from mice and rabbits. Every winter Wisconsin farmers lose many young fruit trees because they were not properly protected from girdling by mice and rabbits. It may be impossible at times to prevent rabbits from injuring young trees, especially when the snow is high and rabbits are plentiful.

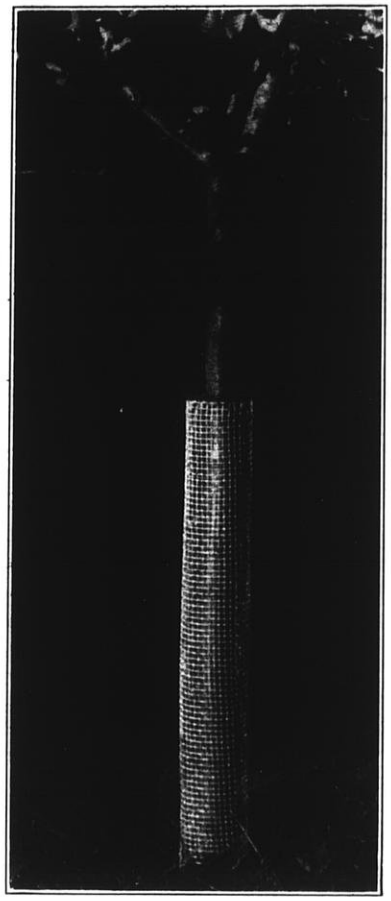
Some growers have found it a good precaution to leave prunings on the ground as it seems that rabbits prefer to eat the bark from branches on the ground or snow.

It is possible to prevent all tree girdling by mice, as several types of protectors can easily be made. By placing these around the tree trunk and pushing them into the ground an inch or two just before the ground freezes, complete protection is given from mice and partial protection from rabbits. The picture shows one type of protector which is used quite extensively throughout the state. It is made of ¼ inch mesh galvanized wire. They may be made at home by cutting 16 to 20 inch strips from wire 24 to 30 inches wide. These small strips are rolled lengthwise into cylinders which will fit loosely around the tree trunk. After it is in place it is tied top and bottom, with light wire or heavy cord. They need not be removed during the summer.

The wood veneer protector is considerably cheaper, but not nearly as durable. This type of protector should be removed from the tree during the summer and stored until fall, when it must be replaced around the tree.

The wire for the wire protector may be obtained from the hardware dealer while the wood veneer protector is sold by most orchard supply houses.

CONRAD L. KUEHNER.



SAVE THE TREE

GETTING READY FOR WINTER IN ORCHARD AND GARDEN

By PROFESSOR J. G. MOORE, Wisconsin College of Agriculture

Spring is often the season of regrets for sins of omission committed in the fall by the gardener and home orchardist.

It is a good practice to destroy any refuse fruit which hangs on the tree or has fallen to the ground. Shake the fruit from the tree and turn the hogs into the orchard. Be sure the hogs are well ringed or they may damage the tree by rooting. This clean-up process is particularly important when the fruit has been badly worm infested.

In the vegetable garden the principal fall work after harvest is the clean-up. Its chief object is to lessen the danger of carrying over diseases and insects which might infest next year's crops. It is a good plan to burn the old leaves and stems of plants which have been diseased during the past summer. This is also true of those which were infested with boring insects.

FALL PLOWING OR SPADING

Fall plowing or spading of the garden is desirable where conditions make it practical. The soil benefits by exposure to freezing and thawing, and insect pests are frequently destroyed by the exposure. Another advantage is that manure used for fertilization has a better chance to decay. Plowing under manure in the fall is particularly desirable when it is not well rotted.

The care of flowers and shrubs demands the major portion of the fall garden activities. Some plants are best planted in autumn. Most fall planting should have been done before this, but if for any reason it has been overlooked, it can still be done if there is no further delay. As a rule, we do not recommend fall planting of deciduous trees and shrubs. While it is successful at times, we feel that under Wisconsin winter conditions there is almost too much liability of heavy losses. Many herbaceous perennials are best planted in the fall. This applies particularly to the early flowering kinds. If they are fall planted, particular care should be taken in giving them winter protection.

If you have not planted some bulbs for early spring flowers, I would suggest that you do so at once. There is nothing more attractive in the spring than the blaze of color of a planting of tulips at the edge of the shrub or house border, nor more interesting to see than scillas, snow drops, or glory of the snow, blooming along the sunny

side of the house before the snow is all gone.

In planting bulbs in borders, equal depth of planting is not necessary. Spade the soil deeply, if it is not occupied by other perennials, and plant the bulbs relatively deep. The tops of the larger ones should be 2½ to 3 inches below the surface of the soil, and the small ones an inch and a half to two inches.

Do not mulch the bulbs now. It is preferable to put on the protective material after the surface soil has frozen permanently. When the ground is frozen about an inch deep, then a layer of leaves, marsh hay, clean straw, lawn clippings or shredded corn stalk should be put over the bulbs. While there is no definite rule as to the amount of cover, enough to make a depth of 2 to 3 inches after settling is satisfactory.

Water in Crown of Plants Fatal

Excessive cold may, of course, kill plants but it is not the most important factor in winter injury of herbaceous perennials. Drying winds are particularly injurious to plants retaining their foliage. Alternate freezing and thawing of the surface soil both in late fall and early spring, particularly the latter, is often responsible for losses. Water standing around the crowns or freezing in the crowns of those carrying their leaves is almost sure to prove fatal.

Protecting the plants, then, against winter injury is not so much protecting them from extreme cold, which is impractical under Wisconsin conditions, but of guarding against these other things.

The very first thing to look after, then, is drainage. Be sure that provision is made for the ready escape of water from rains and melting snows. The alternate freezing and thawing, and ill effect of winds are overcome by using the cover of mulch. There are usually three problems involved in the use of protective covering: the material, the amount, and the time of application. There is no general rule to follow in all cases. The time of application and of removal of the protective material is largely determined by weather conditions favoring freezing and thawing of the soil.

Materials to Use

Materials vary greatly in their desirability for mulching purposes. Leaves are one of the commonest materials used for winter protection because of their availability, yet they are much less desirable than several other materials. A good mulch should not pack down tightly over the plants and this is just what the leaves do. When put on in large quantities over plants with foliage, the mulch is quite likely to cause injury. When using leaves as protection for plants retaining their leaves, a layer of coarse material which will not pack readily should be put over the plants before putting on the leaves.

Marsh hay makes a very excellent protective material. Other good materials are shredded corn stalks, sometimes they are used unshredded, coarse strawy manure, rye or other straw, and evergreen boughs. If manure is used, care should be taken that no matted portions are put over the crowns of the plants. Marsh hay for mulching should be cut before the seeds ripen and straw used as a protective material should be free from both weed seed and seed of the grain.

Some shrubs, principally roses, need winter protection in Wisconsin. With bush roses the first operation is pruning. The plants should be cut back to within 18 inches to two feet from the ground. It is also a good plan to cut out the small shoots which will not be needed for producing new growth for next season. Before the ground freezes mound soil up around the base of the plant from 6 to 9 inches.

Poison for Mice

After the ground is well frozen a mulch should be applied. Before putting it on, however, scatter corn and wheat which has been soaked in arsenic among the plants as protection against mice. Marsh hay, straw, or very coarse strawy manure are good mulching materials. Put on the mulch in sufficient quantities to come well up on the stems and work it in between the plants and stems of the individual plants. Snow on the ground at the time will make no difference. Further protection will be afforded by piling snow over the mulch.

With climbing roses, as the crimson rambler, winter protection is afforded by removing the plant from the trellis and laying it on the ground. If conditions permit, it may be covered with hay or straw. The plant may be reduced to approximately the size desired for next spring before covering. However, a few more canes should be left than needed, to guard against too severe reduction by winter injury.

It is often desirable to protect the trunks of smooth barked trees, particularly if they have been recently planted. Wrapping the trunks loosely with gunny sacks, ropes made of marsh hay, or, binding corn stalks around them will give the needed protection.

PHYSICIANS SHY AS FARMERS, MERCHANTS BEGIN APPLE WEEK

Physicians will keep their distance the next seven days if plans of truck farmers, commission merchants and grocers are realized, for National Apple week was ushered in yesterday. Martin C. Kipper is in charge of operations for this city. Paul W. Grossenbach is chairman of the nibble and apple committee.

Milwaukee Leader.

The crocus will bloom year after year if the foliage is not cut off.

HIGH SALARIED FAMILIES OF NEW YORK PREFER APPLES IN SAUCES

New York.—(AP)—There's more applesauce eaten in high salaried families in New York than by any other class.

The fact is revealed by the New York food marketing research council in its effort to learn what happens to all the apples that reach the city.

The same group leads in consumption of baked apples and salads, but is not so fond of pies or of eating its apples raw. Families with low incomes scarcely bother with salads. They do well by baked apples and pies, give considerable attention to applesauce, and display an avid partiality for the raw fruit. Those of medium purchasing power give applesauce a good break and ring the bell on pies. Of all groups they eat the fewest baked apples. They like salads a little better than the low salaried group and take second place in eating the fruit raw.

"Green" apples are favored for cooking, and "red" for eating. Only 750 housewives out of 3,000 representative families told the council they bought by variety names, and less than 15 per cent of the entire number professed familiarity with brands. Of the 300 to 400 apple varieties, only 15 are preferred in any consequence and only eight are known and preferred by any considerable number of persons.

Negroes possess the most of what little knowledge of brands is displayed, chiefly, it is explained, because many of their women are employed as domestics. Jewish people are the most selective in their apple buying, 58 per cent of them preferring the McIntosh as an eating variety.

Ninety-five per cent of the apple purchases are made by women, mostly housewives. Push cart sales exceed all others. Most families buy 12 apples at a time.

THIS ORCHARD WAS PLANTED TOO CLOSE. SOME OF THE TREES ARE BEING REMOVED. CONSIDERABLE ORCHARD CULLING IS BEING DONE IN JEFFERSON, MILWAUKEE AND KEWAUNEE COUNTIES.

CULLING THE ORCHARD

Many Wisconsin farm orchards will never be profitable until they are properly culled. It is a waste of land, labor and money to allow trees of poor varieties of fruit to remain in the orchard to crowd the more desirable varieties.

Every farmer knows his undesirable trees. They are usually those varieties that he does not care to use in his own home, that are hard to sell, or, those that do not store well. The trees that are crowding each other because of close planting distances should be thinned.

In several counties of the state, farmers, particularly spray ring members, are adopting a clean-up campaign in their orchards this fall and winter. They are thinning their crowded orchards. The worth-while varieties will then have a better chance to produce well colored, uniformly large sized fruit, which can be effectively sprayed.

It is well to do this culling and thinning work in the fall and winter at a time when other farm work is less pressing than in the spring.

CONRAD L. KUEHNER.

WISCONSIN HORTICULTURAL EXHIBIT AT NATIONAL SHOW

The exhibit representing the College of Agriculture at the National Hay and Grain Show will be from the Horticulture Department this year.

Professor Milward, State Potato Specialist, will have charge of the display. It will feature control of potato mosaic disease. Wisconsin has developed the "Tuber Index" method of controlling this disease which has become widely known.

An open rate of fare and one-third for the round trip will be in effect on all railroads from Wisconsin points to Chicago during the International Live Stock Exposition. The dates are November 26–December 3. The International Hay and Grain Show is held in connection with the Live Stock Show.

For good head lettuce, sow the seed in the field just as soon as the frost is out, which would be before May 1st. Use for variety "All Seasons", "Stone Head", or "Crisp as Ice". There is hardly ever a failure with that combination. Seeding date and variety are the secrets of successful lettuce growing.

THE FLORIST'S PAGE

Edited by Huron H. Smith, Curator of Botany
Public Museum, Milwaukee, Wis.

FLORISTS HOLD BIG CONVENTION

Complete Report of Florists Association Meeting at Milwaukee Nov. 3 and 4th

By HURON SMITH, Secretary

The annual convention of the Wisconsin State and Upper Michigan Florists Association has just closed its most successful session, both from a financial standpoint and from the interest manifested at the sessions. Every out-of-state florist from the trade at large that attended commented upon the very commendable part taken in every meeting by the attending members from the territory. John M. Besemer, of Detroit and Wm. J. Smythe, of Chicago, outstanding figures in the F. T. D., both said that the meetings were a revelation to them, and that the Wisconsin and Upper Michigan people surely knew how to express themselves, and debate every point.

The main event in the fall meeting is the election of officers, and this was done upon a new plan with a nominating committee and nominations from the floor. When the voting was done the following were the candidates: For President, Edwin Matthewson, of Sheboygan, and A. F. T. Lauritzen, of Eau Claire; For Vice-president, J. H. Boelter, of Appleton, James H. Dale, of Hancock, Mich., Henry Kienahs, of La Crosse, and Wm. C. Zimmerman, of Milwaukee; For Secretary, Alfred Locker, of Wauwatosa, Carl P. Menger, of Milwaukee, and Huron H. Smith, of Milwaukee; For Treasurer, Eugene Oestreicher, of Milwaukee, and Geo. F. Rentschler, of Madison; For Director two years, A. Ferdinand, of Fond du Lac, and Aug. F. Kellner, of Milwaukee. The results were: A. F. T. Lauritzen, President; J. H. Boelter, Vice President; Huron H. Smith, Secretary; Eugene Oestreicher, Treasurer, and August F. Kellner, Director. Ex-president Matthewson becomes a director automatically, while the hold-over director is James H. Dale.

Organization and registration, visiting of greenhouses and retail stores took the first morning and the first assemblage was the complimentary noon luncheon given by the Milwaukee Florists Club to all guests and their own members. President Alphonse Griebler presided, welcoming the state florists to the convention. It took over an hour to pass out the attendance prizes. This was handled by the chairman, Huron H. Smith, and his committee of Norbert M. Sebastian and Henry Welke. Miss Mildred Froemming did the drawing of the lucky names for 42 prizes. After luncheon, all gathered on the steps of the hotel Astor for a picture of the convention.

The first session started immediately on the ninth floor or roof garden. Earl L. Ferguson, of the Convention Bureau of the Association of Commerce, welcomed the florists to Milwaukee. He said that the leaders of any business are always the ones who attend conventions. The fact that they are willing to spend their time and money to attend, attests that they are either leaders or on the way to become leaders. President Matthewson responded with thanks for Milwaukee and their host for the florists of Milwaukee. His annual report showed progress and the accession of twenty new members during his term of office. The treasurer Eugene Oestreicher's report also showed a gain in financial strength. The secretary's report, we quote verbatim.

REPORT OF SEC. ALFRED LOCKER

"In reviewing my books, I find the past year the most active and I think I can also state the most successful year since the existence of our organization. At the beginning of the year we changed our name from the Wisconsin State Florists Association to the Wisconsin and Upper Michigan Florists Association. Although we have had a few members of the Upper Michigan District for many years past, we now recognize that location (which should be Wisconsin), and have gained one member from Marquette, Michigan.

Since my report in November 1927, we have received the applications of twenty new members all of whom have been accepted. We have received the resignation of three members. In the past year we have been very unfortunate in losing three of our oldest members by death, all of whom were charter members,—Mr. Ed. Amerpohl, of Janesville, Mr. Frank Eberfeld, of Milwaukee, and Mr. H. J. Seel, of Milwaukee. Mr. Seel was the first secretary of the Wis. State Florists Association. At the present time, we have a membership of 195. Although we dropped about ten members a few years ago, not in good standing, we again have members who should be suspended for failure to pay dues, for many past years.

Your officers and Board of Directors held three meetings in the past year. They were held in Milwaukee on January 26th, June 14th, Sept. 22nd. Pres. Matthewson and the secretary went to Eau Claire on January 16th, and had a very pleasant meeting with Eau Claire and Chippewa Falls Florists, at which time arrangements were made for the summer meeting. All those who attended the summer convention at Eau Claire

will agree that this meeting was well worth attending. Although, it was at first thought that the location was too far west and north, the attendance was one of the best we have ever had. Minneapolis and St. Paul florists numbered fifty. It was decided at the Eau Claire meeting that we continue to hold two meetings a year, the same as in the past.

There are many things which can be accomplished by working to improve the florists business. For example, more uniform prices, prevention of gluts on the market, flowers taken by wholesalers from truck gardeners and private people. There are many other things which this association could take up to better our business conditions. We cannot all agree on these matters but this seems to be the proper place to thrash them out.

At our meeting of the directors, a change of article 10 was suggested as follows: "The president shall appoint an auditing committee, who shall examine the accounts of the Secretary and Treasurer, and report thereon at the next annual meeting of the association". Also to add the following as Article 15, to read: The president shall appoint a nominating committee of three members, none of whom shall be a member of the board, whose duty it shall be to nominate candidates for officers and directors, to be elected at the next annual meeting. They shall notify the secretary in writing at least thirty days before date of the annual meeting, of the names of such candidates, and the secretary shall mail a copy thereof to the last recorded address of each member, simultaneously with a notice of the meeting.

The National Flower Show committee has not as yet selected a city for the national show for 1929. Can Milwaukee and Wisconsin Florists sponsor such a show? In closing, may I ask the cooperation of members in their respective locations in increasing our membership. If you cannot get your neighbor to join send me his name and I will write him."

Alfred Locker, Secretary.

The members rose for a short time in memory of the three departed members, and ordered letters sent to their widows. The convention voted to make necessary changes in by-laws, as recommended by Board of Directors. The auditing committee of Arthur Leidiger, Earl Bell and W. C. Zimmerman, reported the books of the secretary and treasurer correct.

Chicago Florists Fight Licensing Ordinance

Chas. E. Dettmann reported for the committee on licenses, introducing Fred J. Wilkum, of Chicago. Mr. Wilkum said that on July 25th, the Chicago city council passed an ordinance licensing all growers and retailers for $100 each. August 2nd it was signed by the mayor and Aug. 12th it became a law. Investigation showed that two men from the Chicago Florists Chauffeurs Union told the council that the ordinance was wanted, and it was placed under the jurisdiction of the Health Department. A man in the water department was slated as the head collector. As the ordinance reads, any man keeping any diseased or condemned flowers, will have his entire stock condemned. The Master Florists called a meeting last week and an injunction was filed to prevent enforcement. This was briefly the experience of the Chicago Florists. Following his report a motion was made and carried to drop the licensing question. It was voted to put the Treasurer under a $1000 bond, to be paid for by the society.

A motion was made to change the annual meeting to the second Thursday in November, but this was deferred for action in the summer meeting, to conform to by-laws.

Treasurer Oestreicher called the attention of the members to the attempts of the Milwaukee Florists Club to get more space at the State Fair and asked their assistance with legislators.

Paul Gaulke voiced the sentiments of the members in asking that demonstrations be kept upon moderate priced pieces from $3 to $10, with definite stock allowances, and it was said that this would be done. Lewis Turner, explained that some of these cost problems were taken up by the Better Business Bureau of the F. T. D., and this service was available to non-members for $7.50.

The association voted to thank Elmer D. Smith, of Adrian, Michigan for the exhibition of many varieties of "mums" and pompons sent, and also the Elitch Gardens of Denver, Colorado for sending the new Hilda carnations. Minnesota florists sent invitations to the Wis. State & Upper Michigan florists to attend their annual banquet in Feb. 1928, which was acknowledged and the definite time to be placed in our bulletin. The Florists Club of Baltimore extended an invitation to their Fall "Mum" show Nov. 17–19, sending their large premium list.

The Wisconsin State Horticultural Society asked the association for items for their magazine and spoke of a change of secretaries, from Mr. Chambers, who became State Entomologist, to Mr. Rahmlow.

C. C. Pollworth as head of a group of members presented a gavel to the president, the first one in the history of the association,—a most powerful bung-starter, beautified with a chiffon bow. Four new members were added since the July meeting: Walter G. Tamms, of Milwaukee; Otto G. Schroeder, of Green Bay; F. A. Volkman, of Milwaukee; and Robert E. Lassen, of Racine.

European Trip of Much Interest

Three addresses finished the afternoon session. The first

was an illustrated talk on Europe and flowers, by Henry Benz, of the Flower Shop, Racine, just recently returned from the Legion Convention. He shipped his own Chrysler Sedan with him and toured the continent with his father and mother.

He told the members that it was much easier to take one's own car, and probably cheaper in the long run. The French line was best equipped to handle this business, and without the liability clause the cost was only $350 for transportation of the car. Good roads prevailed, in France, Italy, Switzerland, Germany, Czechoslovakia, and Belgium. They drove to Detroit, thence through Canada to Buffalo and Niagara Falls, making a stop at Pearson's at Tarrytown, New York. The French line takes the auto uncrated.

Mr. Benz was surprised to see the vast amount of flowers delivered to the ship by F. T. D. He said that every table and stateroom seemed to have plenty on the S. S. Perry. They landed at Havre, going via Rouen to Paris. He spoke of the beauties of Paris, Napoleon's Tomb, etc. He showed several pictures of the flower beds from different landings of the Eiffel Tower, which he described as wonderful rugs spread upon the face of the earth. He was naturally interested in war reminiscences, and showed ruins at Rheims, shell holes where 108 of his buddies died, barb wire entanglements, the great American cemeteries, and Verdun with its 16,000 buildings, of which only 60 were habitable after the war. The gardens of the Versailles and its fountains came in for glowing descriptions.

Their trip followed up the Alps as far as a car could go, through Nice, and Genoa, with its foreign gardens, to Monte Carlo, where he claims to have done no gambling. He showed a street of oleanders in full bloom at Chivari, Italy, the old bridge at Florence, and many pictures of Venice. They were fortunate to arrive in Venice on the annual Venetian Night, when the city is illuminated in a wonderful fashion and the fete endures till day break. He extolled the conservatory at Vienna, and praised the city as very gay and full of life, much cleaner than Paris.

He spoke of the wonderful alpine plants at Innesbrucken, Switzerland. The William Tell country was praised. He attended the International Horticultural Exhibition at Brussels, Belgium, and reached the conclusion that the flower show part of it was not up to the annual show in Milwaukee.

Pollworth Stresses Friendly Relationship

C. C. Pollworth, past president of the S. A. F., spoke upon the Relationships between the growers, retailers and wholesalers. He said that it was like a family relation, the best of feeling existing, but sometimes the little family squabbles occurred. One is as necessary as the other. Of the three, he thought the grower had the greatest problems. His problems in growing stock, taking all the risk, investing lots of money and having to come into the market, whether it was right or not, made his job the hardest. The wholesaler is the intermediary, and must be able to furnish anything on short notice. The retailer is the most important link to the ultimate consumer. The grower loses because he can't get to the ultimate consumer. If there were no retailers, then there would be no wholesalers and growers.

Mr. Pollworth called attention to the great difference that had transpired in the past ten years. The vast jumps ahead he attributed to these organization meetings. We have better stores, better displays and the expansion has far exceeded our dreams of ten years ago. Florists are paying more attention to window decorating than ever before. They are training their help to interest the customers. There is no more sitting and waiting for a funeral, for there are so many more occasions that demand flowers now.

He called attention to the vast sums spent on publicity by the Milwaukee Publicity Association and the Chicago Association, showing that the newspapers of the two cities cover the state well and help along the local florist at no cost to him. The social part of these organizations is worth all the effort it takes to put it on, for we meet and know each other better. The spirit is such now that a member from up state picks up three or four of his competitors in his auto to bring them along to the convention. He closed with a plea to support our officers.

Florists Finding Cooperation Pays

A. F. T. ("Alphabet") Lauritzen from Eau Claire spoke on the Retail Problems in smaller cities in the State. Alphabet did not want to be considered an expert, but invited questions. One of the problems he said was the relationship between retail florists in cities from 10,000 to 30,000. He did not think the florists were sprouting wings as yet, but were in a transitory state, getting better because they found it paid to be more friendly.

"We act in business as we think it pays, and if we find out that fight doesn't pay, then we cooperate. We have found out that cooperation pays better. There seems to be a little hesitation yet because some of us have not fully made up our minds that cooperation pays. A good many of us, speculate on how much of the business we will get when a florist dies."

"When you came to Eau Claire for the convention, you saw us on our good behavior, but when there is no one around, the thing may get interesting."

One problem that struck Mr.

Lauritzen forcibly was the agent problem. He said that twenty per cent was the most that one ought to pay. Not only florists in small towns, but some from the large ones often break this rule. You may sell a good rose for $3 a dozen, and give only twenty per cent, while the big florist sells the same quality for $5, but gives more commission. The agent doesn't care how much the public pays for flowers and would rather sell the more expensive ones. One of his competitors in the agency business was giving thirty per cent, and paying all express and telephone bills.

Alphabet decided that the agent is the louse of the florists business, because he wants only his commission, and has no interest in business or flowers. He said that a good florist can't make money on a greater commission than 20%, and asked if the association could do something to make its members see this. "Why not cut out the agent and deal direct? This is a rapid age, with telephone and auto for delivery, and we could serve the people better direct. Agents have no business with the florists; too many of them are deadbeats."

Excellent Banquet Pleases Everyone

The evening banquet was one of the finest affairs ever staged by the florists in Milwaukee. The beautiful Venetian room of the Hotel Astor was filled to capacity, with 250 guests. Prizes offered for the best corsage, wrist, shoulder bouquets, and bouttonierres brought out the best decorated audience we have ever had.

A fine entertainment of some 20 performers kept interest all through the meal. The attendance prizes were greatest at the banquet, and it was 9:50 before all were drawn, although the banquet started at 7:00 p. m. Miss Margaret Leidiger did the drawing. The music for dancing was wonderful, being furnished by Jean Hammond and her Tune Tinkers. Short speeches were given by Pres. Matthewson, Toastmaster W. C. Zimmerman, W. J. Smythe, of Chicago, and John M. Besemer, of Detroit.

Public Owns Your Business—MacDonald

The demonstration Friday morning on the roof garden was staged by Archie MacDonald, of Gimbel Bros. Flower Shop, and Archie sure is a Kin Hubbard, of homely advice, that takes with the crowd. The artists were: Jack Lang, of the House of Roses, Arnold Preuss, of Rud. Preuss & Sons; Harold Baumgarten, of Baumgarten's Inc.; Hilda Hendrix, of Gimbel Bros. and Gertrude Byers, of Semler–Leidiger Co. The demonstrations were different this year from previous ones in that inexpensive pieces were turned out with stock carefully figured for definite priced work.

Archie took issue with retailers in other cities. He thought that a two to one mark-up was enough, and that a three to one or four to one was hard to get away with. He thought it should be started the other way. "Your public owns your business, not you," he said. "If you don't think so, insult enough of them and you'll find out who owns it. Sell interest rather than a commodity, he pleaded."

In answer to a question as to how to get volume, he said "Analyze thoroughly and correctly your own situation. Count the number of your competitors, etc. Analyze yourself and be fair. Be truthful with yourself. If you are black, know it, and start getting white. You know you can't get ten people to buy flowers ten times a day, but you may get a hundred people to buy flowers once a day. Know how many you can serve, and set your own quota mentally. Then if you can't make it, you are no good, and ought not be in the business. When you hang out your shingle, you invite the public in. Get the hard ones. So much per capita is yours, get it.'

"Make bouquets to fit the type and style of your customers in the shoulder and wrist types and you'll get the business. Make them small and reasonable. We would rather make that sort of bouquets at cost than anything else," said Mr. MacDonald. "They are going out to be worn among many people, who will see and admire. A bouquet to the hospital will be seen by but few people. Don't let the rag flower man beat you to this business. Keep off all the trimming around these bouquets you can, with all deference to the ribbon men. Real flowers will gain the business over rag flowers every time, if you don't try to imitate the artificial ones."

One of the audience proposed a condition where a good friend came in to get something nice at a close price. Mr. MacDonald said, "Always bump your friends good, when you sell flowers, and if they stand it and remain friends, then they really are friends. If not, then they are better off in trying some other florist. When stock is too plentiful, make a wonderful window and use lots of blooms. Advertise your heaviest then."

The audience gave the demonstrators a rising vote of thanks and called it the most wonderful demonstration they had seen. Visitors privately expressed to the writer that it was the most practical, and that they got more out of it than they did out of the F. T. D., Washington, D. C., demonstration. Some of those commending the demonstration were: Jas. H. Dale, Hancock, Mich.; James E. Taylor, Oshkosh, Wis.; Fred Rentschler, Madison, Wis. and A. F. T. Lauritzen, Eau Claire, Wis.

Important Questions Answered

The F. T. D. Meeting was the liveliest ever held in this dis-

(Continued on page 57)

STRAWFLOWERS AND THEIR CULTURE

V. E. BRUBAKER, Washburn, Wisconsin

There is always a time each year, after the first killing frost, when flower lovers look for something to take the place of their garden and fresh flowers. Too, at this time of the year, the retail florist finds a scarcity of varieties of flowers to attract his customers. Possibly for these reasons the Everlastings or Strawflowers have found a place in the Commercial Flower Market. Whatever reason it may be, they have come to stay, and a good quality of most of the varieties of everlasting finds a ready and profitable sale in most markets. The retail florist who studies the art of arranging these flowers in baskets and pottery attractively, with different designs and colors, finds his customers ready and pleased to buy. They also afford an attractive display for the show windows of the florist.

Our grandmothers grew many of the strawflowers we now find on the market, for their own use and pleasure. The following varieties are the most widely used: Helichrysums in rose, pink, yellow, red and orange; Acroclinium in white and pink; Rhodante in white and pink; Gomphrena in orange and purple; Globethistle a perennial Echinops Ritro with blue color; Annual Statice in blue, rose, yellow and white; Gypsophila double, a white perennial; Helipterum a deep yellow; and, Lunaria or Honesty has a very attractive seedpod nearly the size of a dollar. Again we find the seedpod of Alyssum Saxatile, also a perennial, the silvery bud from Catananche, the bright orange husk of the Physalis francheti or Chinese Lantern plant and Helichrysum Lanata are very decorative.

There are several varieties of ornamental grasses that are useful and decorative in the winter bouquet as follows: Agrostis nebulosa, Briza maxima, Bromus Brizaeformis and Lagurus ovatus. These should be seeded late in the fall or early spring and cut and dried as strawflowers.

Most of the everlastings are annual and should be planted in early spring or as soon as soil has warmed up to quickly germinate the seed. They may also be started under glass if so desired and transplanted in the field when soil has warmed and there is no more danger of frost. They should be planted in a well prepared and fertilized seed bed with a sunny location, and loam soil is preferable. Any barnyard manure mixed with leaf mold or lawn grass clipping is the very best fertilizer, but must be well composted and rotted. Thorough cultivation is very necessary.

DRYING THE FLOWERS

In drying these flowers, they should be picked when in bud, then tied in bunches and hung in a dark, well ventilated building, so they will dry fast and hold their color without fading. They should be hung with the flower heads down so they will dry and stand erect for use in making bouquets. Many times these flowers will become too dry and crumble when building and arranging baskets and bouquets. If this happens, steam them or place in the ice box for a few hours, or, one may place them out in the dew for a short time. Then you can work with them without danger of breaking.

Growers in California have met with great success with the culture of strawflowers, but many of our customers claim that our flowers grown in Northern Wisconsin on the shores of Lake Superior have better color and meet with favor with their friends and customers. We are also told this same story by tourists who visit our gardens annually and have seen them grown and exhibited in California.

Most of the varieties of strawflowers dry and handle successfully on their natural stems, but we have learned that some varieties may be successfully wired and are then much more substantial than on their own stems. These varieties are the Helichrysum and Globe-Amaranth.

There is no doubt but that strawflowers have come to stay on the commercial market. At any rate, they are and should be used in preference to artificial flowers.

Today we have a revival for antiques in furniture, etc. Why not have an old fashioned bouquet of the varieties of strawflowers that our grandmother grew, on the antique table and in the antique jar or vase?

GARDENIA SUPPLANTING ORCHID, FLORISTS TOLD

"The use of flowers for formal occasions is rapidly increasing. They are not only used for corsages and boutonnieres but women now wear shoulder and wrist bouquets, and in New York they are wearing ankle bouquets," said Alfred Locker, secretary of the Wisconsin–Upper Michigan Florists' association, which opened its convention at the Hotel Astor Thursday.

"The gardenia is becoming very popular for formal wear," said Mr. Locker, "because of its adaptability to all shades of dress. It is diminishing, to some extent, the popularity of the orchid."

Many rare and beautiful varieties of flowers were on exhibition at the convention.

The convention opened with a luncheon at the Hotel Astor, after which the delegates were welcomed by Earl Ferguson of the Association of Commerce. Edward Matthewson, president of the association, and W. J. Smythe, president of the Florists' Telegraph Delivery association, were speakers Thursday.

Milwaukee Journal.

The first wild gladioli were found in South America, a few also being found in Southeastern Europe and Asia Minor. The flower had a slender stem with generally three small flowers wide apart and of pale color.

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IN THIS ISSUE

Convention Program.
Additional Premium Awards.
Marketing Door Co. Apples.
Winter Protection.
Getting Ready For Winter.
Apple Sauce Preferred.
Culling the Orchard.
Florists Convention.
Strawflowers.
Gardenia.
A New Policy.
Photo Contest.
Potato Show Features.
Potato Show Premiums.
Marketing By Radio.
Good Books.
My Friendship Garden.
Garden Reminders.
Cranberries.
Apple Cider For Cuba.

Lilies like rich soil, but fertilizer should not be used in direct contact with the bulbs.

Desert plants such as the cacti, yuccas, agaves, and dasylirions lend themselves well to landscape gardening.

IT WON'T BE LONG NOW

We said this several times on our way down from Phillips to Madison on November 4 to take up the work as Secretary of this society. It wasn't very long either, as we made the 230 mile trip in less than eight hours, a compliment to our good roads.

And, we hope "it won't be long now" until we get acquainted with a large number of our members and readers, get acquainted with your problems and know how the society and this magazine can be of most service to you.

We are a little handicapped in getting out the magazine this month. The State Potato Show was held on November 1–4 at Rhinelander. The Price County growers were anxious to win and wanted help. Also, it was a good opportunity to write up the show. So we didn't move to Madison until the 4th, just in time for the Board of Managers meeting on November 5.

This delay, together with the work necessary in getting the program lined up prevents the magazine from getting out on time.

In the December issue we hope to give our readers some of the most interesting features of the Convention, so it will be about December 15 before that number will be out. After that we expect to be out on the 10th of each month.

E. L. CHAMBERS RESIGNS

Mr. Chambers who was Secretary of the State Horticultural Society and editor of WISCONSIN HORTICULTURE until November 1st, has resigned. He succeeds Dr. S. B. Fracker as State Entomologist. Mr. Chambers has rendered this Society an outstanding service by his efficient management of the organization during the past nine months.

Peonies should be planted in the Fall, at any time from September until the ground freezes too deeply to allow planting.

A NEW POLICY

Members of Organizations Receive WISCONSIN HORTICULTURE at Reduced Rates

During the past month a new plan has been adopted. Members of any organization may now receive a year's subscription to this magazine for 50¢ through their Secretary.

We believe we can be of service to anyone interested in horticulture. There are a large number of organizations in the state whose members will be pleased to know of this plan and will benefit by it.

If you belong to a Farmers' club, Garden Club, Spray Ring, Florist Club or any type of organization having members interested in fruits, flowers, vegetables or allied subjects, we will appreciate it if you will bring this up at your next meeting.

To start with, at least ten members should send in their subscription. Have your secretary or treasurer send in the names and addresses of ten or more members together with the money. After that he may send in a smaller number.

Some organizations may have sufficient funds in their treasury so that they can subscribe at once for all their members.

We feel certain that during the coming year there will be many articles in WISCONSIN HORTICULTURE worth many times the subscription price to anyone.

This plan should greatly increase the service the Society can render. Your help will be appreciated.

THAT QUESTION BOX

We have received several letters containing questions from members. These questions will be presented for answer during the convention. You may have some you want answered. Send them in. It will help make the meetings interesting.

CONVENTION ANNOUNCEMENT

HEADQUARTERS AT NEW BELMONT HOTEL

After making full inquiry as to rates and conveniences, it has been decided to make the New Belmont Hotel the Convention Headquarters, November 30–December 2. Manager Hile has given us special rates, especially for the wives of members, so good in fact, there is no excuse for not bringing them. Write us for further information.

PHOTO CONTEST

Select and Send in Your Pictures Now

WISCONSIN HORTICULTURE will offer each month, the following premiums on photographs:

1st prize	$1.00
2nd prize	.75
3rd prize	.50

Each additional print used 25¢.

All Photos not used will be returned.

Glossy prints make the best cuts. Send only glossy prints, on paper, if at all possible.

We are particularly interested in pictures on horticultural subjects such as fruits, flowers, and vegetables, also, outdoor views such as landscapes and forestry.

Send with each picture submitted a short paragraph telling what it is, where and when taken. Pictures that tell a story are especially desirable.

We believe our readers will be very much interested in these pictures, and hope a large number will send in their prints.

For the December issue, prints should reach this office by December 1st. Be sure to give your name and address.

Pansies which have been sown in August should be transplanted to a rich, well-drained bed as soon as they have their second leaves.

COMMITTEES ON BEST VARIETIES APPOINTED BY PRESIDENT LEVERICH

At the meeting of the Board of Managers Saturday, November 5, President Leverich named the following committees to recommend the best varieties of fruits, shrubs, small fruits and vegetables for different sections of the state. This list will be published in the annual report.

The committees have a big job and a very important one. Many growers will be guided by their recommendation.

We feel that those appointed on the committees are capable of handling this problem.

The following were named:

Apple Committee

D. E. Bingham, Sturgeon Bay
C. J. Telfer, Green Bay
J. G. Moore, Madison

Small Fruit and Vegetables

Hollis Sullivan, Taylor
N. A. Rasmussen, Oshkosh
W. J. Hanchee, Racine

Ornamentals

Huron H. Smith, Milwaukee
Oscar Hoefer, Kenosha
W. A. Toole, Baraboo
J. A. Hauser, Bayfield
Jas. Livingstone, Milwaukee

G. A. BUCKSTAFF PASSES AWAY AT HIS HOME IN OSHKOSH

G. A. Buckstaff, a life member of the State Horticultural Society and a charter member of the Oshkosh Local Society, died at his residence, 700 Algoma Blvd., in September. Mr. Buckstaff was an ardent lover of Horticulture.

Both the Oshkosh Local Society and the State Society feel his loss deeply. He traveled extensively and brought a great many specimens and stories home to the Local Society as well as giving freely of his services and money. He was of service to the State Society in many instances.

POTATO GROWERS DEPARTMENT

Edited by J. G. MILWARD
Secretary of the State Potato Growers Association

SPECIAL FEATURES OF 1927 WISCONSIN POTATO SHOW

By J. G. MILWARD, Secretary

The 1927 State Potato Show and 16th Annual Convention of the Wisconsin Potato Growers' Association closed at Rhinelander on November 4. Two phases of a brief report under preparation by the officers of the association may be of interest to readers of WISCONSIN HORTICULTURE.

First: A brief statement on satisfactory results of the show just closed.

Second: The immediate plans of the association to strengthen and improve the next show to be held at Rice Lake, October 25–30, 1928.

The most favorable comment received by the management at the close of the recent show related mainly to the delegations in attendance from practically every important potato producing center in Wisconsin. This representation included growers, shippers, transportation interests, manufacturers and dealers, farm organizations, the agricultural and state press, State Department officials and other representative groups. It is safe to say that no previous convention of this association was better attended by men having investment in the industry and who should be interested in all organized effort to advance the Wisconsin potato industry.

Conspicuous among the community groups in attendance were delegations from Webster, Spooner, Hayward, Seeley, Rice Lake, Angus, Mikana, Brill, Chetek, Phillips, Ogema, Medford, Harshaw, Starks, Enterprise, Three Lakes, Eagle River, Antigo, Crandon, Wabeno, Laona, Argonne, Florence, Pembine, Amberg, Shawano, Waupaca, Stevens Point, Wausau, Tomahawk and several other shipping points.

The quality of the competitive exhibits fulfilled the expectations of the management especially considering late season conditions that reduced the size of the crop but were unusually favorable to good type and quality.

General satisfaction was expressed at the show on the general high quality of the Wisconsin 1927 potato crop and general satisfaction in prospective shipments of both certified seed and table stock.

Fourteen manufacturers and dealers report unusual interest in the commercial exhibit section this year. The commercial exhibits featured displays of machinery, fertilizers, spray mixtures, etc. The interest manifested in this department is considered ample evidence of continued progress in Wisconsin producing centers.

An address of unusual interest was delivered on opening night by Mr. Fred Sargent, president of the Chicago and Northwestern railroad. Mr. Sargent's address pertained largely to practical problems involved in the distribution of the crop to important markets. Additional addresses of interest were delivered by Mr. Geo. Commings, Deputy Commissioner of the Wisconsin Department of Markets, W. A. Duffy, Wisconsin Commissioner of Agriculture, and Dr. L. R. Jones, Pathologist, Wisconsin Experiment Station.

Two numbers on the program especially well received were furnished by the Marinette and Oneida County Boys Club demonstration teams. The Friday session devoted to rural and state graded schools maintained interest and action right up to the last minute of the show. The show closed with the presentation of a box of standard Wisconsin potatoes to each of the 60 rural school teachers in attendance.

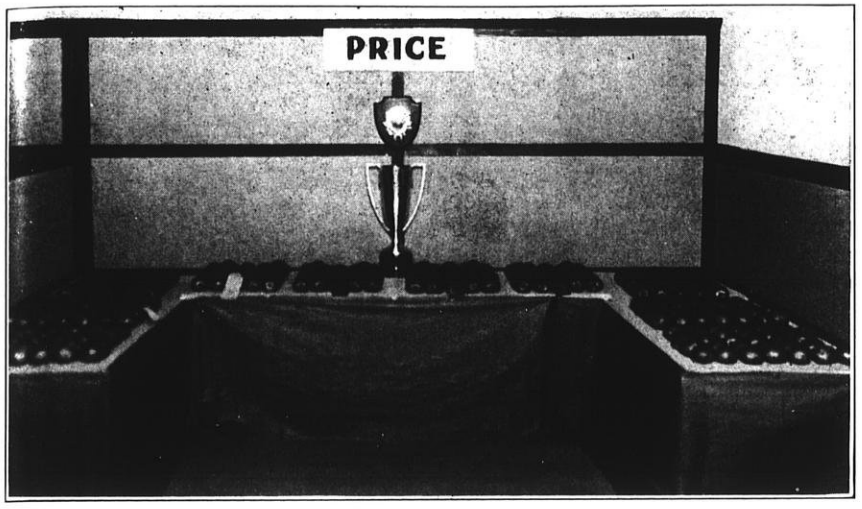
LOOKING FORWARD TO RICE LAKE IN 1928

Rice Lake measures up to all the requirements essential to the location of the State Potato Show. Several important potato marketing centers are located in Barron County. In addition, it is tributary to several important counties, where organized potato work is now well established. Northwestern Wisconsin potato interests have been looking forward to the State Potato Show for several years. The Association is assured therefore of full cooperation by farmers and business men. The management, on a later date will announce preliminary plans for the show through the columns of WISCONSIN HORTICULTURE.

POTATO GROWERS ELECT NEW OFFICERS

At the annual meeting of the Potato Growers Association the following officers were elected for the coming year.

Wm. Dama, Phillips, Pres.
Jas. Hanson, Rice Lake, Vice Pres.
J. G. Milward, Madison, Sec'y.
J. Isherwood, Plover, Director.
Eric Mickelson, Pembine, Director.



THE WINNING COUNTY

STATE POTATO SHOW GREAT SUCCESS

The sixteenth annual State Potato Show held at Rhinelander November 1–4 was an outstanding success. Eleven counties competed in the County Booth class.

The quality of the potatoes in these exhibits was undoubtedly the best for many years. The winners were: Price County, 1st; Langlade County, 2nd; Marinette County, 3rd; Florence County, 4th; Oneida County, 5th; Forest County, 6th. The other counties were Barron, Outagamie, Oconto, Washburn, and Iron, placing in the order given.

The judges were Professor R. E. Vaughan of the Horticulture Department, Professor Geo. Briggs of the Agronomy Department, and Professor E. J. Delwiche in charge of Experiment Farms in Northern Wisconsin.

Varieties Featured by Counties

Price County featured the Triumph variety. John Conradi of Phillips was the principal grower and was assistant to County Agent Rahmlow in preparing the exhibit. Wm. Dama of Phillips, Vice President of the Association, also assisted.

The *Langlade County* Booth was in charge of J. W. Smith of Kent, well known Triumph grower. Triumphs were featured. County Agent Omernik assisted Mr. Smith. Antigo is becoming famous as a Cobbler and Triumph section.

Marinette County featured Triumphs, principally from the Pembine Section. Eric Mikelson is the leading grower cooperating with County Agent Drury in preparing the exhibit.

Florence County, one of the newer potato counties, had a fine exhibit of Irish Cobblers and Rural New Yorkers. The booth was in charge of County Agent Peterson, assisted by two good growers, Herman Kieper and David Pajunen of Florence.

Oneida County proved a splendid host. They have won more cups than any other County during the past sixteen years. Green Mountains as certified seed for eastern trade are their specialty. Triumphs were also shown. Willis Jewell of Rhinelander, assisted County Agent Brann. One of the leading growers of Certified Green Mountains is Thomas Meredith of Harshaw, President of the State Potato Growers Association.

Forest County featured Irish Cobblers. L. S. Jacobson of Mole Lake and County Agent Austin were in charge of the booth. Mr. Jacobson, a leading cobbler grower, stated that Forest County was fast becoming a Cobbler County.

Barron County featured Rurals. Jim Hanson of Rice Lake and County Agent Vergeront were in charge. Ed. Kringle of Rice Lake is one of the leading cooperators. Barron County has won many potato shows and is one of the largest producers of Certified Rurals in the state.

Outagamie County exhibited for the first time, though winning first place at potato shows is not new to County Agent Amundson, formerly of Oconto County. They featured Russet Rurals. Geo. and Claire Cuff of Hortonville were the principle cooperators.

Oconto County, with Chas. Schmolinske of Oconto assisting County Agent Etheridge, showed Rurals and Kings. Mr. Schmolinske is a leading grower of the Russet Rural. Kings are a new variety coming into favor because of a demand for seed in Florida.

Washburn County had a fine exhibit of Triumphs. County Agent Rasmussen was ably assisted by John Putz of Spooner, a leading Triumph grower. The State Experiment Station at Spooner is doing a great deal of work to help the Triumph growers.

Iron County is one of the new Counties and a beginner in the production of certified seed. County Agent Helli deserves a great deal of credit for putting on a good exhibit and in the pioneer work he is doing.

Boys and Girls Clubs Make Showing

The 4H potato clubs proved they know potatoes by putting up some splendid samples. The Redling Club of Marinette County won first place, the Mountain Club of Marinette County 2nd place. The Badger Work Club of Harshaw took 3rd and the Willing workers of Mc-

(Continued on page 62)

THE MARKET PAGE

Edited by Wm. Kirsch, State Department of Markets

MARKETING BY RADIO

FARMERS TESTIFY RADIO HELPS IN SELLING THEIR CROPS

The Wisconsin Department of Markets maintains a Market News Service which covers the market on the greater portion of Wisconsin farm commodities. This service is linked very closely with the news service of the United States Department of Agriculture and keeps the department in touch with the leading markets of the country.

The value of most market reports depends largely upon the speed with which the reports are transmitted. In order to provide the people of the state with the quickest known type of market reports, the department has built its own station for the broadcasting of market reports as soon as they are received. By this method farmers, dealers, and consumers who have radio sets are in a position to get the needed market information a few minutes after markets are reported.

That this service is appreciated by the farmers of Wisconsin is shown by the letters which the department frequently receives. Some of these letters are quoted below and will give the reader of this paper a concrete illustration of the importance of radio market information.

"It is with pleasure that I take this opportunity of expressing my appreciation of your valuable market reports. My sons and I take a keen interest in them daily. I wish to state that they have been of profit to me financially.

As you well know, Wisconsin Round White, U. S. Grade No. 1 potatoes hit the top of the market at a little over $4.00 per cwt. We thought that was a good price, and discussed the probable conditions that were causing the rapid rise, and decided to sell. We sold 200 bu. at $3.25 per cwt. here at the local market. Just three days later the price of potatoes dropped one dollar on the cwt. and have never regained their former price level. Plain figures gave us a profit of one dollar on every hundred pounds. And still some farmers contend (old fogeys of course) that radio isn't an asset to the farmer of today. I'm of a different opinion, for I am a confirmed radio fan."

"I have been wanting to write to you for some time telling you how good your market reports come in. We can hear it all over the house on the loud speaker on a five tube set. It has been a great help to me the last few months. I had all my potatoes sold except 100 bushels when I received my radio set. The local dealers were telling me to hurry them in as the market was getting weaker but your market report the next day told me different. I saw by your market report that the market was getting stronger from day to day. When I sold the 100 bus. I made $75.00 on them. All this I have to give credit to your market report. The market report we get from the paper in the country usually is about 3 or 4 days late.

Last week I sold 3 calves and made about $5.00 more knowing the market. I also use your market report for buying mill feed. I can always buy a little cheaper when I know the correct price. Very often my neighbors telephone to me to let them know the price on certain things on your 12:30 P. M. market report.

There is no farm complete without a radio. The few months that I have had my set I have saved enough so my radio doesn't cost me anything. While I eat my dinner I take in your complete market report. It is much more convenient than the paper as it doesn't take any time. We also listen to your dinner music. Your 11:59 P. M. program given by the nighthawks came in good. We had a party here and danced by your music till the wee hours in the morning. There are no more lonesome hours on a farm with a radio."

"As to how the radio is helping us farmers, will say this fall I received your broadcast that the price of potatoes had dropped 25 cents per hundred at Waupaca. I loaded up a load of potatoes and took them down, then I engaged a load for the next day at the same price.

When I arrived the next day the price had dropped but as I had them engaged I received $7.50 more than I would have received if I had not received the news before the potato buyer did. And another time when a cattle buyer came to buy some cows he told me what they were worth in Chicago and I told him no. I knew as well as he did as I had received the price that day and then he came up on his price."

"We enjoy your broadcast at 12:30, especially the world news.

Listen in every day on the market reports from your station. It sure is a great help to the farmers. Had some hogs to sell a short time ago and heard from your station that they were lower in Chicago, and had been offered a good price for them here, but intended to ship them as I thought I could get more from them but when I

heard they were down in Chicago I sold them here.

Also had some potatoes to sell and planned on selling them the next week and heard from your station on Saturday that the market was dull in Chicago. They were still paying $3.25 in Waupaca so I hired a truck to haul mine on Saturday. The next week they went down to $2.50 per hundred, so W. L. B. L. has sure made money for me."

"We receive your daily broadcast of markets at the regular appointed hours and wish to state that we receive your reports and announcements very clearly on our set. Also wish to state that your station has been the means of saving us money and making us money by stating the market conditions on advising the farmers when to hold and when to sell, as we have this year in the potato market and cabbage market and also the livestock markets.

We are holding our potato crop for a top notch price whereby making more cash than our neighbors that sold earlier in the fall that are not the happy owners of a reliable radio set. I am wishing you greater success and luck in carrying on the good work of broadcasting markets and announcing news bulletins and weather forecasts."

"You asked a few days ago if your listeners would tell when they received a profit of any sales they made on account of information received from your market reports. Just before the potatoes took their drop from three dollars and twenty-five cents per cwt. I heard your report as to the weak condition of the market and called up one of our buyers and contracted my load at three twenty-five per cwt. The slump in the market followed. Had it not been for the radio I should not have sold them and would have lost quite a few dollars.

The weather report information is also a big help in planning your work ahead for the following day.

Besides the marketing information the radio is very beneficial not only as a source of enjoyment but we receive a great deal along educational lines."

"We listen in every day at 12:30. We are especially interested in the news items and the weather report.

Must say that although we are not farmers, and consequently not very interested in the market reports, from time to time we have listened in to see what prices were so we would know what we should have to pay in purchasing such items as potatoes, etc. Therefore, we feel that the market reports have been of benefit to us as well.

We also want to thank you at this time for your broadcasting of the World Series this last fall, and we sincerely hope that you will include this feature in your broadcast every fall."

(Continued from page 50)

trict. It followed an F. T. D. luncheon on the roof garden, with Arthur Leidiger, Chairman of District 1, southwestern section of the state presiding, and R. D. Haentze, Chairman District 2, Upper Wis. and Upper Michigan also assisting. President Wm. J. Smythe and John M. Besemer sat in front and invited questions and they got plenty.

The first question that came up was: Are members eligible to elect directors? Mr. Besemer said that any change in the method of electing directors would have to come from members in the annual meeting.

It was then asked what percentage of the members attend annual meetings. The answer was 5 to 8 percent and never more than 10 per cent. Jas. H. Dale then moved that these two districts recommend voting by mail in the future to the Board of Directors when they meet in Detroit next January. This was carried. Mr. C. B. Whitnall, of Milwaukee, Secretary of the County Park Board, and founder of the F. T. D. was present and addressed the club, stating his amazement at the growth of the idea. The meeting moved to ask the F. T. D. directors to make Mr. Whitnall an honorary associate member.

Questions became fast and furious with the best of humor at all times, but so many of them about details that concern F. T. D. members only, that the writer thought it best not to report them. The meeting adopted a resolution asking the Detroit board to set the 1928 meeting at West Baden as originally intended.

Ladies Have Special Entertainment

The ladies who were guests at the meeting mostly preferred to attend the demonstrations, but on Thursday afternoon, were given a theatre party at the Palace Theatre.

In addition to the party, which 35 attended from up state, they were all given a souvenir of the trip to Milwaukee in the shape of a brass card tray made especially for the occasion with the name of the Wis. & Upper Michigan State Florists Association engraved thereon. The Schuster Bros. Stores, of Milwaukee, called for them in their big auto buses and took them back to the hotel for the banquet, as a courtesy.

The newly elected officers met Friday afternoon and planned a meeting for the latter part of January. Vice-president J. H. Boelter is to have a report on arrangements for the summer meeting at that time, which will likely be staged in the Elks Club building in Appleton.

GOOD BOOKS

Manual of Vegetable-Garden Diseases, by Charles Chupp. (The MacMillan Co., pub.)

One of the latest and most complete books published on the subject of plant diseases. It is clearly and profusely illustrated and should prove helpful in assisting the gardener to solve his vegetable-disease problems. The material is systematically arranged; the history of each vegetable, the extent of its cultivation, the localities in which it is grown, and the diseases attacking it, are discussed; to be followed by a description of each particular disease as to its history, symptoms, cause, extent of damage, and methods of control.

Our Vanishing Forests, by Arthur Newton Pack. (The MacMillan Co., pub.)

A convincing argument for reforestation, the book leads us —by showing us our absolute dependence upon wood because of its innumerable uses in everyday life—to a realization of our vanishing forest resources and the necessity of our becoming growers as well as users of wood.

Horticulture, by Kary Cadmus Davis. (J. B. Lippincott, pub.)

Although intended primarily for use as a text-book, this work presents so comprehensive a treatment of the field of horticulture at large that it is valuable as a ready reference book for the amateur gardener or orchardist. Plant Propagation, Plant Breeding, Gardening, Orcharding, Small Fruit Growing, Forestry, Beautifying Home Grounds, The Soils, and Insect and Disease Pests are all treated quite thoroughly.

A Simple Guide to Rock Gardening, by James L. Cotter. (The MacMillan Co., pub.)

Of especial value in this time of renewed interest in rock gardening, the book gives detailed information as to the plants suited to growth in rock gardens, the construction of artificial rockeries, the best stones and soils to use, and the propagation, care and proper cultivation of the plants.

House Plants, by Parker T. Barnes. (Doubleday, Page & Co., pub.)

A discussion and enumeration of those plants which adapt themselves readily to house or window garden conditions and are fairly easy for the amateur to raise. Rather complete directions are given for the preparation of the soil, seed sowing and other operations in connection with each plant. Particular attention is given to the problem of temperature control.

Suburban Gardens by Grade Tabor. (The MacMillan Co., pub.)

A guide to the development and beautification of home grounds. Starting with the choice of the house plan and its place on the lot, the book takes the suburban gardener through the various steps necessary to develop the garden most suitable in design and planting for his requirements and space. It also tells how to care for the established garden.

House Plants, Their Care and Culture, by Hugh Findlay. (D. Appleton & Co., pub.)

A well illustrated book, describing thoroughly the care and culture of the various plants common to the home, with additional chapters on the control of diseases and insects found on house plants. Of considerable interest this time of year when the out-of-door gardening season is past.

*To borrow these books and many others of horticultural interest by mail, apply to the Traveling Library Department, Wisconsin Free Library Commission, Madison. The loan period is for three weeks, with postage prepaid.

The following bulletins, of interest to Horticulture readers, are published by the University of Wisconsin, and may be had, free of charge, upon application to the Wisconsin Agricultural Experiment Station, Madison, or your County Agent.

Planning and Planting Home Grounds.
The Modified Leader Tree.
Choose Sprays Carefully.
Vegetable Gardens.
Spray Home Orchards.
Control Anthracnose on Black Raspberries.
The Home Vineyard.
Bush Fruits for Wisconsin.
Outdoor Flowers for the Home.

A QUESTION

Wisconsin State Horticultural Society
Madison, Wisconsin
Gentlemen:

Can you give me any information regarding a wild or woodland flower described to me as the "Ice Lily" which I am told grows quite profusely in and around Chippewa and Rusk Counties?

I am told they are very beautiful. Would they stand transplanting?

Yours truly,
THOS. E. COVINGTON.

Can any of our readers from Chippewa or Rusk or any of the northern counties answer this question? We will appreciate hearing from them.

A Nut Tree on the lawn is not only a distinct advantage from the standpoint of furnishing useful food, but it also has large ornamental value.

WOMEN'S AUXILIARY PAGE

EDITED BY MRS. C. E. STRONG

MRS. SCHACHT'S GRADEN

MY FRIENDSHIP GARDEN

The thrills and pleasures of an amateur flower grower are many. Perhaps, the story of how my garden grew may help someone else to try to grow flowers, the messengers of fond expression.

This Friendship Garden of mine was started three years ago in a very small way. It began with the idea in mind to satisfy a craving to see flowers at all times from my kitchen window.

As soon as my friends heard of this, they were very kind in offering me plants from their own gardens. These I cherished with all my heart, and had wonderful success with every plant. Having used annuals to fill in the space the first summer, I also started a few perennials and biennials in a cold frame. By the second summer, I was overjoyed seeing them in blossom. Among them were Oriental Poppies, Veronica, Sweet-William, Delphinium, Foxglove and Forget-me-not. Of these, I must say, I was most successful with the Oriental Poppy, the Forget-me-not and the Foxglove. One can raise so many plants from one package of seed. I had the pleasure of giving away a surplus supply to friends and neighbors.

This flower growing hobby became most interesting, and by the third year the garden reached from the kitchen door to the roadside, or, in fact, became a "Posy Lane". In connection with this garden I have a plot of wild flowers which I keep adding to continually.

It would be most discouraging to attempt to grow flowers on a plot that does not have a high degree of fertility. We obtain this condition with liberal applications of liquid and solid manures.

The fact that visitors admire my flowers inspires me to go ahead with greater enthusiasm. I took some flowers to the State Fair and was awarded several ribbons. What counted most, however, was what I learned there, for, I tried again two weeks later at our County Fair, and won nearly all the blue ribbons.

The great pleasure of showing flowers as well as growing them is the happiness they give to all who see them, as well as the new friends we meet through growing and showing them.

MRS. ARTHUR SCHACHT,
Racine, Wisconsin.

A REMINDER

Your Plants May Need Protection

We have all taken advantage, no doubt, of this wonderful weather. We have transplanted perennials and moved shrubs and rosebushes. Now we must not forget that they will need a mulch or covering this winter so the frost will not damage them. This covering is especially needed toward spring, as the alternate freezing and thawing heaves the plants out of the ground. If the plants are covered lightly, as soon as the ground is slightly frozen and then given a heavier covering a little later, they will not be injured.

ANOTHER REMINDER THAT WILL HELP MAKE YOUR GARDEN A SUCCESS

While they are fresh in your memory, jot down all the plant combinations you admired in other gardens this summer and did not have time to carry out in your own, also, any new plants you have seen and wish to order, or grow from seed. If you have never kept a Garden Book, start in right now. It's a splendid place to keep those addresses so easily mislaid which can never be found when you are in a hurry to send in an order.

HORTICULTURAL TROUBLES

Edited by E. L. Chambers, State Entomologist

CRANBERRIES

Insect Survey and Control Service

The State legislature in 1925, appropriated an annual fund of five thousand dollars for the investigation and control of cranberry insects and diseases in Wisconsin, to be administered by the State Department of Agriculture. This appropriation enabled the employment of a full-time specialist, Mr. H. F. Bain, for field control of the insects and diseases of this crop. Headquarters were established in Wisconsin Rapids on February 15, 1926. A laboratory was equipped for the determination of cranberry insects and diseases and for the application of a new method of forecasting the probable keeping quality of the cranberry crop.

Some of the active projects that have been carried on during the past two years are as follows:

1. An accurate and complete survey of the acreage devoted to cranberries, the respective areas of the different varieties, the acreage and varieties of young plantings to show recent tendencies in the development of the industry. These statistics are to be made readily available to any one interested.

2. A survey of the insect pests causing trouble to the crop, including recommendations for control of threatening outbreaks when discovered.

3. A study of the cultural methods practiced in the State, such as methods of handling water, planting, care of bogs, weed control, harvesting, etc. This is of value chiefly in giving a better understanding of the industry, and is to become the basis for future recommendations for improvements.

4. A study of the diseases of cranberries, including an extension of the false blossom survey initiated by the United States Department of Agriculture in 1925, and investigations, in cooperation with that department, of fungous diseases in the field and in storage.

5. Forecasts of the probable keeping quality of the crop, determined by incubation tests of berries at intervals after September 1.

6. Enforcement of regulations controlling the movement of vines.

Mr. Daniel McCrabbe, representing the Office of Fruit Diseases, United States Department of Agriculture, spent three months in the office assisting Mr. Bain in making a study of the field infection of cranberries by storage-rot fungi. This work, in connection with storage studies of fungi now in progress, is bringing to light much more information concerning the storage rotting of cranberries than has heretofore been available.

Seventy-five samples of cranberries, representing bogs in all the different cranberry sections of the State, were given incubator tests to determine in advance the probable keeping quality of the 1926 crop.

On the whole these tests indicated a crop of good keeping quality, and this information was given to the growers for their guidance in disposing of the berries. The value of this service is indicated by the fact that the agent for a national cranberry marketing organization applied for these results for his personal use in handling a portion of the Wisconsin crop.

The storage tests of cranberries are now underway at Chicago in cooperation with the U. S. Bureau of Plant Industry, to determine in advance the keeping qualities of this year's crop.

1926 Crop Large

The cranberry crop of 1926 was the largest ever produced in the state, and very probably also the largest crop per acre ever grown in any part of the country. The contributing causes for this phenomenal yield were a light crop in 1925, leaving the vines rested and in condition for bearing a heavy crop, favorable growing conditions during the season, and absence of crop injuries caused by insects, frost, blight, etc. Crop injuries are the most frequent causes of light yields in Wisconsin. As was just noted, these injuries were reduced to a minimum in 1926, in large part due to the alertness of the growers in applying frost and insect reflows at critical times, and to the general absence of blight.

Recent market reports reveal the fact that the 1927 cranberry crop is far below normal and less than one-half that of last year when more than 90,000 barrels were harvested.

Although serious insect outbreaks threatened in widely scattered sections of the state in the early part of the season, the reduced yield was due to other factors than these. The majority of insect pests were successfully brought under control before any great losses resulted. However, the second brood of one of the fireworms usually controlled by flooding the marshes appeared too late to permit this treatment this year. As a result the entire crop on some twenty-five acres was completely destroyed by it and appreciable losses caused in other acreage. The cranberry fruit worm, another serious pest for which no control is known, likewise caused considerable loss where its parasitic enemies did not bring it under control in time.

Field studies were carried on this summer at the department

laboratory located at Wisconsin Rapids on the life history of the only important field rot-fungus affecting Wisconsin cranberries, *(Selerotinia oxycocci)*. It causes hard rot or cottonball. These studies furnished data on which control measures by spraying for this disease may be based in the future.

JOINT HARVEST FESTIVAL WILL BE HELD IN MANITOWOC UNDER AUSPICES OF COUNTY SOCIETIES

Horticultural and Seed Growers Associations Will Hold Exposition—Will Show Products

Arrangements have been perfected by the Manitowoc County Horticultural society and the Manitowoc County Purebred Seed Growers' association, working in cooperation with the county agricultural office for the first county harvest festival to be held in the city of Manitowoc on Tuesday, November 15. The apple and grain show, with a suitable program will be held in the K. C. club rooms.

Over 500 samples of apples, showing nearly 30 different varieties, and approximately 200 samples of pedigreed grain will make up the display. Professor R. A. Moore, former resident of Kewaunee county and for years head of the farm crops department of the college of agriculture, Madison, will be the grain judge and principal speaker during the afternoon and evening. Professor C. L. Kuehner of the horticultural department at Madison, will judge the apple exhibit and appear on the program during the afternoon.

Officials of the horticultural society and Purebred Seed Growers' association are now at work through the membership of the respective organizations and the rural schools gathering one of the finest displays of apples and pedigreed grains that ever was shown in Manitowoc county. In addition, several of the large fruit growers in the neighborhood of the city are offering their cooperation in putting on a strictly apple display that will very closely resemble the one put on each year at the state fair.

If the weather permits, an overflowing crowd of rural and city people is expected to turn out to see the show and hear the program.

Manitowoc Times.

APPLE CIDER FOR CUBA

Havana, Cuba,
November 2nd, 1927.

Department of Agriculture,
Madison, Wisconsin.

Gentlemen:—

In a recent issue of Wisconsin Agriculturist appeared an article encouraging the apple producers to make cider, to take the place of orange juice, and create a market all over the states, I desire to inform you that quantities of cider come from Spain to this market. Why cannot our American apple growers furnish Cuba with their surplus apples in the form of juice? We are more entitled to this market than Spain, buying the greater part of the sugar produced in Cuba.

For your information I wish to state that cider shipped from Spain comes packed, 12 quart bottles in a case. Each bottle is wrapped in a straw casing with cartoon paper on bottom and top of case under the lid.

In case anyone in your state desires to make an experiment with shipping his cider to Cuba, I shall receive same and dispose of it at the very best advantage and highest market price.

Thanking you in anticipation of your courtesy in the matter, I am, Gentlemen,

Very sincerely yours,
ALFRED E. HOLMES.

The above letter was referred to us by Commissioner of Agriculture, Mr. Duffy. We have not investigated the financial rating of Mr. Holmes but offer the above as a possibility in case of a surplus crop in the future.

New Zealand spinach has an advantage over the common type of spinach since it produces a continuous crop rather than going to seed quickly in hot weather.

WANTED—Hear from owner good Farm for sale. Cash price, particulars. D. F. Bush, Minneapolis, Minn.

Mr. Planter

WHEN you buy Nursery Stock you want the best.

NORTH STAR QUALITY and SERVICE, as well as HARDY NORTHERN GROWN STOCK, goes into every order we pack.

Our 'PLANTER'S MANUAL' will give you much valuable information on planting and successful growing of Nursery Stock. Write to-day, it is free.

North Star Nursery Co.
Box A245
Pardeeville, Wisconsin

Trustworthy Trees & Plants
Members American Association of Nurserymen

Try the Forest Winter Apple, as good quality as Delicious. Tree hardy, productive and a good grower. Has been grown locally in this section for twenty-five years. We also have a good stock of the Windsor, sometimes called "Wisconsin Baldwin." Plant these two varieties and have **good** winter apples of your own.

Send for our catalog, showing our complete line of Fruits and Ornamentals adapted to your needs.

Reliable agents wanted.
120 acres.

The Coe, Converse & Edwards Company
Fort Atkinson, Wisconsin

(Continued from page 55)

Naughton 4th. The Antigo 4H club was 5th. County Club Leader B. L. Carter of Marinette, and Gordon Westbrook of McNaughton did a great deal to help this Department make a success.

Individual Classes Large

Competition in the individual classes was very keen. There were 41 entries of Rural New Yorkers alone. Triumphs were second, with 26 entries. Green Mountains had 20 exhibitors.

The following are the winners:

RURAL NEW YORKERS

Prizes
1. L. E. Chase, Phillips.
2. Herman Keeper, Florence.
3. Andrew Detage, Oconto R 3.
4. Chas. Schoette, Antigo R. 5.
5. Ed. Kringle, Rice Lake.
6. Ferdinand Faust, Butternut R. 1.

GREEN MOUNTAINS

Prizes
1. R. Meyers, Tripoli.
2. Gordon Westbrook, McNaughton.
3. W. P. Jewell, Rhinelander.
4. Engwald Bushland, Hayward.
5. B. D. Bassett, Minocqua.
6. Thos. Meredith, Harshaw.

RUSSET RURAL

Prizes
1. Chas. Schmolinski, Oconto R. 1.
2. Leo Sorenson, Marinette.
3. Leonard Schmolinski, Oconto.
4. Geo. Cuff, Hortonville.
5. Milford Bottrel, Dale.
6. Art Kauffman, Dale.

BURBANK

Prizes
1. Sydney Schmidt, Rhinelander.
2. L. O. Larson, Rhinelander.
3. Wade Crane, Ojibwa.

KING (SPALDING ROSE)

Prizes
1. Hugh Westgate, Rhinelander.
2. Spudland Seed Farm, Rhinelander.
3. Geo. Schmolinski, Oconto.
4. Erick Makholm, Suring.
5. Sydney Schmidt, Rhinelander Star R.

TRIUMPH

Prizes
1. John Conradi, Phillips.
2. Bloomberg &Donaldson, Ogema.
3. Clyde Klaar, Phillips.
4. Wm. Dama, Phillips.
5. J. W. Smith, Bryant.
6. Theo. Leopold, Phillips.

RUSSET BURBANK

Prizes
1. Wm. Hinker, Oconto.
2. Elmer Duquaine, Crivitz.
3. Engwald Bushland, Hayward.
4. Kenney Bros., Oconto.
5. Peter Peterson, Gurney.

IRISH COBBLERS

Prizes
1. Chas. Symes, Wabeno.
2. Oscar Nelson, Antigo.
3. L. S. Jacobson, Mole Lake.
4. Selmer Jacobson, Mole Lake.
5. F. A. Alderton, Laona.
6. Herman Keeper, Florence.

EARLY OHIO

Prizes
1. Herman Shenack, Enterprise.
2. Chas. Schmolinski, Oconto.
3. Albert Peterson, Rhinelander.
4. C. H. Johnson, Conover.
5. J. D. Grandine, Argonne.

EARLY ROSE

Prizes
1. Gus Kahn, Hurley.
2. Oneida Co. Home, Rhinelander.

NATIONAL FRUIT SHOW AT KANSAS CITY

The Central States Horticultural Exposition and National Fruit Show will be held at Convention Hall, Kansas City on November 28–29–30.

Premiums are large. Prizes are offered on all the leading varieties of fruits and also on potatoes and honey.

MAKING HOME A BETTER PLACE TO LIVE

If there is a Garden Club in your town, join it. If there is none, organize one. Someone has to start things, why not you? Your neighborhood, your town, the children, all need your help. Not next week, nor next summer, but NOW.

It's up to you to do your share to make the place you call home a better place to live. Starting a GARDEN CLUB will HELP.

OBSERVATIONS

Seed catalogs will soon be out again. Is there any way in which the many varieties listed can be standardized?

Nothing would help the small gardener more than a catalog recommending only the best varieties under standard names.

Our Agricultural Colleges are taking hold of the problem. Help them along.

Small aster plants are very decorative when moved indoors. Bowls or small pots may be used for the plants, but the pots should have the drain-holes stopped up.

PREMIUM AWARDS AT THE STATE FAIR, MILWAUKEE, AUG. 29 TO SEPT. 3

Horticulture Department

(Continued from the October issue)

27. McMahon.
    1. Arthur Grover..... 1.50
    2. Oscar J. Conrad..... 1.25
    3. Lester Patterson..... 1.00
    4. J. E. Hauser..... .75
    5. E. H. Stoeber..... .50
28. Newell.
    1. Leo Brueckner..... 1.50
    2. E. H. Stoeber..... 1.25
    3. .....
    4. .....
    5. .....
29. Northern Spy.
    1. Cooper Bros..... 1.50
    2. Ralph Irwin..... 1.25
    3. Arno Meyer..... 1.00
    4. Oscar J. Conrad..... .75
    5. F. B. Sherman..... .50
30. Patten Greening.
    1. Bonnie View Farms.... 1.50
    2. H. W. Ullsperge..... 1.25
    3. A. W. Lawrence..... 1.00
    4. Wisconsin Fruit Farms .75
    5. Homer Wolf..... .50
31. Pewaukee.
    1. F. B. Sherman..... 1.50
    2. Oscar J. Conrad..... 1.25
    3. Cooper Bros..... 1.00
    4. H. J. Rasmussen..... .75
    5. Edw. Gassner..... .50
32. Plumb Cider.
    1. F. B. Sherman..... 1.50
    2. W. H. Basse..... 1.25
    3. Cooper Bros..... 1.00
    4. E. H. Stoeber..... .75
    5. Frank J. Lindley..... .50
33. St. Lawrence.
    1. E. H. Stoeber..... 1.50
    2. Leo Brueckner..... 1.25
    3. Swartz Bros..... 1.00
    4. Bonnie View Farms... .75
    5. H. J. Rasmussen..... .50
34. Salome.
    1. E. H. Stoeber..... 1.50
    2. Arthur Grover..... 1.25
    3. Ralph Irwin..... 1.00
    4. Lester Patterson..... .75
    5. F. B. Sherman..... .50
35. Westfield (SEEK NO FURTHER)
    1. Oscar J. Conrad..... 1.50
    2. Leo Brueckner..... 1.25
    3. Miss E. M. Goelzer.... 1.00
    4. Arno Meyer..... .75
    5. E. H. Stoeber..... .50
36. Scott Winter.
    1. F. B. Sherman..... 1.50
    2. A. C. Hauser..... 1.25
    3. .....
    4. Leo Brueckner..... .75
    5. Miss E. M. Goelzer..... .50
37. Talman.
    1. Leo Brueckner..... 1.50
    2. Robert Nitz..... 1.25
    3. Oscar J. Conrad..... 1.00
    4. E. H. Stoeber..... .75
    5. Swartz Bros..... .50
38. Twenty Ounce.
    1. Arno Meyer..... 1.50
    2. Cooper Bros..... 1.25
    3. Swartz Bros..... 1.00
    4. F. B. Sherman..... .75
    5. H. J. Rasmussen..... .50
39. Utter.
    1. F. B. Sherman..... 1.50
    2. Cooper Bros..... 1.25
    3. A. C. Hauser..... 1.00
    4. Arthur Grover..... .75
    5. E. H. Stoeber..... .50
40. Yellow Transparent.
    1. Northern Hospital for the Insane..... 1.50
    2. John B. Moyle..... 1.25
    3. Arno Meyer..... 1.00
    4. Arthur Grover..... .75
    5. E. H. Stoeber..... .50

41. Wagener.
1. F. B. Sherman..... 1.50
2. Cooper Bros..... 1.25
3. John B. Moyle..... 1.00
4. ....
5. Edw. Gassner..... .50

42. York Imperial.
1. F. B. Sherman..... 1.50
2. Ralph Irwin..... 1.25
3. ....
4. Dawson Bros..... .75
5. ....

43. Willow Twig.
1. Swartz Bros..... 1.50
2. Arno Meyer..... 1.25
3. E. H. Stoeber..... 1.00
4. F. B. Sherman..... .75
5. ....

44. Windsor.
1. Swartz Bros. 1.50
2. Ralph Irwin..... 1.25
3. Lester Patterson 1.00
4. Dawson Bros. ..... .75
5. A. W. Lawrence..... .50

45. Wolf River.
1. Oscar J. Conrad..... 1.50
2. Homer Wolf 1.25
3. W. H. Basse..... 1.00
4. Leo. Brueckner..... .75
5. A. D. Heise..... .50

46. Golden Delicious.
1. Cooper Bros..... 1.50
2. Wisconsin Fruit Farms 1.25
3. H. W. Ullsperger..... 1.00
4. G. M. Tehan..... .75
5. Bonnie View Farms.... .50

47. Fameuse.
1. Arno Meyer..... 4.00
2. Arthur Grover..... 3.00
3. Miss E. M. Goelzer..... 2.00
4. Leo Brueckner..... 1.50
5. Robert Nitz..... 1.25
6. Homer Wolf..... 1.00
7. Oscar J. Conrad..... .75
8. Swartz Bros..... .50

48. McIntosh.
1. J. E. Hauser 4.00
2. E. H. Stoeber 3.00
3. J. B. Sherman..... 2.00
4. Dawson Bros. 1.50
5. Miss E. M. Goelzer 1.25
6. W. H. Basse..... 1.00
7. J. A. Hass ..... .75
8. A. C. Hauser..... .50

49. N. W. Greening.
1. Homer Wolf..... 4.00
2. E. H. Stoeber..... 3.00
3. John B. Moyle..... 2.00
4. Miss E. M. Goelzer..... 1.50
5. Wisconsin Fruit Farms 1.25
6. Oscar J. Conrad..... 1.00
7. Arno Meyer..... .75
8. Lester Patterson..... .50

50. Duchess.
1. Homer Wolf..... 4.00
2. E. H. Stoeber..... 3.00
3. Arthur Grover..... 2.00
4. Robert Nitz..... 1.50
5. Leo Brueckner..... 1.25
6. Arno Meyer..... 1.00
7. Bonnie View Farms.... .75
8. Miss E. M. Goelzer..... .50

51. Wealthy.
1. A. D. Heise..... 4.00
2. Ralph Irwin..... 3.00
3. Wisconsin Fruit Farms 2.00
4. Lester Patterson..... 1.50
5. E. H. Stoeber..... 1.25
6. Leo Brueckner..... 1.00
7. A. C. Hauser..... .75
8. Dawson Bros..... .50

52. Any other Standard Variety.
1. Red Astrachan—Cooper Bros. 1.50
2. Pound Sweet—Cooper Bros. 1.50
3. Oklbena—F. J. Findley. 1.50
4. Gideon—E. H. Stoeber.. 1.50
5. Stark—A. W. Lawrence 1.50
6. Mann—Dawson Bros... 1.50
7. Bailey's Sweet—W. H. Basse 1.50
8. Roxbury Russett—Cooper Bros..... 1.50
9. Yellow Bell Flower—Dawson Bros..... 1.50
10. Sops of Wine—E. H. Stoeber 1.50
11. Golden Sweet—Arno Meyer 1.50
12. Broughton Sweet—Miss E. M. Goelzer..... 1.50
13. Forest Winter—F. B. Sherman 1.50
14. Senator—Dawson Bros. 1.50

TRAY EXHIBITS

FIFTY TRAY EXHIBIT

53. Ten trays each of 5 varieties selected from the following list: Dudley, Duchess, McMahon, McIntosh, Northwestern, Wealthy, Wolf River.
1. Arno Meyer..... 80.00
2. E. H. Stoeber..... 65.00
3. Arthur Grover..... 50.00
4. A. W. Lawrence..... 40.00
5. Wisconsin Fruit Farms 25.00
6. Bonnie View Farm.... 30.00
7. H. W. Ullsperger..... 25.00
8. Edw. Gassner..... 25.00
9. ....
10. ....

TEN TRAY EXHIBIT
(Best ten trays)

54. Duchess.
1. E. H. Stoeber..... 20.00
2. Arno Meyer..... 15.00
3. A. W. Lawrence..... 12.00
4. Bonnie View Farm..... 10.00
5. Arthur Grover 8.00

55. Dudley.
1. A. W. Lawrence..... 20.00
2. ....
3. Bonnie View Farm..... 12.00
4. ....
5. ....

56. Fameuse.
1. Arno Meyer..... 20.00
2. E. H. Stoeber..... 15.00
3. Bonnie View Farm..... 12.00
4. H. W. Ullsperger..... 10.00
5. A. W. Lawrence..... 8.00

57. McMahon.
1. E. H. Stoeber..... 20.00
2. ....
3. ....
4. ....
5. ....

59. McIntosh.
1. E. H. Stoeber..... 20.00
2. Ralph Irwin..... 15.00
3. H. W. Ullsperger..... 12.00
4. A. W. Lawrence..... 10.00
5. Bonnie View Farm..... 8.00

59. Northwestern.
1. E. H. Stoeber..... 20.00
2. Ralph Irwin..... 15.00
3. Arno Meyer..... 12.00
4. A. W. Lawrence..... 10.00
5. ....

60. Wealthy.
1. A. D. Heise..... 20.00
2. Arno Meyer..... 15.00
3. E. H. Stoeber..... 12.00
4. Ralph Irwin..... 10.00
5. H. W. Ullsperger..... 8.00

61. Wolf River.
1. E. H. Stoeber..... 20.00
2. A. W. Lawrence..... 15.00
3. ....
4. ....
5. ....

SINGLE TRAY EXHIBIT

62. Dudley.
1. Arno Meyer..... 4.00
2. H. W. Ullsperger..... 3.00
3. Bonnie View Farm.... 2.00
4. A. W. Lawrence..... 1.00

63. Duchess.
1. Arthur Grover..... 4.00
2. Arno Meyer..... 3.00
3. E. H. Stoeber..... 2.00
4. Leo Brueckner..... 1.00

64. Fameuse.
1. Arno Meyer..... 4.00
2. Arthur Grover..... 3.00
3. Ralph Irwin..... 2.00
4. Leo Brueckner..... 1.00

65. McMahon.
1. Arthur Grover..... 4.00
2. Lester Patterson..... 3.00
3. ....
4. E. H. Stoeber..... 1.00

66. McIntosh.
1. Ralph Irwin..... 4.00
2. A. W. Lawrence..... 3.00
3. J. A. Hass..... 2.00
4. Wisconsin Fruit Farm. 1.00

67. Northwestern.
1. Ralph Irwin..... 4.00
2. E. H. Stoeber..... 3.00
3. Arthur Grover..... 2.00
4. Northern Hospital for Insane 1.00

68. Patten.
1. H. J. Rasmussen..... 4.00
2. A. W. Lawrence..... 3.00
3. ....
4. ....

69. Salome.
1. E. H. Stoeber..... 4.00
2. Lester Patterson..... 3.00
3. Arthur Grover..... 2.00
4. ....

70. Utter.
1. Arthur Grover..... 4.00
2. ....
3. E. H. Stoeber..... 2.00
4. ....

71. Wealthy.
1. A. D. Heise..... 4.00
2. Lester Patterson..... 3.00
3. Ralph Irwin..... 2.00
4. Arthur Grover..... 1.00

72. Westfield.
1. E. H. Stoeber 4.00
2. ....
3. ....
4. ....

73. Windsor.
1. E. H. Stoeber..... 4.00
2. A. W. Lawrence..... 3.00
3. Wisconsin Fruit Farms 2.00
4. Bonnie View Farms.... 1.00

74. Wolf River.
1. Leo Brueckner..... 4.00
2. E. H. Stoeber..... 3.00
3. Ralph Irwin..... 2.00
4. Wisconsin Fruit Farm. 1.00

75. Yellow Transparent.
1. Northern Hospital for Insane 4.00
2. H. W. Ullsperger..... 3.00
3. Arno Meyer..... 2.00
4. Arthur Grover..... 1.00

CRAB APPLES

76. Hyslop.
1. A. W. Lawrence..... 1.50
2. Edw. Gassner..... 1.25
3. H. W. Ullsperger..... 1.00
4. Wisconsin Fruit Farms .75

77. Martha.
1. Homer Wolf..... 1.50
2. ....
3. Arthur Grover..... 1.00
4. E. H. Stoeber..... .75

78. Sweet Russet.
1. A. C. Hauser..... 1.50
2. Miss E. M. Goelzer..... 1.25
3. E. H. Stoeber..... 1.00
4. Frank J. Lindley..... .75

79. Virginia.
1. Miss E. M. Goelzer..... 1.50
2. ....
3. ....
4. ....

80. Whitney.
1. E. H. Stoeber..... 1.50
2. Homer Wolf..... 1.25
3. Leo Brueckner..... 1.00
4. Oscar J. Conrad..... .75

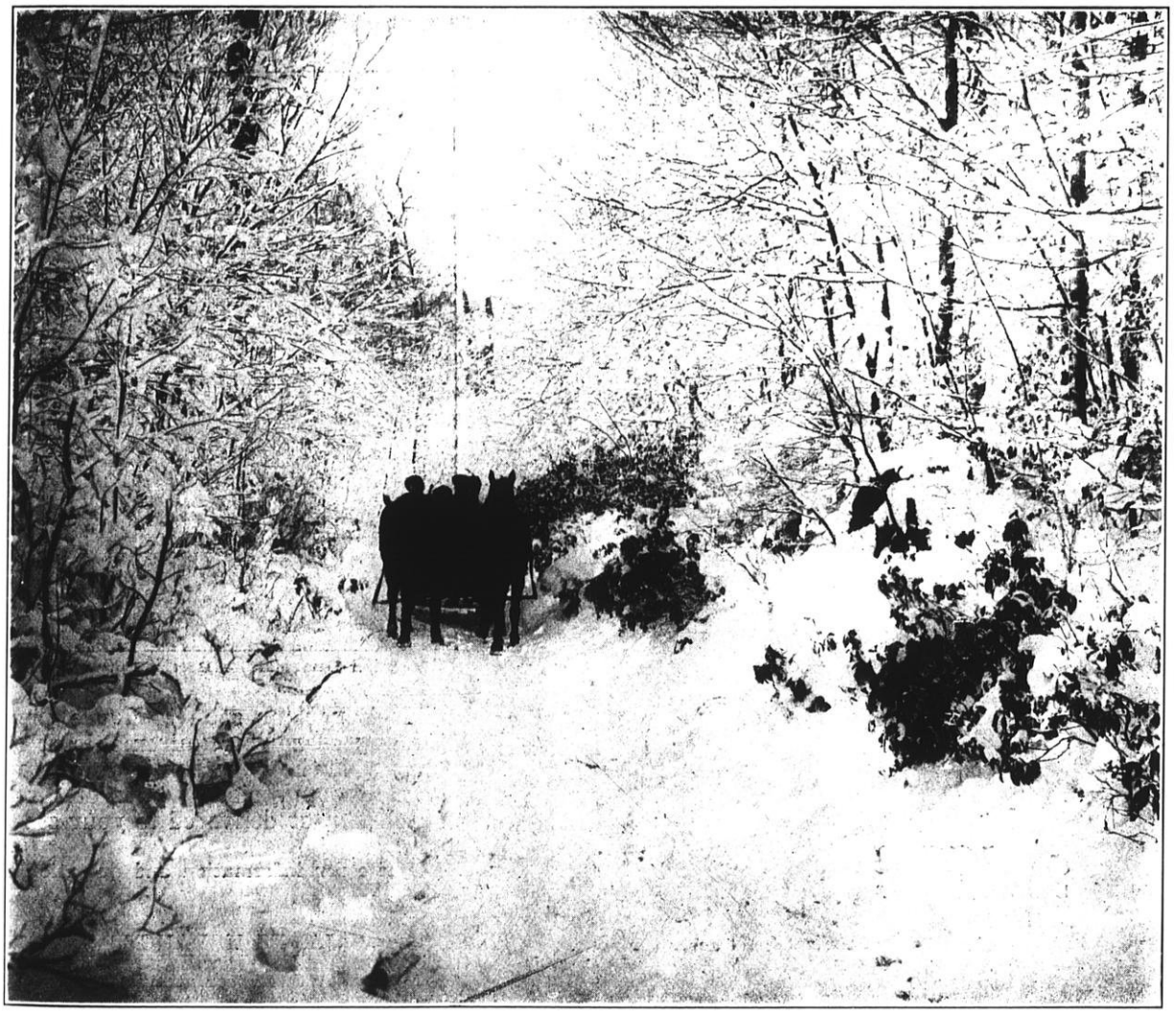
PRIEST EXPERT GARDENER

The Rev. Fr. Francis, member of the Capuchin order at Mt. Calvary and horticulturist at the monastery, has 98 exhibits of garden products on exhibition at the state fair in Milwaukee. Father Francis is regarded as one of the leading horticulturists in the state and to date has won a large number of blue ribbons at the state exposition. He maintains extensive gardens on the monastery farm.

Our Advertising Rates Are Reduced 20%
Our Circulation Has Been Increased 50%
Advertising In This Magazine Will Pay

DEMOCRAT PRINTING COMPANY
MADISON, WISCONSIN

WISCONSIN HORTICULTURE



Wishing You A Merry Christmas!

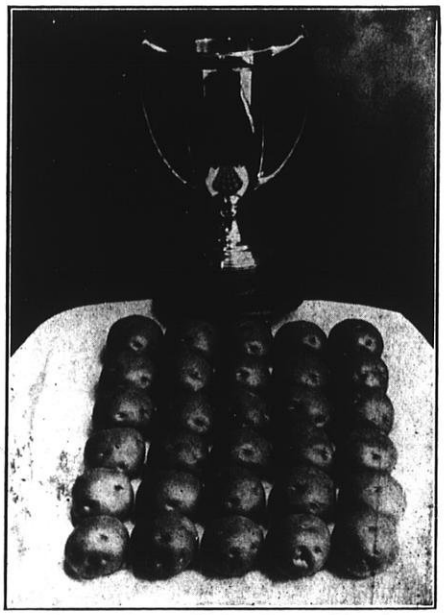
Vol. XVIII DECEMBER, 1927 No. 4

Niagara
DUSTS and DUSTERS

Everything In Spraying and Dusting Materials and Machines for Orchard, Field and Garden Crops

It pays well to use only the highest quality materials whether you are spraying or dusting, and years of experience have proved to the country's best orchard owners, potato growers, truck gardeners and florists that the name NIAGARA is positive assurance of dependable quality.

We have every facility to serve you well in Wisconsin. With a hundred dealers distributed about the state you are assured of proper attention. We are just as interested in your welfare as a grower after we have sold you goods as before and to make this interest valuable we maintain a **Scientific Service Department** second to none. This service is free, and yours for the asking regardless of what your problem may be.



Niagara Dusts Make Better Potatoes

Dusting potatoes at the rate of 4 acres per hour.

It is not too soon to figure the coming season's requirements and we await the opportunity to quote you at our various points of distribution, or delivered to your station.

Write for information and quotations to

JAMES H. DANCE,
Waupaca, Wis.
(Wis. Representative)

NIAGARA SPRAYER COMPANY
MIDDLEPORT, N. Y.

Wisconsin Horticulture

Wisconsin
State Horticultural Society
Organized 1865

Devoted to better fruits, flowers and vegetables

OFFICERS

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J. E. Leverich, Sparta

Vice-President
C. J. Telfer, Green Bay

Secretary
H. J. Rahmlow, Madison

Selling a Million Dollar Cherry Crop

Door County Growers Advertise with Results

Convention Address by H. W. ULLSPERGER

GOVERNOR ZIMMERMAN in his welcoming address yesterday aptly expressed what I believe to be the keynote in fruit marketing when he stated: "The horticulturist must not only produce two apples where one grew before but *those two apples must be of better quality.*" Mr. Kuehner in his talk yesterday emphasized quality. Mr. Meyers stressed the importance of proper grading of apples to insure good quality. Professor Gardner's talk indicated clearly that producing A-grade, or apples of good quality is profitable to Michigan fruit growers. Our own experience in Door County has clearly demonstrated that marketing problems are few, if the product sold is uniformly good in quality. Good quality creates demand. The consumer buys a small quantity of fruit, let's say a sample; he is pleased with this sample, purchases more, likes it and finally becomes a steady customer. But if the quality is not good there are no repeat-orders and the fruit grower must continually be finding new customers.

The next step in successful fruit marketing is to establish a "Brand" or a name for the fruit product, such as McIntosh or Wonderland brand, Sturgeon Bay brand, or any other suitable brand name. Every fruit grower should have a brand. Why? So that the consumer or buyer can say, "I want a peck of 'McIntosh' brand apples, they are fine", or "I want a can of Sturgeon Bay brand cherries, I know they are good". The use of a brand simplifies selling.

Now, the next step after you have produced a fruit of uniformly good quality and established a brand is to advertise, or stated simply, tell the people what you have to offer. You may have the best fruit that possibly can be grown, but if you do not advertise you can not make profitable sales. Advertising must be timely and judicious. Money can be wasted quickly in foolish advertising. On the other hand proper advertising is very profitable. About two years ago we carried on an advertising campaign. We had a surplus and we deemed it advisable to start advertising. We started it as a "Cherry Week" in the Milwaukee Journal. The first step in a good advertising campaign is to see that every retailer in that market has some of that product to sell. If your advertising creates a demand and your customer goes to that store and they do not have it, he will get something else and you will lose him.

We ran a full-page ad in the Milwaukee Journal with a picture of George Washington. Why did we use his picture? Because he chopped down the cherry tree. He didn't chop down all of them, but—gentlemen, don't you suppose that got by big? All the newspapers gave us space. This one-page advertisement in the Milwaukee Journal cost us $600 for one issue, but while we paid that much, I will bet we got $3000 worth of free write-ups that told about these cherries. This vast area of cherry trees has spread the fame of Wisconsin cherries all over the United States. That is timely advertising.

OVERSOLD CHERRY CROP IN THREE DAYS

To illustrate more clearly let us take for example the method of selling canned fruit now used by our co-operative organization at Sturgeon Bay. First, we have an established trade because we have for years delivered cherries of uniformly good quality. Our brokers, or sales agents, about forty in number, located in all the principal cities in the United States, take what are known as S. A. P. That

means "subject to approval of price" orders. These are placed on file in our office. We next determine, through crop reports, personal visits, and other means, the size of the cherry crop in the United States, as correctly as possible. Then our board of directors meets to name a selling price. This price is sent by telegram to all of our customers who have placed temporary orders with us. This year we named this price on Tuesday evening and in three day's time we had sold over a million dollars of canned cherries. On Friday evening we were compelled to withdraw from the market. We were oversold. Remember that our entire cherry crop was oversold 30 days before the crop was harvested and canned.

We follow the same method with fresh cherries in crates. Sturgeon Bay brand cherries are known and we have many satisfied customers who demand that brand in preference to any other. Selling cherries is relatively easy under this system.

Selling apples is somewhat different. First we have *too many varieties for commercial purposes*. The quality is not uniformly as good as cherries. Poorer quality of fruit must often be sold through agents or commission merchants who are financially unreliable. Sales are made on description of grades, as described usually by a State or Federal Inspector. If the market remains steady or advances, the buyer does not complain; but, if the market declines, the buyer states the apples are not up to grade and rejects the shipment. If the buyer is financially responsible we can collect. However, it is usually better to sell the car elsewhere.

All of these troubles with apples can be eliminated when we grow fewer varieties, of uniform quality; grade properly, and sell under brand names. A standized product avoids all of these difficulties.

We started an argument on A and B grades. I have here three different sizes of apples, each one goes to a certain kind of trade, and it is up to the marketing organization to know where to send this apple. Take this Northwestern Greening, the A & P Stores in Milwaukee bought about four carloads of these greenings. They liked them. The manager was transferred to Detroit, Michigan, this year. That manager, instead of buying Michigan or New York apples, (he is right in the heart of the New York and Michigan section) wired us that he wanted Door County greenings and we shipped him five carloads. Now, what does that mean? I do not say that New York and Michigan do not have good apples, but he knew our apples. Maybe the shortage of apples had something to do with it.

Now, you take a small apple like this, Michigan will place that in B-Class. There is a class of laboring men that can not afford to pay $3.00 or $4.50 a bushel for apples. Should we deprive this man of apples? Why not place this apple (a small snow apple) on the market, properly graded and let him have it for $1.00 or $1.50 per bushel? Some years when the apples are better he can probably buy a better grade, but this year we find apples that usually go into cider are being marketed.

Now, here is another apple. I had four apples over there on the desk, two of them were taken, but they did not take these two. Why? They knew why.

There is a special market for greenings this year. We could not sell greenings to the Milwaukee market, but when it came to Chicago we sold them as high as $2.75 a box. We could not get over $1.75 for greenings in Milwaukee. Minneapolis and Chicago want greenings this year.

I am giving you these illustrations to show that there is a special demand for all apples, and it is up to every fruit grower to find out just where that market is.

When to market; how to market; what fruit to market; and through what channels to market our fruit are all big questions that can be solved better if fruit growers had a closer working organization for securing marketing information, crop reports, and had a wider distribution of their fruit. A surplus at harvest time must be stored or canned to avoid demoralizing the market with too much fruit. Fruit, instead of being forced on the market, should often be processed or canned to secure a wider distribution and more profitable prices.

The Chain Store Effects Grower

New problems are continually arising. The chain stores which are *group marketing* stores, are making rapid strides in business today. They operate economically and often sell at considerably lower prices than the corner grocer. The chain stores may entirely revolutionize present marketing methods. The wholesale grocer and commission merchant may be eliminated. Who knows? When that time comes, will the fruit grower be organized along similar ideas as the chain stores, to enable him to demand a fair price for his fruit. Marketing machinery would be simplified if the growers co-operative sells to the consumers co-operative which may or may not be the chain store. This plan works well in England and Denmark. Why not here?

Something must be done to place horticulture as well as agriculture as a whole on a more profitable basis. Fruit growers, well organized, can demand better prices. Marketing problems will be simplified if all fruit growers co-operate more closely in both the growing and marketing of their fruit.

Small and damaged potatoes can be used for hog food. Experiments at State College show that 327 pounds of cooked potatoes are equal in feeding value to 100 pounds of shelled corn for fattening hogs.

Convention Benefits State

By Governor F. R. Zimmerman

Mr. President, members of the Horticultural Society and friends, I am indeed pleased to welcome you to the capitol today. However, to have your President say that he does not know whether or not I am interested in the Horticultural Society indicates that he did not look at my flower because you see I am one of the few in this rooom that is wearing a flower. Then to have him say this when I was trying to drink all the cider indicates that he was not keeping track of what was going on yesterday.

My friends, meetings such as these indicate that we have a particular object in view. The Wisconsin Horticultural Society meets because they are interested in apples, because they are interested in vegetables, because they are interested in flowers. Perhaps we will have a meeting here next week of cheese men because they are interested in the development of cheese, or perhaps we may have a meeting of railroad men because they are interested in the development of the railroad. Now, whatever line in Wisconsin we are interested in, developes not only that particular line, but it proves to the benefit and to the advantage of the State of Wisconsin. That is why we are glad to have found during the last few years, where man once spoke of two blades of grass where one grew before, that today it is not only a question of two blades growing where one grew, not only a question of two apples where one grew, but to make those two apples of better size, of better texture, and an apple that is a better apple in the market,—one that will bring a better price. So I am sure that in all of the lines in which you are interested, you have this thought.

The development of flowers is a great thing. While in Chicago last week one of the places to which we were invited was Garfield Park, to see the "Mum Gardens". We were told of the thousands of flowers that had been developed, and the thousands that were there. It is wonderful how a city has interested itself in one branch for the good of the people. There is nothing in the world that means quite so much to us as our fruits, our vegetables and our flowers.

Since I am myself a seventy-five per cent vegetarian, of course, I am interested in the Horticultural Society. I am interested in this meeting today. I am glad to know that in Wisconsin we are developing areas in which you men and you women are doing excellent work.

The apples of the Kickapoo Valley are spoken of everywhere, the apples and cherries of Sturgeon Bay are known everywhere. I am sure that it won't be long before the flowers of Wisconsin, the bloom of this state, will have their fame established. Wisconsin is one of the greatest agricultural states because of the development of the Wisconsin Horticultural Society. My interest back home was largely in flowers and in bees. I got stung once in a while but always came back smiling.

I am glad to have you here, knowing that at this meeting you will exchange views. This will make it possible for the professional man and the amateur each to profit by the experience of the other. It will make possible that association which helps avoid failure through your association. Because of this opportunity to meet as you do, Wisconsin must profit, and then you must profit. Then all of us will feel happier because another one of our organizations has made its membership profit. I greet you and I wish you well in your work. Mr. President, I am very pleased to welcome you this morning.

RESPONSE TO WELCOME

By M. B. Goff

Governor Zimmerman and Mr. President: In response to this splendid welcome to the State Capitol, it is perhaps fitting for us, in just a word, to tell you a little about ourselves and what we have in mind to do.

This society is almost as old as the settlement of Wisconsin. When the people came West from New York and New England, making that long journey, they brought with them plants and seeds to their new homes. This society year by year gathered those people together in meetings where they compared notes, adopted practices and methods. The result has been the growth in production of fruits in Wisconsin. Now the apple production of this state runs into millions of bushels, and the cherry production is second below only one state of the United States. Some years the crop runs well over a thousand cars.

In clearing up the wilderness, in cutting down the forests, we have built up a new country. It has been our aim to have people take pride in their homes, in their schools and in their gardens. Probably no other thing is so important to us as our flowers, our fruits and our vegetables.

Last night at the Executive Committee meeting of this Society, a program on which we have long been working, that of bringing to this group, and to every home in the state, the idea of securing better citizenship, and having the boys and girls learn, as in no other way, the Glory of God, in growing beautiful things. That is the function of this society; that will be the trend of the discussion at this meeting. We thank you for your wishes of success in putting forth a program of this nature, which we believe is fundamental in developing citizenship and the growth of this great state.

Horticultural Society Faces Bright Future

By President J. E. LEVERICH

YOU have come together in your Fifty-eighth Annual Convention to review our past work, and to draw lessons from its failures and successes, to take counsel with our distinguished guests from neighboring states, and with added knowledge and renewed assurance, to push forward to even greater achievements than have before been accomplished.

Since we last met in annual convention, your officers have had many varied duties to attend. While we have not accomplished as much as we would like, I cannot help but feel that our work has been helpful in laying the foundation for more future usefulness and spread of horticultural truths. However, we must continue to proceed along conservative lines, building slowly but firmly as we go, and be sure that we are always moving forward to the betterment of horticultural conditions.

Our membership can be classified into several groups, each more or less dependent on the other for greater success or usefulness in his particular line of work. The scientist, lead by Professors Moore, Roberts, Vaughan, Milward, Kuehner and others of the Horticultural Department of our great University, whose business it is to discover the unknown in fruits, flowers and vegetables, are of invaluable help to us.

Let us pause and consider. I do not think we fully appreciate the true worth of this group.—the immense value they are to us in furthering our work. True, we point with great pride to those pioneers who have preceded them, but let us also give those who labor day after day in the laboratory and trial plots, discovering new facts, a little more appreciation.

Next comes the nurserymen and seedmen who take the fruits, flowers and vegetables proved by the scientist, and propagate them for the grower. They have a distinct and useful field in horticulture, and are to be encouraged.

Then follows the grower or the producer, it matters not what you call him. He in turn must face the usual amount of discouragement to prove his mettle and right to be classified as a true horticulturist. Many have the desire to be, but lack the perseverance when put to the test, and consequently fall by the wayside and do not qualify. But those who succeed, perform a great service in supplying us with the best of horticultural products.

The pioneers of Wisconsin horticulture, many of whom have passed on, (although on looking over this audience, I see several still here who have done their share of the pioneer work) have demonstrated the opportunities that are available. You, of the present generation, have demonstrated by your accomplishments up to the present time, that horticultural products can be successfully grown in abundance, in the north, south, east and west of our great state. Now it remains for us, the members and future members of the Horticultural Society, to adapt ourselves to present-day conditions, so as to be able to produce a high quality product, and market it at a fair margin of profit above the cost of production, if we are to prosper to the fullest extent.

Many problems still to be solved confront this society; namely, the development of new varieties and better quality products. Having accomplished this, we must in some manner bring home to each citizen the knowledge of this information which is his for the asking. Each of these require extended effort on our part. Have we been pushing this to the limit? I am inclined to think there is a chance for improvement. How can we accomplish this? In a large measure through harmony and co-operation among ourselves. By working hand in hand with the horticultural department of our State University, State Department of Agriculture and with any other organization, for the glory of the state and the welfare of its citizens. There is room for all if we unite our efforts, and work to the same end.

Our society at the present time is a rapidly growing organization. Our magazine speaks for itself. It is improving. I leave that for you to judge. I also say it is not what it should be yet, and that there is a real chance to show improvement

During the past year, it has been my privilege, or I might say, misfortune, to serve with four different secretaries of this society, a record, which, for the sake of the society, I hope will stand for *all* time. While the different secretaries have all shown marked ability, yet the constant changing has not given results, so far as the society's affairs go. In fact, the secretary problem has been a hard one for the board to solve. It has taken valuable time and consideration, which could have been devoted to other lines. This condition has resulted more or less in an unsettled programme and has, no doubt, retarded our development somewhat.

But now I feel we are ready for business, and I am glad to report to the society that your officers all feel we were very fortunate in securing the services of Mr. H. J. Rahmlow, who needs no introduction to many of you. He has a wide acquaintance all over the state,

gained through contacts with people during the eight years he so ably served Price County as their county agricultural agent. We have the utmost confidence, in Mr. Rahmlow proving a worthy successor to our faithful former Secretary, Frederic Cranefield, whom we shall all miss very much. Mr. Cranefield was secretary of this society for nearly twenty-five years. It grew and prospered through his efforts. The members of this society owe him a vote of gratitude for his faithful performance of duty during the long time he so ably served us.

Before passing this subject, it is fitting and proper that we also thank our former President Toole for his services as temporary secretary; also our present State Entomologist, E. L. Chambers, who assumed the office of Secretary on February first, and who resigned to devote all of his time to the position of State Entomologist on November first. Mr. Chambers was an untiring worker in behalf of the society. His accomplishments were many. I leave that for you to decide. I say he has served us well, and future officers of this society, I am sure, will do well in seeking his wise counsel and advice. We regretted to have him leave the society very much but wish him success in the work he has chosen. He is deserving of it.

There are a number of other matters which I would like to leave with you before closing, but which I will only mention now.

First: Let us seek a greater membership of interested horticulturists whom we have not reached heretofore. There are thousands who should be with us. This in a measure can be accomplished through organization of auxiliary societies. By so doing, let us improve our convention by bringing new blood into the society, who will tell us of their experiences and of the locals they represent. Let the mother society be in closer contact and have a closer relationship with its auxiliary societies than has heretofore existed. I think some plan should be worked out to give better support to locals. There is more than just organization.

Let us all urge individual membership when local organizations are not feasible.

Second: Let us have closer co-operation between the Horticultural Department of our University, county agricultural agents, city park boards, state fair department, drive clubs, and all other organizations which run parallel to us.

Third: Let us advertise the food value of our products.

Fourth: Let us seek more publicity of the right kind about our society through the press and through the schools. We have been in hiding too long.

Fifth: Let us ascertain and distribute valuable information as we get it on marketing our products.

Sixth: Let us attack the problem of cost of production in a business like manner.

We might also consider the following: The establishment of a trial small fruit and vegetable plot.

The establishment of a trial orchard to try out promising seedlings in co-operation with our State Horticultural Department. This might be the foundation for the later establishment of a State Fruit Breeding farm.

The establishment of a model flower and ornamental garden.

And let us consider the establishment of a Horticultural Machinery exhibit in connection with our Annual Convention, including all who wish to exhibit materials necessary or used in horticultural pursuits. I feel sure that this can be made a large drawing card for our convention and would go over big if properly worked out.

Then, how about a canners' exhibit as well? The canners are getting to be of much importance to the fruit and vegetable interest.

Wisconsin can have a horticultural society second to none both in quality and in numbers, if we can have the undivided support and helpful co-operation of all its members. I want to say that it has been very gratifying, indeed, to note the enthusiastic support given by all who have had the work in hand. To me it has been especially gratifying to have received so much helpful co-operation. There has been no hanging back: all have been willing to serve, not half-heartedly, but wholly so. There has been no spirit of criticism in our ranks. The result of this all will lead to the end that we are all working for a Greater and more useful Horticultural Society.

In conclusion, let us work together with our new secretary and the future officers we will elect, with the one thought and purpose in view of making the Wisconsin State Horticultural Society a great horticultural society in a great horticultural state.

RESOLUTION ADOPTED BY CONVENTION

Whereas, Dr. S. B. Fracker has through his many years of service as State Entomologist co-operated with and supported this society and its endeavors to a remarkable degree, and

Whereas his new position in Washington prevents his former frequent help and counsel,

Therefore, be it Resolved, that this Annual Convention convey to Dr. Fracker its appreciation for his services, and its best wishes for his future success.

Wisconsin State Horticultural Society

Wild cucumber seed often does not germinate the first spring even though planted in the fall. Germination might be hastened somewhat by cutting through the hard seed coat with a file before planting. This will allow the water to penetrate better.

Orchard Costs and Profits

Widening Margin Between Production Cost and Selling Price

By Prof. V. R. GARDNER, Michigan A. C.

THE various items that enter into the cost of production of apples may be classified for convenience under one or another of three heads: overhead expense, current maintenance and harvesting costs.

OVERHEAD COSTS

Growers generally know that there are certain items of expense, e.g. taxes, connected with running the orchard that would be classed as overhead charges. Few, however, realize the number and the comparative size of the items that constitute overhead expense. Taxes are really one of the least important items in this connection. Let us consider these different items individually, beginning with taxes.

Taxes—For one fairly representative Michigan orchard for which we have definite records, taxes and insurance together ranged from $1.07 per acre in 1911 to $5.68 in 1925. Within that period they once reached the "high-water" mark of $6.39. During the last 10 years they have averaged about $5.00 per acre per year.

Taxes on 28 farms in southwestern Michigan where we made a recent survey of the raspberry industry have ranged from $1.75 to $3.00 per acre during the last several years. On the other hand, taxes on a young Missouri apple orchard of which the writer is part owner have averaged less than 75 cents per acre during the past 5 years and on another Missouri orchard for which he has the records they have ranged between 29 and 49 cents.

Plainly, taxes do not constitute a major item in overhead costs in the orchard.

Interest on Investment—Interest on the investment, which everyone will admit is a part of the yearly cost of any orchard, naturally varies with the amount that is invested per acre and with rate of interest.

There is an enormous variation in the amount that different growers have invested in their orchards. We hear of investments running up to $1500 to $2000 per acre in some of the northwestern states. There are records of prices such as these having actually been paid for bearing orchards. However, they are extreme.

On one Michigan farm, where accurate records were kept, the net investment per acre in a nine year old cherry orchard ranged from $551.57 to $854.28 per acre. It depended largely on the variety and on the size of the early crops that had helped to pay expenses during the 5-9 years' of age period.

In my own apple orchard in Missouri where the land cost $77.50 per acre and where development costs have been held down to a minmum, the investment at 7 years of age is approximately $250 per acre. It is doubtful if the total investment cost can be kept below $400 per acre in this orchard by the time it reaches an age where returns from the crop will equal the annual expense.

Here and there in the eastern states, bearing orchards may be developed, or they may be bought for less, but they will constitute the exception rather than the rule. Probably $400 to $800 may be considered the range in the amount that is actually invested in the average bearing apple orchard.

The annual interest charge, at 6%, on the $400 minimum, amounts to $24. This is nearly five times as much as the highest taxes paid by the one Michigan grower, and 30 times as much as the taxes actually paid on the farm where the net investment was figured at $400.

With an $800 investment per acre the interest charge alone would represent the equivalent of a one bushel per tree tax of A-grade fruit, assuming average planting distance and average prices. Here, indeed is an item of real importance—just as truly a part of the cost of production in the orchard owned clear of all encumbrance by the producer as in the orchard operated on borrowed capital.

Upkeep and Repairs — On every farm a certain amount of time and materials is required to keep things in repair. Tools wear out and must be replaced. Fences need fixing, the harness mending, the tractor a new set of spark plugs, the truck a new set of tires. Keeping all this equipment up to par involves considerable expense that cannot be charged entirely against any one part of the farm but must be apportioned more or less equally against each and every portion.

On the one northern Michigan fruit farm, to which reference has already been made, this item has averaged $4.62 per acre per year during a 16 year period. For the first seven years on a Missouri fruit farm they have averaged $1.33 per acre annually.

Supervision—Few fruit growers reckon their own time that goes into the orchard. If they do count it, they figure only such portion of their time as is actually spent in physical labor, in such operations as pruning and spraying, paying no attention to the time devoted to work of supervision. Yet, someone must manage the orchard enterprise—either the owner himself

or someone whom he employs and pays.

It would surprise many a commercial fruit grower to find out how many hours a week he devotes simply to directing the work in his orchard. I know of orchards where some years this supervision cost has been as high as $40.00, though it seldom ranges above $15.00 per acre. On the other hand, I know of one commercial apple orchard where a competent manager has been employed for $1.50 per acre per year.

Five dollars per acre per year would probably be a conservative average figure for a large orchard enterprise, ten dollars for a small one. Unless the producer credits himself with this amount he is simply donating his time, for he is certainly spending it.

Orchard Depreciation — The orchard is a long time investment but it does not last forever. Eventually the trees break down or are blown over or are winter killed or become infested with heart rot and vacancies appear. Few peach orchards reach the 15 year mark, few cherry orchards the 25 year mark and comparatively few apple orchards survive the half century mark, though here and there is one that is nearly twice that age and still doing well.

When an orchard reaches the point when, because of poor stand of trees, broken limbs and other defects incident to age, it is no longer profitable to maintain and the axe should be applied, it becomes a liability instead of an asset. The amount that was originally invested in the trees has been wiped out.

There should be, therefore, a tree depreciation charge included as a part of each year's overhead expense. If the orchard at bearing age represents an investment of $400 per acre, $100 of which is in the land, and the orchard if good for 50 productive years, $300 invested in trees must be written off in the form of a $6 annual depreciation charge. If the investment in trees is twice that figure, the annual depreciation charge is correspondingly large.

Just as there is considerable variation in the annual overhead expense of the orchard, so is there variation in what is generally classified in the current maintenance costs, which cover pruning, fertilization, cultivation, cover crops, spraying, thinning, propping and a number of other small items.

The accompanying table (Table 2) presents figures showing the usual range in these items as it is found in Michigan commercial apple orchards where the trees are in full bearing. Perhaps the figures do not show the extremes, for some years some orchards will receive no fertilizer applications or no pruning. It is seldom, however, that a commercial orchard in Michigan will go through a 5 year period without at least one pruning and one application of manure or commercial fertilizer. Spraying may be said to be universal in Michigan orchards and it is seldom that one finds an apple grower who makes less than four applications each season. Thinning is less universally practiced, less than it should be.

Table 2—Annual current maintenance costs in apple orchards, reduced to an acre basis.

	Minimum	Average	Maximum
Pruning	$1.50	$4.00	$10.00
Fertilization	2.00	6.00	20.00
Cultivation	2.00	7.50	12.00
Spraying	9.00	22.50	48.00
	14.50	40.00	90.00

Pruning—Perhaps, a word more should be said regarding pruning costs. Naturally they vary with the way in which the work is done and over a period of years the average annual cost varies with its frequency. The $10.00 per year assumed as the maximum is actually way below the annual costs in some orchards.

The average mature apple orchard in Michigan is pruned about once every three years. It usually takes from half an hour to an hour's time to do the work. At customary planting distances that means an average annual pruning charge of about $4.00 per acre.

In passing it may be mentioned that a careful field survey of orchard practices in 18 Baldwin orchards in one Michigan district, showed that of the 9 best from the standpoint of yields, grades and returns, three had been pruned rather heavily, three moderately and three very lightly. In other words there was no close correlation between net returns and pruning practices.

Fertilization — In general, Michigan fruit growers are "sold" to the use of fertilizers. They have found that it pays. Districts that a decade ago were using only a few bags are now using as many carloads. A few use barnyard manure but most have to resort to commercial products. Applications of 300 to 400 pounds to the acre of nitrate of soda or sulphate of ammonia are occasionally made; 200 pounds is more near the average, perhaps somewhat above it. A 200 pound application of sulphate of ammonia entails a cost of about $6.00.

Cultivation — Most Michigan orchards are maintained under a clean culture or clean culture-cover crop system of soil management, though many are kept in sod. Soil maintenance costs in the sod orchards will not exceed $2.00 per annum.

Cultivation costs vary considerably, depending on whether it is necessary to plow in the spring or whether the initial working can be done with a disc. They are also influenced by the number of cultivations and whether or not a cover crop is grown. Seldom will they exceed $12.00 per acre. When both cultivated and sod orchards are included $7.50 will probably represent a fair average maintenance cost.

NOTE: To be continued in the January issue. Professor Gardner next takes up "Prices and Profits"—"Yields"—"What Makes them"—"The Relation of Variety to Yield," and summarizes the situation.

Profitable Strawberry Growing

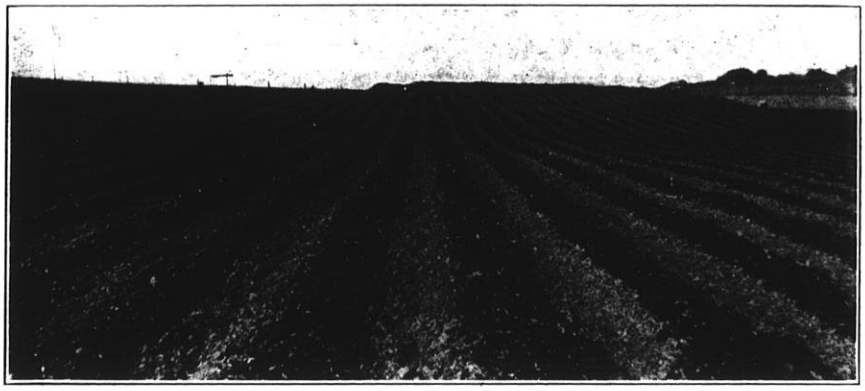
This Method Averaged $800.00 an Acre

Convention Address by E. W. SULLIVAN, Alma Center

I CAN'T say it is easy for me to speak to you ladies and gentlemen on strawberries for I feel entirely out of place. After a man is in the seventies it is hard to teach him new tricks. But maybe you can stand it for a few minutes. Perhaps I can tell the new grower something and I may remind the older ones of something they have neglected to do.

What does a new bed cost per acre? It costs me $130, in this way:

Land two years	$20
Plants	30
Setting	10
Picking blossoms	2
Preparing ground	15
Cultivating	15
Hoeing	15
Covering with straw	15
Raking off straw	2
Cultivating in spring	3
Spreading straw under berry stems and pulling wheat and rye out	5
	$132



AN OLD STRAWBERRY BED—GOOD AS NEW

Now, for a new bed I want a fairly level piece; one that has been in cultivated crop the past season. I want it fall plowed and covered with barn-yard dressing—about five tons; better ten. This should be disked in as early as ground will work in spring, dragged smooth and marked in rows four by two feet.

I am now ready to set. It is very important to get the plants in early. The early-set plants are always better than the late-set plants—never set in the fall.

Now, what kinds are best to plant? Any standard variety will make a good bed. Don't buy new, high-priced plants, they will disappoint you. I am raising mostly Premier. It is a perfect flowering sort and needs no mate. I have been raising strawberries forty-five years and probably have tried one hundred kinds. The Premier is the best berry I ever raised. Charles First is a good one, also Collins and I am trying some Beavers; these are all perfect flowering sorts. I like the perfect flowering sorts because I can have the patch all of one kind, and the berries look better in the crate.

SETTING

A trowel or a spade is best for setting plants. They should be set with crowns just level with the ground, never down in a hole.

Now we have the plants set. Cultivating should commence at once. A Planet Junior twelve-tooth is best for strawberries. This bed should be cultivated every week or ten days until September.

The blossoms should be picked. Here is the easiest way. Take a pair of shears and two laths, fasten these with small staples to the handle of the shears, and stand up while cutting off the blossoms.

Now, this bed can be worked every other time crosswise—that saves lots of hoeing. But when the runners come you must stop working crosswise. Place these runners, when hoeing, between the plants. Put a little dirt on them and they will catch hold. Now, continue to work the cultivator twice in the row, the wide way. This fine cultivator will make a mark along the side of the row. Each time you cultivate it will be a little deeper. Runners will run out and be pushed back to the mark with the cultivator.

When the runners get pretty thick I put two pieces of board on the inside of the teeth, using a piece three and one-half feet long and three inches wide. Fasten with wire in front and on the sides so they will stay. Then cultivate at a good fast walk and you can cover up all your runners. They will soon take root and stick their heads out. Try it. Probably the best time to do this would be the last part of August. From then on, only go once in the row until September 15th.

November 1st, or soon after, cover the bed with straw. Five large loads will cover an acre. For the people who live in town and have small patches, use the leaves you rake off your lawn, as they will be fine between the

rows. Do not put many on top of the plants as they lay too close.

Leaves should never be burned up; they have a real value. If you have no strawberries, pile them up and let them decay; they make good dressing for garden or flowers.

Now we have the berries covered. There is just one more thing we can do. Put up some kind of a snow fence if they are in a bleak place. I stuck a lot of pieces of board in the ground all along one side of the patch to catch snow. It is a good protection. In another patch I drove some stakes, ran a wire on them and tied cornstocks to the wire. It only took a short time and it will catch a pile of snow, if we have any.

Now we will let them rest until April. When they begin to grow, remove the straw to the center between the rows. There is no tool we can buy good for this purpose, so I make a rake.

Take a piece two and one-half feet long, one inch thick, and three inches wide for the head of the rake. Use No. 40 spikes for teeth, about five inches apart. Bore holes with a drill bit for teeth, small enough so they will be tight. Then put in a handle five feet long. Brace with a heavy wire through the handle about twenty inches up from the rake head, then down to the head on each side. Now you have a good durable rake.

Rake the straw off when damp, or still better when it is wet. Tramp the straw as you rake. When the straw is off, I leave it until the berry stems shoot up.

Now I want to cultivate this patch. But, you say, "How can you with all that straw?" That is easy. I just go out with three men, one horse, a five-tooth cultivator and three of these large strawberry rakes. We remove the straw from the first row to the outside of the row. Then start the cultivator up one side and down on the other side in the same row. When the cultivator starts back, one man moves the straw from the second row to where the cultivator has been. The second man comes in the middle, and when the man with the cultivator gets to the end, or the place he started, the next row is almost done. We go across the patch in this way, running the cultivator twice in a row; that moves the straw over one row. The last row will be short of straw.

Three men with a horse and cultivator can cultivate four acres in one day. This holds the moisture and gets rid of a lot of grass and weeds that have already started. We then let them rest for about two weeks.

If a wet day comes, no matter how wet—the wetter the better—we go between these rows on our knees, and spread the straw under the bunches of green berries, covering up all the weeds and grass and pulling what wheat and rye there is.

Now the patch is all ready to pick, no trouble getting pickers when they see this clean bed with berries as large as plums.

One acre of strawberries raised this way will bring more money than forty acres of good corn, and more money than five good cows will bring in a year. This bed ought to bring $1000.

My berries have brought me $800 per acre for the last three years, on an average. In 1925 and 1926 I got six hundred 16 quart cases per acre. In 1927 only 400 cases.

Now as soon as these berries are picked I mow the bed, rake it up as soon as dry, and haul it off.

I have a small eight inch plow for one horse, but I always use two. I plow up one side of the row, and back on the other side, making a back furrow between each row, leaving the row of plants about fourteen or sixteen inches wide. Drag it twice lengthwise and once crosswise and then let it stand a few days until the plants start. We now get on our knees with a short hoe and clean out every weed and spear of grass, and hoe all the ground.

The grass and weeds should be removed from the bed or they will catch hold and grow. Cultivate this bed three or four times. Probably you will have to weed it again in September.

Now this old bed will be just as good as it was the first year. It has all the appearances of a new bed, is just as good, and has not cost more than one-half what the new one cost. Beds well tended will raise three crops—I would not recommend any more.

If you have a piece of ground on which you have no income—only taxes—try strawberries.

Now I do not want to knock the Doctor but try what I do. Every day all summer, take your hoe at four a. m. and work three hours before breakfast. It is a wonderful tonic.

REPORT OF RESOLUTIONS COMMITTEE

Unanimously Adopted by Convention

Whereas, the death of George Buckstaff has deprived Wisconsin Horticulture of one of its most ardent supporters, one who has never failed to promote the improvement and more widespread planting and enjoyment of fruits, flowers and vegetables, and

Whereas, this society has thus suffered a lamentable and irreparable loss,

Be it Therefore Resolved, that the Wisconsin Horticultural Society in Annual Convention Assembled extend its deepest sympathy to the bereaved family, and that in commemoration of George Buckstaff a suitable biographical sketch be published in the society's magazine and a copy of these resolutions spread on the minutes of this convention.

The Penn State strain of Danish Baldhead cabbage this year outyielded ordinary strains here by more than fifty percent.

Wisconsin Horticulture

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H. J. RAHMLOW, Editor
Secretary W. S. H. S., Madison, Wis.

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EXECUTIVE COMMITTEE

Ex Officio

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A. K. Bassett.....Baraboo
V. E. Brubaker.....Washburn
H. C. Christensen.....Oshkosh
M. B. Goff.....Sturgeon Bay
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James Livingstone .....Milwaukee
Wm. Longland.....Lake Geneva
George M. Moseman.....Menomonie
W. E. Sprelter.....La Crosse
J. F. Swartz.....Kenosha
H. W. Ullsperger.....Sturgeon Bay

OUR COVER PAGE

We are indebted to Huron H. Smith, Curator of Botany, Milwaukee Museum for the beautiful winter scene on this month's Front page.

CONVENTION NOTES

Even the "coming out" of the new Ford on Friday of the convention didn't mar the attendance. Now the only big event left this year is Christmas.

Mr. D. E. Bingham of Door County remarked that Professor Kuehner did not go far enough in his article on protecting trees from mice. He says it is just as important to tramp down the snow under the branches so mice cannot gridle them. In his own orchard Mr. Bingham had a force of fifteen men at work digging out the homes of the colonies.

Mrs. N. A. Rasmussen of Oshkosh reports: "Besides the three officially elected delegates of our local society, there were ten others who attended the convention. Can any other local beat that record?"

W. J. Moyle of Union Grove again furnished the spice of the program. When the discussion grew hot, he clinched the arguments with a fitting story.

James Livingstone of Milwaukee said his friend Wm. Longland of Lake Geneva once criticized his ability to tell stories. Those who attended the banquet will vouch for Mr. Livingstone's ability now. His stories on the Scotch made a hit.

Professor Gardner of Michigan showed that under fertilization, too deep or unnecessary cultivation may cut the production or income of the raspberry plantation in half. His raspberry paper will appear in an early issue.

Nick Rasmussen of Oshkosh says it was the best convention in years. Nick should know, he's been to most of them.

Professor Roberts proved a capable toastmaster even though he had to ask H. C. Christensen to return the quarter he had paid him to lead the applause.

A CHRISTMAS SUGGESTION

May we suggest a membership in the State Horticultural Society as a Christmas gift?

Your friend would receive each month, "Wisconsin Horticulture" and also a copy of the annual report.

We feel sure the magazine will contain many things of value. What could be more practical as a gift?

Send us $1.00 together with your friend's name, and we will send a notice at once, together with the last issue of "Wisconsin Horticulture".

THE JANUARY ISSUE

NEXT month several more interesting convention papers will be published. In fact, we will have some for the February issue, and perhaps, even one or two in March.

The raspberry was well represented by J. G. Seidel of Warrens, Professor Gardner of Michigan, and N. A. Rasmussen of Oshkosh. What they said will make valuable reading.

For the flower lover we have the talks of James Livingstone and Wm. Longland on "Bulbs", also, Professor Moore and Mrs. C. E. Strong on outdoor flowers.

Professor Gardner's paper on "Dealing With the Cull Problem" is very thorough. It shows the results of careful, scientific study of important problems facing the grower.

There were talks by Professors Roberts and Kuehner, M. B. Goff, E. L. Chambers, Rex Eberdt, and discussions by a number of others.

We feel sure these articles will be of value to you.

WHAT THIS MAGAZINE NEEDS

WE NEED more articles telling the experience and methods of growers and others in the field.

It is surprising how well it can be done by many who think they cannot write.

Read the article by Mr. E. W. Sullivan on "Profitable Strawberry Growing". He was positive he was unable to write for publication. Yet, his article will be of interest and no doubt of great value to anyone interested in strawberry growing.

Why is it good? Because it tells a story of experience. The statements are short and snappy. The sentences and paragraphs are short, and best of all, the words are short. Furthermore, it tells a story of success that cannot be denied. When a man can average $800.00

per acre for three years, he can speak with authority.

There are many members of this society who can write in the same way. If an article needs changing, that's the editor's job. Sometimes an article must be cut down, or parts rewritten. The editor's duty is to fix it up to the best of his ability to suit the magazine, so send in your experiences.

IMPORTANT CONVENTION BUSINESS

THE Executive Committee of this society met every day during the convention. The most important things done were:

Instructing the Board of Managers to arrange, if possible, a joint meeting of this society with the Minnesota Society next fall.

That the Horticultural Society work with and through local garden clubs, horticultural societies, community clubs, and fair associations, as a means of furthering the work of the society.

That the annual reports of 1926–1927 and 1927–1928 be combined in one volume, and bound with a cloth cover if same can be done legally.

For the ensuing year, and until further notice, local societies or organizations be admitted to membership as a group through their secretary at the following rates:

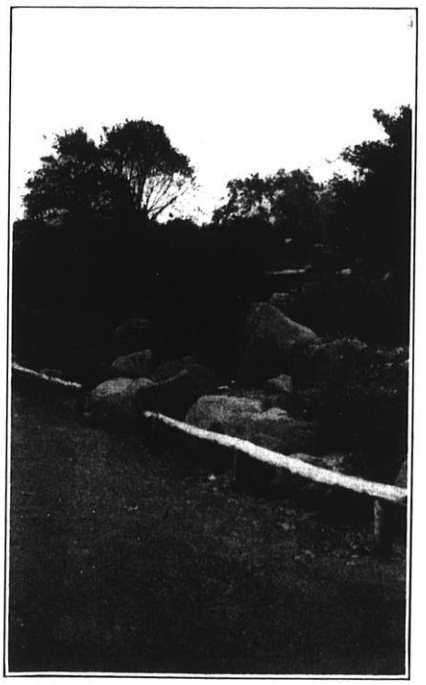
From 30 to 200 members	40c each
Over 200	35c each

The following officers were reelected: J. E. Leverich, Sparta, President; C. J. Telfer, Green Bay, Vice President; H. J. Rahmlow, Madison, Secretary; A. K. Bassett, Baraboo, W. E. Spreiter, La Crosse, and Wm. Longland, Lake Geneva, executive committee.

Onions require cool, dry conditions for storage with plenty of air. A temperature of about 38 degrees is best.

WINNING PICTURES

ONE OF NATURE'S BEAUTY SPOTS
1st Prize



THE ROCK GARDEN

WINNING PHOTOS

The two pictures submitted this month in the photo contest were sent in by I. J. Schulte, 869—40th Street, Milwaukee.

Mr. Schulte has been a member of this society for a number of years. He is very much interested in gardening, flowers and outdoor life.

The winning view shows what anyone of us may see if we love the beauties of nature. Our streams and woodlands are full of such pictures.

The second picture shows a rock garden, and represents how we can make an otherwise barren spot into a thing of beauty.

Our last issue came out a little late, but we hope our readers will send their pictures to us from now on. We will continue offering the same prizes each month, as follows:

First prize	$1.00
Second prize	.75
Third prize	.50
Each additional print used	.25

All photos not used will be returned.

NEW "MUMS" SHOWN

The society is indebted to the Elmer D. Smith & Co. of Adrian, Michigan, for a wonderful display of new varieties of "Mums" at the annual convention.

These new varieties, among them some very choice colors, were sent for exhibit only, and they attracted the especial attention of the florists in attendance.

The Elmer D. Smith & Co. has a national reputation as the originator of some of our best "Mums".

The vine used for covering stone, brick or stucco buildings is Englemann's Ivy. It seems perfectly hardy and may be purchased from almost any nursery company.

Potato Growers Department

Edited by J. G. MILWARD
Secretary of the State Potato Growers Association

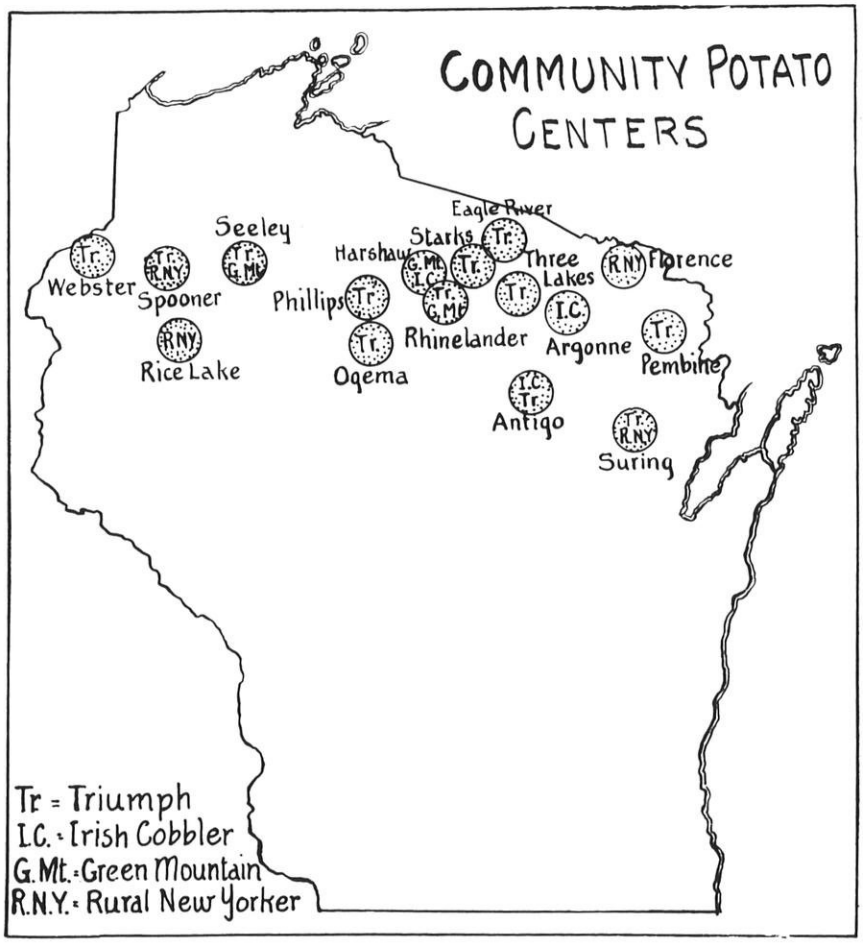
WISCONSIN COMMUNITY POTATO CENTERS

A REVIEW of conditions during the last forty years in Wisconsin will show a certain survival of varieties, proven in adaptability to special conditions over a long period of years. The sturdy and hardy Rural New Yorker group is the best illustration of this condition.

Certain other varieties, however, like the Triumph and Green Mountain seem more exacting in their requirements. In early years on new lands they apparently gave satisfaction. In many regions, however, the changes resulting from continued cultivation, partial soil depletion and other factors resulted in a shifting or change in varieties.

Obviously these changes, due to natural conditions, would result in certain confusion as to varieties. This confusion unchecked would result further in damage to the industry through inferior market type and quality.

In recent years, therefore, Wisconsin has attempted to settle as to "Variety Belts" and community potato growing centers. Organized effort, therefore, associated with a field study of soil and climatic factors, has been an important factor in community standardization.



In this brief article only a limited number of Wisconsin community centers can be mentioned. The accompanying map is not complete but serves merely to illustrate the Wisconsin community center plan. Examples are cited herewith in relation to four varieties, namely, the Rural New Yorker, Green Mountain, Triumph and Irish Cobbler.

Rural New Yorker—This variety stands up well under adverse conditions, including summer drought, disease and insect attack, and continued cultivation. Probably 60% of the Wisconsin car lot shipments belong to the Rural New Yorker group. The Rural New Yorker is late in maturing. On this account certain sections, in upper Wisconsin especially, have changed to an earlier maturing variety like the Irish Cobbler. Central Wisconsin continues to be a heavy producer of the Rural New Yorker type, including the Russet Rural in some sections. The map will show several important Rural New Yorker centers in upper Wisconsin also. Barron, Washburn, Rusk, Marinette, Oconto, Florence, Waupaca, Waushara, Portage and Wood Counties have featured Rural New Yorker exhibits at state potato shows.

Green Mountain—In Wisconsin the Green Mountain is restricted essentially to certain sandy loam regions in upper Wisconsin. The plant is a quick grower. On cool, deep, sandy loam soils it produces very heavy foliage. In certain seasons the leaf hopper gets in its work

(Continued on page 81)

"Yes, We Have No Gate"

How Swartz Bros. Solved the Problem

IF YOU are ever in Waukesha, drive out to "Cornfalfa Farms". Swartz Bros. will show you a number of things that may be new to you.

They will take you to a machine shed, one of the largest in the County, so filled with machinery there is hardly room to move around. They will take you into their root cellar. "These apples were harvested in the fall of 1926 and are over a year old", they will tell you. The apples are no longer fancy, but it shows what can be done in a good underground cellar.

Then they will take you to a big barn used in fall as a storehouse for apples. "One morning last year", Peter Swartz will say, "we had eighty-five barrels of apples in here. That evening there were only about twenty-one left. The rest were sold to people coming here in cars."

That's a pretty good example of roadside marketing, if it can be called that, for "Cornfalfa Farm" is not directly on the main highway. In fact, the buildings cannot be seen from the road at all. Evidently, they must sell apples that people like or they would't come to them in such numbers.

Because the buildings are in the center of the farm it was necessary for the Swartz Bros. to invent something to eliminate the gate. Can you imagine all those cars opening and shutting a gate as they come to the farm, also the labor and time lost to the owners as they drive through with tractors, trucks and auto?

As you drive in from the main concrete road, down a long private lane, you will notice what appears to be a "cowcatcher" on a railroad track. In fact, the principle is the same, although the construction is a little different.

It consists of 3 by 10 inch planks set on edge upon cement walls, about 6 inches apart. The distance across is 8 or 10 feet and the width a little more than the width of an auto.

The cement walls are placed approximately where the truck or auto wheels pass across. A pit of about 2 or 3 feet deep is recommended below the plank. This makes it look dark and keeps cattle or sheep from even attempting to cross.

Of course there is a gate in the fence at the side of this device, as the Swartz Bros. have several teams of horses. A team will not cross this guard any more than will cattle or sheep.

Perhaps, if you visit "Cornfalfa Farms", you may not even get time to see the things mentioned here. The big orchard, located on the main highway will claim the most attention, for the owners are justly proud of it. While they grow many tons of alfalfa hay, and keep a large flock of sheep, it isn't hard to see that the orchard is their hobby.

"Take care of the orchard and the orchard will take care of you" say the Swartz Bros.

BRUDDER BROWN ON "APPLES"

Convention Banquet Reading By MRS. N. A. RASMUSSEN

Bredderen an' Sisteren:

I'se gwine to gib you what I hope will prove to you a fruitful disco'se,—de subject am dat ob apples. Dem ob my hearers dat only look upon de apple wid an eye to apple sass, apple flitters, apple pies, apple dumplins, an' apple toddies, will hardly be able to comprestand de applecation ob my lectar;—to dem I leab de peelins, an' direct de seeds ob my disco'se to such as hab souls above apple dumplins, an' taste above apple tarts.

De apple, accordin' to those renowned Lexumcographers, Samuel Johnson, Danuel Webster, Jimuel Walker, an' Doctor Skeleton McKensie, am the pyrus molus which means "To be moulded into pies."

De entire human race an' woman race in partic'lar, has been impregnated wid de spirit ob de apple, an' dat all men an' women, an' de rest ob mankind, may be compared to some Genus ob de Apple. Dars de Philanthropist, he's a good meller pippen,—always ripe an' full ob de seeds ob human kindness. Dars de Miser, he's de "grindstone"

(Continued on page 81)

A CACTUS GARDEN IN TWO BASKETS

Growing Cacti

Florists Department Edited by HURON H. SMITH

THE aristocrat of the outdoor garden is the rock garden. The people of the United States are just beginning to find this out. They have found that one can do more with a rock garden than with any other form. It offers a greater opportunity for the display of originality and gives one a chance to do it on much less ground. With a properly chosen rock garden, one may have an interesting range of bloom from the time that the snow leaves the ground until it comes again in the fall

But what are our rock garden fans to do in the winter time, outside of planning the next season's campaign from the seed catalog?

There is a form of garden that can be grown indoors, and it is also a rock garden after a fashion, — the cactus garden. The cactus garden offers almost as great a range of possibility as the outdoor rock garden, and indeed, no rock garden is complete without some form of cactus. The one who owns an indoor cactus garden can, with profit, transfer it out of doors in the summer time, where it will do much better than if kept in the house the year around. Outdoor growing conditions give them very good root systems and they do all the better when taken indoors in the fall or winter time.

The cactus garden is one of the best suited to indoor culture that we have for this climate. Cacti, naturally, do not need a great deal of moisture. They will stand neglect in watering better than any other plants we can put into our homes.

The growing number of apartment houses with steam heat has made it difficult to find a flower at the florist's which will survive this hot temperature without moisture. The great American home today with all of its conveniences, is becoming more or less like the climate of the Arizona desert. Yet, we wonder why it is that we cannot grow flowers in our houses like they do in the greenhouses. The greenhouses do have sufficient moisture, and living conditions are correspondingly healthier than they are in our own homes. Very few people pay enough attention to the humidity of their homes. These dry conditions are just what the cactus likes, and if one neglects to water it too long, it will reward the grower by coming into flower and fruit.

Cactus plants are just coming into fashion all over the United States, but, in parts of Germany, France, Holland and Belgium, they have long been in fashion and every home has its cactus window. With the exception of a few species of rhipsalis, the cacti are strictly indigenous to the western hemisphere. They probably occur the most luxuriant in Mexico and Central America.

These plants began to be introduced into Europe very shortly after the discovery of America. In the time of Lihnaeus there had been some twenty-two species brought over which he named. He placed all of these twenty-two species under the generic name of cactus. They were commonly called "thistles" in the early days, presumably from the spiny character of their protective armor: some were known as melon thistles, while the taller kinds were called torch thistles or candle thistles.

Every botanical garden in Europe has its succulent house, which, of course, is its collection of cacti and allied forms. One of the first firms in this country within recent years to develop their collection of cacti was the W. A. Manda Company, of South Orange, New Jersey. Three years ago, Mr. Manda had a wonderful collection in the auditorium at Milwaukee during the exhibit of the National Carnation Society.

There are several species that were already favorite house plants in Milwaukee. Some of these are: the night-blooming cereus, *(Cereus grandiflorus)*, and *(Cereus nycticallus)*, queen of the night, *(Phyl-*

locactus acuminatus), crab cactus, *(Epiphyllum truncatum)* and the rat-tail cactus, *(Cereus flagelliformis)*. These species have usually been matters of public curiosity and most of them get into the columns of the newspapers, when they come into bloom.

The local retail florists of Milwaukee have begun to take up the stocking of other types of cactus for sale. It might be interesting in passing to note some of the original sources of supply. Some of these are: The Evans Company of Phoenix, Arizona; The Arizona Cactus Company, of Tucson, Arizona: The Texas Cactus Company of El Paso, Texas; The Berger Plant Company of El Paso, Texas; and, The Potter Floral Company of El Paso, Texas. Another cactus concern is found in San Antonio, Texas. A list of their stock is interesting. They handle the Opuntias or prickly-pears, the candle cactus, the fish hook cactus or *(Echinocactus wislizeni)*, the Spanish dagger, the Polycanthus type, Stramineus, *(Mammillaria grahami)*, *(Mammillaria tuberculata)*, Horizonthalonis, Intertextus, the Dasycanthus, Cloranthus, Frutescens, *(Opuntia filipendula)*, the Yuccas, century plants and resurrection plants.

Some of the rarer things coming from South Africa are now being disseminated through the trade, such as species of Rhipsalis, species of Mesembryanthemum, such as *(M. Schandii)*, and the elephant's foot, *(Testudinaria pedicularis)*. Of course, there are many hundreds more that are known to the collector, that are not listed in a commercial way. Most of these commercial species sell in the neighborhood of ten cents per plant; from that up to two dollars, depending upon the size and age of the cactus.

(To Be Continued in January)

BRUDDER BROWN ON "APPLES"

(Continued from page 79)

apple,—rock to de very core. Dars de Bachelor, he am a rusty coat, an' like a beefsteak widout gravy, dry to de very heart. Dars de Dandy, he's de sheep-nose,—a long stem an' de rest peelen. Dars de Farmer, he's de smokehouse apple,—a leetle rough on de peelen, but juicy wid feelen. De Fashionable gent am a French pippen, an' de fashionable young lady am de Bell-flower; an' when two sich apples am joined togedder, dey become a pear (pair). De Pollytician am a specked apple,—a little foul sometimes at de core. De young Misses am de "maidens blushes." De Widder, She am a pine-apple,—pine-en an' sprouten in de dark leaves to blossom once more. De good Wife, she am de balsam-apple ob human life; de Husband am de king-apple; de Chil'en am de golden sweets; an' de Babies in de cradle am apple blossoms. De Old Folks on de back seats am de dried apples; de Young Men in their teens am de greenin's,—but fit for nothin' till they come to maturity. De man widout any har am de Bald-win; de Tippler am de winesap; an' de Dude, he am de quince; this originally was an apple, but got so far from de species, dat nobody would ever know it. De Old Maid am de seek-no-further, —waiten' for somebody to bite it.

Lastly, and to conclude, bredderen and sisteren, let it be our great aim, howsomever we may differ in our various apple species, to strive to go in to de great cider press ob human trial widout a speck in de core or de peelen.

COMMUNITY POTATO CENTERS

(Continued from page 78)

early. The heavy foliage in cool wet seasons provides ideal conditions for late blight infestation and spread. Hot dry soils, especially, usually produce misshapen and scabby tubers. The variety is therefore comparatively exacting as to requirements.

The accompanying map shows successful Green Mountain centers at Rhinelander and Harshaw in Oneida County, Seeley and Hayward in Sawyer County, and other scattering regions in the sandy loam sections of upper Wisconsin. Attention has been given to locating strains of Green Mountain of low mosaic and spindle tuber content. This has resulted in the production of several valuable strains from the standpoint of certified seed production.

Triumph — Unusual importance has been given to Triumph centers in Wisconsin on account of the work done by the Horticultural Department on Mosaic Control through Tuber Indexing. Comparatively speaking, the Triumph variety constitutes a small percentage of the total Wisconsin potato crop. Unusal success has resulted, however, in improving the variety, and several well defined Belts in upper Wisconsin have become important certified seed centers.

The Triumph variety apparently is restricted to the newer soils of upper Wisconsin. The variety is a quick grower and a quick producer. The feeding habits of the plant and its season partly account for its adaptability to the Southern truck centers. It has many ideal characteristics with the improvement in seed strains. Through mosaic reduction this variety will continue to feature Wisconsin's certified seed list. Important producing centers are located at Pembine, Suring, Antigo, Rhinelander, Starks, Three Lakes, Eagle River, Phillips, Ogema, Spooner, Hayward, Seeley, Webster, and several other sections.

The Irish Cobbler—This variety is also exacting as to soil requirements. It also is a quick grower. Interruptions in

(Continued on page 83)

Women's Auxiliary Page

EDITED BY MRS. C. E. STRONG

MORE FLOWERS IN THE HOME

TO ME, flowers are as necessary as the clothes I wear or the food I eat. I might exist in a place where there were no flowers, but I certainly would not enjoy living there.

Father and mother both loved flowers, and enjoyed seeing them grow both indoors and out. I think the nicest thing ever said about our home was said by a small boy after we had moved to another state. My mother had gone back for a visit, and he told her he would come to see her some day. His father told him he could not find our house. "Oh yes I can," he said confidently, "I would just take a train to the town, then I would ask in what direction they lived—then I would walk until I saw a beautiful yard all filled with flowers, and there I would be."

"But suppose it was winter time what then?"

"That's easy," he said, "Why I'd just look at the windows, then when I saw a lot of flowers smiling at me in a house I'd know that was the place." With such an environment, is it any wonder some of my friends say, "No, Mrs. Strong isn't crazy, she's just 'bugs about flowers' ".

But I can assure you there is lots of pleasure in being "bugs," or in other words—making the growing of flowers a "hobby".

Growing flowers for pleasure is to find recreation in so doing, and no amount of money will ever give the pleasure that showing your friends a beautiful garden, in which you were a coworker with the great artist of everlasting beauty, will give you.

Soon also, you will have added pleasure, for, because of your garden, there will be other gardens. You will feel the glory of this partnership with God who is helping give back beauty to the places made waste.

BACK YARD GARDENER NEEDS HELP

There are many people wishing they might grow flowers both indoors and out. Right here is where the Horticultural Society and its members can help. Comparatively few people are blessed with enough ground to make elaborate color schemes possible, yet, most of the garden books call for unlimited space in their description of the home garden. After reading one such book a little woman wailed. "Why doesn't someone talk about a garden that can be grown on a forty foot lot minus the space occupied by a house and garage. The sort of garden that does not need a gardener or a man to help."

These are the people who need the help of this society, from the speakers at the meetings and the pages of the magazine. We can and should remember the needs of the great majority.

When we show plantings about homes, why not show how this planting looks the first year. It will not be nearly so disheartening to the new beginner when the order of plants comes from the nursery, and makes almost no showing at all. They certainly are alluring when seen in the catalog.

If it were shown on the screen just how to prepare the soil, and the proper way to plant both shrubs and perennial plants, the new beginner would surely say this society was 100 per cent helpful.

The trouble is, most of us who have been brought up with gardens, are prone to forget that what to us is plain as daylight, is a deep, dark mystery to someone who has spent the greater part of life in an upstairs flat and whose only knowledge of plants is what is seen in the florists windows. When they buy these, they droop and die because they do not know how to care for them. They give them too much water or not enough, let them stand in jardineers away from the sunlight until the poor plant just dies. They will tell you earnestly, that they have done everything they could think of because they would like to have a few plants, but they have no luck at all. They try everything they read of in the papers, and some of the advice would make angels weep, not mentioning a flower lover.

Some Plants Need Soaking

One woman almost wept as she asked what was wrong with her fern. It would not grow though she repotted it real often, as directed in a magazine. The poor fern did not get a chance to grow. When she treated it properly it soon grew beautifully. She eagerly asked for information regarding a Cyclamen plant whose blooms were drooping. "I water it every day," she said. Her astonishment was great when I turned the plant out of the pot, showing the roots. "I see! some plants need soaking." Another case of misunderstood information. She had read that Cyclamen rotted easily, and to be very careful not to give too much water.

These new beginners need to be told all these things we know so well. They should be told carefully in the A B C style. No little detail should be forgotten.

Trouble With Asparagus

Speaking of little things, reminds me of the time I planted my first asparagus. I followed the directions that came with the roots, but they all died. I bought some more. The same thing hap-

pened. Still more—and they followed after the others. Then we had an Institute with Mr. Bingham and Mr. Rasmussen as the speakers. More instructions, more asparagus, with the same results. Another meeting and a very loud wail about the asparagus that would not grow. I was asked this time to tell just how I planted it. I did, and all was well until it came to covering the roots. "No! no!" said speaker Rasmussen, "Not all the dirt over them right away, wait until they start to grow, then fill up the trench gradually."

That was the whole trouble, I smothered the plants. Everybody supposed I would know enough not to do that, and of course I did not. I knew nothing whatever about planting asparagus. I needed explicit instructions. There are a lot of other people just like I was. They need to be told, as we used to sing, "Tell me the story simply, as to a little child". We should remember that they have not had the years of work in a garden that make these problems seem of little moment to many of us.

Again I say, this society has a chance to do some real work, and both florists and nurserymen should heartily co-operate in order that there be flowers in the home.

MRS. C. E. STRONG.

Editor's Note: Mrs. Strong will write on the care of house plants and flowers in coming issues during the winter months. We will welcome articles from our readers on their experience in indoor gardening.

FRUIT CAKE GOOD FOR XMAS SEASON

Christmas comes but once a year and when it comes it brings all sorts of specials from the kitchen.

The fruit cake is a delightful gift as well as a most convenient delicacy to have on hand at Christmas time. It can be made before hand—before the Christmas rush is on. In fact, the fruit cake is one of the few things that improves with age. The following fruit cake recipe is recommended by the home economic extension specialists at South Dakota State College.

Fruit Cake

1 pound butter
1 pound sugar
12 eggs
1 pound flour
2 teaspoons cinnamon
¾ teaspoon nutmeg
¾ teaspoon allspice
¾ teaspoon mace
Cidar
½ teaspoon cloves
2 tablespoons lemon juice
3 pounds raisins seeded and cut in pieces
1 pound currants
1 pound citron, thinly sliced and cut in strips
1 pound figs, finely chopped

Cream the butter, add sugar gradually, and beat thoroughly. Separate the yolks from the whites of eggs; beat yolks until thick and lemon-colored; the whites until stiff and dry, and add to the first mixture. Add flour (excepting one-third cup, which should be reserved to dredge fruit) mixed and sifted with spices, cider, and lemon juice. Then add fruit, except citron, dredged with reserved flour. Dredge citron with flour and put in layers between cake mixture when putting in the pan. Bake four hours in a very slow oven, or steam three hours, and bake one and one-half hours in slow oven.

Snow-ball Christmas Cakes

1 c. butter
1 ½ c. sugar
6 eggs
1 scant cup milk
4 c. flour
1 ts. soda
4 ts. cream of tartar
2 ts. vanilla

Cream together the sugar and butter, add the well beaten egg; then add alternately the milk and flour sifted together with soda and cream of tartar. Beat well and add vanilla. Bake in small greased tins, rounded at the bottom, in a rather quick oven—at about 375 degrees. If necessary trim tops to make them fit when two cakes are placed together to form balls. The two cakes are stuck together with some tart jelly. Cover balls with plain white frosting and roll in shredded cocoanut.

COMMUNITY POTATO CENTERS

(Continued from page 81)

growth due to summer drought produce mis-shapen tubers and inferior seed quality. A well drained, fertile, loamy soil seems required. During the last five years several shipping points in Wisconsin have become important markets for Irish Cobbler. Leading among these are Antigo in Langlade, Almena in Barron, Crandon, Argonne, Laona, Wabeno in Forest, and Harshaw in Oneida County, and other regions in upper Wisconsin.

ON, WISCONSIN

Four Elm Trees

Senator Howard Teasdale of Sparta has lost a fight to save four elm trees. The aldermen of his town determined to widen a street to 42 feet. The senator pleaded that they make it 37 or 38 feet, so his trees wouldn't be killed. But the aldermen were obdurate.

Senator Teasdale seems to have taken the matter to the circuit court, for we read that the council established its right to widen streets to 42 feet and kill trees if it wished to. But the judge added some kindly advice, to the effect that perhaps the aldermen ought to be satisfied with a 37 or 38 foot street.

The aldermen voted for a 42-foot street just the same. Now the trees will die. Senator Teasdale says it is "spite," by the aldermen.

We know nothing about that; nor about the senator's trees. But we do know that trees in Sparta are worth fighting for. And we may properly reflect that human spite is a thing that cramps men's souls and destroys great works as it vents its spleen on other men.

An elm tree, growing through a century, is a great work. Men destroy it easily, to make way for their improvements. Often that is necessary from the human viewpoint; it never will be justifiable if it's done to satisfy human spite.

At a distance we would guess that a residential street in Sparta will be better served by elm trees than by an additional four feet of width. Wide streets, however, are needed in American cities and Sparta must be the judge of its needs.

But if we care anything for beauty in our cities, large or small, Sparta, Milwaukee, Madison, Superior or Mayville, we need trees. And the difference between the beauty of a small city and the ugliness of a large one is that one has elm lined trees and shaded homes, the other brick walls and concrete courtyards.

It may be that the influence of spreading branches and patient growing bolls is a better thing for the human character than a spread of asphalt or miles of brown stone fronts.—Milwaukee Journal.

Horticultural Troubles

Edited by E. L. Chambers, State Entomologist

THE JAPANESE BEETLE

AT ABOUT the same time that the European Corn Borer reached our shores from abroad, there was discovered a large bright metallic green beetle about a half inch in length doing damage to crops at a point near Riverton, New Jersey. The entomologists at once identified this insect as the Japanese Beetle *(Popillia Japonica)*. It soon spread and multiplied in numbers until during the past year it occupied an area of approximately 14,000 square miles. The beetle is now established in portions of the states of New York, Connecticut, Pennsylvania, New Jersey, Delaware, and Maryland.

Fortunate for the pest, but unfortunate for those whose task it was to control it, the beetle became established in a territory particularly suited to its requirements, there being large areas of sod land together with a variety of crops and plants on which it could feed, in many cases without restriction. Also to its favor was the fact that there was an almost total absence of parasitic or predacious insect enemies with the result that it was enabled to reproduce and multiply in unbelievable numbers.

The adult beetle is very conspicuous since, except for the greater part of the wing covers, which are a copper brown coolr, it is a very bright metallic green. This insect has an annual life cycle, larval or worm stage resembling our native white grub in appearance, although considerable smaller, reaching a length of approximately one inch however. These pass the winter in a quiescent condition about 7 inches beneath the surface of the ground. In the spring they again become active, feeding for a period and then changing to a pupa and, two to four weeks later, appear as adults.

With more than two hundred species of plants recorded as being attacked by this beetle it naturally is the cause of much alarm among horticulturalists everywhere in its path. Practically all of the economic crops grown in the infested territory are represented in the list. The more favored food plants including apple, sweet cherry, plum, grape, blackberry, clover, soy bean and corn. Shade trees including linden, birch, elm, horse chestnut, willow and white oak and many ornamental shrubs, particularly althea and rose. Flowering plants and weeds of many kinds are included among its hosts.

Besides attacking the foliage, the adult Japanese beetles are especially partial to the fruit and are consequently often found clustered on both apples and peaches in large numbers. The writer has visited apple and peach orchards in New Jersey infested with this pest, and has seen large swarms of these beetles flying about the tops of the trees when disturbed, and observed the fruit covered with dozens of beetles appearing like small swarms of bees. The foliage is completely reduced to a network of veins, this being the characteristic injury and resembling that done by our native rose chafers when they appear in epidemic numbers.

The rich soil in the heavy turf of golf courses has offered attractive places for the beetles to lay their eggs. When abundant the larvae or grubs have become more serious a pest in lawns, golf courses, and pastures than our common white grub which during the past summer completely destroyed many lawns in the southern part of this state. These larvae feed on the grass roots, cutting them off immediately below the surface of the ground.

Every effort is being made to check the spread of this pest and much is being accomplished by quarantine measures. The quarantine on farm products is intended to prevent the carrying of the adult beetle from the infested areas to points outside, on such articles as experience has shown as likely to harbor the pest. With this in mind during the summer when the beetles are on the wing, the following agricultural products are restricted: sweet corn, beans or peas in the pod, cabbage, parsley, carrots with tops, beets with tops, onions with tops, lettuce, outdoor grown flowers, hay, straw, unthreshed grain and forage crops.

The quarantine on nursery stock and soil is to prevent carriage of any of the immature stages of the Japanese beetle to points outside the infested area. Over 1000 varieties of nursery and ornamental plants are grown commercially in the area regulated. On account of the Japanese beetle, approximately 50 per cent of these must undergo chemical treatment before certification for shipment to points outside the regulated area. The state entomologist is furnished with a list of each and every shipment of nursery stock released from this area by the federal inspectors. Members of his staff frequently check on the premises receiving this stock to make sure none of the beetles have "gotten by".

Since one or more of the immature stages are to be found in the soil at all times, the regulations affecting the shipment of sand, soil, earth, peat, compost and manure are effective throughout the year. When no natural or parsitic enemies of the Japanese beetle became apparent the Government sent two

(Continued on page 87)

Crops and Markets

Edited by Wm. Kirsch, State Department of Markets

POTATO CROP LARGER

The latest report of the U. S. Department of Agriculture indicates a crop of about 400,305,000 bushels, or about 1% above the October forecast. In several states, including Pennsylvania, Ohio, South Dakota, Nebraska, Colorado, and the Pacific Northwest, yields have proved to be above earlier expectations, but the estimates for Michigan, Wisconsin, and Minnesota, where yields are very low this year have been further reduced.

Sweet potato estimates show a net increase of about 6,000,000 bushels during October, making the present total 93,600,000 or 10,000,000 more than last year. The crop appears to be fully 12,000,000 bushels above the average for the last five years.

APPLE CROP SHORT

The apple situation this year is interesting. The latest government crop report cut another 4,000,000 bushels off the estimate of total apple production and about 275,000 barrels off the commercial crop. The total crop is now estimated at 119,333,000 bushels, compared with 246,640,000 last season and a five year average of 199,000,000 bushels.

Apple prices tended generally upward, especially stock packed in barrels. Tops of $6 to $9 a barrel were quite common in city markets. Baskets showed a wide range of $1.25 to $3.25, depending largely on variety. Extra fancy boxed apples closed about 10c higher at northwestern shipping points, with Winesaps bringing $2.35 and Delicious $3 to $3.25. The percentage of fruit suitable for storage is less than average. Indications point to firm prices for quality fruit.

CABBAGE

The 1927 season for fall and winter cabbage appears to be laboring under the depression caused by reports of heavy production. Prices have been rather low from the beginning. Shipments during October were considerably lighter than a year ago and supplies have not been excessive, but trading has been slow. Possibly the market situation will improve with the coming of cooler weather and the passing of peak shipments. Practically all shipments from northern states after November 1 are comprised of Danish type cabbage, which usually finds greater favor.

Although cabbage is a comodity whose demand or consumption does not change greatly from year to year, production has increased very noticeably in recent seasons. Domestic type, for early shipment and kraut purposes, was a heavy crop in 1924, amounting to 336,000 tons in nine leading states. The next autumn this kind of cabbage was reduced to 247,000 tons, partly because of decreased acreage. Since 1925, there has been a gradual gain, and this season about 318,000 tons of Domestic type are expected. Estimates for New York State indicate 150,000 tons, and for Wisconsin 55,000.

Since such a large amount of Domestic cabbage in the late-shipping states is grown for manufacture into kraut, a corresponding annual increase is shown in the production of kraut stock. Approximately 140,000 tons or 40% of the total crop of Domestic type, is estimated as the quantity produced this year for kraut. In a few states, particularly Michigan and Ohio, more than half the crop is grown

(Continued on page 87)

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Dec. 1-2, 1927

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1. Best Tray of Wealthy..Swartz Bros. Waukesha, Wis., Engraved Silver Fruit Bowl.
2. E. H. Stoeber, Madison, Wis....$4.00
3. Arno Meyer, Waldo, Wis..... 3.00
4. Rasmussen's Fruit Farm, Oshkosh, Wis. 2.00
5. J. A. Hass, Ellison Bay, Wis.... 1.00

McIntosh

1. Best Tray of McIntosh, E. H. Stoeber Madison, Wis., Engraved Silver Fruit Bowl.
2. Rasmussen's Fruit Farm, Oshkosh, Wis. $4.00
3. Ralph A. Irwin, Lancaster, Wis. 3.00
4. J. A. Hass, Ellison Bay, Wis.... 2.00
5. Joseph L. Morawetz, West Bend, Wis. 1.00

Delicious

1. J. A. Hass, Ellison Bay, Wis....$4.00
2. Rasmussen's Fruit Farm, Oshkosh 3.00
3. A. K. Bassett, Baraboo..... 2.00
4. E. H. Stoeber, Madison..... 1.00

Northwestern Greening

1. E. H. Stoeber, Madison.....$4.00
2. Ralph A. Irwin, Lancaster..... 3.00
3. Rasmussen's Fruit Farm, Oshkosh 2.00
4. Peter Kjarwick, Washburn..... 1.00

Fameuse

1. Rasmussen's Fruit Farm, Oshkosh $4.00
2. Joseph L. Morawetz, West Bend. 3.00
3. Arno Meyer, Waldo 2.00
4. Ed. Gassner, Rockfield..... 1.00

Windsor

1. Rudolph Schaultz, Lake Mills...$4.00
2. Rasmussen's Fruit Farm, Oshkosh 3.00

Wolf River

1. Rasmussen's Fruit Farm, Oshkosh $4.00
2. E. Beltz, Waukesha 3.00

Salome

1. Rasmussen's Fruit Farm, Oshkosh $4.00
2. A. K. Bassett, Baraboo..... 3.00
3. Ralph A. Irwin, Lancaster..... 2.00
4. E. H. Stoeber, Madison..... 1.00

Westfield

1. Robert W. Ward, Ft. Atkinson..$4.00
2. Wm. Leonard, Ft. Atkinson.... 3.00
3. A. K. Bassett, Baraboo..... 2.00
4. E. H. Stoeber, Madison..... 1.00

Tolman Sweet

1. Ralph A. Irwin, Lancaster.....$4.00
2. E. H. Stoeber, Madison..... 3.00
3. Rasmussen's Fruit Farm, Oshkosh 2.00

Golden Russet

1. Arno Meyer, Waldo.....$4.00
2. Ed. Gassner, Rockfield..... 3.00
3. Wm. Leonard, Ft. Atkinson.... 2.00
4. Joseph L. Morawetz, West Bend 1.00

Willow Twig

1. Arno Meyer, Waldo.....$4.00

Plates

Wealthy

1. E. H. Stoeber, Madison.....$1.00
2. Rasmussen's Fruit Farm, Oshkosh ..... .75
3. Arno Meyer, Waldo ..... .50

McIntosh

1. E. H. Stoeber, Madison.....$1.00
2. Rasmussen's Fruit Farm, Oshkosh ..... .75
3. Joseph L. Morawetz, West Bend .50

Delicious

1. Ernest Hanson, Fish Creek....$1.00
2. Rasmussen's Fruit Farm, Oshkosh ..... .75
3. Rudolph Schaultz, Lake Mills .. .50

Northwestern Greening

1. E. H. Stoeber, Madison.....$1.00
2. Rasmussen's Fruit Farm, Oshkosh ..... .75
3. Arno Meyer, Waldo..... .50

Fameuse

1. Rasmussen's Fruit Farm, Oshkosh $1.00
2. Joseph L. Morawetz, West Bend .75
3. Rob Nitz, Wauwatosa..... .50

Windsor

1. Rasmussen's Fruit Farm, Oshkosh $1.00
2. Rudolph Schaultz, Lake Mills.. .75
3. E. H. Stoeber, Madison..... .50

Wolf River

1. Rasmussen's Fruit Farm, Oshkosh $1.00

Salome

1. E. H. Stoeber, Madison.....$1.00
2. Rasmussen's Fruit Farm, Oshkosh ..... .75
3. A. K. Bassett, Barabooo..... .50

Westfield

1. A. K. Bassett, Baraboo.....$1.00
2. E. H. Stoeber, Madison..... .75

Tolman Sweet

1. E. H. Stoeber, Madison.....$1.00
2. Rasmussen's Fruit Farm, Oshkosh ..... .75
3. Ralph A. Irwin, Lancaster..... .50

Golden Russet

1. Arno Meyer, Waldo.....$1.00
2. Joseph L. Morawetz, West Bend .75
3. Ed. Gassner, Rockfield..... .50

Willow Twig

1. Arno Meyer, Waldo.....$1.00

Pewaukee

1. Rasmussen's Fruit Farm, Oshkosh $1.00
2. Robert W. Ward, Ft. Atkinson.. .75
3. Wm. Leonard, Ft. Atkinson.... .50

Baldwin

1. Rasmussen's Fruit Farm, Oshkosh $1.00
2. Arno Meyer, Waldo..... .75
3. Joseph L. Morawetz, West Bend .50

Plum Cider

1. Wm. Leonard, Ft. Atkinson.....$1.00

Gano

1. Rudolph Schaultz, Lake Mills...$1.00
2. Rasmussen's Fruit Farm, Oshkosh ..... .75
3. E. H. Stoeber, Madison..... .50

St. Lawrence

1. Rasmussen's Fruit Farm, Oshkosh $1.00

Scotts Winter

1. A. K. Bassett, Baraboo.....$1.00
2. Ed. Gassner, Rockfield ..... .75
3. Joseph L. Morawetz, West Bend .50

Grimes Golden

1. Arno Meyer, Waldo.....$1.00
2. Joseph L. Morawetz, West Bend .75
3. Rasmussen's Fruit Farm, Oshkosh ..... .50

20 Ounce

1. Arno Meyer, Waldo.....$1.00
2. Swartz Bros., Waukesha..... .75

Golden Delicious

2. A. K. Bassett, Baraboo.....$0.75

Wagener

1. Rasmussen's Fruit Farm, Oshkosh $1.00
2. Ed. Gassner, Rockfield ..... .75
3. Joseph L. Morawetz, West Bend .50

Jonathan

1. Rasmussen's Fruit Farm, Oshkosh $1.00
2. E. H. Stoeber, Madison..... .75

McMahon

1. E. H. Stoeber, Madison.....$1.00
2. Rasmussen's Fruit Farm, Oshkosh ..... .75

Utter

1. Rasmussen's Fruit Farm, Oshkosh $1.00

Newell

1. E. H. Stoeber, Madison.....$1.00
2. Rasmussen's Fruit Farm, Oshkosh ..... .75

Best display of three trays each of any three varieties

1. E. H. Stoeber, Madison.....$10.00
2. Rasmussen's Fruit Farm, Oshkosh 8.00
3. Arno Meyer, Waldo..... 5.00

Best display of five plates each of five commercial varieties

1. E. H. Stoeber, Madison.....$10.00
2. Rasmussen's Fruit Farm, Oshkosh 8.00
3. Arno Meyer, Waldo..... 6.00
4. Ralph A. Irwin, Lancaster.... 4.00

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Best dozen yellow "Mums"

1. The Rentschler Floral Co. Madison $6.00

Best dozen white "Mums"

1. The Rentschler Floral Co. Madison $6.00

Best dozen pink "Mums"

1. The Rentschler Floral Co. Madison $6.00

Best double bunch Single Pompoms

1. The Rentschler Floral Co. Madison $3.00

Best double bunch Double Pompoms

1. The Rentschler Floral Co. Madison $3.00

Best exhibit of "Mums"

1. The Rentschler Floral Co. Madison—A silver cup engraved with winner's name.

Carnations

Best fifty carnations, any color

1. The Rentschler Floral Co. Madison $6.00

Roses

Best twenty-five Columbia

1. The Rentschler Floral Co. Madison $5.00

Best twenty-five Premier

1. The Rentschler Floral Co. Madison $5.00

Best twenty-five Butterfly

1. The Rentschler Floral Co. Madison $5.00

Best three Cyclamen Plants

1. The Rentschler Floral Co. Madison $4.00

Best Specimen Boston Fern

1. The Rentschler Floral Co. Madison $3.00

Best display Greenhouse Plants

1. The Rentschler Floral Co., Madison $8.00

Best display Everlasting (straw flowers)
1. John F. Hauser, Bayfield.....$5.00
2. The Rentschler Floral Co., Madison 3.00

Best Corsage Bouquet
1. The Rentschler Floral Co. Madison $4.00

Best arranged basket cut flower
1. The Rentschler Floral Co. Madison.....W. S. H. S. Silver Trophy

Vegetables

Best collection, not less than ten entries
1. Rasmussen's, Fruit Farm, Oshkosh.....W. S. H. S. Engraved Silver Vegetable Server

6 Blood Turnip Beets
1. Rasmussen's Fruit Farm, Oshkosh $1.00
2. John Woolf, Stoughton..... .75

3 Rutabagas
1. Rasmussen's Fruit Farm, Oshkosh $1.00
2. E. W. Sullivan, Alma Center.... .75

6 Chantenay Carrots
1. Mrs. E. C. Schneider, Madison..$1.00
2. E. L. Roloff, Madison..... .75
3. Rasmussen's Fruit Farm, Oshkosh ..... .50

3 Winter Cabbages
1. E. W. Sullivan, Alma Center...$1.00
2. Rasmussen's Fruit Farm, Oshkosh ..... .75

3 Red Cabbages
1. Rasmussen's Fruit Farm, Oshkosh $1.00

6 Red Onions
1. Rasmussen's Fruit Farm, Oshkosh $1.00
2. E. L. Roloff, Madison..... .75

6 Yellow Danvers Onions
1. Rasmussen's Fruit Farm, Oshkosh $1.00
2. E. L. Roloff, Madison..... .75

6 White Onions
1. Rasmussen's Fruit Farm, Oshkosh $1.00
2. E. L. Roloff, Madison..... .75

Largest Onion
1. Rasmussen's Fruit Farm, Oshkosh $1.00

6 Parsnips
1. E. W. Sullivan, Alma Center...$1.00
2. John Woolf, Stoughton..... .75
3. E. L. Roloff, Madison..... .50

Hubbard Squash
1. Rasmussen's Fruit Farm, Oshkosh $1.00

3 Table Queen Squash
1. Rasmussen's Fruit Farm.

3 Heads Celery
1. E. W. Sullivan, Alma Center....$1.00

3 Chinese Cabbage
1. E. L. Roloff, Madison.....$1.00

6 Salsify
1. Rasmussen's Fruit Farm, Oshkosh $1.00

Best Apple Pie
1. Mrs. Arno Meyer, Waldo.....
.....Engraved Silver Pie Server

Spray Ring Class

2 Trays each of one variety
Snow
1. Wm. H. Basse, Wauwatosa....$4.00
2. Rob Nitz, Wauwatosa..... 3.00

Northwestern Greening
1. E. Beltz, Waukesha.....$4.00

Any other variety—Baldwin
1. E. Beltz, Waukesha.....$4.00

CABBAGE

(Continued from page 85)

for this purpose. New York has nearly 50,000 tons for kraut, or one-third its total crop of Domestic type cabbage, and some of this stock was being shipped to factories in mid-western states. Nearly half the Wisconsin Domestic crop, or 23,000 tons, is grown for kraut. Plants manufacturing this product can use a great deal of cabbage unsuitable for shipment to market, though in some seasons there is danger of overproduction.

Average farm price for kraut stock in recent years has been about $7 per ton, compared with $8.40 for the fall Domestic type crop as a whole and $10.40 for Danish type cabbage. The farm price of early and intermediate cabbage, shipped during the first half of the year, ranges from $10 to $75 a ton, according to location, quality, and the seasonal supply and demand.

JAPANESE BEETLE

(Continued from page 84)

entomologists to Japan. They have for several years been collecting, rearing, and shipping to this country any of its natural enemies which seemed desirable, and careful investigation had proven safe to introduce.

A method has been developed for the control of the larvae in lawns consisting of a 71 per cent emulsion of carbon disulphide diluted at the rate of one quart of concentrated emulsion to fifty gallons of water. The dilute emulsion is applied to the sod at the rate of 2 or 3 pints to the square foot. Very strong concentrations of arsenical sprays are necessary to be effective against this insect. For ornamental plants the best control is reported with a spray consisting of a mixture of lead arsenate and lead oleate at the rate of 4 pounds of the paste to fifty gallons of water.

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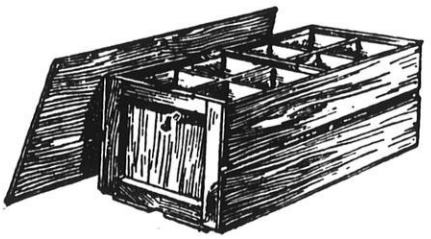

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Hardy Perennials

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OSHKOSH

Write for information about the new OSHKOSH strawberry, the finest berry ever grown.

Our new catalog of Trees, Small Fruits, Ornamental Shrubs, Vines, etc. will soon be ready. May we send you one?

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Dahlias for Christmas

Send us at once the name and address of your friend, with your check for the amount you wish to invest. At Christmas time we will write them that the dahlias are coming, with your compliments. At planting time in their location the bulbs will be sent, each properly named, with descriptive catalogue and cultural instructions.

A $5.00 Assortment, very popular last fall.

Bashful Giant, apricot and gold, immense, $2.00

Jersey Beauty, the wonderful pink decorative, $2.00.

Polar Star, large pure white, $1.00.

Frau Geheimrat Scheiff, popular Autumn tint, 75c.

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Many of the newer varieties at $1.00, $1.50 and $2.00 each. Older varieties as low as $2.50 per dozen, prepaid.

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WISCONSIN HORTICULTURE

1928

A Happy and Prosperous New Year

Vol. XVIII JANUARY No. 5

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28th year

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Strawflowers

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Chequamegon Flower Gardens
Washburn, Wisconsin

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Wisconsin
State Horticultural Society
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Growing Narcissus Bulbs in Wisconsin

Embargo Limits Importations. Does it Mean an Opportunity?

JAMES LIVINGSTONE

FROM the number of questions put to me in regard to the growing of narcissus in Wisconsin, I am led to believe that considerable interest is taken in this new branch of horticulture. I have been asked several times for an article on growing Narcissus and finally I spoke to Mr. Hunkel about it. He told me to go ahead and write all I wanted to but all I knew about narcissus would not help anyone very much. There is more truth than poetry in that remark and it may very well be applied to a great many who are trying to grow narcissus in this country.

The plant quarantine act, under which narcissus importations are restricted, came into effect in the fall of 1926, and since then, narcissus can only be imported under special permit from the Horticultural Board.

This quarantine act and the workings of the Horticultural Board is too intricate and too lengthy a question for me to discuss, but in passing, I may say that I do not fully agree with embargoes in general. Precautions are necessary in a great many cases, but since the beginning of time, man has had to struggle to make a living and overcome all kinds of difficulties and it is only through his struggles and the exercise of his ingenuities that we have advanced to our present state. Embargoes and tariffs are things that more than one nation can play with, and may become dangerous playthings as we have experienced lately.

Before starting to grow narcissus bulbs commercially, my experience was limited to plantings for naturalizing, or for forcing in the greenhouse. Some varieties are very suitable for naturalizing along woodland trails or in favourable positions in ravines.

A great deal has been said and written about growing narcissus in this country and there are many theories about the proper way to handle them. Our country is large and certain methods might work well in one part of the country but would be a failure in another section. These bulbs are being tried in Michigan, New Jersey, Texas, Florida, California, Washington, Oregon, and I believe we have the only commercial plantation in Wisconsin.

The methods used in growing narcissus in these parts of this country are still in the experimental stage. Even trained narcissus growers from Europe have the problems of various soil and climatic conditions to contend with. This is a subject of tremendous scope, so in order to give you some definite information, I must confine myself to my experience in my present position.

The importations of narcissus bulbs by the Holton & Hunkel firm for forcing, before the embargo, amounted to many thousands. Not only narcissus but many other subjects were placed under embargo so if we were to continue growing these things which seemed necessary in our business, there was nothing left for us to do but start to grow them ourselves or find something to take their place. This caused quite an upheaval in the florists' business because many of these plants had never been tried in a commercial way, and it took several years to learn how to grow them commercially in this country.

EXPERIMENTING WITH BULBS

In order to prepare for the embargo, the Holton & Hunkel Co. bought the present location of their nursery. The soil on this farm had been allowed to run down to some extent, and we had to start operations without proper preparation and

without knowing exactly the suitability of our various kinds of soil on the farm, for the different varieties of plants we intended growing. We have had three years' experience in growing narcissus and have learned many things that will be of great value to us in the future. There is still much that we have to learn, that can only be acquired by actual experience on our own fields.

Our first planting was made in the fall of 1924 and did not prove very successful. The bulbs were planted on light soil, almost sand. The trenches were dug by hand about the width of a spade and deep enough to allow a covering of about two inches of soil over the bulbs. Three rows of bulbs were planted in this trench and the trenches were three feet apart. They were covered with straw, and results were anxiously waited for.

In the spring, results were not very satisfactory. Some of the newly imported bulbs failed to show up, others were very weak and the whole planting was very unsatisfactory.

Our method of planting also proved wrong. The three row in a trench system proved expensive to work. We could cultivate with a horse in the three foot space between the trenches, but the bulbs were so close in the three rows that they could only be weeded by hand. This was slow and expensive work, and very unsatisfactory.

The straw they were covered with, was full of weed seed. We had dock, thistles, quackgrass, dandelions, and clover and oats came up in the rows. The result was that in most cases the men we had weeding could not pull these weeds out by the roots, so only the tops were pulled off and in a short time we had a new growth from the old roots. We had gained some expensive experience with our first planting, and in the fall of 1925 we began to plan for new methods of planting. We plowed our rows open with a potato hiller 18 inches apart and planted one row in the trench, covering to a depth of about three inches, using a hoe to do the covering. This method proved much faster than the first and also proved easier to work.

We did our cultivating with Bolens and Red E tractor cultivators and were able to keep the weeds down much easier. We again used oat straw for covering and had lots of oats and other weeds to contend with. We began to agitate for marsh hay for covering to get away from some of the weeds. We were much more encouraged with results from this planting and in the fall of 1926 when the embargo took effect, we were able to dig some of our pre-embargo plantings for forcing which gave fairly good results.

During the summer of 1926, our minds were busy devising new ways of planting. The potato plow we used in 1925 made too wide a furrow and did not leave a clean enough bottom. This gave us a lot of work to make the trench fairly even with a hoe before planting, then we had too much soil to put back to fill the trench.

Narcissus cannot be thrown in the trench promiscuously, they must be set on an even hill with the root end down or the bulbs would have such crooked necks that they would not be suitable for forcing. This must all be done by hand as no machine has as yet been devised to do this. We have no machinery as yet for scattering the bulbs in the trench and this must also be done by hand. Several firms in this country are devising machinery for scattering the bulbs in the trench and also for digging the bulbs, but these machines still need improvements.

Treating Imported Bulbs

In the fall of 1926 the embargo went into effect and no narcissus bulbs could be imported unless under special permit from the Federal Horticultural Board and then only under certain restrictions. No firm could import bulbs unless they had a plant to sterilize the bulbs or could get them sterilized before planting in order to kill all nematodes and greater and lesser bulb fly grubs.

In the fall of 1926 we erected a bulb sterilizer that can handle about half a ton of bulbs at a time. This apparatus consists of a tank which holds about 800 gallons of water, a steam boiler, an electric motor to turn propellers to keep the water in circulation and the necessary containers for the bulbs.

We imported several tons of bulbs in 1926 although the work was new to us and our sterilizing plant was new and untried. The operation proved highly successful and I have been told by government inspectors that our plant is one of the best in the country. Our plant is practically Mr. Hunkel's own designing.

There has been quite a controversy as to the merits and demerits of sterilizing. Some growers claim that injury to the bulbs has been the result, others have had no evil effects. Our experience has been, as far as we can judge, that no injury has taken place and all grubs and nematodes have been totally destroyed.

We have found these bugs alive in certain varieties of bulbs before sterilizing but all we have found after sterilizing have been dead. To be effective, the bulbs must be immersed in water at a temperature of 110½ and must stay in at this temperature for 2½ hours. The temperature must not be allowed to go below 110 or above 112. In the former case the bugs would not be destroyed, and in the latter the bulbs would be injured.

To me at first, it seemed quite a problem how to hold the temperature of the motor with so

(Continued on page 118)

Ripening Fruits and Vegetables with Gas

Method found Practical in Minnesota

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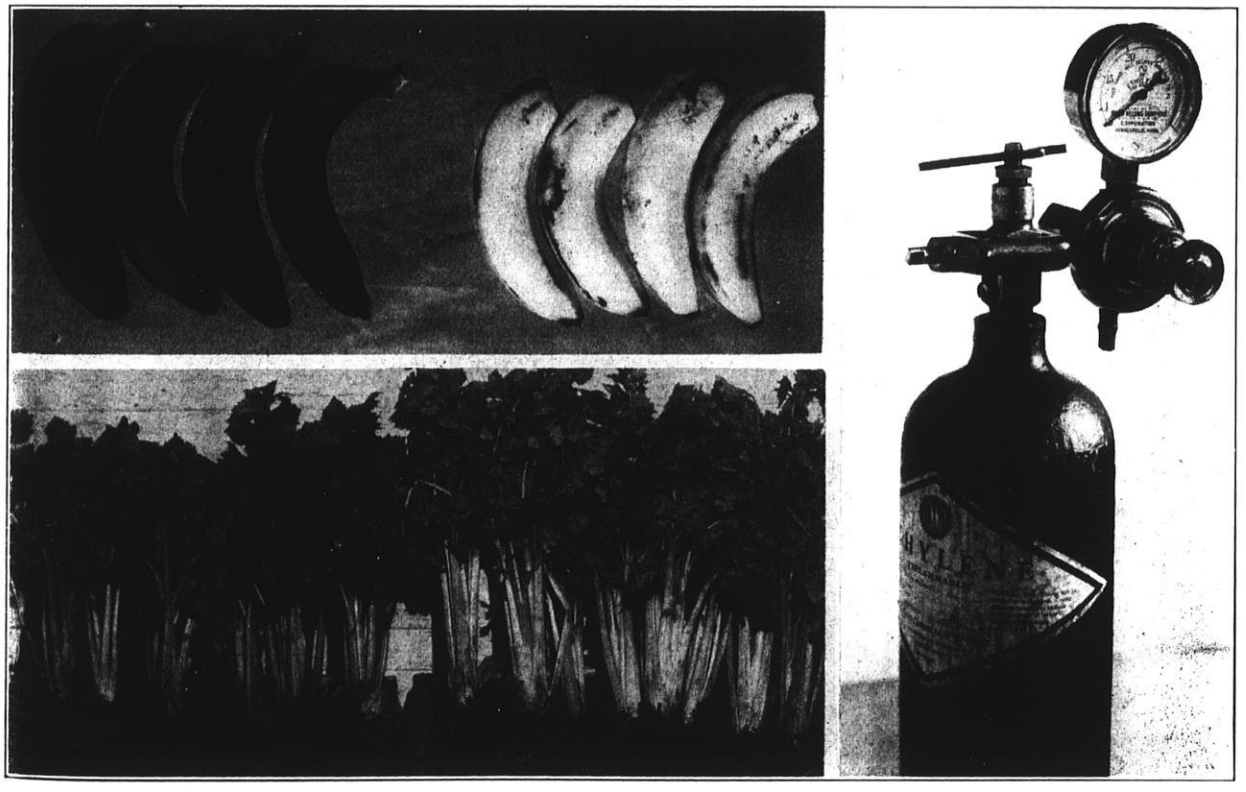
THE old methods of artificially ripening green fruits, by keeping them in a warm humid atmosphere, left much to be desired. The ripening process was slow and was attended with considerable loss by shrinkage and spoilage. On the other hand, it is almost impossible to ship ripe fruit any distance if the pulp is soft and liable to crush in transit. Ripe fruit will not keep as long or as well in storage as green fruit. The solution of the problem is to improve the conditions of ripening fruit that must be picked and shipped green or to hasten the maturity of fruit that can be picked green advantageously.

From time immemorial, the Chinese have had the practice of ripening their hard sand pears by placing them in closed containers and burning incense in these chambers. This imperical practice was known to be effective and is still in use. The effective constituents of the gas were, undoubtedly, the unsaturated hydrocarbons from incomplete combustion. Sievers and True (Bul. No. 232, B. P. I., U. S. D. A.), studying the sweating of lemons, found that the gases from oil stoves and the exhaust from gasoline motors hastened the coloration of the fruit. Working along the same line, Denny (Jour. Agri. Res. *27*: 757–771. 1924) found that the unsaturated hydrocarbon gases from these oil stoves were the active elements and that ethylene was the most effective commercial gas to use in the coloration of citrus fruits.

In 1908, Crocker and Knight (Bot. Gaz. 46: 259–276) showed that illuminating gas in low concentrations and ethylene in very low concentrations were injurious to carnations, causing them to drop their buds and become white. Later it was shown that sweet peas were very sensitive to gas and could be used to detect gas leaks in a greenhouse. Shonnard, in 1903, (Dept. of Public Works 1–48. 1903) showed what effect gas can have on trees, and E. M. Harvey, in 1915, (Bot. Gaz. 60: 193–214) was the first to quantitatively analyze the effect of ethylene on the metabolism of plants.



Above—Right, Bananas treated with Ethylene for 48 hours. Left, untreated.
Below—Right, Celery blanched with gas. Left, untreated, but harvested at same time and held at same temperature.
Right: Gauge for measuring ethylene, attached to an ethylene tank.

The work at Minnesota was started as a systematic investigation following the investigation of illuminating gas leaking into a St. Paul greenhouse and causing the plants in this house to take on a yellowish white appearance. It was thought that since ethylene blanched greenhouse carnations it might be put to practical use in blanching green celery that would not blanch in the field due to adverse weather conditions. This part of the work was published by R. B. Harvey early in 1925 as Minnesota Experiment Station Bulletin No. 222, where the details of the process are given.

Varieties Blanched

Since the publication of this bulletin, the process has been extended on a commercial scale to the ripening of tomatoes, cantaloupes, muskmelons, honey dew melons, and bananas. Using experimental quantities of materials furnished us through the courtesy of the Office of Foreign Plant Introduction, we have been successful with Japanese persimmons, avocados, mango, papaya, and American grown dates. Through the courtesy of the trade we have been successful with casaba melons.

Although the end product in the case of ripening fruits and blanching celery is quite different, the action of ethylene seems to be similar in all cases. It is well established that ethylene of itself does not bring about these changes, since there is no direct relation between the concentration used and the transformations in the product treated. In the case of celery, the results sought are the decomposition of the green chlorophyll and of starch to make the stems sweeter; in tomatoes, to decrease the acidity and decompose the chlorophyll; while in persimmons, it is to change the bitter, acrid tannins into some other tasteless compounds. Furthermore, too strong doses hinder or completely stop the ripening process.

It seems that ethylene at the proper concentration accelerates the action of the normal enzymes naturally occurring in the plants. Therefore, the conditions must be such that normal life processes are not interfered with.

Effect of Temperature

High temperatures accelerate the action of ethylene, but oftentimes the quality of the product is impaired, or damage by spoilage will result. In general, the temperature of the treating room should be between 65° and 70° F., but for tomatoes the temperature should be between 70° and 80° F. Celery blanched at 75 to 80° F. is liable to rot and usually acquires too strong a flavor. Tomatoes treated at too high temperatures, and sometimes very immature tomatoes held at 80° F. will become all yellow before the red appears.

From the work of Duggar (Wash. Univ. Studies *1:* 22–45. 1913) and from our work, cooling the fruit to 65° F. will cause the red color to develop in from one to two days. In ripening chilled bananas it is advisable to use slightly higher temperatures than in ripening normal bananas.

For bananas, tomatoes, and celery the humidity should be high, around 80–90% relative humidity. Usually it is necessary to supply moisture either by *sprinkling the walls and floors,* if construction will permit, or else by evaporating water from shallow containers located over the heaters if heat is used; otherwise, simply put shallow pans of water in the room.

Wilted celery will not blanch, and the material should not be allowed to shrivel in the treating room. For melons and other fruit on which surface molds grow readily, the humidity should be from 60–70%. This tends to check surface molds and to prevent rotting where the fruit come in contact one with another.

Method of Using Gas

In our work we found that a concentration of one cubic foot of ethylene to one thousand cubic feet of room space was the best concentration. In measuring the room, no account is taken of the space occupied by the fruit, but simply measure as if the room were always empty. The important point is to establish the right concentration and not the total amount of gas present in the room.

The gas can be purchased from many sources and is manufactured by the Ohio Chemical Company, Cleveland, Ohio; the Kansas City Oxygen Gas Company, Kansas City, Missouri; the Carbide and Carbon Chemicals Company, New York City; and the Matheson Company, North Bergen, New Jersey.

Equipment for Gardeners

For gardeners, the thirteen or twenty-five cubic foot size is the best, and there is enough gas in a twenty-five cubic foot tank to ripen from six to ten carloads of bananas and from two to five carloads of tomatoes.

There is now a very convenient gauge on the market, made by the Smith Welding Equipment Company of Minneapolis, which enables one to accurately measure the gas with the use of an ordinary watch. The ordinary banana ripening rooms are admirably suited for this work. A room with matched board or plastered interior and well fitting windows and door will answer the purpose very well.

In our work we have successfully blanched celery under a canvas and under a horse trough in the field as well as in a refrigerator car before unloading. Since it is almost impossible to control the temperature under canvas in the field, we do not recommend such practices in this latitude.

The fruit can be placed in

(Continued on page 96)

Observations of Tom Ato, and Alex Ander

Dear Mr. Rahmlow:

We have been looking around a bit and thought that you might be interested in some of the things we have observed.

Seed catalogs for 1928 are beginning to arrive, and the gardeners' "spring fever" begins to show symptoms of returning. There seems to be evidence that there will be the usual crop of "markedly better new varieties" this year. It is well to remember that it is good policy to stick to the "old love" until there is rather substantial evidence that the new flapper is likely to prove more worthy of our attentions.

Speaking of seed catalogs, we note that at least one firm has had the courage of its convictions and has reduced the number of varieties listed from the proverbial 1001 to a list not much more extended than Heinz's list of pickled products.

It will be a great day for the gardener, particularly the beginner, when he no longer has to guess whether he should select "Jones Mammoth red" or "The finest of all" from the twenty five varieties of radishes listed by the "Evermore Varieties Seed Company".

It seems the Ethelyne gas treatment for ripening fruits and vegetables is attracting a great deal of attention just now. Two or three other state conventions in addition to our own are giving it a place in the program.

There seems to be considerable difference of opinion as to its practical use for ripening some of our vegetable-fruits. One large concern says, after two years' experience in using Ethelyne in ripening tomatoes. "It has been difficult to draw any general conclusions that we consider final. Our impressions, at the present time are as follows: Ethelyne seems to hasten the ripening process a little but not to the extent it is generally credited with. Another impression and one we are more sure of than others is the fact that the quality of tomatoes ripened under Ethelyne is much better than under any other method we have tried. (This refers to ripening tomatoes picked green. Ed.) Given tomatoes mature green and of good quality to start with, we have succeeded in producing ripe tomatoes of very fine quality and attractive appearance."

It would seem that much more experimental work is needed to answer all the questions raised as regards the practical use of this new process.

It is rumored that the Horticultural Department of the University is to offer another short course on Tree Trimming. This work is put on at the request of the public service corporations. The plan is to give line foremen who oversee the pruning of trees interfering with telephone, light, and power lines information as to how pruning can best be done to clear the wires and at the same time leave the tree in a presentable condition and well protected from injury which might arise from pruning.

The companies are to be congratulated on the interest they are showing and we hope that as this type of instruction continues there will be fewer "dehorned" trees along our streets and highways.

The North Dakota Horticultural Society recommends "Florence" very highly as a crab apple for that State. The Secretary says, "It is hardy, does not blight, bears early and heavily, the fruit is good sized and attractive, and it is self fertile". With such good characters as these, it would seem that this variety might be valuable in Wisconsin, particularly in those sections demanding very hardy varieties.

Horticulture is progressive and therefore the notions of horticulturists change. Formerly, it was not good horticultural practice to prune until late winter or early spring. Investigation has shown that the bad effects of late fall or winter pruning were over estimated. Now we can prune any time after the leaves are off in the fall. For the busy home orchardist, probably the sooner the better, as he will then have it out of the way when the busy spring season arrives.

We were interested in noticing at the recent convention that some of the spray ring members are getting interested in the Society, even to the extent of contributing to the exhibit. From their success in getting premiums, we are inclined to believe that the old timers had better begin to look to their laurels. With a little more experience these new comers are pretty likely to make them step some.

In a visit to the University Greenhouses the other day, we saw some five or six thousand flower pots which seem to contain nothing but soil. In each one there was a little white label, and the whole outfit suggested a Chinese cemetery.

Our curiosity got the better of us and we asked "What's the big idea?" Our curiosity wasn't lessened any when we were informed that the pots contained potatoes, as we had never heard that the potato was a particularly favorite greenhouse plant. The man explained, however, that this was the method used to determine whether the potato had a disease which they call mosaic.

It seems a grower sends in some potatoes, they are numbered, an eye is removed from each tuber and planted in a 4-inch pot and when the plant grows the potato man is able to tell which have mosaic and

which do not. The potatoes which have mosaic are thrown away and the good ones returned to the grower. He uses them as special seed from which to produce his own seed for the following season. Result, he produces a crop which has much less mosaic than the usual run of stock. He finds this improved stock has a higher commercial value as there is a big demand among the southern potato growers for Triumph potatoes relatively free from mosaic, for use as seed.

While at the greenhouse, we noticed a fellow spraying a peculiar looking liquid on some plants. He said the plants were infested with mites or red spiders and that he was giving them a dose of Volck. It seems this is a rather new contact insecticide which has proved very efficient. Besides being effective against mites it can also be used for plant lice, mealy bug, scale and other sucking insects. Where it is not convenient to spray it on the plants, they may be washed with it or even dipped in it. The man said one should be careful to mix it well before dipping plants.

Most of the folks attending the Convention heard Ralph Irwin of Lancaster finding fault because he couldn't control scab last year. We got hold of an advance copy of the program of the Farmers' Course to be held at the University next month and see they are planning on giving the fruit growers the latest dope on scab control. The program lists four important topics to be taken up on February 2 and 3: Up to Date Methods of Apple Scab Control; Pruning Bearing Apple Trees; Orchard Insect Problems; Spray Ring Management and Fruit Marketing Problems. This is sure going to be an opportunity for the fruit grower whether he is a commercial man or a home orchardist.

Maybe sometime we will tell you some more of the things we have seen and heard about.

TOM ATO AND ALEX ANDER.

(We welcome Tom and Alex. They have their eyes wide open, as shown by their observations. Come again next month—Editor)

RIPENING WITH GAS

(Continued from page 94)

shallow crates or on shelves, depending on the conveniences at hand. Bushel baskets can be used for melons, but we do not recommend them for tomatoes, due to the difficulty of sorting the fruit and the danger of crushing some of the tomatoes on the bottom. Besides, bushel baskets do not stack well in a room.

The time required for ripening bananas from the green condition as unloaded from the cars is from two to two and one-half days, against four to five days by heat alone. For tomatoes it varies from three to possibly six or seven days, depending on the stage of growth and maturity when picked.

The time for melons and similar fruit is very hard to predict, since it is almost impossible to tell just how green the product was when we started working with it. We unplucked Japanese persimmons in about four days, while the controls were still uneatable at the end of eight days.

GAS NOT DANGEROUS

Ethylene is in no sense a disinfectant, and it will not check the rots on fruit that is already badly infected. If the fruit is healthy, it will keep just as well after being ripened by ethylene as if it had been ripened naturally.

The gas is not poisonous, and workmen need have no fear of working in the rooms that are used for treating. In the concentrations used, it is not explosive, but, as a precaution, no open flames or lighted cigars or cigarettes should be in the room while the gas is being liberated, since an explosive mixture might result just at the outlet of the valve.

Since the gas has the same density as air, no special provision for its distribution need be made, and a few minutes after liberation the flames used in heating the room can be started and adjusted to maintain the right temperature.

VALUE CANNOT BE MEASURED

There is always an attempt on the part of many people to measure the value of anything in its money returns. When it comes to horticultural products such a measure is certainly very inadequate. For example, how is one to measure in dollars and cents the value of the better teeth and improved health which comes from the use of fresh fruits and vegetables; or how is one to estimate in money the value of the pleasure received from growing and viewing a beautiful flower, or for that matter even from picking and eating a handful of fresh strawberries at a time of the year when most plants have been frozen to the ground. Or again, how are you to evaluate the sense of comfort which you gather in from the protection afforded by a good belt of trees on the north and west when the blizzards blow in winter time. After all, the best things in life cannot be measured by any such yardstick.

Mr. Roberts, in the Wisconsin Research Bulletin No. 77, shows that there is a great difference in the growth of young apple trees due to the location of the upper bud on the scion with relation to the cut made in grafting. Any of our people who do any grafting should certainly get this bulletin. It may be secured by writing the University of Wisconsin, at Madison.

Orchard Costs and Profits

Widening Margin Between Production Costs and Selling Price

Prof. V. R. GARDNER,
Michigan College of Agriculture

(Continued from December issue)

Summary of Maintenance Costs—When the maintenance costs are summarized it is seen that they range from $14.50 to $90.00 per acre per year, with an average of $40.00. The higher figure is probably more than is necessary; the lower one is certainly too low for safety. Even in years of no crops, when spraying costs can be materially reduced, total costs will probably range from $20.00 to $30.00 in the better-cared-for orchards.

Harvesting cost — Harvesting costs need not be considered here, as they usually vary with the size of the crop.

TOTAL PRODUCTION IN COSTS

When overhead and current maintenance costs are compared, it is seen that, except in the case of the most intensively cared for orchards, the overhead exceeds current expense—a fact realized by comparatively few growers.

Focusing attention now on the average orchard, it is seen that the total annual expense approaches $100.00 per acre. In other words that is what it costs per acre per year, crop or no crop, to own and maintain the orchard. Even the minimum charges total approximately $50.00 per acre per year—and let it be emphasized that that figure represents a practically irreducible minimum that cannot be avoided if the orchard is to be given even rather indifferent commercial care. Profits can be realized only after these production charges are met.

The sales records of 10 of Michigan's leading cooperative fruit selling organizations show that over a 6-year period (1920 to 1926) the average price for which A-grade fruit of all varieties was sold was $1.29 per bushel, for B-grade fruit it was $0.93 and for C-grade stock it was $0.56 per hundredweight.

After deducting selling commission, packing and package charges, the amounts actually paid the growers were: for A-grade fruit $0.90, for B-grade $0.56, for C-grade $0.17—In view of the fact that on the average only 45 per cent of the tree run product graded out A-grade and 18 per cent graded out B, it is evident that the fruit, as it was harvested, brought him considerably less than 90 cents per bushel. As a matter of fact, it was just about $0.63 (taking into consideration the prices received for cannery, bulk and unclassified stock). Deducting from that figure a 10 cent harvesting and hauling charge, the "on-the-tree" value of the fruit has been approximately $0.53 per bushel.

TABLE 3.—PRICES AND NET RETURNS TO MICHIGAN GROWERS. 1920–1926. AVERAGES FOR ALL VARIETIES.

	A	B	C	Canner Grade	Unclassified	Bulk
Selling price per bushel	$1.29	$ .93	$ .26	$ .52	$ .78	$ .68
Net to growers	.90	.56	.17	.40	.42	.56
Grading (per cent)	45	18	20	3	3	11
Net to growers	.41	.11	.03	.01	.01	.06
						.63

At that figure it would require a yield of 103 bushels to pay for the overhead expense in the average orchard and another 75 bushels to pay for current maintenance. In other words, if the average yield is 178 bushels per acre, the cost of production reduced to a bushel basis, would exactly equal the 53 cent tree value at current selling prices. If only 89 bushels were produced to the acre, their production cost would be $1.06 per bushel, just twice their tree value, since production costs per acre remain about the same. On the other hand, if the yield were doubled and 356 bushels were produced on an acre (about 12 bushels per tree) the production cost per bushel would fall to 26½ cents, leaving a margin of profit of 26½ cents per bushel.

Herein lies seven-tenths of the keynote to profits in the apple business—or in any other fruit business. Production costs necessarily vary directly with area; returns necessarily vary directly with quantity sold.

Over a period of years prices are more or less fixed—to a considerable degree beyond the grower's control. Therefore, production costs per bushel range inversely with the number of bushels produced on a given area. Increases in yield mean a reduction in production costs per bushel and a corresponding widening of the margin of profit. Furthermore, correlated with the widening margin of profit due to increased yields is an ever mounting increase in profits from the extra bushels. In other words, profits increase in a kind of geometrical progression.

Some idea of how this principle actually applies in individual cases is afforded by data presented in Tables 4 and 5. The low yielding orchards are barely paying for the overhead expenses, to say nothing of current maintenance charges. Every bushel of apples that they produce is produced at a loss and it is taking from one to five acres of good farm land to pay for the luxury of supporting each acre that the orchard occupies.

I dare say, however, that many of these growers have a kind of hazy idea that they are not doing so badly, because the orchard at least comes close to meeting the current cash outlay on them. They do not realize how relatively great are the *invisible* charges. They only know that each year it becomes more difficult to explain their financial situation to the local banker.

On the other hand the heavy-yielding orchards, even the younger ones, are uniformly operated at a profit. When just nicely coming into bearing, the profits are naturally small, but they are very satisfactory as the trees become older and strike their real stride. In orchard No. 75 it is a safe estimate

TABLE 4.—AVERAGE YIELDS AND RETURNS OF SELECTED GROUPS OF GROWERS, REDUCED TO TREE AND TO AN ACRE BASIS. SEASONS 1920–1926.

	13–20 yrs. old Trees	21–35 yrs. old Trees	Above 35 yrs. Trees
12 highest			
Tree average (bu.)	5.2	5.9	9.4
Acre average	182	206	309
Net returns	$95	$107	$161
10 lowest			
Tree average (bu.)	1.1	1.8	2.6
Acre average	38	63	91
Net returns	$20	$33	$47

TABLE 5.—AVERAGE YIELDS AND RETURNS OF TWO SELECTED GROWERS, REDUCED TO A TREE AND TO AN ACRE BASIS. SEASONS 1920–1926.

Grower No.	Tree No.	Age	Yield	Per cent A-grade	Tree net	Acre net
70	60	20	4.2		$3.19	$111.50
	148	25	5.68	70	4.32	151.25
	248	45	12.1		9.57	334.50
75	170	18	1.1	39	.61	21.30
	714	45	2.2		1.37	48.00

that apples which sold at an average of $1.29 per bushel for A-grade, for about 90 cents a bushel for the tree-run product, and that netted the grower about 63 cents per bushel delivered at the community packing house, actually cost the grower about $1.00 per bushel. He was paying the spray material manufacturer and the local banker about 37 cents per bushel for the privilege of being a fruit grower.

Grower No. 70, on the other hand, was producing the same varieties that were being sold to the same customers at the same prices at about 30 cents per bushel.

Yields—What Makes Them

If yield is of paramount importance in determining the margin between production costs and selling price, the question at once arises: what are the principal factors in determining yield? This question need not be discussed in great detail at this time for it is one to which the observation of the experienced fruit grower has supplied definite answer.

I am tempted, however, to insert a word summarizing Michigan experience. Ranking in importance above all other factors in this connection is that of site, location, relative freedom from frost. It is hardly believable that raspberry field No. 24 (See Table 6), that in 1926 yielded 128.3 crates to the acre, yielded only 17 crates in 1925—at a cost of $4.41 per crate. Yet such was the case. The explanation lies in the fact that it is in a frosty location. 1926 was a comparatively frost-free season and it escaped injury; in 1925 it got caught.

An orchard must bear annually if its average production year after year is to be high, or, in lieu of annual production, it must bear enormous crops biennially. Occasional bearing will not do.

Ranking close to site in importance is that of soil and soil management methods. I have no intention of holding up clean cultivation as superior to sod culture, or sod culture as superior to clean cultivation. There are successful and unsuccessful orchards under both systems; both have their places. The important thing is to have such a soil and then so to handle it that the trees are kept growing vigorously.

It is no mere accident that America's most productive orchards are on rich deep fertile land. To predict that the greatest advance in fruit growing in the next quarter century will come through the more extensive and more intelligent use of fertilizers, would perhaps be unsafe, but certainly there is the possibility that it will work out that way.

TABLE 6.—RELATION BETWEEN YIELDS AND PRODUCTION COSTS PER CRATE OF 25 MICHIGAN RASPBERRY GROWERS IN 1926.

Field No.	Crates per acre	Cost per crate
26	6.8	$6.13
27	16.7	3.13
16	27.1	2.20
8	28.6	2.43
23	30.3	2.26
25	36.1	2.19
2	37.8	1.95
22	38.0	2.26
20	38.3	1.90
14	43.4	2.54
9	43.6	1.88
5	50.1	1.94
10	51.2	1.89
18	55.7	2.47
17	58.5	1.57
19	64.9	1.58
13	78.5	1.68
6	81.4	1.23
11	89.8	1.24
28	93.0	1.62
12	101.0	1.06
7	107.1	1.24
3	115.1	2.18
15	121.6	1.33
24	128.3	1.32

The Relation of Variety to Yield

It is not my purpose to discuss in detail the variety problem, for each district has its own variety problem and its solution for Michigan is not the solution of New Hampshire or Wisconsin.

It may be pointed out, however, that there are great differences in the yielding capacities of different varieties—differences that are, I am sure, not appreciated by many growers. Table 7 presents data on the

(Continued on page 102)

Outdoor Flowers For The Home

Ideas for Creating a Home Grounds Picture

Prof. J. G. Moore

"WHAT is home without a Mother?" Most of our memories go back to the days when this motto hung on the wall in many a home. The day of wall mottos has passed and in its stead we have the day of slogans. In fact, so numerous have slogans become that one hesitates even to suggest another, but if permissible, I would like to suggest "What is home without flowers?" Flowers have always played a great part in the home and it is gratifying to know that as our civilization advances they become a still more important feature of our lives. We possibly can get along without flowers, but if we were forced to do it we would lose much of the pleasure we now get out of life.

I think we can roughly put flower lovers in two large groups. Those who love flowers because their sympathy and beauty pleases the senses, and those who love flowers not alone for this reason but also because to them the flower, or perhaps the plant which produces the flower, is a living individual which possesses as it were, a personality which responds to thoughtful care, and like a person reciprocates for the attention given it by giving its friend later on a token of its appreciation.

A rose from a florist's may be more beautiful than the one you pluck from the plant in your garden, but you can never feel quite the same about it or towards it as the one for which you feel that you are at least a junior partner in producing. It is, of course, this latter group which will be interested in "outdoor flowers for the home" from the standpoint from which we wish to consider it.

Out door flowers for the home serve two important functions. They are important factors in creating a pleasing home grounds picture, and they are a source of material for giving variety and charm to the interior decorations of the home. Both of these functions are important.

I feel that frequently in the past, we have overlooked the importance of beautiful home surroundings. This has been especially true on the farm. Often we get so busy making a living that we forget to live. After all, we are coming more and more to recognize the truth of the words of the Great Teacher "Man shall not live by bread alone". We sing "Be it ever so humble, there's no place like home" but a humble home may be beautiful. It may not be beautiful because of its elaborate and costly appointments but it may be beautiful in its simplicity, its neatness, and its modest decorations.

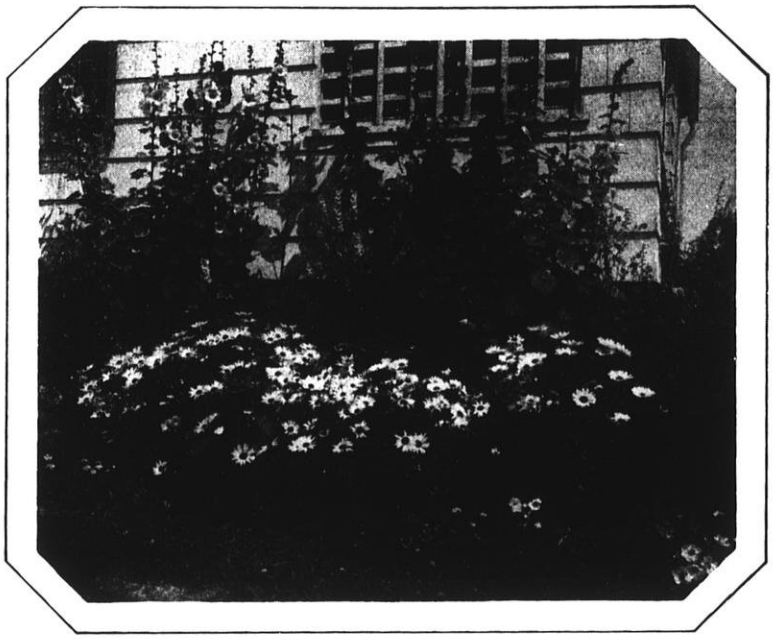
What a large part flowers may have in making possible the decorations of both the interior and exterior of the humble home. The millionaire may have his sheared box or bay trees or his orchids, but they are no more beautiful or decorative than the hollyhock or gladiolus which can be had by any of us. As a rule the real value to the owner will be greatest in the latter case.

Even beautiful things must be properly used if beautiful effects are to be secured. The artist must not only know how to paint beautiful objects, but he must arrange them so that they produce a beautiful composition and give them a proper setting so that they will give to the person who views his production the particular idea he wishes to convey.

We are artists when we use plants to improve our grounds.

BACKYARD FLOWERS—USEFUL INDOORS OR OUT

These two species of Rudbeckia add to the pleasure of a stroll along the walk or may be used to add cheerfulness to the living room.



FLOWERS MAKE AN ATTRACTIVE AND EFFECTIVE HOUSE BORDER
Shasta daisy, larkspur and hollyhocks used to "tie the house into the grounds picture."

We work with buildings, grounds, and plants instead of canvas and paint. But just as certainly as the artist produces a picture, we produce our picture. If we use our materials intelligently and thoughtfully, we produce a good picture. If we use them haphazardly, and thoughtlessly, we will have a production which will not be beautiful or pleasing, but unattractive or even displeasing.

Ways of Using Flowers

In considering out door flowers for the home we cannot in most cases ignore other plant materials. Our so-called flowers are only one of the elements used in creating the landscape picture. When used it is invariably in conjunction with shrubs. There are four ways in which flowers are used in the landscape picture, in house borders or foundation plantings; lawn borders or as adjuncts to lawn clumps, in beds, and in porch or window boxes. The latter might also include flowers in vases or urns used as part decorations. In classifying flowers used in these ways we usually think of four popular groups—annuals, biennials, perennials, and bulbs.

In both house and lawn borders, any of the groups may be used. As a rule perennials are most largely used because of their permanency and the smaller amount of labor necessary to produce satisfactory effects. However, one should not get the impression that all that is necessary is to plant perennials and that they will then care for themselves. There are cases, of course, of perennials of sufficient vigor to take care of themselves very well, but there are many more that need attention as regards cultivation, fertilization, thinning and in some cases winter protection, if they are to produce very satisfactory results.

Biennials are very limited in number and because new plants must be started each year if a continuous seasonal display is to be had, are much less in favor for border plantings. However, they should not be ruled out because of this objection for some of them would be a great addition to practically any border planting.

Bulbs and annuals may be considered together in their relation to border planting. In speaking of bulbs we subconsciously limit the term to what are frequently designated as Dutch bulbs. We mean those that are ordinarily planted in

LIMITED SPACE BUT ABUNDANT BEAUTY
When small lawn area precludes a mixed border of shrubs and flowers, then resort to a simple border of perennials or annuals. A mixed border might be preferable but there are seldom too many asters when well grown like these.

the fall and brighten the early days of spring with their display of brilliant color. The reason that annuals and bulbs can well be considered together is because neither in itself is complete in the border. The bulb vanishes too early and the annual comes too late. Together they make a glorious combination. The annuals may be set among the bulbs while the latter are maturing. When they are removed, lo and behold the annuals are well on their way towards their riot of late summer and autumn color. To a lesser extent, bulbs can also be used in conjunction with biennials and perennials, and annuals in conjunction with early maturing perennials.

To make the most of small grounds, one should study the various possible combinations. Some of the most attractive effects I have seen in the use of tulips was when they were planted among the shrubs of a border.

Plants should ordinarily be planted in clumps. The number required to make a satisfactory clump depends upon the plant and the size of the border. Unless they are planted in sufficient quantity to make a unit in the planting they are sort of "lost in the shuffle" and the planting becomes merely a hodge-podge of plants. The lover of plants when forced to confine his efforts to a small area is very prone to attempt too many kinds. I realize how hard it is to leave out some of your favorites, but it often becomes a necessity if you are to get the best effects.

Flowers are best displayed against a background of foliage. Shrubs serve admirably for this purpose in borders unless the border is so narrow as to make it impractical. In such cases a background for most of the flowers can be secured by selecting some having higher growing plants for planting next to the house or the boundary.

When making a border planting some seem to think that the arrangement should always be, tall plants in the back and successively lower ones leading down to the front edge. In the main, that is probably the best arrangement as it makes for a better display. However, if such a plan is adhered to too closely the planting may look like a series of circus seats. Occasionally, the breaking up of the horizontal lines arising from this method of arrangement by bringing some taller plants into the foreground so as to make "areas" in the border, will add much to the interest of the composition.

Only in the larger plantings are we likely to have shrub clumps as distinct from border planting. We do not need to spend much time in discussing the use of flowers as adjuncts to such plantings as what has been said of flowers in borders applies also to clumps. The perennial, of course, is the favorite group for this use. Where the clumps are large the flowers planted in sizeable groups in the bays of the clump aid in giving variety in form, color and texture and thus relieves the monotony of too continuous planting of shrubs.

When one ventures to discuss the use of flowers in beds he is quite likely to find that there are many who do not agree with his beliefs as regards their proper use. I enter upon this subject, therefore, knowing full well that at least some of you will doubtless object to some of my statements. Perhaps, we do not even agree on what a flower bed is. To me it is a relatively small planting in the lawn area, composed entirely of herbaceous plants. Planting of plants of this character at the base of the house we have already characterized as foundation or house border planting.

(To be continued in February issue, when Prof. Moore will discuss window boxes and color combinations.)

Any person, by planting a tree and sending to the American Tree Association, 1214 Sixteenth St., Washington, D. C., for an application blank, may become a member of that association without charge, thus receiving bulletins and advice about the planting and care of trees, etc.

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(Continued from page 98)

yields of several of the more common varieties under Michigan conditions. The only comment I will make on them is that these yield records have proved surprising to many a Michigan grower. The variety whose A-grade or fancy product brings the most on the fruit stand may not be the one with the widest margin between production cost and selling price.

TABLE 7.—AVERAGE ANNUAL YIELDS AND RETURNS OF SEVERAL LEADING VARIETIES DURING 1920–1926 PERIOD. YIELDS EXPRESSED IN BUSHELS PER TREE AND RETURNS IN DOLLARS PER ACRE

Variety	Age of trees 21–35 years		Age of trees Above 35 years		Rank
	Bu. per tree	Acre Income	Bu. per tree	Acre Income	
All varieties	1.9	....	6.6	....	..
Snow	11.5	$322	10.6	$285	1
Spy	5.1	137	9.9	257	5
Grimes	6.3	168	9.8	261	3
R. I. Greening	6.8	199	9.1	264	2
Ben Davis	5.6	112	9.6	191	8
Stark	4.2	104	8.7	176	9
Hubbardston	4.2	89	7.1	130	14
Jonathan	3.6	117	9.3	302	4
Baldwin	6.9	181	6.3	166	1
Wealthy	4.2	100	..	...	11
Duchess	4.4	110	6.4	159	12
King	3.2	92	7.4	212	7
Wagener	4.1	95	4.7	108	15
Wolf River	5.0	110	..	...	13
Canada Red	3.4	89	7.2	190	10
Golden Russet	..	...	5.3	137	16

The Relation of Variety to Selling Price

In practically all of the figures that have thus far been presented, computations have been based on the average prices received by a group of Michigan selling organizations for *all varieties*, the Ben Davises as well as the Delicious. While the average A-grade price of all varieties throughout the 1920–1926 period was $1.29 per bushel, the price of Baldwins, Greenings and Spys has averaged $1.50. That 21 cents difference represents clear profit for the Baldwin, Greening and Spy growers. It means that the average grower of those varieties would have to produce only about 130 instead of 180 bushels per acre to cover overhead and current maintenance production costs and on a 300 bushel crop he would be netting $125 instead of $70. On a 150 bushel crop he would be making $15 instead of losing approximately that sum.

The Relation of Grade to Selling Price

Data on the grading records of two selected groups of Michigan growers are presented in Table 8. The table also gives figures showing the amounts actually paid to these growers for a bushel of their fruit, grading out the way it did. It will be noted that one group received an average price of $0.74 a bushel, the other an average price of $0.52. Deducting 10 cents a bushel from each figure, the estimated picking and handling charge, we have tree values of $0.64 and $0.42 respectively—what these producers actually received for growing their fruit.

TABLE 8.—AVERAGE 1920–1926 GRADES OF TWO GROUPS OF MICHIGAN FRUIT GROWERS SHOWING THE AMOUNTS THAT THEY ACTUALLY RECEIVED FOR DIFFERENT FRACTIONS OF THEIR AVERAGE BUSHEL.

20 highest	Grade A	B	C	Canner	Unclass.	Bulk	Total
Per cent	66	16	12	1	....	4	
Returns	$0.60	$0.09	$0.02	$0.01	....	$0.02	$0.74
27 lowest							
Per cent	27	17	33	4	3	16	
Returns	$0.24	$0.10	$0.06	$0.02	$0.01	$0.09	$0.52

This contrast appears still more striking when it is realized that these men raised the same varieties, used the same spray materials, had their fruit graded by the same crew and sold by the same sales manager. If it were difference that obtained but a single year, it would not be such a serious matter, but the figures are 6-year averages. This is the equivalent of saying that the one group of growers received as much for four of their crops as the other group did for six.

Incidentally attention may be called to the fact that these two margins between different groups—i. e. the one based on difference in variety and the one based on difference in grade—are not mutually exclusive or antagonistic. Any individual grower has it within his ability to obtain both margins at one and the same time and realize about a 40 per bushel advantage over the general run of his competitors. As a matter of fact, that is what the best of our growers are doing.

The Situation Summarized

The situation may be summarized in this way: *Profits lie within the margin between production costs and selling price.* There is one effective way of lowering production costs. This is not by reducing the cost per acre, for average costs are more or less fixed and stationary. It is rather by *reducing costs per bushel through such measures as will secure heavy yields.* This is by far the most important method of widening the margin.

Of only a little less importance is the possibility of increasing returns per bushel through the growing of a *relatively high grade product of the relatively high price varieties.*

There is nothing mysterious or revolutionary about this procedure. It does not necessitate forming and utilizing a cooperative marketing organization if there is none at hand. It does not require a change in the board of directors or manager if one is already in use. It does not imply a change in markets

or marketing machinery. It does not demand any revolutionary change in the management of the orchard. It does not demand top working of the trees to some new widely-advertised variety. It simply calls for utilization of the *best of the good, standard, well-tried varieties and the employing of the best of orchard soil management, spraying and thinning practices.*

It is as conservative as it is constructive. It is as certain of yielding satisfactory returns as is the type of investment that is recommended by the conservative banker.

AS NATURE GARDENS
First Prize

FARMERS WEEK

"A wiser use of Wisconsin Land" is the slogan adopted for the annual Farmers and Homemakers Week at the college of Agriculture this year.

The time set is Jan. 30 to Feb. 4. The main program looks very good starting Monday morning with "A Wiser use of Wisconsin Land", by B. H. Hibbard, "Conservation and Land Problems", by L. B. Nagler, and other numbers equally as good.

It is the special program, however, that is particularly valuable. For Horticulturists, the speakers are Profs. R. E. Vaughan, R. H. Roberts, C. L. Fluke, C. L. Kuehner, J. G. Milward, J. W. Brann, J. Johnson, and J. W. Bryan. These special meetings precede the main program, and will be on fruits, potatoes, insects, and diseases.

There is a special program for each branch of farming, and very good special numbers for women.

Send for a copy of the complete program to the College of Agriculture, Madison.

NATURE'S DECORATIONS
3rd Prize

REFLECTIONS
2nd Prize

PRIZE WINNING PHOTOS

Our first prize photo for this month is entitled "As Nature Gardens" sent in by Judge A. K. Owen, Phillips, Wisconsin. It is an unusual picture showing a beam of sunshine falling on natural forest growth. In the foreground we find sarsaparilla, ferns and other "Nature's Garden Plants".

Second and third prize pictures are by I. J. Schulte, Milwaukee. The second prize photo is an unusual shadow picture taken in winter. It creates a desire to tramp over the snow covered fields in search of scenes such as this.

The third prize picture shows how landscape gardening is effective in winter as well as in summer if evergreens are used. Home grounds such as these are a pleasure at any season of the year.

A bulletin which I think every County Agent, and everyone raising trees and fruits should have is entitled "Diagnosing Orchard Ills" which is Special Bulletin No. 164 to be secured from Michigan State College, East Lansing, Michigan.

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OUR COVER PAGE

The Home Grounds picture on this month's cover page is by the Rieboldt Studio, Sturgeon Bay.

THE automobile manufacturer, to be able to meet the terrific competition of today, to put into his car all the new improvements demanded by the public, at the same time reducing the price of his car continuously, must be making use of every available scientific discovery.

Farming, especially the branch we are interested in has the same problems though we are not solving them as rapidly.

What do we know about some of our most serious handicaps?

What causes mosaic of potatoes and bush fruits? Can we develop mosaic resistant plants of various kinds?

We know something about the effect of vitamines on animal growth. Are there vitamines that effect plant growth?

Why do some soils, although supplied with all the chemical elements necessary, refuse to grow crops?

How much do we know about the possible industrial uses of agricultural waste products?

Are there other dangerous insect pests and plant diseases in foreign countries waiting to be introduced into this country? Our chestnut trees are doomed because we let in chestnut blight. The Jap-beetle was brought in on a shipment of iris roots. The Mexican Fruit fly has come across the border. The corn borer is making headway. The railroad worm is in Wisconsin. How can it be controlled?

After these pests are established it takes millions to control them. Will it pay to spend more on investigations in foreign countries to advise us what pests are likely to be dangerous?

Figures show that in this country one large industrial corporation alone spends more for research than the entire budget of the Department of Agriculture. Does the public pay for that or do they actually save money by it?

Some people seem to have the idea that agriculture should finance its own research. They forget that we have over 6,000,000 separate farms, while industry is highly organized into large units. Our research can only go on by government support to the ultimate benefit of all the people.

Our representatives in Congress and State Legislature may be to blame for failure to provide for the needs of greater agricultural research. Often though, we are to blame; our representatives are simply providing what the public seems to want.

WE ARE all thinking and talking of how to make the farm pay more. Some urge that cooperative marketing offers the only hope. Others hold that lowering production costs is the solution of the problem.

It can only be by solving both of these problems that the horticulturist will be able to come out on top.

The McNary Haugen bill is again before Congress. The opinion seems to be that it will pass both houses. How do Wisconsin farmers feel about the bill? It will increase the price of several things we buy. All of our products—butter, cheese, fruit, vegetables, etc., come under the provisions of the bill.

PROFESSOR V. R. Gardner, Head of the Horticulture Department, Michigan Agriculture College, has been of great service to Wisconsin Horticulturists. He gave three papers at our annual convention which will appear in this magazine. His talk on lowering production costs, so impressed the Door County Growers that they persuaded him to speak at their annual meeting, December 21.

A large number of fruit growers attended this meeting, held in the Courthouse at Sturgeon Bay.

We urge our readers to study the article "Orchard Costs and Profits", continued from the December issue.

ALL this brings us to our text. "Learn From One Another".

No one ever profited by keeping new discoveries to himself. "Give and You Will Receive". Valuable information will come from exchange of ideas with your near neighbor. "Wisconsin Horticulture" is here for the purpose of exchanging information with your distant neighbors.

What have you to offer?

We urge our readers to patronize our advertisers. They are reliable.

WISCONSIN WILL GO SOUTH

OVER 200 Wisconsinites with five cars of exhibits will travel through seven southern states from February 7th to the 21st.

The State Horticultural Society, at the direction of the Executive Committee and the Board of Managers, and at the request of Commissioner of Agriculture, W. A. Duffy, will exhibit some of the horticultural resources of the state.

To date, exhibit material has been provided by two organizations. Professor Milward, secretary of the State Potato Growers Association, has promised a display of material on how Wisconsin controls mosaic disease, especially in Triumphs. The states through which the tour passes are large buyers of certified triumphs.

The Door County Fruit Growers Union has promised a display of their canned cherries in different types of containers, also some apples. The Union sells large quantities of canned cherries in these states.

Three types of exhibits are desirable on this tour—commercial, educational and advertising.

The secretary of the society has been instructed to take charge of the exhibit and to invite local groups and growers to cooperate and furnish exhibit material.

What can we do for the vegetable grower, florist, nurseryman and fruit grower? If not a commercial display, can we make up an educational exhibit to teach the value of their products? Perhaps some communities will wish to advertise to prospective settlers the possibilities in their localities.

We will need literature, pictures and the product itself in our booth. We are at the service of our members and affiliated organizations.

The train will stop for inspection at the following towns: Davenport, Excelsior Springs, Kansas City, Topeka, Wichita, Arkansas City, Guthrie, Oklahoma City, Fort Worth, Dallas, Waco, Austin, San Antonio, Houston, Galveston, Beaumont, Lake Charles, New Orleans, Gulf Port, Mobile, Montgomery, Birmingham, Nashville, Evansville, St. Louis, Springfield, Chicago, and Madison.

There is still room on the train for interested Horticulturists.

MR. M. B. Goff made a suggestion at the Sturgeon Bay meeting that will meet with the approval of many fruit growers—an auto tour of the important Michigan fruit sections.

Professor Gardner promptly promised the cooperation of Michigan horticulturists and his department in conducting the visitors to the points of most interest and providing speakers.

The trip can be made cheaply by carferry across Lake Michigan, especially, if several growers pool expenses in one auto.

The Michigan Horticultural Society is planning a similar tour of the fruit sections of Ontario.

Again we hope to "Learn from One Another" and profit thereby.

INSTEAD of one general summer meeting next summer, why not several. Why not a meeting and auto tour in a good fruit section for the fruit grower, another for the vegetable grower, and still another for the florist and the small fruit grower.

One of these could be designated as the official summer meeting at which the executive committee could meet.

The advantages would be many.

DOOR COUNTY GROWERS JOIN SOCIETY

ON DECEMBER 20th, the Door County Fruit Growers Union formally voted to join the Horticultural Society. This means about 450 new members.

The method they adopted is simple—we recommend it to other organizations.

The Board of Directors voted to join the society as a group, the treasurer of the Union to pay the membership dues. Each member is notified that his account is charged with the fee, which is 35¢ per year in this case, there being over 200 members.

In case the member does not wish to belong, he can notify the secretary of the Union by mail or phone and his name is omitted.

Can you imagine anyone interested in fruits, flowers or vegetables not willing to have his account charged with 35 or 40 cents for a year's membership, subscription to the magazine and the annual report?

If you are interested, have the secretary of your local organization send in a list of the names of your members interested in fruits, flowers or vegetables. A copy of the magazine will be sent them. After they have had a chance to look into the matter, you can use the above method of joining, remitting the fees to us when you have them.

GREAT AALSMEER FLOWER–SHOW (HOLLAND)

17–21 April, 1928

The new monumental Auction–Hall of the Cöoperative Society: "Central Aalsmeer Auction", 2500 square metre large, will be opened with a flower-show April 17th, 1928.

Only the Aalsmeer florists and exporters are allowed to send in, but novelties from all countries are welcome.

The show will also be international with regard to the committee of honour and the jury.

Florists, who have the intention to send in novelties are requested to write to the secretaryship in Aalsmeer (Holland).

J. C. M. MENSING,
Secretary.

Potato Growers Department

J. G. MILWARD, Editor
Secretary of the State Potato Growers Association

CERTIFIED SEED FOR SALE

The U. W. Horticultural Department desires to call attention through "Wisconsin Horticulture" to important matters requiring the attention of Wisconsin growers early in the new year.

First. The University Horticultural Department and the Wisconsin Department of Markets have jointly arranged to publish the list of available certified Wisconsin seed potatoes periodically during the winter.

The first list issued on January 1, 1928, based on reports from growers and shippers, shows the following amount of seed in storage unsold; Triumph 45,000 bushels, Irish Cobbler 32,000 bushels, Rural New Yorker 20,000 bushels, Green Mountain 10,000 bushels, Spaulding Rose (King) 5,000 bushels.

A limited number of growers did not report and small amounts of Russet Rural and Early Ohio not reported should be added to the above totals.

A portion of the above seed listed is in storage by Wisconsin shippers and the balance in possession of growers. The first list published calls the attention of the trade to the fact that Wisconsin certified seed potatoes are graded to Badger State Brand requirements. Loading point inspections are made by the Wisconsin Department of Markets. The official red tag "Badger State Brand" is issued by the Inspection Service and is attached to all sacks in car lot shipments.

Copies of certificates issued to growers are on file in the Horticultural Department, Madison, Wisconsin and will be furnished on request.

The certified seed list shows that much of the Wisconsin certified crop is concentrated in certain communities. The Triumph crop, for example, was grown largely in Oneida, Langlade, Marinette, Oconto, Price, Washburn, Sawyer, Burnett and Polk counties.

The bulk of the Irish Cobbler crop was produced in Forest, Langlade, Oneida, Marinette and Sawyer counties.

The Rural New Yorker is concentrated in Barron, Washburn,

Above Prof. John Brann, certified seed field inspector, in charge of Greenhouse Mosaic Tests. Right: A section of the Horticulture Dept. Greenhouse showing potatoes in pots under test.

Marinette, Oconto, Florence and Door counties.

The Green Mountain stock is located mainly in Oneida, Lincoln and Sawyer counties. Wisconsin shippers have assembled stock from several producing counties.

Information on Wisconsin seed will be furnished by the Inspection Service. Requests for prices should be sent direct to Wisconsin growers and shippers listed. For available certified seed list, write the U. W. Horticultural Department, Madison, Wisconsin.

GREENHOUSE TESTS SUCCESSFUL —LOW MOSAIC SEED FOUND

The first "run" of tuber index tests in the Horticultural Department greenhouses were completed January 1. Definite figures showing mosaic counts made to date are not ready for publication.

The information available from the first test warrants the following conclusions which should receive careful attention at this time by growers in the "Triumph Belts".

Stock grown on the Spooner Branch Station index plot and increase field is low in mosaic. Not over 800 bushels of this seed is available for sale to growers. The Horticultural Department will arrange to place this seed in comparatively large blocks for increase purposes, under the best possible growing conditions. The Department will be unable to supply seed to several growers who have sent in orders and reservations.

The greenhouse tests show a limited amount of seed running less than 5% mosaic in Burnett, Price, Washburn, Sawyer, Oneida, Langlade, Oconto, and in other scattering sections. This seed should be used in Wisconsin to replace undesirable stock now in possession of growers.

Certain growers have seed apparently either unsatisfactory for further planting or considered close to the border line of satisfaction.

The Horticultural Department plans to aid as much as possible in the distribution of the best seed obtainable in the state. Conferences will be arranged early in the year in the important seed producing centers. The mosaic tests available will be given to growers at that time.

GROWERS HAVE GOOD SEED

Among the Wisconsin growers listed in the first run and whose seed shows satisfactory from the standpoint of mosaic content are:

John Conradi—Phillips
Wm. Dama—Phillips
Carl Makholm—Suring
E. H. Thompson—Webster
Chas. Koshowsky—Coleman
Frank Bizjak—Crivitz
Henry Makholm—Suring
Add Peevey—Rhinelander

As this issue goes to press, a number of seed lots are just coming through the ground and the mosaic counts on these lots will be published in the February issue of "Wisconsin Horticulture".

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A New Minnesota Winter Variety

Catalog for 1928 ready this month. A postal card will bring it. We sell direct to the planter, no agents—lower prices.

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Corn—Golden Bantam, Evergreen.
Kohl-Rabi—White Vienna.
Lettuce—Grand Rapid (Leak), May King, Wonderful (Head).
Melons Musk—Champlain, Milwaukee Market.
Melons Water — Peerless, Klecky Sweet.
Onions — Yellow Globe Danvers, South Port Rest Globe, White Globe.
Peppers—Hanis Early.
Peas—Marvel.
Parsnip—Hollow Crown.
Radish—Scarlet Globe.
Squash — Golden Hubbard, Table Queen.
Salsify—Sandwich Island.
Spinach—Bloomsdale Savoy.
Tomato—John Baer or Bonny Best.
Asparagus—Washington.
Beans — Universal, Brittle Wax (Yellow), Stringless, Refugee (Green).
Beets—Croslys Egyptian, Detroit Dark Red.
Cabbage—Early Copenhagen Market.
Kraut—All Seasons.
Late—Hollander (Short Stem).
Cauliflower—Snow Ball.
Celery—Golden Plume.
Carrots—Chantenay-Danvers Half Long.
Committee: H. C. Christenson, Oshkosh; Hollis Sullivan, Taylor.

Clip off weeds before they go to seed.

Florists Department

HURON SMITH, Editor

GROWING CACTI

(Continued from December)

Here in Wisconsin we have two cacti that are native. They are found around the southwestern part of Wisconsin and are especially abundant in Sauk County. These two species are the Fragile Cactus, *(Opuntia fragilis)*, and Rafinesque's pricklypear, *(Opuntia rafinesquii)*. These survive the cold winters of Wisconsin and are truly a wonderful sight, when one sees them in bloom or in fruit in the summer time.

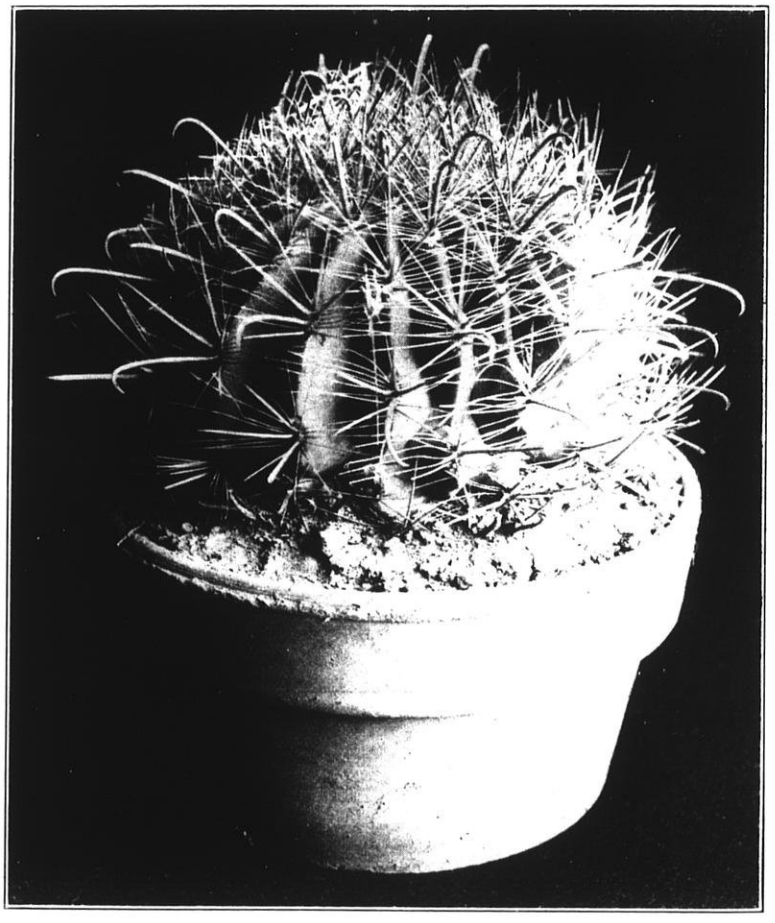
An open, drainable soil is the chief requirement for cultivating cacti. The best soil is a thoroughly decomposed sod, mixed with at least its own volume of sand, making a soil which drains very readily. It is not necessary that the soil be very rich in humus and manured soil should not be used under any consideration, because it will hold moisture too long. Rot is the greatest enemy of cacti and in taking care of them one should see that they are planted in new, clay pots.

Usually, clay pots do not have sufficient drainage. The drainage hole must be enlarged. If there is any indication of a growth upon the flower pot, it is best to soak them for a while in a weak solution of copper sulphate. They must be thoroughly washed again before they are used.

It is possible to grow the cacti from seeds, which they yield in abundant quantities. However, very few of these seeds ordinarily germinate and develop into mature plants, so that the better method of propagation is to use cuttings. The cactus plants are so soft of tissue, and so filled with water that any bruise is likely to be the point of attack of a rot fungus, which quickly destroys them. Therefore, in making the cutting, a clean, sharp knife must be used. The cutting must be placed in a dry atmosphere for a day or so until a "skin" has formed over the cut end. Then it may be rooted in sand or in a pot.

The English method of making a propagation bed is one of the simplest and best. Using this method, a six to eight inch flower pot is filled with sharp sand, (not lake shore sand), but the kind that is used in cement and mortar work. Into the center of this pot is plunged a three-inch pot until the rim is just above the surface of the sand. This three-inch pot is kept filled with water which passes through the pores of the clay pot, so that sufficient moisture is kept in the sand all the time. Cuttings readily take root in this soil.

No matter what species of cactus is grown, one should take pains to ascertain where it came from, because they are quite variable in their atmospheric and floral conditions. Some are found near the sea shore in the tropics, others high up on the mountains, where in winter they are subjected to



FISH HOOK CACTUS
Echinocactus Wislizeni

heavy frost. The most abundant species of cacti are found in the higher, semi-dry tablelands.

Cacti take very little care while they are growing. It is not necessary to prune them, except to remove the dead portions to keep the plant in shape and in the space allotted to them. Rooting may be done at any time, but best when the atmosphere is dry so the cut surface may dry and heal quickly. When they are taken out of doors in the summer, planting is best done during a dry period when they are placed directly in a bed. The bed should be elevated so that there will be thorough drainage.

The chief attractiveness and beauty of cacti is found in their remarkable symmetry of growth. They are almost mathematical in the exactness of their spines, ridges, angles, ribs or wings and the buds are found at regular intervals. The coloring of the skin of the plant is frequently very attractive. Most of them are some shade of green, but some are found that are coated over with a white or bluish bloom. The color of the spines are often exceedingly attractive especially in the young growth. It ranges from pure white to amber, yellow, red and black. The shape of the spines are very interesting, as the one shown in the illustration of the Fish hook cactus. While symmetry is the greatest attraction in this group of plants, there are also monstrosities. Some collecting fans seek these because of their very grotesqueness.

There are twenty-one genera and two hundred ninety-five species of cultivated forms of cacti to be found in this country. Of course, the total number of genera and species is very much larger, but while some of these botanical forms are found in collections, they are not at all common. The grouping of the different kinds is based upon height and diameter.

The columnar forms of cacti are divided into those which are tall, that is over six feet in height; lower, from one to six feet in height; and short, less than one foot in height. Of the tall varieties there are two species of Cephalocereus, twenty-three species of Cereus, one species of Opuntia, and eleven species of Pilocereus. In the lower, columnar cacti, there are eight species of Cereus, seven species of Echinocactus, and one species of Echinopsis. In the short columnar forms there are thirteen species of Echinocactus, twenty species of Echinocereus, and twenty-one species of Mammillaria. Among the globose forms there are those that are more than a foot in diameter, which are called large, those that are medium, from three inches to a foot in diameter and the small ones are less than three inches in diameter. Of the large globose forms, there are six, all of them Echinocactus. Of the medium forms there are five genera. There are two species of Ariocarpus, seventeen species of Echinocactus, four species of Echinopsis, one species of Leuchtenbergia, nine species of Mammillaria, and two species of Melocactus. Of the small forms there are five genera of cacti. One species of Ariocarpus, thirteen species of Echinocactus, two species of Lophophora, thirty-six species of Mammillaria, and two species of Pelecyphora. The wide-leaved Opuntias or pricklypears and Nopaleas are grouped together. There are nine species of tall forms of the Opuntia and two species of Nopalea that attain a height of over six feet. Six species of Opuntia and one species of Noaplea range from two to six feet in height, while eleven species of Opuntia are low or decumbent, less than two feet in height. The cylindrical forms of Opuntia include six species of Opuntia that are over six feet in height, nine species of Opuntia that range from one to six feet in height, and seven species of Opuntia that are low or prostrate, less than one foot in height.

The foliage-bearing cacti are divided into the climbing or clambering forms, and the shrubs or small trees. Of the climbing type there are the Peireskia and the Peireskeopsis and three species of shrubs or small trees of the genus Peireskia. There are thirteen common cultivated forms of the night-blooming Cereus, all of them under the genus Cereus. A cactus that is native to moist, tropical regions, growing upon the ground, and cultivated commonly, is Phyllocactus. There are nine species of this under common cultivation. The Epiphytic cacti that grows upon other plants in moist, tropical regions is divided into four genera, one species of Cereus, three species of Epiphyllum, one species of Hariota and ten species of Rhipsalis.

The possibilities of cactus culture are so wide and varied that

(Continued on page 113)

HARDY PERENNIALS

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About the Home and Garden

Mrs. C. E. STRONG, Editor

THOSE PLANTS IN THE WINDOW

HOW we do admire them, those lovely blossoming plants, or frilly green ferns that were a part of our holiday pleasure. Our pleasure is somewhat dampened, however, because the blooms are rapidly fading or the soft green fronds are turning yellow. We sigh and say, "We never did have any luck with plants." But luck with plants is usually because the lucky one has paid careful attention to a few very necessary wants. Plants are something like children. They need some attention every day. They should be studied, and their likes and dislikes noted. We should note their growth, and like children again they will repay us for our attention, or lack of it.

Do not look at a plant as though it were a piece of furniture, but as a bit of life, something that breathes, drinks and eats. Try to give it a few moments attention every day, and I am sure luck will change.

The watering of plants is very important. Some plants need more than others, so there can be no hard and fast rule. The very best way is to look them over daily, noting the condition of the soil and giving water to those that need it. Do not be satisfied to just pour water on your plants without noting its action. Does it run through quickly? Surely it has enough, you think, but wait—take the plant up in your hands and carefully jar the pot until the plant comes out. It will do this quite readily if you turn the pot upside down and strike one edge of the pot on a shelf or edge of table. You will see at once why the water ran through so quickly, for there is no soil visible, just a mass of roots. To water such plants properly stand them in a pan of slightly warmed water for at least a half hour, or until the surface of the soil is moist.

It is always better to have the water slightly warm. Cold water is a shock to most plants in warm rooms.

If you have never had any luck with Cyclamen, Calceolaria, Hibiscus, or Genista, try this method of watering and see the difference.

Many people blame the florist for selling them a plant that is about through blooming, when in fact, the plant is just in the finest condition to bloom if it were given proper care. The average blossoming plant will give more bloom when it is what we call pot bound, or in such condition that the water runs down through, without really benefiting the plant. Of course, after awhile the plant will need more food if it keeps on blooming, but at first it is water that it needs, and plenty of it too, though most plants object to standing in water. So watch the jardineer, if the plant is placed in such a receptacle. Personally, I do not care for them as a bit of crepe paper will do to hide the pot and the plant is much happier.

In my windows I have grown all sorts of plants—from the humble old standby Geranium, to the choicer varieties usually seen in conservatories, Begonias, Cyclamen, Plumbagos in variety, Hibiscus, Azaleas, Clerodendron, Palms and Ferns, also many of the tropical fruits, such as Guavas, Figs, Pomegranates, Lemons, Oranges. The tiny Kum-quats, are especially lovely grown in the window—have seen them blossom and eaten their fruit, and attention to watering is the first and most important item in growing them successfully.

The watering includes the keeping of the foliage fresh and clean by sprinkling with warm water at least once in two weeks. If the foliage seems dusty sprinkle oftener.

There are a few plants, that, during the winter months object to very much water, unless the room is very warm and they are placed in a sunny window. These are the Sansevierias; their roots are thick and fleshy thus holding the moisture. So you can neglect them and they will be pleased, sending up their long creamy spikes of spicy bloom in payment.

Your potted bulbs will appreciate plenty of water if the room is warm and sunny. Do not allow them to stand in water, or the bulbs will rot.

If your Ferns are not doing as well as you would like, take a hint from nature and keep their roots cool and moist—the florist does. Try placing the fern pot in another pot several sizes larger, packing the spaces with spahgnum moss. This takes up the surplus moisture and keeps the roots cool. You can fill the Fernery in the same way, first putting in a layer of charcoal to avoid all danger of ill smelling surplus water, then a layer of moss, then the pots, packing the moss firmly around them. These plants will need less attention, and the pots can easily be lifted out and sprinkled or others put in their places.

A winter garden is an interesting spot after you begin to study the plants. Soon you will want to try all sorts of plants with never a thought of luck as you will be quite sure they will grow for you.

After you have carefully watered the plants for a month, they will perhaps need some food. Next month I will write on what and how to feed your house plants. I want to emphasize this however,—it is not greenhouse culture, just plain growing plants in the home.

A COLORFUL VEGETABLE SALAD

1 cup of ground raw carrots.
1 cup of ground radishes.
1 cup of ground cooked beets, either fresh or pickled.
Place a spoonful of each on a crisp lettuce leaf, and fill the center with boiled dressing, garnished with bits of pimento.

VEGETABLE SALAD

¾ cup finely chopped cabbage.
3 tablespoons chopped pickles.
2 mellow apples chopped.
2 onions chopped.
3 yolks of hard boiled eggs mashed fine.
Mix thoroughly and pour over all a dressing as follows:
½ cup sugar.
½ cup vinegar.
2 tablespoons butter.
1 teaspoon salt.
1 teaspoon chopped celery.
Dash of cayenne pepper.
1 tablespoon flour.
Heat butter and vinegar almost to boiling, then add other ingredients and stir until it boils, set back and stir in the beaten yolks of two eggs, stir until thick, then remove from fire.

APPLE SALAD

Wash, wipe and core large sour apples, enlarge the holes left by removing cores, chop cold chicken fine, season with salt, pepper, moisten with sweet cream and mix with bread crumbs. Fill the apples with this and bake. Serve cold on lettuce leaves with Mayonnaise dressing.

APPLE, CELERY AND NUT SALAD

4 large apples chopped fine.
1 bunch of celery chopped fine.
1 cup of nuts, (hickory nuts are especially fine).
Grind nuts fine. Serve on lettuce leaves and cover with dressing.

Dressing
½ cup lemon juice.
¼ cup water.
¼ cup sugar.
1 egg beaten.
¼ teaspoon salt.
1 tablespoon flour.
Boil. Add whipped cream to taste when cold.

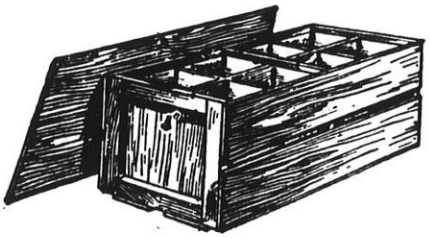
APPLE CORN CAKE

2 cups corn meal.
½ cup flour.
2 eggs, well beaten.
3 tablespoonsful melted butter or lard.
3 tablespoonsful sugar.
¼ teaspoon salt.
½ teaspoon soda in ½ cup sour milk.
2 apples ground fine.
Bake in moderate oven.

CARROT PUDDING

1 cup suet.
1 cup ground carrots.
1 cup sugar.
1 cup chopped raisins.
1 cup chopped dates.
1 cup sweet milk.
2 cups flour.
1 teaspoonful each of cinnamon, nutmeg, cloves.
2 teaspoons soda.
½ teaspoonful salt.
Steam 1 hour.

Canna bulbs saved for next year's planting should be kept cool and so they will not dry out. Packing in sand in the fruit cellar should keep them well.



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Either made up or in the K. D., American Quart Berry Baskets, Climax Grape and Peach Baskets, Till or Repacking Baskets, Plant Boxes and Veneer Tree Protectors.

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WISCONSIN NURSERIES

To get acquainted we make the following special offers. Our selection.

10 Apple trees (Farmer's Orchard) 4 to 6 ft.	$2.50
10 Pear trees, 4 to 6 ft.	4.00
10 Cherry trees, 3 to 4 ft.	4.00
10 Plum trees, 4 to 6 ft.	4.00
10 Red currants	1.50
10 Gooseberries	1.50
10 Black or red raspberries	.50
10 Blackberries	.50
10 Grape vines	1.50
100 Mastadon strawberries	2.00
10 Shade trees, 6 to 8 ft. Elm, Ash, Box Elder or Carolina Poplar	5.00
10 Extra hardy roses	3.00
10 Climbing roses	2.50
10 Shrubs	1.50
10 Paeonies. Assorted colors	2.50
10 Hardy phlox. Assorted colors	1.50

The fruit and shade trees must go by express. The other collections can be mailed if twenty-five cents extra is sent to cover postage and packing.

Beautiful catalogue for the asking.

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MEETING AND DOING

Pruning Demonstrations

By C. L. KUEHNER

THE accompanying photograph taken in the orchard of A. Schmidt, Milwaukee County, shows how pruning demonstrations are conducted in farm orchards of the state.

More than 70 of these demonstrations were conducted during the spring and fall months of the past year. Many farm orchardists availed themselves of this opportunity to become familiar with up-to-date pruning practices.

Arrangements for these meetings are made by the county agent. He advertises the demonstrations and secures the specialist from the college to conduct the meetings. He also asks local hardware dealers to stock up with pruning tools of the kind recommended by the specialist.

At the demonstration, the county agent calls the farmers attention to the value of a well managed orchard and states his plan of work for this project. (His plan of work usually features the organization and management of spray rings.)

After these preliminaries, the specialist states briefly why orchards should be pruned and then demonstrates how to prune for a crop of fruit of more uniform color and larger size. This part of the meeting usually requires but a short time after which the pruning tools are distributed to the farmers and everyone is put to work.

Each farmer is assigned to a certain part of the tree and then proceeds to prune under the directions of the specialist and the county agent. After several trees have been pruned, everyone present participates in an illustrated discussion of orchard spraying, fertilization and spray ring operation. Frequently, spray rings are organized immediately after the discussion is over.

More demonstrations will be conducted during the months of March and April. This will make it possible, for those farmers who have not yet attended any of the pruning demonstrations, to learn, more definitely, how fruit tree pruning is done and how the old apple orchard can be made profitable.

RASPBERRY PLANTS

Mosaic-Free LATHAM and KING.

We have the genuine Redpath strain of Latham.

McINTOSH—The highest quality apple.

COURTLAND—A McIntosh seedling of better keeping quality.

We GROW a complete assortment of fruit and ornamental nursery stock.

Write for catalogue.

J. V. BAILEY NURSERIES

Daytons Bluff Station

Dept. W **St. Paul, Minn.**

GROWING CACTI

(Continued from page 109)

no one need be alarmed that he will come to the end of the story because other genera and species are always being discovered. An ordinary lifetime is too short to become bored with knowing all there is to know about cactus. The flowers themselves are so attractive that they will prove a never-ending source of delight when they come into blossom. Most of them do not last very long nor do they flower much in the daytime. The blossoms are usually developed at night and are gone by the next morning. The flowering period is relatively short, that is, most of them flower in from one to four days, but there is always a bud developing during this period, ready to burst into bloom when the approach of evening enshrouds them. If you want to become distinguished as a wonder gardener, then grow cacti.

HURON H. SMITH.

NURSERIES BECOME CORPORATION

Local Industry, Headed by George Moseman, Expands to Meet Business Needs—Capital $70,000

Menomonie has another corporation added to her list of industries.

The Menomonie-Eau Claire Nurseries, Inc., made application to the secretary of state at Madison for articles of incorporation and as soon as the articles are received here officers will be elected and organization completed. The new corporations asks for authority to issue $70,000 capital stock.

George M. Moseman and Mrs. George M. Moseman of this city and Anton Husly, Eau Claire, are the incorporators.

The corporation takes over the property of the Menomonie Nurseries, operated by George Moseman at North Menomonie and an 80-acre farm of Anton Husly, town of Union, Eau Claire county. This farm is located just south of highway 12, near the Eau Claire county home. This tract will be used for nursery development.

STONE fruit diseases, for instance—some spores winter over in the tree cankers. Destroy them—**now**—with a thorough application of **"Orchard Brand" Lime Sulphur Solution**—a specific remedy for leaf curl and a palliative for brown rot.

Prune apples early—as soon as the wood hardens. Be ready for winter spraying with **"Orchard Brand" Lime Sulphur Solution** or **"Orchard Brand" Oil Emulsion**—important for control of scale insects and for general sanitation.

Remember this! Time and labor are the biggest part of spraying expense. Use **"Orchard Brand" Sprays** and assure getting **maximum results for your time and labor.**

Shall we send you "Cash Crops" 1928 Annual? A postcard request will bring it.

Calling the Roll of Reliable Sprays and Dusts

ORCHARD BRAND SPRAYS
Lime Sulphur Solution
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("Fungi"—"ASP"—"85-15"—"90-10")

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Red Raspberry Plants
Free from mosaic, leaf curl, crown gall, etc.
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State inspected and true to name.
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PARDEEVILLE, WISCONSIN

Horticultural Troubles

Edited by E. L. Chambers, State Entomologist

RUST VS. BARBERRY

DURING the past year more than two million barberry bushes and seedlings were destroyed in the barberry eradication campaign in the thirteen north central states.

Losses to grains from stem rust have shown a material reduction, as have wide spread severe epidemics. Comparing the estimated total losses from stem rust of the four grain crops, wheat, oats, barley, and rye, for the two six-year periods, 1915 to 1920 and 1921 to 1926 inclusive, a material reduction is seen. The decrease in grain losses in many local areas has been much greater than the general reduction would indicate.

Positive control of local epidemics of stem rust has followed the removal of all harmful barberries* from many communities in the eastern states of the eradication area. This is illustrated by the saving of several thousand dollars per year to a group of farmers in Indiana by the removal of one large barberry bush. Many similar cases can be sighted in Wisconsin, Ohio, Illinois and other states. In the spring wheat states a noticeable reduction has followed the eradication of the common barberries.

Business interests and grain growers are intensely interested in this barberry eradication campaign and have keenly watched the results from year to year. The millers, railroads and bankers of the northwest have realized the value of the control for black stem rust from many years of actual experience. We, who appear to be affected in only a small degree, may not realize the value of such a project to the potential prosperity and wealth of the United States.

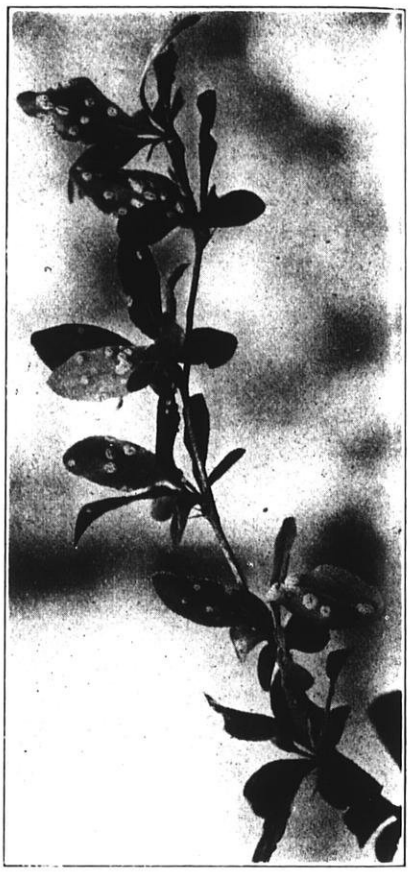
It is the promotion of large projects such as this by individuals or groups of individuals who are able to look into the future that has made industry in the United States the most substantial of any in the world. Those who have followed this campaign and have studied the phases of it are of the opinion that benefits from each dollar spent will be highly gratifying.

* Barberis vulgaris. Several other varieties of barberry also rust, but the Japanese barberry, Berberis thunbergii, does not rust and is entirely safe to plant.

COMMON BARBERRY

SEVERAL YEARS OF WORK NECESSARY

It will take many years to complete the work of this campaign. All of the territory in this area which has been inhabited for some time must be carefully surveyed on foot at least once and many sections must be surveyed several times. The many problems of the campaign have had to be solved as they have presented themselves and the efficient manner in which the campaign is now carried on is the result of careful study of these problems and actual experience with them.



RUST WINTERING OVER

MANY BARBERRIES ESCAPED FROM CULTIVATION

Thousands of bushes have been found, in woodlots, hillsides, pastures, and out of the way places, which have grown from seeds carried by birds from planted bushes around homes. From one location in Dane County, where barberries were planted about 75 years ago, bushes have spread to 250 farms. Several hundred thousand bushes in this one area had spread from a short row of barberries.

In the winter when the ground is covered with snow, berries of this kind are the most abundant source of food for

birds. A bird may pick off a bunch of berries from a bush and fly to a tree in a woodlot for shelter and drop the entire bunch while trying to eat one of the berries. It is not uncommon to find hundreds of barberry seedlings growing under cedar trees or sides of cliffs which are handy places for birds to seek shelter.

It is impossible to detect all of the small barberry seedlings until they obtain several years growth. Therefore these areas must be surveyed several times at intervals of two or three years, which is just often enough to prevent the seedlings from becoming large enough to produce berries.

Salt is Successful

In the early years of the campaign all of the bushes were eradicated by digging. This proved very costly and unsatisfactory because very small root fragments left on the ground would sprout again and in most cases two years growth from these roots would be larger than the original bush.

Experiments were conducted with chemicals in 1922 and it was found that salt was the cheapest and most satisfactory. When this is placed at the crown of the bush both stems and roots are killed. About 350 tons of salt have been used in Wisconsin for this purpose.

A new purple variety of Japanese barberry has been developed which is immune to stem rust as is the ordinary green variety of Japanese barberry. This new variety is a very attractive and beautiful shrub and undoubtedly will be used very extensively as soon as it is available in quantity.

A correspondent asked why plant lice are called ant cows. This is because some kinds of plant lice are cared for by ants. The ants in turn secure a sweet secretion from the plant lice.

The more *you use* —*the* more *you get*

This is the experience of Mr. R. Johnston Gillan, of St. Thomas, Pa. For four years he has applied Sulphate of Ammonia to his "York Imperial" apple trees.

Read Mr. Gillan's own story of the results he got—

"We have been using Sulphate of Ammonia in our orchard of 'York Imperials' for the past four years, keeping careful tally of the yield of each tree every year. We have put it on at the rate of 3½, 7¼, and 10 pounds per tree at a time and while the gains in growth and crop have all been satisfactory, the higher application has given the larger financial return."

A generous amount of quickly available nitrogen in the form of Arcadian Sulphate of Ammonia before blossom time will increase the amount of fruit set, enable the tree to carry a full crop of well-sized fruit to maturity and promote fruit bud formation for next year's crop.

Mail the coupon for free sample and bulletins.

Drawing from actual photograph shows one of Gillan Brothers' trees which received 7¼ lbs. Sulphate of Ammonia each year for 4 years. The condition of the tree tells the story.

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Sulphate of Ammonia

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Please send me sample package of Arcadian Sulphate of Ammonia. I am especially interested in.....
(*Write names of crops on line above*)
and wish you to send me bulletins on these subjects.

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Address_____

The Child's System of Restaurants has practically discontinued the serving of meats because their customers ask for more vegetables and less meat than formerly.

Local Society News

NEW ROSE SOCIETY ORGANIZED

On Dec. 13 the amateur rose growers of Milwaukee organized as the Milwaukee County Rosarians with the election of the following officers:

President—Louis R. Potter
Vice President—Mrs. William Hopkinson
Secretary and Treasurer—I. J. Schulte

At the invitation of Dr. J. Horace McFarland, editor of the American Rose Annual, published by the American Rose Society, it was decided to contribute an article or a series of articles dealing with the growing of roses in this locality. The topics to be covered will be as follows:

Varieties—Mrs. William Hopkinson
Planting—Louis R. Potter
Cultivation and Fertilization—G. Isenring
Spraying and Diseases—August C. O. Peter
Winter Protection—Herman J. Koch

We hope to arouse an interest in rose growing, and to bring to the attention of the lovers of the Queen of Flowers that it is just as easy to grow fine roses as it is to grow most perennials and annuals.

We think we can overcome the general belief that everblooming roses cannot be grown as successfully in this climate as the so-called hardier types, such as the hybrid perpetuals. In the past the Wisconsin State Horticultural Sociey has limited its recommendations in roses to hybrid perpetuals, climbers, hardy garden, and moss roses. There is no reason why a good many fine hybrid teas cannot be added to the list—roses which bloom from June to frost.

Furthermore, we see no reason why Milwaukee should not have a municipal rose garden, such as is found in Minneapolis, Syracuse, Toronto, Cleveland, Chicago, and other cities.

We agree with the American Rose Society that there should be

"A rose for every home
A bush for every garden"

Meetings will be held monthly on the second Tuesday in the trustees room of the public museum, Milwaukee.

Very truly yours,
I. J. SCHULTE.

OSHKOSH SOCIETY HAS REAL MEETING

ABOUT 120 people, members and friends, gathered at the Public Museum for the regular monthly meeting of the Oshkosh Horticultural Society Monday evening, December 5. The event was a real "Christmas Party". A beautiful Christmas tree adorned the table where a delectable menu including fruit cake, animal cookies and other Christmas goodies were served at the usual hour, 6:30 P. M.

After the eleven members who attended the convention at Madison had taken the assemblage on a trip through the rotunda of the Capitol Building and discussed the general program, there were Christmas songs, readings and music by various members of the society.

Mr. H. C. Christensen gave a very interesting talk on "Christmas Trees, Greens and Flowers". —Reported by Mrs. N. Rasmussen.

To dry everbearing flowers for winter bouquets, pick them when they are about half open and hang in a cool, dry, dark room to dry out.

MILWAUKEE CLUB FEATURES ROCK GARDEN

The December meeting of the Milwaukee County Horticultural Society was opened with a full house.

Frederic Cranefield, President Madison Garden Club, was the first speaker and had chosen for his subject: Trees, and the wayside planting of trees.

Mr. and Mrs. Percy W. Armstrong of Glencoe, Ill., both enthusiastic rock gardeners, told us of the growth of their rock garden from its first stages to its present excellent form, their many experiences in raising rock plants from seed, and their success in raising the various primulas.

Mr. and Mrs. Carl S. Miner, Glencoe, Ill., continued the subject. Mrs. Miner, who took first prize at the Chicago Spring Flower Show against twenty-two other professional gardeners, has made rock gardening her specialty.

A pamphlet containing two rock garden plans designed by Mr. Archibald Hill of Wauwatosa, and other valuable information on rock gardens, gathered by Mr. Huron H. Smith, president of the society, was given to every attendant. It proved a veritable belated Christmas gift.

By MARTHA L. KRIENITZ,
Secretary.

GOPHER SCHOOL WINS MEDALS AT OHIO ON FRUITS

Minnesota seeding apples, exhibited at the recent meeting of the American Pomological Society at Louisville, Kentucky, won a silver medal for the fruit breeding farm of the Minnesota Department of Agriculture, and the Latham raspberry another product of the same farm, won a similar medal.

The exhibits were made by W. H. Alderman, chief of the Division of Horticulture of the Minnesota Agricultural Experi-

ment Station. The apple exhibit included 35 specimens.

The medals, says Professor Alderman, are the highest awards in America for new fruit varieties of outstanding merit, for collections of seedlings, and for achievements in fruit breeding. They are bestowed after careful investigation by the American society and are made available by an endowment fund left by the late Marshall P. Wilder, who was widely known in the horticultural world.

CORRESPONDENT EASY ON RABBITS

Once-upon-a-time we had considerable trouble with rabbits girdling our fruit trees, but they never do this any more. We made two openings in an old building through which they may run freely; in this building we place enough alfalfa to feed them through the winter.

In the summertime when three or four hounds or less chase one little rabbit, he straightway heads for these runways and is soon safely hidden until all danger is past.

This pleases us very much for dog killing is not humane.

APPLETTE,
Sturgeon Bay, Wis.

JOHN G. CARGILL

Mr. John G. Cargill of Milwaukee, silk expert for the T. A. Chapman Co., died suddenly at noon December the 19th while eating his lunch in an East Water Street restaurant. Mr. Cargill lived at 2512 Clybourn Street, Milwaukee, and was connected with the Chapman Co. for forty-four years.

He was very prominent among horticulturists and botanists of Wisconsin and a great lover of flowers. He was a member of the State Horticultural Society and the Milwaukee County Horticultural Society. His loss is keenly felt by Wisconsin horticulturists.

TOOLE'S COLLECTION PERENNIAL SEEDS

$1.65 WORTH OF SEEDS FOR $1.00, POSTPAID

For those wishing to try growing a perennial garden from seed, I have selected a DOZEN VARIETIES THAT ARE NOT HARD TO GROW, AT THE LOW PRICE OF ONE DOLLAR FOR TWELVE PACKAGES OF SELECTED SEED. No change may be made in this collection at the price quoted. The collection contains ONE PACKAGE EACH OF ANTHEMIS TINCTORIA KELWAYI; CANTERBURY BELLS, mixed; FOXGLOVE, mixed; SWEET WILLIAM, mixed; HOLLYHOCKS, mixed; SHASTA DAISY ALASKA; DELPHINIUM GARRY-NEE-DULE MIXED HYBRIDS; COREOPSIS LANCEOLATA GRANDIFLORA; GAILLARDIA; BABY'S BREATH; PERSIAN DAISY; ROCKY MOUNTAIN SALVIA; ORIENTAL POPPY. VALUE $1.65 — FOR $1.00 POSTPAID TO YOUR DOOR.

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Garry-nee-Dule, Baraboo, Wis.

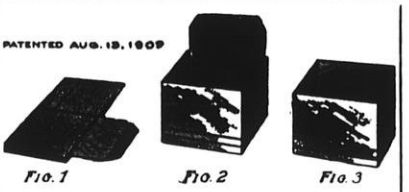

Fig. 1 *Fig. 2* *Fig. 3*

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Fort Atkinson, Wisconsin

(Continued from page 92)

little variation, but the actual operation of our plant proved very easy. The live steam is injected into the water to heat it to the proper temperature. We usually run the temperature up a few degrees higher than 110½ to commence with because when the bulbs are put in, the temperature drops several degrees and it takes sometimes half an hour to bring it up again.

When it reaches 110½ the live steam is shut off and the water is kept at the proper degree by being circulated through the boiler by the electric motor and the amount of steam used is controlled by valves of various sizes.

The weather has quite an effect on our plants. If it is a warm day it takes much less attention than it does on a cold day with a strong wind blowing.

At the expiration of 2½ hours, the bulbs are taken from the sterilizer and spread out on the barn floor to dry. We do not allow them to dry very long as we try to get them planted as soon as they are cooled off and dry enough to handle.

Inventing Planting Machinery

After sterilizing, our planting problem started again in the fall of 1926. We had been experimenting for sometime with our plow for opening furrows but it was sometime before we finally had much success. We still had to fall back on the old potato hiller but we kept tinkering at odd times with our new one. To look at, it is not a thing of beauty, but it solved some of our problems and brought some satisfaction. We had been planting ten or twelve thousand a day with the old plow but the day we started with the new one we planted over thirty thousand and the work was much easier and the bulbs were covered deeper.

This new plow is a wedge shaped affair which leaves a nice clean trench about four inches wide and seven or eight inches deep, making planting fast and easy, and the soil is mostly all pulled into the trench by the planter as he goes along.

We have learned to know our various kinds of soil and have had time to prepare it properly. Until this fall we used no manure but after considerable reading up on the subject and some arguments pro and con, this year we manured our field and worked it over several times during the summer to kill the quackgrass and thistles.

We planted our rows two feet apart this year. This takes up more land but it makes planting faster and we believe we will be able to cultivate with a horse and get much deeper cultivation and be able to control the weeds much better than we can with motor cultivators.

One important problem we have to solve yet is how to keep our bulbs from splitting up too much. We like good solid round bulbs for forcing and some of our varieties split up too much to suit us. European growers recommended deep planting to keep the bulbs from splitting too much. We are trying to find the proper depth to plant to obtain the results we desire.

We have also to study varieties. Our experience leads us to believe that we may have to discard some varieties. Golden Spur is a very desirable variety but I am afraid it would not be very hardy here and would split up badly. Von Sion is the old reliable double one and seems to do very well here with proper care. Bicolor Victoria has always been considered a fine variety but subject to disease, and it is a curious fact that this variety has proved our best grower and the bulbs almost entirely free from disease. Spring Glory is a beautiful bicolor but seems to be a shy bloomer. Emperor did well with us last year and was a beautiful sight when in bloom. We have planted several new varieties this year but of course will have to wait for results.

One of the embargo restrictions on imported bulbs is that after sterilization they must be planted outdoors and remain in the ground for two years before they can be lifted and forced or sold.

Covering Important

Covering the bulbs for winter protection is a very important operation. We learned this after an expensive lesson last winter. We abandoned straw last year and used marsh hay. This is where we gained our experience in covering bulbs. One carload of hay came in early and we got our bulbs nicely covered before Thanksgiving. Another carload came in January, and the soil had a nice coating of ice. That is not good for any kind of crop. I believe it will smother things out, and perhaps that was what hurt our bulbs. When the second carload of straw came we had to cover over the ice. The following year clearly showed just where we had covered early and where we did not get them covered until late. Those covered early came through and made a wonderful showing. Those covered late were almost ruined. This year we had our two carloads of hay come in during the summer and our bulbs are all covered up and nicely tucked away for the winter.

Last spring I felt it would be a good plan if we could drive on those fields to uncover the bulbs. If you have two carloads of hay it is quite a task to take it off, and if it all has to be carried off it is a big job. In the latter part of last March we started to uncover the bulbs. We got quite a nice patch uncovered when the ground got so soft we could not even walk on it, but those that we uncovered early were the nicest bulbs we had. The foliage was nice and green.

It is a mistake to leave the covering on too long. I do not

know what Professor Chambers says, but some of them had yellow tops. Golden Spur, for instance will come through fine, but I believe the bulbs can be injured by leaving the covering too long. We should pay a lot of attention to the uncovering in the spring and the covering as early in the fall as possible.

Summary for Growing Bulbs

In summing up my experience in the last three years, the results would be: select the proper soil not too sandy and certainly not heavy; let it go fallow and work it well during the summer; plow in a liberal amount of very well rotted cow manure and have it in a very fine, well worked condition at planting time; plant deep, four or five inches of soil over the bulbs is not too much; cover early with a fair covering of marsh hay. Forget your worries in the winter and as early in the spring as possible get the covering off.

IN THIS ISSUE

	Page
Growing Narcissus Bulbs in Wisconsin	91
Ripening Fruit and Vegetables with Gas	93
Observations of Tom and Alex	95
Orchard Costs and Profits	97
Outdoor Flowers for the Home	99
Prize Winning Photos	103
Farmers Week	103
Editorial Page	104
Potato Growers Department	106
Vegetables Varieties Recommended	107
Growing Cacti—Florists Dep't	108
About the Home and Garden	110
Pruning Demonstrations	112
Rust vs. Barberry—Hort. Troubles	114
Local Society News	116
New Rose Society Organized	116
Oshkosh Society Meeting	116
Milwaukee Club Features Rock Gardens	116
Gopher School Wins Medals	116
Easy on Rabbits	117

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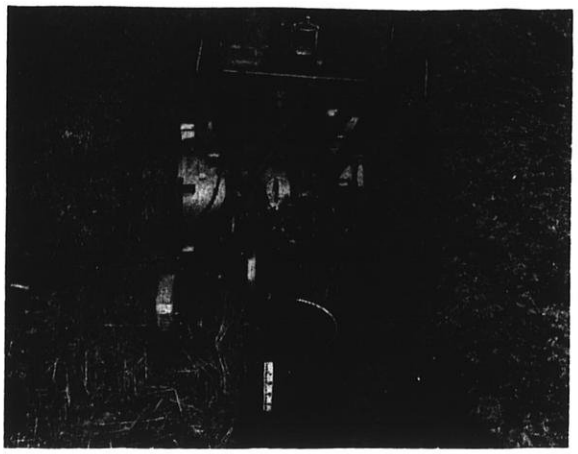

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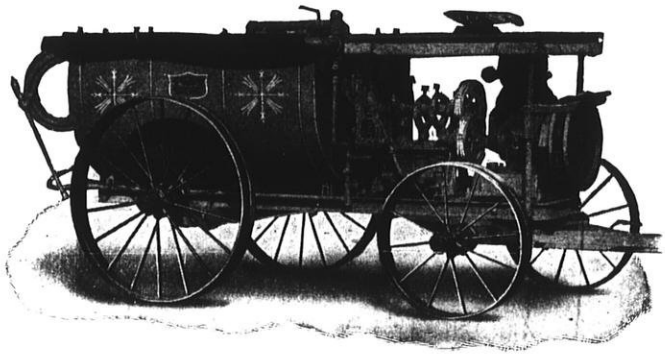

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WISCONSIN HORTICULTURE

Vol. XVIII FEBRUARY, 1928 No. 6

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TABLE OF CONTENTS

	Page
Management Methods for Raspberries	123
In Orchard and Garden Observations	126
Fruits and Vegetables in Winter Diet	127
Berry Growers Re-elect Chief	127
Hints for Raspberry Growers	128
Horticulture in Dunn and Eau Claire Counties	130
Outdoor Flowers for the Home	131
Mid-West Horticultural Exposition	133
Storing Gladiolus Bulbs	134
Vegetable Varieties	135
Editorials	136
Orchard Club Work	137
Millions for Advertising Apples	137
Origin of Green Mountains	138
Good Triumph Seed Growers	139
Fred Rentschler, The Flower Man	140
My Garden Flowers, Poem	141
Feeding Plants for More Blossoms	142
From Our Locals	144–145
Certification of Nursery Stock	146
Garden Club 69 Years Old	148
What the Market Wants	150

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Management Methods For Raspberries

Throwing the Spotlight on Michigan Plantations

V. R. GARDNER

IN THE spring of 1925 steps were taken by the Horticultural Department of the Michigan Experiment Station to make a growing-season field study of the raspberry industry in the southwestern part of the state. Several days were spent in visiting plantings in Allegan, Van Buren and Berrien counties. Some of them obviously were among the best, some obviously were among the poorest, and a still larger number were intermediate in character. Naturally we picked out plantations owned by individuals who seemed interested in the work we contemplated doing.

Practically all of the field observations were made by Mr. A. H. Teske.

ESTABLISHING THE RASPBERRY PLANTATION

The figures on Table 1 show approximately the cost of establishing a black raspberry plantation. We found that the different fields ranged from 680 to nearly 2,000 plants to the acre, depending on the planting distance, and that the average price paid for the plants was about ten dollars per thousand, or a cent a piece. The actual cost of plants for the several fields therefore ranged from $6.80 to $18.67 per acre.

The average costs of preparing the land before planting were: $3.00 for plowing, $1.20 for discing, $1.20 for harrowing, and $0.90 for furrowing out for the plants. The actual cost of planting varied somewhat from field to field, depending largely on the planting distance, but it averaged about $8.00 per acre.

TABLE 1

Establishment and Depreciation Costs.

	Low	High
Plants	$6.80	$18.67
Plowing	3.00	3.00
Discing	1.20	1.20
Harrowing	1.20	1.20
Furrowing	.90	.90
Planting	8.00	8.00
Hoeing	9.00	9.00
Cultivation	8.10	8.10
Cover Crop	2.80	2.80
Supervision	5.00	5.00
Interest	5.25	14.00
Taxes	1.75	3.00
	$53.00	$74.87
Depreciation per year	8.83	12.48

(Assuming that the field is good for six years of bearing)

The maintenance costs for the remainder of the season averaged: Hoeing, $9.00 and cultivating, $8.10. Where a cover crop was sown (and many were found to use cover crops) the cost of the seed and seeding was about $2.80 per acre. A uniform supervision charge of $5.00 per acre was figured for each field. Most of these plantings were on land ranging from about $75.00 to $225 an acre in value. The interest charge on investment in land and on the expenses that had been involved up to the beginning of the second season amounted to $5.25–$14.00 per acre; taxes ranged from $1.75–$3.00 per acre.

There is, of course, considerable variation in the length of time the raspberry plantation will be maintained. We did not find, however, very many more than seven or eight years old. Most of them go out after four, five, or six seasons of cropping. We found one planting at the beginning of this series of records that was fifteen years old and still hitting a pretty strong pace, but that was the exception.

Our observations and what we gained from talking to a number of growers leads to the belief that the average length of life of the raspberry plantation is six years after it once comes into bearing. That would make it seven years from the date of planting before it actually goes out.

If the cost of developing a

raspberry plantation and bringing it up to the bearing age is $53.00 and it lasts six years, we have an annual depreciation charge of one-sixth of that amount, or $8.83, as a part of the annual cost of production in that field. If development costs are more, the annual depreciation charge is correspondingly higher.

In this group of fields depreciation charges have ranged from $8.83 to $12.48 per acre annually. It should be emphasized that these depreciation charges should be figured as a part of the annual cost of production just the same as cultivation or pruning costs, because at the end of the six years of bearing the plants are destroyed and there is nothing left to show for the investment. Many growers do not realize the sizeableness of this item in their cost of production.

Yields and Production Costs

In Table 2 are presented 1925 yields and production costs for a few of the twenty-eight fields for which we obtained detailed records. Yields are given in terms of 16-quart crates per acre. They ranged from three crates in one plantation to 74 in one of the others.

TABLE 2

Yields and Production Costs in 1925 of Selected Fields, Reduced to an Acre Bases (16 quart crates per acre).

Field No.	Overhead Costs	Current Maintenance	Harvesting Costs	Total Cost per Crate
1	$27.90	$26.88	$10.36	$4.71
2	26.60	12.26	5.24	6.23
3	24.67	39.19	36.45	2.09
4	31.45	37.92	1.55	22.29
5	24.56	15.97	19.94	1.55
6	24.64	27.29	34.59	1.26
7	30.66	57.05	47.38	2.08
8	34.52	33.88	33.87	1.81
9	25.18	87.81	25.91	3.14
10	25.28	62.44	9.95	4.91
11	30.25	21.79	28.19	1.49

There are two striking things about the yield data. The first is that the maximum is so low. The second is that the range is so great from 3 to 74. That is almost a twenty-five to one difference in yield.

The figure in the second column gives the overhead costs for the 1925 maintenance of these individual raspberry fields. These include the depreciation charge to which I have just called your attention, interest, taxes, and a supervision charge of $5.00 an acre. Notice that these overhead charges range from $24.56 to $34.52.

There are two things of interest to point out in connection with these overhead costs. First, they seem rather high. Perhaps this is because many growers do not realize their nature. They think of taxes, interest and insurance, as being levied against the entire farm. So they are, but in the last analysis each and every part of the farm has to pay its share. The second, and perhaps the more important thing about these overhead charges, is their uniformity. They range only from twenty-five dollars per acre per year. Why? Just this: Whether or not the field yields satisfactorily, overhead costs go on.

The man who produced only three crates to the acre had an overhead cost of $31.45 on those three crates. Ten dollars a crate was what that man was paying in the way of interest charges, taxes, insurance, depreciation and supervision for those three crates of berries. A rather surprising and challanging fact! On the other hand, the growers who were producing 70–75 crates per acre were not paying any higher overhead per acre, though reduced to a crate basis it amounted to only about twenty-five cents.

Too Much Cultivation

Current maintenance costs include the cost of pruning, cultivation, hand hoeing, fertilizers, if they are applied, and a few other incidentals. The figures ranged from a little over $12.00 to upwards of $87.00 to the acre. These are relatively enormous differences.

The fact that the $12.00 maintenance cost was associated with the 7 crate yield and the $87.00 cost was associated with the 44 crate yield might lead to the inference that the one man was not giving his plantation sufficient care. The question may be raised, wasn't the other man giving his plantation too much care, especially in view of the fact that in the last field listed in the table, a $22.00 maintenance cost was associated with a 74 crate yield? As a matter of fact, the man with the $87.00 maintenance cost was spending 100 horse-hours per acre in cultivation.

The owner of Field No. 5 spent 14 horse-hours per acre in his cultivation. The ratio between this man's cultivation cost and that of No. 9 is seven to one. The current expense of Grower No. 11 to produce a 74 crate crop was less than $22.00 and his cultivation amounts to 24 horse-hours per acre.

If 24 horse-hours per acre will produce a 74 crate crop it may be questioned if it is necessary to use 100 horse hours to the acre in any raspberry plantation. The difference in the amount of time required to prune their plantations was almost as extreme.

The harvesting costs for these several plantations are given in the fifth column of the table. Naturally the harvesting costs follow the yield pretty closely because in most cases the berries are picked at so much per crate. In the righthand column are fig-

ures showing the total costs per crate—including overhead, current expense, and harvesting costs. They range from $1.26 to $22.26. The average selling price per crate in 1925 was $2.25. Number 4 lost about twenty dollars a crate on every crate of raspberries that he produced and Number 5 made about a dollar a crate on every crate of raspberries he grew.

TABLE 3

Yield and Cost Records of Grower No. 21, Season of 1925, reduced to an Acre and a crate basis.

	Total per acre	Total per crate
Depreciation	$12.49	
Other Overhead	20.50	
	32.99	1.55
Current Maintenance	18.33	.80
Harvesting		.87
Total	72.92	3.22

Yield—22.6 crates Selling price—$2.52 per crate

Individual Cases Show Wide Variation

Table 3 presents the 1925 record of one grower not listed in Table 2. He was grower No. 21 on our record sheets. His depreciation charge for the year was $12.49 per acre. Supervision, taxes, insurance and the interest on his investment amounted to $20.50, making a total overhead charge of $32.90 per acre. His cultivation, hoeing, pruning and other current maintenance costs amounted to $18.33 per acre. His total production costs, therefore, up until the time of harvesting, were a trifle under $73.00.

It cost $87.00 to purchase crates, harvest the crop, and deliver it at the station platform. His total production cost per acre was $3.22 because he was only producing 22.6 crates to the acre and his selling price was $2.53 a crate. He was losing seventy-five cents a crate on every crate of raspberries he was producing—and at that he was doing better than some of his neighbors.

Were he to get $3.50 instead of $2.50 per crate for his berries he would have been able to make a little profit, but he had to sell at prevailing prices. If grower No. 21 is to produce raspberries at a profit, obviously he will have to obtain more than 22 crates to the acre. In other words if he is to sell at $2.50 per crate and depreciation, overhead and current costs remain about as they are (his were about average in that respect) he will have to produce 33–35 crates to the acre to meet expenses. Only when his yields rise above that figure is he in a position to make something of a profit.

Next I want to call attention to the 1925 and 1926 record of grower No. 24. His depreciation cost was $14.00, more than the depreciation cost of No. 21. This is because his plants were a little closer together. His other overhead expenses were $20.19 per acre, making a total of $34.19, practically the same as that of No. 21. His cost of cultivation, spraying, pruning, etc., was $24.73 per acre, making a total production cost, including harvesting, or $74.66. Reducing this to a crate basis, current maintenance was $1.46, overhead was $2.02 and harvesting cost was $.94, making a total of $4.42 for producing a crate of berries in 1925. This is high, but he only produced 17 crates to the acre. He sold for $1.87 per crate and you can see about how much money he was making.

The 1926 record of this field was entirely different, however. Depreciation cost was the same; the same amount of money was invested and, therefore, the interest charge remained the same; supervision was likewise the same. In brief the acreage overhead cost in 1926 was almost identical with that of 1925, $34.51 and $34.19, respectively. But he did do a better job of cultivating, and perhaps more spraying and fertilizing. Anyway, he spent almost twice as much in 1926 as in the preceding year to take care of his plantation. In 1926 he harvested 128 crates of berries from an acre, at a cost of $.70 a crate. On account of heavy yield, even with overhead cost the same per acre, his overhead cost per crate was $.27, instead of $2.02, a seven to one relationship. His current expense per crate, even though he spent twice as much per acre, was $.35 instead of $1.46. His total overhead, current maintenance and harvesting charges per crate in 1926 were $1.32; his selling price was $2.71; leaving him a net profit—over and above all interest charges, production costs and depreciation charges, of $1.40 per crate. One season he lost about$2.50 a crate and from the same field in 1926 he made $1.40.

This enormous difference in profit and loss was not due to a difference in overhead costs the two seasons, nor was it due to a difference in current maintenance costs. As a matter of fact it cost him more in 1926 to cultivate, hoe, fertilize, spray, etc., than it did the year before. The difference was due to a difference in yield.

The explanation for this difference in yield and the consequent difference in the cost of production is a difference in the amount of frost and winter injury to the plants. The plantation owned by grower No. 24 is in a frosty spot, subject to winter injury. The plants came through the winter of 1924–25 in bad shape, with a lot of killing of buds. Then followed the killing of the buds that opened, by a couple of spring frosts, with the result that the yield was far below what it should have been. The winter of 1925–26 and the spring of 1926 was favorable from the standpoint of frost damage, and even in such locations vigorous plants produced a full crop of berries.

(Continued on page 129)

In Orchard And Garden

Observations of Tom Ato and Alex Ander

Dear Mr. Rahmlow:

THIS fine weather is sort of getting us excited and making us feel as though we ought to begin to get our plans shaped up for next season.

We've been a little slack in looking after the old orchard because we kind of felt it wasn't worth while. Down at the Convention, though, we heard about the spray ring and home orchard spraying. We decided we were going to find out the straight of it, so we went to see Prof. Kuehner. Well, if you have any doubts about whether it pays or not, you just ought to see the figures he paraded before us of what some of these fellows have been doing.

Here's a sample (he's got a lot of others just as good) by a fellow named Davitz who lives in Milwaukee County. He has thirty-five apple trees. In 1926, a fruit year, he got twenty bushels of apples that weren't so good. He sold fifteen bushels for $18.75 and kept the other five to eat. This year, which you know wasn't a good apple year, he got eighty-five bushels of apples. He kept his five bushels to eat and sold the rest for $160. It cost him $10 to do the spraying which was largely to blame for giving him this $140 bonus.

Tom and I have decided that we're either going to join a spray ring or else buy a machine of our own and coddle the old orchard a little bit more from now on.

The other day I noticed Tom looked rather solemn, as though he were trying to do some thinking. When I asked him what was the matter he replied, "Well, you know this is about the time a fellow should be planning his vegetable garden for next summer, and I'm just trying to figure out one or two little problems. There are lots of folks who sort of poke fun at a fellow who makes a garden on paper, but I find it pays. The smaller your garden the more necessary it is. I find it adds interest to my gardening when I try to plan it so I grow more and better crops each year. Of course, one has to do some thinking, but then it doesn't hurt any of us to do a little of that about the things we undertake.

Ten Dollars Makes $140.
Tom Makes a Garden
New Raspberry Varieties
Good Bye Worms
Healthy Raspberry Plants
Fine Pruning Weather
What Variety Strawberries

Tom says he takes a piece of wrapping paper and makes a line which represents the length of his garden at right angles to the direction of the rows. He lets one inch on the paper equal four feet in the garden. He makes out a list of the vegetables he wants to grow and the number of rows of each. Then he arranges these crops at the proper distances along the line. He places together all the crops that require little space, and take most of the season to develop, like onions, parsnips, vegetable oyster, late beets and late carrots. Then he works in his cabbage, cauliflower, eggplants, tomatoes, corn, celery and late beans until he has the garden full. If it doesn't come out right the first time he tries again.

Sometimes he wants more than he has room to plant, but he says he's found he wants more and can get more than he did before he began making garden plans.

His radishes, lettuce, early beets, early carrots, green onions, spinach, peas, and early beans are worked in between the rows of the other crops. In some cases where one crop is very early, like radishes, and another late, like celery or Chinese cabbage, he plants them right in the row where the late one is to be planted later.

I guess that is making two blades of garden sass grow where one grew before.

I've often wondered how Tom got so much truck off his little garden, but I can see now that it isn't because he grows things so much better than the rest of us, but because he gardens with his head as well as his hands.

I see the New York Fruit Testing Cooperative Assocation is offering six new varieties of red raspberries, five of which were originated by the New York Experiment Station.

June, one of the early varieties, has been awarded the Wilder medal by the American Pomological Society. It is reported as hardy, vigorous, productive and of good quality. If hardy under Wisconsin conditions, it might make a good addition to our list.

Herbert, another of the list, has been tried out a little in Wisconsin and has been quite satisfactory. The Horticulturists of the New York Station consider it one of the best grown on their grounds, claiming that it is an unusually heavy yielder and quite resistent to mosaic.

If we judge correctly, the other varieties do not seem to be of much promise for growing in this state.

The other day I noticed that the soil in which one of our house plants is growing looked wet and soggy. I couldn't understand it because I knew the plant had been given good drain-

age when potted. On slipping it out of the pot, I saw that angleworms were working in the soil. I put it back; got a piece of stone lime about as big as a good-sized hickory nut, slacked it, and added enough water to make one quart. After the lime had settled, I poured off the clear lime water and watered the plant with it. I found that it meant good-bye to the worms.

We are going to increase our red raspberry plantation this spring. We were a little afraid that it would be hard to get mosaic free plants, but Mr. Chambers, the State Entomologist, tells us that there are plenty of healthy plants to be had, both red and black. This ought to encourage some of the fellows who quit because of mosaic, to get into the game again.

It has been such fine weather that we have just about got all our pruning done. That goes for small fruits as well as the fruit trees. It's been just as nice weather for pruning as it usually is in the spring, and if spring work comes all in a bunch, as we find it's likely to do, we've one good sized job out of the way. Then besides, we were able to take our time at it, and think it was a better job than we do when rushed.

A neighbor asked me the other day what varieties of strawberries are the best to grow. That's a very hard question to answer, as I find one grower says this and another says that, and I've just about come to the conclusion that it's more a question of conditions under which they are grown than it is differences in the men who grow them.

I talked to one grower the other day and he's still growing Brandywine. Why, that variety is so old and so little grown that a lot of growers never heard of it. But it makes the dollars for this grower and I guess we'll have to admit it's the variety for him.

Dunlap, which has been the popular variety for so long seems to be slipping a little. Not so long ago a fellow who didn't grow Dunlap was considered a bit queer, but quite a few of the boys tell me they don't grow it anymore. You can't count Dunlap out or even near out yet, however.

About the most interesting thing I've heard about strawberries in the last few months is the way Premier is coming to the front. Possibly you haven't heard that a car of Premier shipped into Duluth from Warrens last season topped the market and was said by a Duluth commission man to be the best car of berries ever received there. I've talked to some Minnesota growers, and they are for it. So I suppose if one hasn't done so already, he ought to try it out and see if it's adapted to his conditions.

Tom has been sort of off his feed lately, and that's the reason I had to write all of this letter.

Yours,

ALEX.

(Fresh fruits and vegetables should fix Tom up. "Say it with Flowers," and he may be back with us next month.—Editor.)

BERRY GROWERS RE-ELECT CHIEF

Wisconsin Rapids, Wis., Jan. 4. — (A. P.) — Albert Hedler, Minneapolis, was re-elected president of the Wisconsin Cranberry Growers' association at the annual business session here Tuesday afternoon. Other officers re-elected are Guy Nash, Wisconsin Rapids, vice president; Miss Clare Smith, Cranmoor, secretary and treasurer; Mrs. A. C. Otto, Wisconsin Rapids, M. O. Potter, Cranmoor, directors.

A. E. Bennett, Cranmoor, was re-elected president of the Wisconsin Cranberry Sales company Tuesday morning at the annual meeting here. Joe Bissig, Wisconsin Rapids, was named vice president, succeeding M. O. Potter, who was not returned to the board. Frank Wood, Wisconsin Rapids, was re-elected treasurer, and Miss L. Case, Mather, was named secretary. Other directors are S. M. Whittlesey, Cranmoor; Oscar Potter, Mather; Charles Lewis, Shell Lake. Oscar Potter succeeds his father, M. O. Potter, on the board.

Charles Lewis and A. E. Bennett were chosen state delegates to the annual National Cranberry Exchange convention, New York, in April.—Milwaukee Sentinel.

FRUITS AND VEGETABLES NEEDED FOR WINTER DIET

South Dakota Agricultural College

Vegetables and fruits are as a group one of the most necessary foods. They contain minerals like iron, lime, phosphorus, sulphur, vitamines, water, cellulose, carbohydrates, and some protein.

We do not know much about vitamines, but we do know that they are substances found in fresh fruits and vegetables, milk and egg yields and that they are absolutely necessary to keep the body in a good healthy working order and enable it to grow.

Because of the regulatory substances found in fruits and vegetables, they are essential in our diet and especially during the winter months when we are inclined to eat so much meat. Tomatoes and leafy vegetables are especially valuable in the diet as fresh fruits are rather expensive. Canned tomatoes compare very favorably with

(Continued on page 130)

Hints For Raspberry Growers

J. G. SEIDEL

IN ORDER to grow a good crop of raspberries we must first select the proper soil. Any well fertilized soil that is not too heavy will be all right, sandy loam being most desirable. We prefer fall plowing, about 7 inches deep and in the spring we drag it and plank it both ways. We are then ready to set out the plants.

It requires 2,000 plants to set an acre. We have our rows 7 feet apart, and the plants are set 3 feet apart in the row. I will give you the cost later. We use a spoon shovel and two men. The man with the shovel takes up a good sized shovel-full of dirt. Be sure that it is deep enough to put the roots down. He tramps these in with the foot, lightly.

Soon after we have them planted we begin cultivating. We start out with a drag tooth and after going over them several times we go in with a 5 tooth Junior cultivator. They should be cultivated once a week and after every heavy rain. Hoeing is a small item in my opinion. I do not think we hoed more than once or twice.

Now, soil for raspberries must be well drained and should follow a potato crop which leaves it in the very best condition. It will not need any fertilizer until the third year, when barnyard manure or commercial fertilizers should be given.

The most important item in handling the Latham red raspberries is to put them down in the fall. Bend the plants over and put a little dirt on them. Always do that because it is not safe to leave them up. You do not know what the winter is going to do to them.

You may wonder how a physician can run a berry farm and get away with it. It has even been asked me. Well, I told them, work on the farm in the daytime and practice medicine at night.

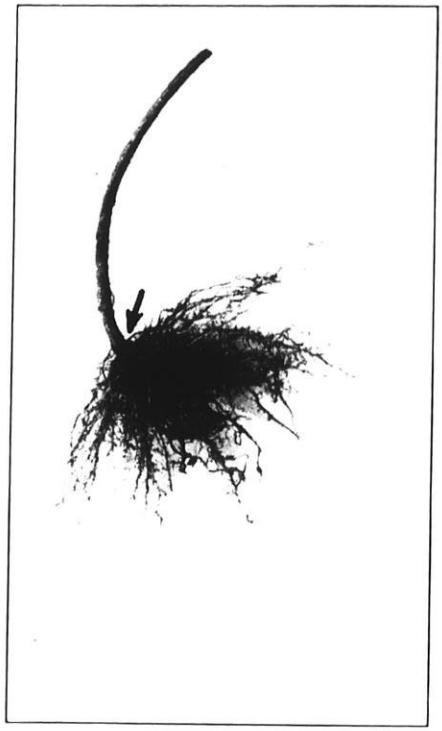


FIG. 2.—A BLACK RASPBERRY "TIP" READY FOR PLANTING

As the old stem is likely to carry disease it is a good plan to remove it at point indicated by the arrow.

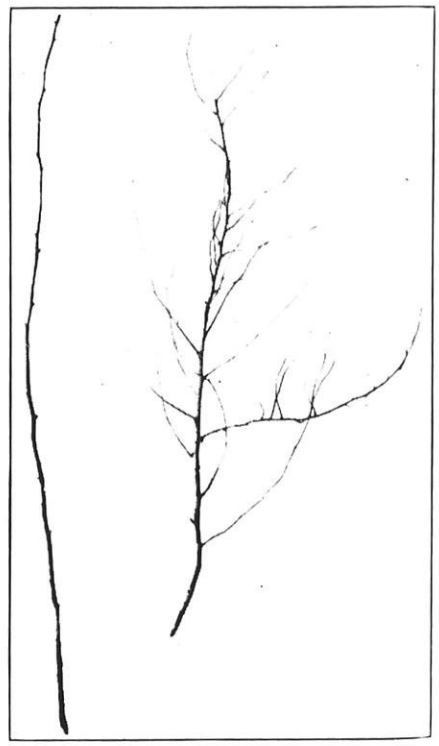
Now, here are a few "don'ts". Do not try to raise raspberries on sandy soil unless you have overhead irrigation. You must have water at the proper time, and plenty of it. Don't try to raise strawberries or raspberries without giving them proper care. They absolutely must be taken care of at the right time and in the right way. Always ask for instructions from the state.

In regard to the cost, first, we estimate the cost of the plants which at the present time are rated at $25.00 per thousand, an acre requiring 2,000 plants. This will amount to $50, but you may get them cheaper. Hoeing, planking and marking $3.00; setting the plants $2.00; cultivating during the season $7.00; hoeing during the season $6.00. I do not add the cost of putting down the plants in the fall, as it is a small item that amounts to $68.00 in all and you have your first year's setting all done and ready for the spring.

Now, the next year is another question. I do not go further than the first year. The second year you will have quite a crop of berries, and may get some the first year—nice large, luscious, raspberries, enough for home use or more. The cost after that, of course, depends upon the season and prices and all the other items that enter into it.

Q. "Do you do fall or spring planting?"

A. "Spring mostly.



RED RASPBERRY

The fruited cane (right) should be removed immediately after the crop is harvested.

MANAGEMENT METHODS FOR RASPBERRIES

(Continued from page 125)

The record of this one field will serve to bring out the fact that the most important point in the production of raspberries, from the standpoint of commercial success, is location. If the field is located where crops are possible year after year there is a fairly good chance of making a profit.

Wide Spacing Gives Poor Yields

It was stated that the number of plants per acre in these twenty-eight fields ranged from 680 to 1,867, depending on the planting distance. The first and third columns in Table 4 give the actual number of plants per acre in a number of these plantations and the second and fourth columns record their 1926 yields. The widely-spaced plants were just as well cared for as those that were more closely planted; they did not have any more disease; they were on just as good sites and just as good soils.

TABLE 4

Relation of Number of Plants to Yields in 1926.

No. plants per acre	Yields in crates
517	36.1
605	6.8
842	51.2
860	27.1
916	16.7
940	93.0
947	58.5
998	37.8
1020	38.0
1044	115.1
1085	43.6
1090	78.5
1100	30.3
1114	43.4
1141	107.1
1196	101.0
1205	121.6
1292	28.6
1303	81.4
1317	64.9
1322	38.3
1328	55.7
1339	50.1
3193	89.8
1742	128.3

It is obvious that with wide spacing it is impossible to obtain as high yields as is possible from fields where the plants are set closer together.

Other tables have been constructed (though they are not included here) arranging the different fields in order according to the average number of plants per hill. They show that yields drop off decidedly from the large number of canes (4 to 5) to the hill to the small number of canes to the hill (1 to 2).

It is clear that if a field is to yield satisfactory returns it must have from 1,500 to 2,000 hills to the acre and then be so handled that the plants average from three to four good fruiting canes to the hill instead of two to three, as is found in a great many instances.

Deep Cultivation Ruins Crop

We ran across one rather interesting demonstration in cultivation methods in 1925. There were two fields, Nos. 19 and 5 in our records, on the same kind of land and of the same age and variety. Mr. Teske, who had been visiting these plantations week after week, had them classified as being about on a par. One had as good a chance of returning a profit as the other. On one of his inspection trips he noticed that the plants in the one field were looking rather queer. It was at just about the close of the blossoming season, there still being some blossoms on the plants, some half formed berries and some just setting. There was a kind of yellowish cast on the leaves that he had not noticed before. He wondered what had happened to cause the sudden change from the way it appeared two or three days before when the foliage was a rich, healthy, normal dark green. He noticed that the field had just been cultivated and asked the owner what kind of cultivator he had used. He replied that he had used a disc. This aroused Mr. Teske's suspicions and he dug down around the plants to see what had happened. He found that there were many roots the size of a lead pencil that had been sheared off by the disc. Within four or five weeks the leaves gradually recovered their normal, healthy appearance, but it yielded only 31 crates to the acre. Field No. 5, nearby and with which it was strictly comparable, yielded 61 crates to the acre.

He suggested to the owner of No. 19 that another year he cultivate very shallow at that season because of possible injury to the roots. In 1926 this same field produced 64 crates to the acre. Just that one deep cultivation at a critical period cut his crop in two. Few would expect that a single deep cultivation would have so great an influence.

In all probability the same kind of cultivation in any other kind of fruit plantation at a corresponding stage is likely to have the same effect. Naturally some fruits are more sensitive than others, but deep cultivation at that season of the year is dangerous.

Disease Cuts Yield

Every plantation was examined carefully and mapped from the standpoint of disease. When a diseased plant was found it was marked. Some fields were found to have less than one per cent and some had all the way from 5 to 12 per cent of their plants diseased.

The average 1926 yield of the 10 cleanest fields, that is, cleanest from the standpoint of disease, was 69 crates to the acre. The average yield of the 10 fields that had the most disease was 43.5 crates to the acre. Disease may not have been responsible for all of that difference in yield, but certainly it was a factor of commercial importance in this group of plantations.

THE SITUATION SUMMARIZED

Beyond all question yield is the important thing in determining the commercial success of the raspberry plantation. The grower must obtain heavy yields if he is to realize a profit.

What determines yield? First and foremost, site, where the field is located from the standpoint of winter and frost injury.

Second in importance to site is soil. There must be deep, reasonably fertile soil to produce heavy crops of berries.

Third, planting distance and number of canes.

Fourth, healthy, disease-free stock.

DISCUSSION

Q. Do they ship any distance?

A. Well, they ship to Detroit and Chicago. They ship the crates by truck to both places and some go by boat.

(Continued from page 127)

such fruits as oranges and grapefruit.

The diet should contain two servings of vegetables every day besides potatoes; one of vegetables and leafy vegetables at least twice a week; two servings of fruit every day. If possible, at least one of the servings of fruit or vegetables should be in the form of cannel tomato, or it should be raw.

If you want something different in the way of vegetable dishes try the following:

BAKED CABBAGE AND TOMATOES

3 c. boiled cabbage
1½ c. well seasoned stewed tomatoes
1 c. bread crumbs
1 c. ground cheese
2 T. butter
Salt and pepper to taste

Butter a baking dish, put in a layer of tomato and then one of cabbage. Sprinkle with cheese and then with bread crumbs. Continue this way until all has been used, making the last layer bread crumbs. Dot top with bits of butter and bake in a slow oven for about 30 minutes.

Horticulture In Dunn and Eau Claire Co.

GEORGE MOSEMAN

DUNN and Eau Claire Counties have more or less rough land, which, if planted to good fruits, would help to make up the shortage of crops this year, or any other year, and bring good returns to the growers.

My twenty-five years' experience as nurseryman and fruit grower at Lake City, Minnesota, and Menomonie, Wisconsin, have proven these possibilities. Proper air drainage, location, pruning, protection and spraying are essential. Blasting the holes where you have hard pan, or shale, gives the tree a chance to become well anchored and will not be uprooted so quickly.

A low and closed crown, you will find, goes a long way toward protection from sunscald and at the same time simplifies picking the fruit. The outstanding apples for us are: McIntosh, Menoman, Golden Malinda, Northwestern Greening, Haralson, Wealthy, Snow and Delicious.

In plums the outstanding is Underwood, which is large and ripens early in August, is a good shipper and of the finest quality. It sold at 15¢ per quart this year. Red Wing plum, 1¾ inches across, of high flavor, beautiful in color, firm flesh, demands a good price. Minnesota No. 1 Pear and Pattons pear, though not numerous as yet, are doing well.

There are also many people in this section growing grapes successfully and profitably. Beta and Alpha require no covering, while Niagara, Lucile, Concord and Campbells Early are very choice but must be protected. Earth or corn stalks are suitable for this purpose. If the vines are properly pruned, a great deal of labor in connection with covering them is eliminated. Always prune back, in the fall, to two or three buds of the season's growth. Watch for sport sprouts during the growing season and always keep them pinched off. The more strength you can put into your fruit, the larger and better it will be. Since everybody is talking apples, it might be well to add that grapes are a profitable crop and should not be forgotten.

Regarding the landscape and planting of trees, shrubs and vines, (which should be planned ahead to get desired results) I might say that this is being done very successfully both spring and fall. Trees and shrubs must be headed and pruned back to give your roots a chance. If this is not done, there usually is disappointment and loss.

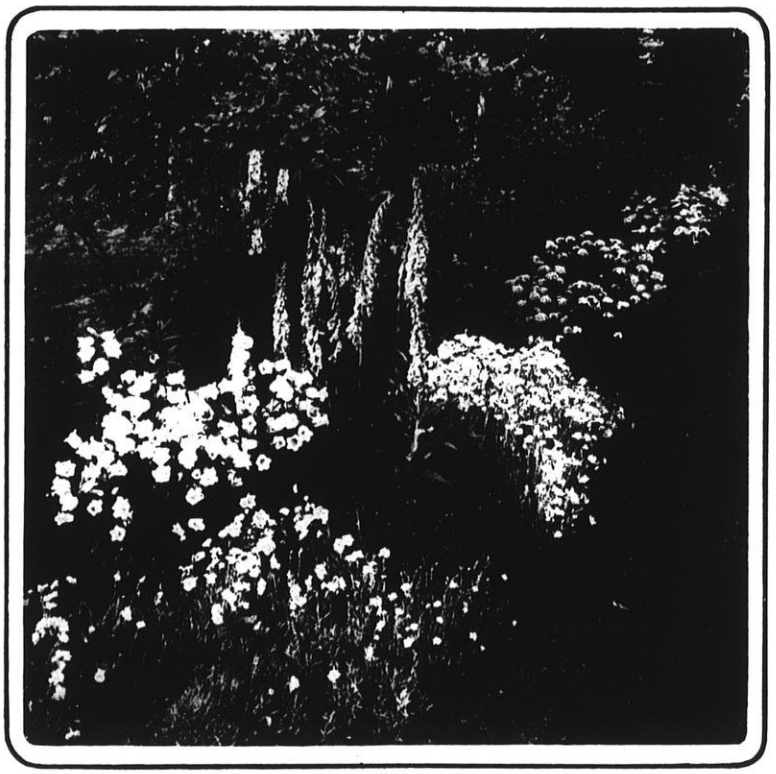
Unless your soil is in perfect condition and the plants kept cultivated and watered well, the most desirable grades to buy are trees from 6 to 8 feet and up. In shrubs and evergreens, specimens are most satisfactory. The cost in the beginning is a little more but more profitable in the long run. Perennials if planted in the fall, should be mulched with coarse material and see that the ground freezes moist before covering. Evergreens balled in earth, trees and shrubs will require no covering if planted in the fall but should be kept well watered just before the freeze. If the above is adhered to, you will receive far superior results over spring and at least one half years gain in growth.

After all is said and done, I am forced to believe that northwestern Wisconsin is trying to be recognized, taking varieties adapted to our territory into consideration as being equal.

Outdoor Flowers For The Home

Ideas for Creating a Home Grounds Picture

J. G. MOORE



ATTRACTIVE LAWN BORDERS CREATE INTEREST AND IMPROVE APPEARANCES
Both perennials and biennials help make possible this attractive feature of the home

(Continued from January)

IN ORDER that I may make myself perfectly clear, I desire to designate three different types of flower beds—types not necessarily differing in their composition, but rather in their location. Let us take first the bed in the open lawn area. You know what I mean, the red geraniums or tulips in a bed in the center of the lawn. Personally, I believe that flower beds so located are entirely out of place on home grounds and for that matter, frequently on the grounds of public buildings. The artist has dropped a blotch of bright colored paint on his otherwise beautiful greensward. My advice, therefore, would be, keep your flower beds out of the open lawn area.

The second location in which we see flower beds is the openings at the union of walks or of drives, and as borders along a walk or drive. As a rule this sort of planting is also undesirable. Occasionally conditions in the back yard may warrant the location of flower beds at such points, but in a majority of cases a careful study of the situation would reveal a more desirable solution.

The third location is between shrub plantings in lawn borders. Even here I think that dispensing with the bed and using the flowers as adjuncts to the shrub plantings would give better results. However, if properly handled a flower bed in this location need not be objectionable and under certain conditions might be desirable. For example, an irregularly outlined bed of peonies, displayed against a vine covered fence could very well fit harmoniously into a landscape picture.

You have already discovered that flowers in beds must be handled very carefully if best effects are to be secured. If at all doubtful as to the desirability it is probably better to omit the bed or make a combination planting of flowers and shrubs.

WINDOW BOXES NEED CARE

Porch and window boxes have been increasing in their popularity in recent years. There is no gainsaying the fact that a porch or window box in which a good selection of plants have been placed and properly cared for adds much to the attractiveness of a residence, and frequently are used to good advantage on public buildings. Before venturing on this use of flowers, however, one must be quite certain that he is in a position and has the disposition to give very careful attention to the plants. The cultural conditions are usually not very favorable. Constant and intelligent care must be given to keep the boxes in first class condition. A porch or window box which is not in good condition becomes at least as efficient in detracting from the appearance of residence as a good one is in improving the appearance.

It was my fortune to judge a porch box contest last summer, and I remember distinctly one entry where in my opinion the appearance would have been much better had the boxes been removed.

Scraggly, sick-looking peri-

OLD FASHIONED BUT FAVORITES ALL

The fairy delicacy of the Shirley poppy, the stateliness and grace of cosmos, the wealth and brilliancy of color of the zinnia, the suggestion of "olden days" of the "pinks". Who can resist their charm or willingly forego the pleasure of their companionship?

*Photo by courtesy of L. L. Olds Seed Co., Madison, Wisconsin.

winkle, defoliated geraniums, with variously colored tufts of blossoms, boxes sadly in need of service of the carpenter and painter, do not form a combination over which one is likely to enthuse greatly.

Color Combinations

We have heard a great deal about the observance of the rule of color harmony in use of flowers. I am for it. In fact, I insist upon it. My only difficulty is in knowing just what it is. Some evidently are endowed with or have acquired a sense of color harmony which fits reasonably well with the accepted rules. Others of us seem to have been overlooked when that commodity was distributed. As a result there are times when we are hopelessly lost. A few suggestions may help some one with this perplexing problem. I am inclined to think that one of the best rules to remember when making combinations of flower color is "make liberal use of white in your combination". Less difficulty is likely to be encountered when delicate or subdued tints are used. Use strong colors sparingly, and unless you are sure of their harmonizing, separate two such colors with white or place them at some distance from each other. There are, of course, other more complicated rules but these three simple ones will do for a beginning.

The value of out door flowers is not confined to making the home grounds picture more beautiful. While they may serve a larger function in that connection they are almost a necessity for adding cheerfulness to the interior of the home. A cutting garden is desirable for furnishing an abundance of material for this purpose. Many flower enthusiasts, especially those living in the city may not have space available for such a garden, and will be forced to depend upon the flower borders for a supply of cut flowers. There is one word of caution when this is the case. Be careful in taking flowers from the border that you do not impair the attractiveness of the out door planting.

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I love flowers in the house, but I think I get even more enjoyment from them when they are growing in the proper setting out of doors.

The kinds of flowers available for these various purposes are almost legion. If a beginner, select those of easy culture and most likely to succeed. As your skill increases, add to your collection some of the more difficult and less certain. The difficulty of growing a certain species tempts us to try it. When at last we learn its peculiarities and overcome its obstancies and succeed, the thrill of having accomplished the difficult amply pays us for the hard labor and the failures which seemed to be necessary in order that we might ultimately enjoy the acme of success which may come to a grower of flowers.

A MORNING GREETING

Place some of your flowers so that you can enjoy them from within the house. These larkspurs must fairly shout a cherry "good morning" when viewed from the breakfast table.

MID-WEST HORTICULTURAL EXPOSITION

THE Seventh Mid-West Horticultural Exposition is to be held at Cedar Rapids, Iowa, November 14 to 17, inclusive, 1928. Wisconsin fruit growers, vegetable growers, florists and beekeepers are cordially invited to attend and make exhibits at this exposition. Around $7,000 in cash premiums will be offered.

R. S. HERRICK, Sec.-Treas.

STANDARD GARDEN TRACTOR

Plows Seeds Cultivates Mows Hay and Lawns

A Powerful Tractor for Small Farms. Gardeners, Florists, Nurseries, Fruit Growers and Poultrymen

DOES 4 MEN'S WORK

Walking and Riding Equipment. Does Belt Work.

Free Catalog

STANDARD ENGINE COMPANY

3241 Como Ave. Minneapolis, Minn.

GLADIOLUS BULB BARGAINS

4 Willie Wigman bulbs_____40c
Large Blush White Primrose bordered.

Splashes of tulip red on lower petals.

4 Roanoke bulbs _____40c
Beautiful yellow Primrose.

3 Alice Tiplay_____40c
A most beautiful orange-saffron color.

This collection of 11 bulbs, value $1.25 for $1.00 postpaid to you.

Floria Dale Gardens Wm. R. Leonard
Ft. Atkinson, Wis. Rt. 1

TALL KINDS MAY BE USED IN FRONT

The white phlox breaks the monotony of the long low lines of the iris seen at the left. It might also intervene between plans with inharmonious flower colors.

STORING GLADIOLA BULBS

W. A. DANA

TO PRODUCE bulbs with "pep" and vitality, much depends on storage. The bulbs should be dug soon after the first heavy frost, put into trays with wire bottoms, to save the bulblets.

Shake out all the dirt possible and raise one end a foot to give good ventilation and all the sunshine possible, in the field.

Store each day's digging in the curing house before dark. Put a two inch strip between trays as they are stacked, for ventilation. A moderate slow heat should be maintained as soon as bulbs enter, and this should continue for two weeks or more, until all moisture has disappeared.

The process of digging is quite simple. Loosen the soil on each side of the row with a potato or six tined fork. Then remove the plant from the soil carefully to save the bulblets. Hold over the tray and cut off the stem close to the bulb, with a pair of pruning shears.

Be sure and watch your markers. Put one in the bottom that marks the beginning of the row and one on top of the tray for the end of that variety. If there are several trays of one variety, be sure to mark each in some unmistakable way, as the process of cleaning will come after curing, and you must know just what variety is in every tray.

Our trays are made of 4 inch pine strips, ⅝ inch thick, 4 feet long and 20 inches wide, with galvanized wire, No. 8 mesh, closely stapled on the bottom. There is a partition in the center to strengthen and to provide for small lots. A tray of this size will hold from 600 to 1200 bulbs.

Trays should be painted after being made, to hold nails and staples in place.

After two weeks drying in moderate heat (day and night), the bulbs should be ready to clean of old corms, roots and trash. Sorting can be done at this time also into sizes No. 1 to No. 6 and bulblets. Then, after labeling on the ends, are ready for the root cellar and winter storage.

Our root cellar is made in the side of a steep hill and entirely covered with four or five feet of dirt. The sides and top are of reenforced concrete, but the floor is not cemented. This gives enough moisture to keep the bulbs plump. No heat is used and the winter temperature is from 40 to 50 degrees. Bulbs in this temperature do not shrivel and are as plump in the Spring as when they went into storage in November. There is no sprouting and the full vitality is in the bulb.

Ventilation is provided in the roof by a four inch drain tile, also on one lower corner in the same way. We provide racks for holding trays in tiers, ten high, within 18 inches of the floor. This space under trays is used for storage of dahlias and other tubers. With this arrangement, the trays are accessible and orders are easily put up.

Our curing house is connected with the root cellar, so winter orders can be easily handled in comfort.

We believe that storage and curing are two of the most important factors in producing bulbs "full of pep".

A member asks about the possibility of potato varieties crossing if planted close together. The only way in which it would be possible for the two varieties to become hybridized would be through the blossoms and the planting of seed produced from seed balls on top of the plant. It is impossible for potatoes to cross through the tubers.

LATHAM

Red Raspberry Plants

Free from mosaic, leaf curl, crown gall, etc.

Strawberry Plants

Burrill, Premier, Minnehaha and Champion

State inspected and true to name.

A. B. Coleman & Son

Aitkin, Minnesota

Try the

HARALSON APPLE

A New Minnesota Winter Variety

Catalog for 1928 ready this month. A postal card will bring it. We sell direct to the planter, no agents—lower prices.

Special Introductory offer: 3 Peonies, blooming size roots red, white and pink, postpaid for $2.00.

Full line Nursery Stock

74th Year

KELLOGGS NURSERY

Box 77 **Janesville, Wis.**

BEST VEGETABLE VARIETIES

A few errors in type crept into our list of recommended vegetable varieties so we are submitting it again.

We are pleased with this list because it recommends only a few varieties of each vegetable. The sooner we stop listing a thousand different varieties, the sooner will the amateur gardener have success.

Perhaps you differ with the opinion of the committee. If so write us about it. What success have you had with other varieties in your section?

If the season was cool enough, a fine crop of "New York" or "Los Angeles" as the "Iceberg" on the market is commonly known, would give heads as good as those shipped in from the west.

VEGETABLE VARIETIES RECOMMENDED BY SPECIAL COMMITTEE OF HORTICULTURAL SOCIETY

Cucumber—Chicago Pickle, White Spine.
Corn—Golden Bantam, Evergreen.
Kohl-Rabi—White Vienna.
Lettuce—Grand Rapid (Leaf), May King, Wonderful (Head).
Melons Musk—Camplain, Milwaukee Market.
Melons Water—Peerless, Kleckly Sweet.
Onions — Yellow Globe Danvers, South Port Red Globe, White Globe.
Peppers—Harris Early.
Peas—Marvel.
Parsnip—Hollow Crown.
Radish—Scarlet Globe.
Squash — Golden Hubbard, Table Queen.
Salsify—Sandwich Island.
Spinach—Bloomsdale Savoy.
Tomato—John Baer or Bonny Best.
Asparagus—Washington.
Beans — Unrivalled, Brittle Wax (Yellow), Stringless, Refugee (Green).
Beets—Croslys Egyptian, Detroit Dark Red.
Cabbage—Early Copenhagen Market.
Kraut—All Seasons.
Late—Hollander (Short Stem).
Cauliflower—Snow Ball.
Celery—Golden Plume.
Carrots—Chantenay–Danvers Half Long.
Committee: H. C. Christensen, Oshkosh; Hollis Sullivan, Taylor.

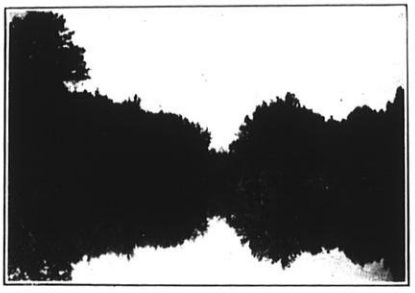
1ST PRIZE

PRIZE WINNING PHOTOS

The first prize photo for this month is a winter scene in northern Wisconsin by Judge A. K. Owen of Phillips. It is a typical scene along a river bank. Our second prize photo is "The Old Swimming Pool" sent in by Miss Alberta Gropp, Park Falls.

Alberta is a Boys and Girls Club member who attended the district Boys and Girls Club Camp held at the County Fair Grounds held at Phillips last August. In her letter she says, "You will perhaps recognize the swimming pool in the Little Elk River, taken at the 4H Club Camp at Phillips, Wisconsin."

This particular spot is a widening of the river at the back of the County Fair grounds and is used by the boys all summer. It is called the "Old Swimming Hole" in that community and it surely serves its purpose.



THE OLD SWIMMING HOLE
2nd Prize

(Reprint from the Milwaukee Journal)

'BURST INTO BLOOM'

When the flower, pictured above, burst into bloom Saturday it did so with an explosion similar to that of a firecracker, alarming the patrons of the Hasenmiller pharmacy, Layton blvd. and Lincoln av. It is known as the pancrateum and bulbs from which the flower grows were brought from Africa three years ago. The man back of the blossom is E. J. Hasenmiller. The pancrateum is a rare flower that blooms once a year for a short time.—Milwaukee Journal.

A good storage room would mean a better market for local grown fruit and vegetables.

Wisconsin Horticulture

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Remit by Personal Check, Postal or Express Money Order. A dollar bill may be sent safely if wrapped or attached to a card.

Postage stamps not accepted

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Our cover page picture is from the Valentine window of Chas. Menger, Inc., furnished us by Huron Smith, curator of Botany, Milwaukee Public Museum.

SUMMER MEETINGS

Our plan of having several summer tours and meetings instead of one seems to meet with favor.

The problem is—choosing the best location and time for the different meetings.

For the fruit growers, the Michigan tour has been suggested. A meeting for the raspberry, strawberry, and other small fruit growers would seem desirable. Also, one for the vegetable grower, both commercial and home gardeners, and the flower growers.

The meetings should be held in communities where a tour of not over 15 or 20 miles with 3 or 4 stops each day would give the members some new ideas. Good speakers will of course be provided.

It isn't too early to make plans. Spring, with its rush of work will be upon us before we realize it.

THIS month we have the first part of a very thorough and exhaustive study of the cost of growing raspberries in Michigan. From this field study of cost records and methods used by different growers, Professor Gardner has drawn many conclusions valuable to our growers. "There is money in raspberries if you know how to get it out."

A study of the figures in this article would indicate that the growers have as great an opportunity to increase profits by lowering production costs as by increasing the selling price. Also, the fact is very clearly brought out that the cost per crate depends mostly on the number of crates per acre produced.

In some cases, profits were reduced by cultivating too much, thereby increasing the cost. In other cases, lack of cultivation, probably reduced the yield.

Verily, the farm is a factory.

MRS. C. E. STRONG, editor of our "About the Home and Garden" department asks for recipes, letters about plants and flowers, questions, and suggestions.

We hope our readers will write Mrs. Strong. Those of you who have read her articles know this department is very interesting. With your help it can be enlarged and made of still more value to our women readers. Address her at 80th and George St., West Allis, Wis.

SOON the thoughts uppermost in the minds of most of us will be garden plans.

What are the best varieties, how and when should they be planted. Questions too numerous to mention fill the minds of the amateur gardener—and sometimes the professional.

We are planning a garden department beginning next month. Write and tell us some of the things you have discovered, or ask questions in regard to your troubles of last year.

Who can give us plans for building a small, cheap, plant house. Such houses are being used with great success by many gardeners.

WHY NOT STAMPS

YOU may have noticed the statement, "Do not send stamps" in payment for subscription to this magazine, or in remitting for other things to this society.

The reason for this is that we must turn over to the office of State Treasurer, all money received by this society for memberships or any other item, and they do not accept stamps. If stamps are sent, it means that we must buy them ourselves and turn over the money. You can easily see that we would soon be very well provided with stamps if many people remitted in this way.

LOCAL reports indicate that, taking the country as a whole, there is probably some increase in the acreage of strawberries planted for 1928. The Ozark region seems to have as large an acreage as last year and the Norfolk section of Virginia shows a gain of 10%. In Louisiana the indications are that there will be a bumper crop, the first car to move about March 25th. Our appetite for shortcake is already here.

A SUCCESSFUL ORCHARD CLUB

SEVERAL years ago an orchard demonstration team won the trip to Sioux City, Iowa, interstate club contests, in the 4H club demonstrations at the State Fair.

This team represented the orchard club of Boscobel, Wis., and were trained by Martin Anderson, principal and agricultural instructor of the high school. In this club each member contracted with neighboring farmers or their parents for a certain number of fruit trees to be cared for on a commission basis. On a one year contract the club members received 75% and the owners 25% of the crop. On a five year basis they divided 50-50.

Each member contracted to prune, fertilize, spray, and take care of the trees in every way. The club, consisting of twenty boys, worked in teams of three or four in doing this work whenever possible.

This club, being well organized, purchased a sprayer and other orchard equipment cooperatively. In the fall the harvesting was done by the club, working together, using a truck to haul the apples, which were divided at that time. The orchard owner received and marketed his own share.

The windfalls had been divided earlier, the arrangements being that the owner gather them if the club member was not present.

During the summer, picnics and tours of inspection were held. In this way the club served as a social gathering for the boys while school was not in session. A demonstration team of two members was selected in a contest held in August. This team went to the State Fair where they won the trip to Sioux City competing against all teams present, such as Calf Club, Poultry Club, Pig Club, etc.

At Sioux City this team won second place. The work consisted of showing by pictures and demonstrations how to prune, spray and manage the orchard.

PRIZES OFFERED THIS YEAR

To encourage more club work and demonstration teams of this type, and also in flowers and other horticultural subjects, the State Horticultural Society is offering the following premiums:

In the first six counties where horticultural clubs are organized and where two or more teams compete for the trip to the State Fair, $10.00 to the winning team and, $5.00 to the second team.

Other prizes for club work will be announced later. For information and club material, write Professor T. L. Bewick, College of Agriculture, State Club Leader, or this office.

MILLIONS FOR ADVERTISING APPLES

Apples for Health, Inc., is the name of a new organization which has for its purpose, advertising our most popular fruit, the apple.

Four million dollars have been raised by growers, shippers, dealers and others interested, to put on a nation wide campaign in behalf of the apple.

Mr. John W. Gorby, 510 South Wabash Avenue, Chicago, Illinois, is Executive Secretary in charge of the work. Mr. Paul Stark of Stark Brothers Nursery is President. They have asked all growers interested, to contribute, by joining the association. The annual membership fee is $5.00.

According to plans, a fund of four million dollars will be distributed over a period of four years, and will cover the entire United States. It will influence over 100,000,000 people to eat more apples and will vastly increase the prosperity of whole industry.

This fund is not very large when it is realized that the orange growers of one state alone spend more for advertising every year than this proposed annual budget. Their investment has paid big returns.

Almost anyone would testify that apples are good for us. Physicians will explain that apples furnish lime for the bones, carbohydrates for energy, phosphorous to tone the nerves and iron, magnesia and sulphur to purify the blood.

At any rate, a lot of good should come from this campaign and the people who are induced to eat apples are not going to be the only ones to benefit.

TOM having been "off his feed" this past month, Alex wrote us a letter and we found in it some mighty good suggestions. You will want to know how $10 spent in an old apple orchard gave a profit of $140.

The small gardener will want to know how to grow a large number of vegetables on a small piece of ground.

How to kill angleworms in the flower pot may also be new to you, and the strawberry grower will be interested in the new varieties mentioned.

If one should ask whether trees grow at night or not he might be thought crazy. Experiments have been carried out to answer this question which showed the remarkable fact that trees make about 67% of their growth at night and only 33% during the day which is about twice as fast at night as during the day. In addition to this the experiment showed that the greatest height growth of trees usually occurs late at night and the least growth takes place in the middle of the afternoon of clear days. (Data taken from "Pennsylvania Trees" written by J. S. Illick.)

Potato Growers Department

J. G. MILWARD, Editor
Secretary of the State Potato Growers Association

GREEN MOUNTAIN ORIGINATED IN 1878

THE Green Mountain potato, very popular in many sections of northern Wisconsin, was originated by O. H. Alexander of Charlotte, Vermont, in 1878.

According to Dr. Wm. Stuart, of the U. S. Department of Agriculture, it is a seedling, from a cross between Dunmore and Excelsior. It was introduced by J. A. Everett in 1885.

The Green Mountain is one of the leading main crop varieties in the northeastern parts of the United States, being especially noted in the state of Maine.

It succeeds best where the climate is cool and there is a reasonably good moisture supply throughout the season. Hot, dry weather during the period of tuber development is harmful to the crop.

In the field, the Green Mountain may easily be recognized by its bright green foliage and green stem. The vines are very bushy, and in a good stand entirely cover the ground so that the rows cannot be seen. The flowers are white and very abundant.

Potatoes are native of the elevated valleys of Chile, Peru and Mexico. They were introduced into England by Sir Francis Drake in 1586.

In Europe they became so widely grown that the late blight rot epidemic in 1846 caused the Irish famine and plague in which about 600,000 perished.

In this department we will describe the different varieties of potatoes, with their adaptations to our conditions.

Due to the bushy vines, and perhaps also to its preference for a cool climate with plenty of moisture, it is rather susceptible to late blight. For this reason many farmers in northern Wisconsin who really prefer this as a late main crop, white variety, have gone over to the Rural New Yorker or Irish Cobbler. The former does not have the bushy vines, while the latter is early and often matures before blight is serious.

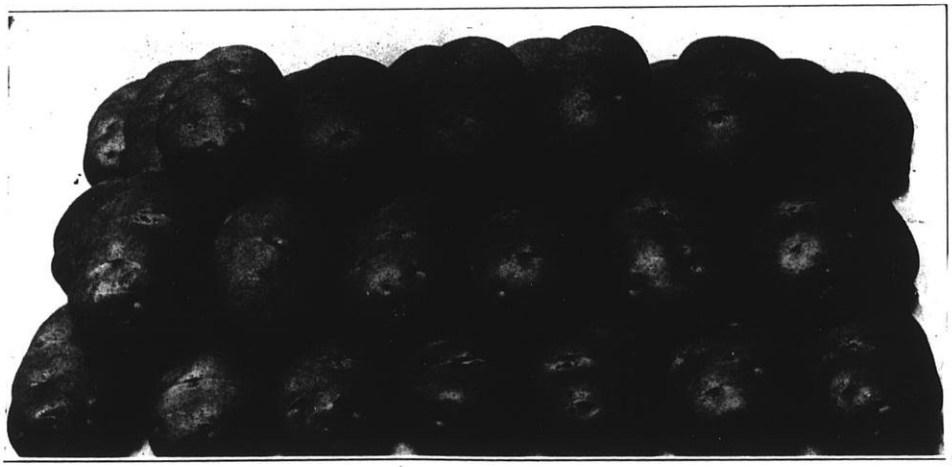
The Green Mountain is noted as a cooking or baking potato. When grown under the right conditions, it is unsurpassed for its table quality in the opinion of those who are familiar with it.

In localities where the climate is suitable, the Green Mountain will outyield almost any other variety. The state of Maine in some years had an average yield, for the whole state, of 350 bushels per acre, due no doubt in part to this variety.

In Wisconsin, experience seems to show that it must be confined to the northern counties. It is extensively grown in Oneida, Sawyer, Price, Lincoln and adjoining counties.

In Oneida county many cars of certified Green Mountains are shipped annually to Long Island, New York, for seed purposes.

Canadians seem to have the edge on us in winning international prizes on cauliflower and celery.



Green Mountains true to type and size A show sample

GOOD TRIUMPH SEED GROWERS

Following is a list of growers of Triumph potatoes whose stock is comparatively low in mosaic count as determined by index work which is carried on at the University of Wisconsin Horticulture Greenhouse. This is the record up to January 30, 1928.

John Conradi	Phillips
Wm. Dama	Phillips
Clyde Klaar	Phillips
Theo. Leopold	Phillips
Imbach Bros.	Chelsea
E. H. Thompson	Webster
Chas. Koslowsky	Coleman
Frank Bizjak	Crivitz
Ben Kleiber	Dunbar
Carl Makholm	Suring
Henry Makholm	Suring
Ad. Peevey	Rhinelander
Amos Radcliffe	Eagle River
A. T. Johnson	Angus
Sam Williams	Spooner
Jno Putz	Spooner
J. W. Smith	*Bryant*
Jas. Meagher	Comstock

The counties represented are Price, Taylor, Burnett, Oconto, Marinette, Oneida, Vilas, Barron, Washburn.

Further records will be available as soon as plants in the greenhouse are far enough advanced for readings.

Upwards of sixty growers are represented in these tests. A rough estimate at the present time would be that only about twenty-five of these growers will have seed stock with a mosaic reading below 5%. Growers whose stock is too high in mosaic will have to obtain new seed if their fields will measure up to the standards for certification in 1928.

Mr. A. B. Coleman & Son, plant growers of Aitkin, Minnesota, write as follows: "We have had the best results from our advertisement last winter in your magazine of any paper we used, except one with national circulation."

With our large increase of new membership, it will pay Wisconsin nurserymen and growers to advertise in this magazine. We are offering a special rate for small classified ads to small growers who want results but whose business is not extensive enough to do much advertising.

Order seeds early, especially if they are new and choice kinds, otherwise you are liable to get a little slip of paper on which is printed, "Regret to say we are all sold out."

Chinese Bush Cherry
(Prunus tomentosa)
A true cherry for delicious jelly and pie. Comes true from seed. Bears very young and profusely. Rivals Bridal Wreath Spiraea as an ornamental flowering shrub. One year seedlings $4.00 per dozen, Two year transplants, $6.00 per dozen. Seed, cleaned pits, ready about July 15th, one fourth pound, $1.50, one half pound, $2.50, one pound, $5.00. Send for descriptive circular.
A. H. & N. M. LAKE
Landscape Gardeners
Nurserymen
Marshfield, Wis.

Bordeaux Mixture
Arsenate of Lead
Calcium Arsenate
Arsenite of Zinc
Dritomic Sulphur
Sulphur Dusts
for all needs
("Fungi"—"ASP"—"85-15"—"90-10")

ORCHARD BRAND
INSECTICIDES

As soon as it is warm, up to 45° or more outdoors, get going with your spray control for scale of all kinds—using **"Orchard Brand" Oil Emulsion or Lime Sulphur Solution** for sure results.

Plan now for the all-important delayed dormant and cluster bud sprays. Because, if scab infests your foliage when the blossoms fall, you'll likely have a harvest of scabby fruit.

Don't risk losing dollars in labor cost by saving cents on "cheap" spray materials. **"Orchard Brand"** Quality materials pay—big.

Ask us to send you a copy of 1928 Annual "Cash Crops." A postcard will bring it.

GENERAL CHEMICAL COMPANY
40 Rector Street, New York
St. Louis Los Angeles San Francisco
GCI-52

ORCHARD BRAND
REG. U. S. PAT. OFF.
SPRAY & DUST MATERIALS

Florists Department

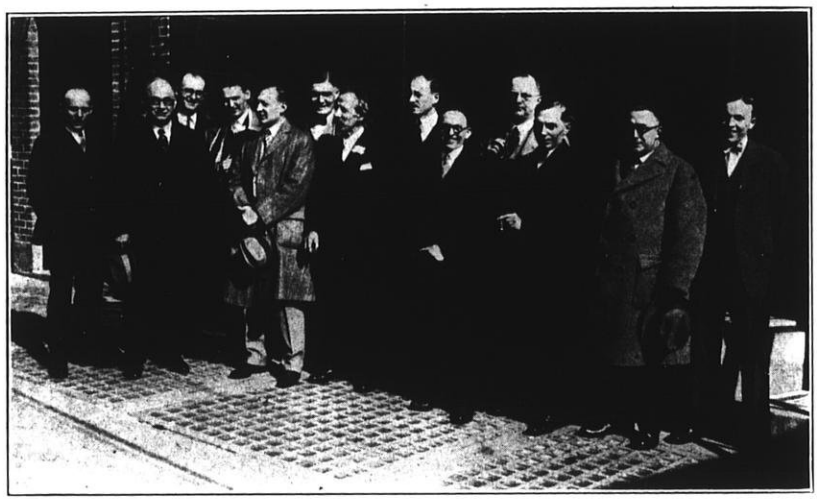
HURON SMITH, Editor

FREDERICK RENTSCHLER THE FLOWER MAN

THE Flower Man is gone! Long live the Flower Man." And long shall he live in the memories of his associates in Madison and over the state. And long will he live in his three splendid sons, who are carrying on in the footsteps of their father. Frederick Rentschler was well beloved by his fellow florists all over the state, and when he had his grand opening a couple of years ago, they came in numbers to rejoice with him. When he died, they came again in numbers to pay their last respects. The writer was there and observed with pride that Madison turned out in force to do his old friend honor.

There were over a thousand people at the Masonic Temple to hear the impressive burial rites. James E. Taylor, of Oshkosh; Peter N. Obertin, of Kenosha; Edwin Matthewson, of Sheboygan; Henry Benz and R. E. Miller, of Racine; Paul C. Loeffler, of Watertown; and Hugo Locker, Chas. E. Dettmann, Huron H. Smith, Fred H. Holton, Henry R. Welke, Harold Baumgarten, Edwin and Victor Hunkel, and Wm. C. Zimmerman, of Milwaukee, were the florist friends that attended. Many that could not come sent flowers, and those that did come brought flowers. It was probably the most flowerful funeral that has ever been held in Madison, at a time when flowers are most scarce.

Mr. Rentschler was a power for helping the Wisconsin Horticultural Society in the annual meetings, and but for him there would have been no floral exhibit at this year's meeting. In his own society, the Wisconsin-Upper Michigan Florists Association, he was a charter member, long on the board of directors, and from Nov. 1921 to Nov. 1922, president of the association. His store was the largest single retail establishment in the state, and one of the most beautiful.



Left to right: Albert Meier, Fred H. Holton, Paul C. Loeffler, Henry Benz, James E. Taylor, Earl J. Bell, Hugo Locker, H. J. Buchminder, Fred Rentschler, Herman V. Hunkel, P. N. Obertin, Chas. E. Dettmann, George Rentschler.
The opening day at his new store April 14, 1926.

Withal, Mr. Rentschler, was yet a young man, 53 years, having been born in Palatinate, Germany, Nov. 8, 1874. But pneumonia made short work of him and after a six days' illness, he succumbed on Jan. 13, 1928, in a Madison hospital. He is survived by his widow, three sons, George, Frederick, Jr., and Carl, all of Madison, and two brothers, George and Michael, both of Los Angeles, California.

Mr. Rentschler came to this country at an early age and first started the floral business at Janesville, Wis., under the name of the Janesville Floral Co., with his brother George, in 1893. They sold to Edward Amerpohl in 1902 and went to Madison, where they started a greenhouse at 900 Spaight St. Later new greenhouses and a store were built at Williamson and Baldwin streets, and in 1904 George Rentschler built the first unit of the present greenhouses at Highland avenue and Regent street. Their interests were consolidated in 1908 and the Williamson street location abandoned in favor of the present one.

They opened a store at 224 State street in 1910, and built a fine new retail store at 226–228 State street, which was opened April 4, 1926. It represented an investment of $150,000. Many of Fred's real estate deals proved fortunate and he was a financial power in the state capitol. Besides being president of the Rentschler Co. he was a director of the State Bank, the Union Trust Co., of the Northwestern Securities Co., of the Commercial National Bank, and was one of the seven men who recently filed application for charter for a new Madison Trust Company.

Mr. Rentschler married Miss Henrietta Kastner, a niece of the late Mr. and Mrs. George Soelch. Two of the sons, George and Fred, Jr., were associated

with him in the business. Carl is still in High School.

Mr. Rentschler went to Germany last fall, with his brother George, a former superintendent of Forest Hill Cemetery, Madison. Fred was an active member of Madison Masonic Lodge No. 5, a 32nd degree Mason, and active in the Madison Turnverin, Madison Männerchor, and Rotary Club, of which he was an ex-president.

Mr. Rentschler had just finished remodeling his retail store at the greenhouse, and rests within a short distance of its new front window in Forest Hill Cemetery.

MY GARDEN FLOWERS

I wander down my garden path
And o'er the dewy, verdant grass,
On every side the flowers shed
Their welcome fragrance as I pass.

Each bush and tree a story bears
And memories cling on every hand:
Each flower a pleasant thought recalls
Of some dear friend or distant land.

And memories of ferny dell,
Of placid stream or mountain height
My garden flowers to me recall
And thrill with rapture and delight.

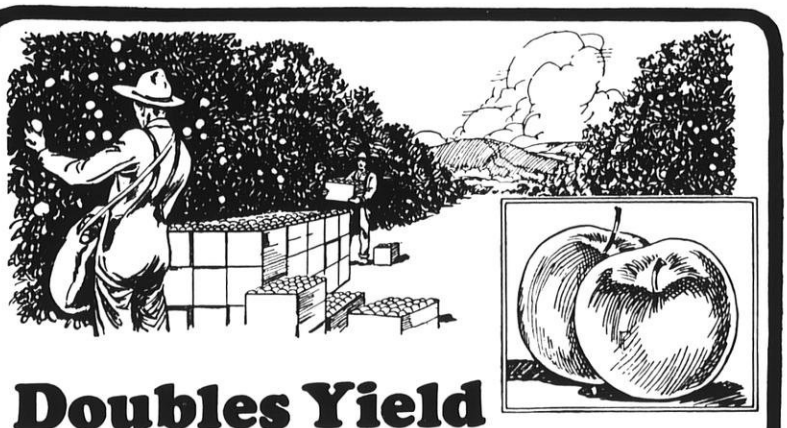
The latticed bower with roses clad
With grateful shade invites to stay,
And oft I pause, and oft I muse
And bathe my soul in ecstasy.

The shadow on the dial's face
Betrays the passing of the hours:
The evening shadows gently fall
But still I linger with the flowers.

Now comes the darkness o'er the land
And hides its beauty from my sight:
With pensive step I turn aside,
And bid my garden flowers goodnight.

ARCHIE S. HILL,
Milwaukee Horticulture Society.

It is surprising to note the interest of the public in "Health" articles, written by famous physicians. Practically all recommend the use of more fruits and vegetables.



Doubles Yield

and nets $233.50 extra profit

HERE'S the story of what Arcadian Sulphate of Ammonia accomplished for Mr. A. J. Marble, of Omro, Wisconsin:

Mr. Marble divided part of his 75-year old apple orchard into two equal plots. Plot No. 1 received no fertilization. Plot No. 2 received Sulphate of Ammonia at the rate of 200 lbs. per acre.

The results of the fertilizer were noticeable almost at once. "The leaves of the trees seemed deeper green," says Mr. Marble, "and they stayed on the trees longer."

But harvest time gave the complete result. From Plot No. 1 (which received no fertilizer) Mr. Marble gathered 200 bushels of apples per acre. From Plot No. 2 (Sulphate of Ammonia) he harvested 440 bushels—a gain of 240 bushels due to Sulphate of Ammonia.

At current prices Mr. Marble's increased yield represented a net gain of $233.50 per acre—over and above the cost of the fertilizer.

Small wonder that Mr. Marble writes us that he is well satisfied with the results from Arcadian Sulphate of Ammonia.

The Barrett Company
Agricultural Dept.
New York, N. Y., Atlanta, Ga., Medina, O., Montgomery, Ala., Memphis, Tenn., Shreveport, La., San Antonio, Tex., Raleigh, N. C., Washington, D. C., San Francisco, Cal. *In Canada*—Toronto, Ont.

Results PROVE the availability of the nitrogen in

ARCADIAN
Sulphate of Ammonia

N-2-28 NJ

The Barrett Company (address nearest office)
Please send me sample package of Arcadian Sulphate of Ammonia. I am especially interested in.....
(*Write names of crops on line above*)
and wish you to send me bulletins on these subjects.

Name_____

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KINKADE GARDEN TRACTOR
and Power Lawnmower

A Practical Proven Power Cultivator for Gardeners, Suburbanites, Truckers, Florists, Nurserymen, Fruit Growers, Country Estates and Poultrymen.

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1085-33rd Ave. S. E. MINNEAPOLIS, MINN.

About the Home and Garden

Mrs. C. E. STRONG, Editor

FEEDING PLANTS FOR MORE BLOSSOMS

(Continued from January issue)

AFTER the plants have been in the home for a month or more, you will notice that the blossoming plants have fewer flowers, and that they are smaller, indicating a need of food. This food can be supplied in the form of liquid fertilizer, or one of the many advertised plant foods may be given.

These foods come in the form of tablets, or in powdered form with directions for use on the package.

For the liquid fertilizer, I have used, for many years, a shovel full of chicken manure with the same amount of well rotted stable manure, placed in a large wooden pail, and the pail filled with water, letting it stand about a week before using. This liquid is diluted with warm water until it is about the color of tea.

Water the plants with this liquid instead of water some morning. Then for two mornings use just the usual warmed water and then the liquid again, until you have given your plants four applications of the fertilizer. Now wait two weeks before giving any more of the fertilizer, and repeat the treatment. In this way there is little danger of over feeding.

With the advertised plant foods it is safe to follow directions, unless you are willing to risk the plant for the sake of experimenting. Sometimes we think if a little food will help, more will be better, and the result is quite often rather disastrous to most plants.

I tried feeding a half dozen Cyclamen plants rather liberally, in order to find out of it was really necessary for them

MRS. STRONG
Caught by the camera at the State Fair

to rest during the summer, by giving each plant a tablet of a widely advertised plant food. These six plants bloomed steadily for twelve months.

The tablets were given once a week. At the end of fourteen months three of the six were dead and the other three were leafless. I then stopped feeding and gave but little water for several weeks, then watered as usual. One more plant died. The two remaining plants have some nice foliage, but no flowers or buds. Evidently these plants think they have done enough for me. I think so too, but I also think there is no reason for discarding Cyclamen plants after a few weeks of blooming—just try feeding them regularly and enjoy their beauty many more weeks.

If they stop blossoming or even die after that, you will feel it will be a very good investment to order more of the same varieties for another winter.

This regular feeding of plants, not quite so liberally of course as the Cyclamen were fed, but the once in three days plan, will keep most plants in a healthy growing condition.

A Peachblow Hibiscus blooms from November to June in my little plant room treated in this way, not an occasional blossom, but covered with buds all the time.

A Plumbago with its lovely blue phlox-like blossoms, responds in the same way, while Callas seem to delight in sending up one flower after another.

But sometimes plants refuse to grow in spite of attention to food and drink. My little neighbor wailed as I entered the door, "Just look at my plants, what is the matter with them?" I looked as she bid me. They were a rather sorry looking lot of plants. All the leaves had fallen off the Begonias, the Cyclamen leaves were curled up around the edges, the buds dried up, even the Geraniums looked discouraged and ready to die. But as I looked I sniffed the air, "Gas range leak?" "Yes," was the surprised answer. There was the answer; plants do not enjoy gas. If you want plants, have the leak attended to, keep the door closed between the kitchen and the room where you have the plants, also provide plenty of ventilation. Even then some plants will drop their blossoms. Begonias resent even a suspicion of gas in the room.

There are a number of plants that with ordinary precautions as to leaks and fresh air, (this by the way is wise for the grower as well as for the plants) can be grown nicely. Sanseverias, decorative Dracaenas, especially the varieties Massangeana—green with a broad golden yel-

low band, and Mrs. Eugene Andre, bronze and rosy crimson; Rubber plants, not just the same old variety commonly seen but also Repens, which is fine for baskets, as it creeps or trails; Austrilis, which grows in bush form with small leathery leaves.

Araccaria excelsa a miniature evergreen tree, very decorative and fresh looking can be grown. Ferns also; if you have been growing the Boston fern and its numerous relatives, try some of the Polypodium family, they are very tropical looking, with their bluegreen foliage, but are quite easy to grow if you remember to give water regularly.

It really is not necessary to deprive yourself of the pleasure of seeing growing plants in your home even though gas is a drawback. Some of the decorative plants are so brilliant in coloring that your window will be very attractive.

Why not have an umbrella plant—not the old fashioned variety we used to see in every collection of plants—but the glorified variety known as Cyperus Papyrus, or true Egyptian paper plant.

The Editor of this paper is positively howling for copy, so will have to wait until next time to finish this little chat about different plants. I can just see myself being obliged to start work in this section just as soon as possible. No waiting until the last minute,—that Editor is the "do it now and have it on time kind."

I am hoping that I am going to get recipes, letters about plants and flowers, questions, suggestions, so it will be easy to keep that Editor satisfied. Are you going to help?

If you have been growing some varieties of plants not usually grown, either indoors or out, wont you please write to "Around the Home and Garden" and tell about them.

Cold storage is impossible on the farm but a practical solution of the farm storage problems for fruit and vegetables is the air-cooled storage cellar. To hold roots and tubers in a healthy vigorous condition, correct storage must provide constant temperature. Normal atmospheric moisture, correct ventilation, protection against frost—these are important conditions to be secured.

Massachusetts Experiment Station reports Sunshine sweet corn as doing especially well there, and recommend it to their growers. New York Experiment Station this year found Red River to be the best tomato of the Earliana type.

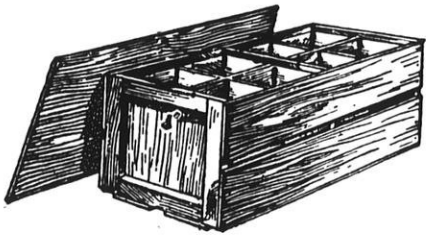
PEONIES, IRIS, PHLOX

Other Hardy Perennials
Gladiolus and Dahlia
Bulbs

Catalog Free

Edw. J. Gardner Nursery

West De Pere, Wisconsin



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Either made up or in the K. D., American Quart Berry Baskets, Climax Grape and Peach Baskets, Fill or Repacking Baskets, Plant Boxes and Veneer Tree Protectors.

Circular and Price List Mailed Upon Request

Write for special prices on Car-load Lots. Liberal Discounts on Early Orders.

SHEBOYGAN FRUIT BOX COMPANY
SHEBOYGAN, WISCONSIN

HARDY PERENNIALS

New & Standard Varieties

300 Kinds

Strawflowers—All Varieties

J. F. HAUSER
Bayfield, Wisconsin

Send for Price List

WISCONSIN NURSERIES

To get acquainted we make the following special offers. Our selection.

10 Apple trees (Farmer's Orchard) 4 to 6 ft.	$2.50
10 Pear trees, 4 to 6 ft.	4.00
10 Cherry trees, 3 to 4 ft.	4.00
10 Plum trees, 4 to 6 ft.	4.00
10 Red currants	1.50
10 Gooseberries	1.50
10 Black or red raspberries	.50
10 Blackberries	.50
10 Grape vines	1.50
100 Mastadon strawberries	2.00
10 Shade trees, 6 to 8 ft. Elm, Ash, Box Elder or Carolina Poplar	5.00
10 Extra hardy roses	3.00
10 Climbing roses	2.50
10 Shrubs	1.50
10 Paeonies. Assorted colors	2.50
10 Hardy phlox. Assorted colors	1.50

The fruit and shade trees must go by express. The other collections can be mailed if twenty-five cents extra is sent to cover postage and packing.

Beautiful catalogue for the asking.

W. J. Moyle & Sons

Union Grove, Wis.

News From Our Locals

MADISON GARDEN CLUB

ON THE evening of Tuesday, January 10, the Madison Horticultural Society and Garden Club members held their annual meeting. Officers for the coming year were elected as follows:

Frederick Cranefield, President.

Mark Troxall, Vice-President.

Miss Melissa V. Brown, Vice-President.

Geo. C. Morris, Secretary.

A. M. Eldridge, Treasurer.

A number of items of business were transacted after which the club listened to a talk on "Garden Vegetables" by Mr. Eldridge.

Mr. Eldridge brought out the point that the seeds of quite a number of vegetables can be planted in the fall to good advantage, especially asparagus. He also said that asparagus will stand unlimited fertilization.

In the course of his talk, he spoke of the Mastadon Strawberry as being a very good berry for home gardens. He also emphasized the fact that strawberries will stand considerable fertilization.

GEO. C. MORRIS.

OSHKOSH HORT. SOCIETY ELECTS OFFICERS

AT THE January meeting of the Oshkosh Horticultural Society about a hundred members and friends gathered for the annual oyster supper served at the Public Museum.

The following officers were elected for the year:

President, N. A. Rasmussen.

Vice-President, A. J. Sheffer.

Sec.-Treas., Miss Agnes Phillipson.

The program consisted of a very instructive demonstrated talk on the Varieties of Everlasting Flowers and their Arrangement in Boquets by H. C. Christensen.

A talk by Mrs. John Kuebler on her mother's garden, started in Civil War days on the banks of the Embarrass River at New London proved of much interest.

MERLE A. RASMUSSEN.

MILWAUKEE ROSE SOCIETY

THE last meeting of the Milwaukee Rose Society was an informal affair, an exchange of experiences and a discussion of varieties. A promise of several hundred roses from Bobbink & Atkins, largest rose growers in the United States, should we succeed in having a municipal rose garden established here, has spurred our enthusiasm. We feel that such a garden would be the means of increasing tremendously the interest of amateur gardeners in rose culture.

For our next meeting, which will be held on February 14, each member has promised to bring in one new member, or rather a prospect for membership. We are still young, but we hope to grow.

I. J. SCHULTE.

WAUKESHA GARDEN CLUB ORGANIZED

In spite of one of the coldest nights of the season, a good crowd attended the organization meeting of the Waukesha Garden Club Friday evening, January 27th.

Had other garden lovers realized the treat in store for them, they would have braved any kind of weather to attend. Mr. Huron Smith, Curator of Botany of the Milwaukee Public Museum gave his famous illustrated talk on the "Gardens of Europe". He showed a large number of wonderful slide pictures of the gardens of England, Germany, France and Italy, explaining the details of each slide.

H. J. Rahmlow, secretary of the State Horticultural Society, told of the work of the State organization. He explained the future plans of the society and briefly discussed the growing of several important vegetables.

RASPBERRY PLANTS

Mosaic-Free LATHAM and KING.

We have the genuine Redpath strain of Latham.

McINTOSH—The highest quality apple.

COURTLAND—A McIntosh seedling of better keeping quality.

HARALSON—A new Minnesota winter variety.

We GROW a complete assortment of fruit and ornamental nursery stock.

Write for catalogue.

J. V. BAILEY NURSERIES

Daytons Bluff Station

Dept. W St. Paul, Minn.

At the close of the program those present expressed themselves as being in favor of organizing as the Waukesha Garden Club. Dues were set at $1.00, which includes membership in the State Horticultural Society, with a year's subscription to "Wisconsin Horticulture" and a copy of the annual report.

All the officers were not elected at the first meeting. A complete list of these will be given in the next issue.

EDUCATOR NAMED HEAD OF MINDORO COMMUNITY CLUB

Horticulture Society and P.T.A. Unite in New Organization

Mindoro, Wis.—The Mindoro Horticultural society and the Parent-Teachers' association held a joint meeting at the high school on Tuesday evening. They decided to join forces under the name of Mindoro Community club. Officers elected were as follows: President, Professor Erickson; vice president, James McDonald; secretary, Mrs. Bessie Fischer; assistant secretary, Orville Olson; and treasurer, Irvine Plaff.

The program for the evening included a talk by the county agent W. E. Spreiter; reading by Miss Needum, and moving pictures. Those serving were Mrs. C. Tracey, Mrs. P. Opland and Miss Edith Glennie. The next meeting is to be held on February 14.—La Crosse Tribune.

TO GIVE ILLUSTRATED LECTURE ON GARDENS

"Gardens of Europe," an illustrated lecture, will be given by Huron H. Smith, curator of the public museum, Milwaukee, at the Universalist church on Thursday evening, Jan. 26 at 8 o'clock under the auspices of the Racine Garden club.

Mr. Smith is co-editor of the "Wisconsin Horticulture" and is an eminent botanist. His subject matter is interesting and he is an entertaining speaker—Racine Journal.

MILWAUKEE HORTICULTURAL SOCIETY HAS MEETING

The January program of the Milwaukee County Horticulture Society which was held January 24th in the trustee's room at the Public Library, was opened with a poem "My Garden Flowers" written and read by Archie S. Hill, one of our members.

Mr. John F. Hauser of Bayfield, Wisconsin, a large grower of Straw Flowers gave a humorous little introductory talk and followed by telling us about the care, culture and growing of Straw Flowers.

The large tables were arranged with Straw Flowers of most every variety, ornamental grasses, dried leaves and seed pods of various flowers suitable for decorating.

Mr. C. H. Dettman, a local florist who is quite successful in the use of Straw Flowers for decorative purposes, demonstrated the arranging of dried leaves, seed pods, pine cones etc., in the making of wreaths and other ornaments for commercial purposes. It was quite interesting to note the process of manufacture and the use of paints and bronzes to increase the beauty of his products.

After the discussion, the members spent a pleasant half hour recalling the names of the various flowers which grew in grandmother's old fashioned garden and succeeded in listing about a hundred varieties. This was followed by the usual half hour of discussion relative to our own personal garden problems. The attendance at this meeting was the largest in the history of the society.

Reported by FRANK P. GILOTH.

Permanent Positions

FOR a limited number of responsible people, to sell our complete line of NORTH STAR QUALITY, Hardy Northern-Grown Nursery Stock. ∴ Write for our liberal sales proposition.

THE NORTH STAR NURSERY CO.
Lock Box B 4321
PARDEEVILLE, WISCONSIN

Perennials

Grown on the shores of Lake Superior

20 acres of all leading varieties

Lupines

We have fine lot for spring or immediate shipment.

	Per 100	Per 1000
Blue white and pink	$6.00	$55.00
Moerheimii, very good	10.00	90.00
Princess Mary, yellow and violet	10.00	90.00
Downer's strain, new	12.00	100.00
Harkness Hybrids, new shades	12.00	100.00
Tunic, deep rose shades	10.00	90.00
Regal, various shades	10.00	90.00

Special prices given when grown on contract. Write for list of other perennials.

Chequamegon Flower Gardens

Washburn, Wis.

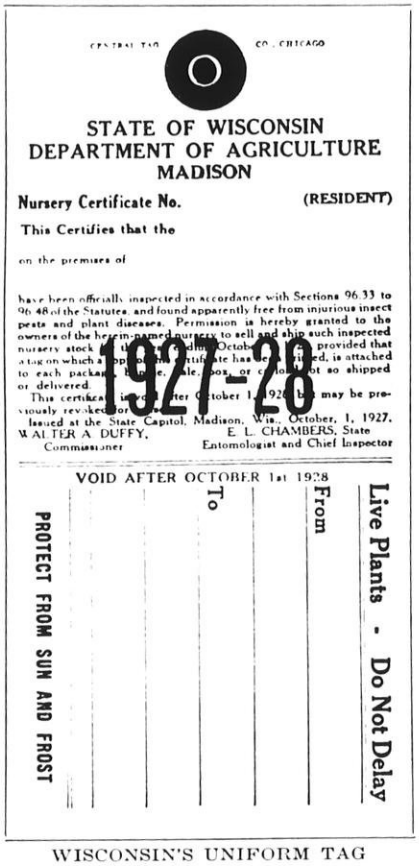
Overcoming Horticultural Troubles

E. L. Chambers, State Entomologist, Editor

THE CERTIFICATION OF NURSERY STOCK

IN 1915 the Wisconsin legislature placed in the statutes the present law which requires "all nurseries and all other places in which nursery stock is kept for sale in the state to be inspected at least once a year." This made it unlawful for any person "to sell, to offer for sale or to remove or ship from a nursery or other premises, any nursery stock unless such stock has been officially inspected and a certificate or permit has been granted."

Similar laws are in force in each state and are for the purpose of preventing the introduction and spread of injurious insect pests and plant diseases. Since our law provides for this inspection service without charge, providing the application is made before the inspection work is begun in the summer, a large number of nurseries, encouraged by those growers of ornamentals and small fruits who welcomed this special "free clinical service" have applied.


STATE OF WISCONSIN
DEPARTMENT OF AGRICULTURE
MADISON

Nursery Certificate No. (RESIDENT)

This Certifies that the

on the premises of

have been officially inspected in accordance with Sections 96.33 to 96.48 of the Statutes, and found apparently free from injurious insect pests and plant diseases. Permission is hereby granted to the owners of the herein-named nursery to sell and ship such inspected nursery stock [illegible] October [illegible] provided that a tag on which a [illegible] certificate has been affixed, is attached to each package, bale, case, box, or crate [illegible] not so shipped or delivered.

This certificate is [illegible] after October 1, 1928, but may be previously revoked for [illegible]

Issued at the State Capitol, Madison, Wis., October, 1, 1927.

WALTER A. DUFFY, Commissioner

E. L. CHAMBERS, State Entomologist and Chief Inspector

1927-28

VOID AFTER OCTOBER 1st 1928

To

From

Live Plants - Do Not Delay

PROTECT FROM SUN AND FROST

WISCONSIN'S UNIFORM TAG

INSPECTING RASPBERRY PLANTING FOR MOSAIC
Photo by S. B. Fracker

It protects their crops from unnecessary losses from pects, pointed out and controlled under the supervision of the inspector. Also they wanted to be authorized to dispose of propagating stock should there be a demand for it.

As a result of this stimulus the number of nurseries issued certificates annually has grown from 136 in 1915 to 563 during the past year. These 563 nurseries embrace approproximately 3,200 acres of land actually under cultivation. In addition to this there are some 460 acres of forest grown trees, and approximately 1,000 acres of submerged land devoted to aquatic plants inspected.

A study of these nurseries shows that 46 of them have a half acre or less, 179 one acre or less, 295 have two acres or less and 408 have five acres or less. These are distributed well over the state, there being only seven counties having no nurseries, although 230 are located in ten counties. Monroe county now has the largest number, with 47.

Most of the small nurseries are devoted to small fruit and consequently the raspberry inspection in them requires more time than in some of the much larger nurseries where no raspberries are grown.

Our largest general nursery has approximately 150 acres of nursery stock which requires three inspectors only two or

three days to cover on the first inspection since practically no raspberries are grown at this nursery. These same inspectors can only inspect about four or five acres of raspberries each in a day's time. The reason for this slowing up of the work is due to the necessary individual examination of each and every plant for the detection of symptoms of mosaic. Each plant is either marked with whitewash or carefully dug out, with all its roots, to prevent its sprouting again.

This systematic virus disease of raspberries, known as mosaic because of its peculiar mottling effect on the foliage, was observed on different varieties of raspberries, chiefly upon King and Latham, by the inspectors for some time. They recognized it as an abnormal condition but did not fully realize its importance until 1924. Then investigators established the fact that this too, like potato mosaic, was an aphid transmitted virus disease and one that was very injurious to the plantings especially when grown under adverse winter and moisture conditions.

Upon finding that there were some plantings of red raspberries relatively free from the mild form of mosaic predominating on Latham and King, immediate steps were taken to rogue every visibly infected plant present and thus reduce it to a minimum. Through this method we have succeeded in the past three years in developing an ample supply of this stock to meet the needs of the state for propagating purposes.

Owing to the enormous increase in demand for nursery inspections, coupled with the necessity of making two inspections of all raspberry plantings at thirty-day intervals, it has been necessary to employ twice as many inspectors. Highly trained men are necessary, with experience in recognizing the fine virus disease of raspberries in addition to the usual requirements. As a result we find the inspection now costs on the average of ten dollars per nursery. The appropriation of $2,500 set aside for this project is barely half enough to cover the cost of the work.

The last legislature has made a few changes in the law, one of which we believe will help solve the problem. The commissioner of agriculture is now authorized to charge a reasonable fee for nursery inspections in line with the other activities of his department such as fertilizer, feed and seed inspections. The matter of a fee for this line of work is now being studied with the idea of some definite action in the near future.

During the past year a uniform nursery tag was adopted in an attempt to put an end to the use of invalid and altered inspection tags. The nursery inspection law requires that "every person selling or shipping nursery stock shall attach to the outside of every package, box, bale, or carload lot so

Spray Materials

Arsenate of Lead Calcium Arsenate

Lime Sulphur
(Liquid and Dry)

Bordeaux Mixture
(Paste and Dry)

Nicotine
(Liquid and Dust)

Write for Prices and Spray Calendar Now

Manufactured by

Cream City Chemical Works

766-774 Kinnickinnic Avenue Milwaukee, Wis.

shipped or otherwise delivered, a tag or label on which shall appear an exact copy of this certificate."

In order to determine how closely our nurserymen follow the letter of the law, we recently requested all of them to send samples of their tags to the inspection office. Among the tags which were not exact copies of the certificates held by the owners, the most common fault was the alteration of the printed dates on the tags. One of these dated back to 1916, one each to 1917, 1919, 1921 and 1922, four to 1924, five to 1925, six to 1926.

The most serious fault was that 37 of these tags used the old wording which listed "nursery stock" as having been inspected and released from shipment, when only some special kind such as "strawberry plants," or "ornamentals" was in fact covered by and stated in the original certificates furnished the owner.

Our investigation showed our Wisconsin nurserymen as a whole to be less careless in this respect than those from many other states.

GARDEN CLUB NOW IS 69 YEARS OLD

Horticultural Society Organized in 1858, is Revived After Lapse

By FREDERIC CRANEFIELD

The Madison Horticultural society, now known as the Madison Garden club, was organized in 1858. Madison was a thriving village then — comfortable homes, set in the midst of gardens, surrounded the capitol square. Some clearing had been done between the park and Lake Monona, but all of the ground westward from the square to "University hill" was a dense forest.

But even at that early date there were men and women who were not content to live without gardens and a number of them gathered on the evening of July 7, 1858, and organized the Madison Horticultural society.

The names of three men appear often in the records of the proceedings of those early days: W. T. Leitch, D. Worthington, and Dr. Joseph Hobbins. Mr. Leitch served as president for 10 years and was succeeded by Dr. Hobbins, who retired several years later. In his farewell address given on March 27, 1874, Dr. Hobbins recalled the early days in Madison, going back 20 years:

"It is of interest to recall the character of the first horticultural show that I attended, I think in the fall of 1858. It was held in a vacant store, next to Fox's block. Its chief attraction was a gigantic cornstalk, from some neighboring farm."

The society flourished from 1858 to 1881. There is no record of any meetings or other activities from 1881 to 1904. From the latter date to 1918 it was active, but again lapsed for eight years, when it was revived and is now flourishing.

Three flower shows were held in 1926 and a dozen or more meetings for the discussion of horticultural topics.

In 1927 three shows were staged. An iris show was held at the horticultural building of the university. There was also a midsummer show in a vacant store on State street, and an autumn show in the capitol. These shows were all highly successful, both as to extent, and variety of exhibits and in attendance.

Several meetings were held during the year. The next regular meeting will be held at the city library Jan. 10.—Wisconsin State Journal.

WE WOULD hesitate in making any increase in acreage of potatoes for next year. No doubt, in the United States as a whole, the farmers will plant approximately as many acres as last year. Should the weather be good, and the acreage the same as last year, or more, the result will be a large crop with corresponding low prices. The weatherman of course has a great deal to do with it.

Blue Spruce

Ready to plant this spring
Wholesale or Retail
Come and select yours
WRITE FOR PRICES

Mys Brothers
Route 1, Menasha, Wis.

Cabbage and Cauliflower Seeds

The Most Perfect and Dependable Strains Grown

Offered at Reasonable Prices

Early Jersey Wakefield per pound	$2.25
Golden Acre, Genuine. Earliest of all	7.00
Copenhagen Market. Early Selected	2.75
Enkhuizen Glory. Selected	2.25
Early Winningstadt. Selected	2.25
All Season. Selected	2.25
Danish Roundhead, short stem. Selected	2.50
Danish Ballhead, short stem. Selected	2.25
Danish Ballhead, tall stem. Selected	2.25
Premium Late Flat Dutch. Selected	2.25
Ferry's Hollander, Own Strain. Genuine. One of the best for shipping and storage. Solid medium sized heads	7.00
Back's Hollander. Own Strain. The most Perfect late Shipping Cabbage	3.50
Back's American Shipper. The Best late Yellows Resistant Cabbage	5.00
Wisconsin Hollander. Yellows Resistant	4.00
All Season. Yellows Resistant. The Famous Kraut Cabbage	5.00
Savoy, Cabbage Danish Perfection	2.50
Mammoth Dark Red. Improved	2.50
Danish Dark Red Stonehead	2.50
Danish First Prize. Best Dark Red	3.25

Ounce at one tenth of pound price

Supreme Cauliflower Seeds

Direct from The Champion Cauliflower Seed Grower in Denmark, who is awarded the highest points year after year by the Danish Experimental Stations. There is no better Cauliflower Seeds to be had.

Extra Early Dwarf Erfurt Earliest New Snowball Danish Giant or Dry Weather. ½ Oz., $1.00; Oz., $1.70; ¼ lb., $5.75.

When you really want the Best Seeds let me furnish you.

Cabbage and Cauliflower Seeds has been my specialty since 1903 but I will be glad to quote you on any other seeds and you can be certain they are the highest grade obtainable.

The Best for Wisconsin
Growers of Cabbage and Cauliflower Seeds Since 1903

Back Seed Company
Highway 20—R. F. D. 3
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Visitors always Welcome
Home of Yellows Resistant Cabbage

INDEX TO ADVERTISERS

	Page
Back Seed Co.	148
J. V. Bailey Nurseries	144
The Barrett Co.	141
Bean Spray Pump Co.	152
Bush, D. F.	150
Chequamegon Flower Gardens	145
H. C. Christensen	150
The Coe, Converse & Edwards Company	149
A. B. Coleman & Son	134
Cream City Chemical Works	147
Cumberland Fruit Package Co.	149
Dawson Bros.	150
Eschrich's Nursery	149
Fitchett Dahlia Gardens	122
Floria Dale Gardens	133
Edw. J. Gardner Nursery	143
C. A. Gelbke & Sons	150
General Chemical Company	139
F. R. Gifford Co.	151
J. F. Hauser	143
Fred Hecklinger	150
Chas. Heimstadt	150
Hildebrand Embroidery Co.	150
Kellogg's Nursery	134
Kinkade Garden Tractor	141
A. H. & N. M. Lake	139
Maloney Bros. Nursery Co.	151
McKenney Dahlia Gardens	150
W. J. Moyle & Sons	143
Mys Brothers	148
North Star Nurseries	145, 151
L. L. Olds Seed Co.	122
Pioneer Manufacturing Co.	152
Rasmussen's Fruit Farm & Nurseries	122
E. B. Rosa	150
Sheboygan Fruit Box Co.	143
Sisson's Peonies	152
Standard Engine Company	133
Stonecrest Gardens	150
The Swartz Nurseries	132
Terrell's Aquatic Farm	150
W. A. Toole	149
Whitford's Berry Farm	150

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W. A. TOOLE

Garry-nee-Dule, Baraboo, Wis.

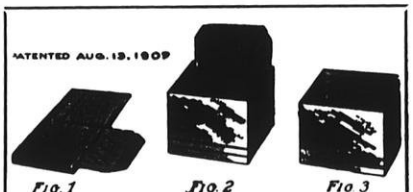

Fig. 1 Fig. 2 Fig. 3

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The Growers Market

Advertisements for this department will be accepted from members of this society who produce the articles offered for sale. Rate 2 cents per word, minimum charge 25c per issue. "Adds" of nursery stock and plants will be accepted only from those listed by the State Entomologist as having been inspected. No discounts from these prices.
Copy should reach us by the 20th of the month. Send cash with order.

REGAL LILY—BEAUTIFUL NEW white lily, hardy. Four blooming sized bulbs $1.00. $2.00 per dozen. H. C. Christensen, 1625—9th St., Oshkosh, Wis.

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STRAWBERRY PLANTS — 200 DUNlaps. $1.25 prepaid. 100 Premier $1 less by the thousand. Whitford's Berry Farm, Milton Jct., Wis.

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WHAT THE MARKET WANTS

By A. W. POMMERENING

The production of good quality product is the most important step in marketing.

We have already started this work of improving the quality of the various farm products. The remaining task is to market at a price which will net the grower a fair return. This can be done by creating a demand through standardization and grading.

Markets are often glutted with undergrade products which bring a low price and is detrimental to the entire industry. Therefore, we should put forth our best efforts to market a well graded product and receive the top price.

There has been much discussion among the various producers as to whether it pays to grade. Whether or not the producer or marketer is paid for the additional effort and expense involved in making such classification, depends upon his subsequent marketing practice.

For example a small assembler seldom establishes price differentials for different grades when buying in small lots. On the contrary a large assembler might find it practically impossible to engage in business through regular trade channels without conforming to recognized grading practices. In general, it may be said that the smaller the volume of business, the less likely grading is done, but in large scale operations, standardization is universally recognized as a basic requirement for success.

Where any product is marketed through a sales organization, standards are necessary not only for marketing but as a basis for paying the producers for their product. When the producer is paid on a quality basis he finds it to his advantage to grow the best types and to handle his product so as to produce quality.

A great deal of money is wasted each year paying freight on worthless and cull stuff. The situation can be remedied by grading and packing according to established standards. Grading costs money, but the benefits are many. Grading decreases market costs, encourages future trading, promotes F. O. B. Sales at shipping point and sales in transit. Grading reduces rejections at destination, and freight costs by keeping culls and dockage at home. Grading cheapens distribution, builds up confidence and establishes a reputation for the shipper and packer. As in potatoes, it is an established fact that potatoes graded and marketed from this state are bringing more on the Chicago market than potatoes from adjoining states where standards are not enforced.

The Department of Markets conducts a shipping point inspection service on fruits and vegetables. A joint State-Federal certificate is issued which is evidence showing the grade of the product and is also prima-facie evidence in all courts of the United States and Wisconsin in making adjustments.

FLORA OF STATE NOW COLLECTED

Museum Completing Effort Started 85 Years Ago

The first comprehensive collection of Wisconsin flora ever to be made, after 85 years of attempts, is this week nearing tentative completion at the public museum. The collection is valued at upward of $11,000. About 1842 Increase A. Lapham undertook a fairly complete collection of plants, both for propagation and for his herbarium. Wild rice grown from his seeds was introduced into the celebrated Kew gardens, England.

75,000 Specimens Indexed

"People often press flowers in books and find the color gone. The reason is that the flowers can't dry fast enough. Artificial heat," said Mr. Smith, "prevents this, although a too rapid drying will bring brittleness."

More than 75,000 specimens are now card indexed and stored away in the museum in steel cases. The collection is not open to the public except for consultation by written request. Mr. Smith explains that consultants must know how to handle the material. Thus far, classes of students and research experts have used it.

Mr. Smith and Mr. Fuller are asking questions of old settlers of the state. Here is one of them: "When did catnip come into Wisconsin?" Flowers and weeds are frequently of foreign importation, and no one but the old settlers, in the opinion of the botanists, can fix the dates and give the "human interest" side to the coming of the new plants.

A manual of Wisconsin flora, based on the collection, will be published next year by the museum.

AN ERROR

In the article entitled "Rust vs. Barberry", appearing on this page of the January issue, the editor used the legend "Rust Wintering Over" under a picture showing barberry leaves covered with rust in the place of "A rusted branch of a common barberry" as intended.

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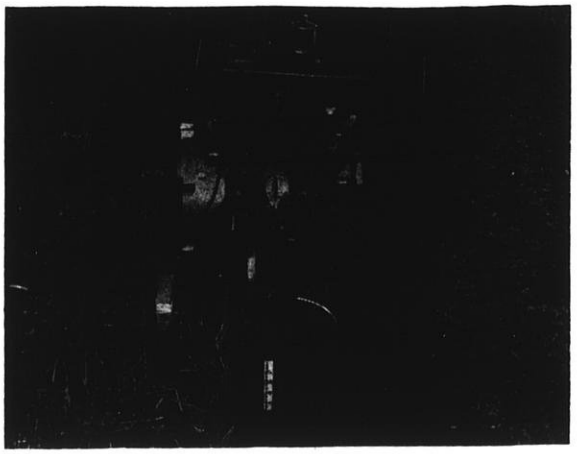

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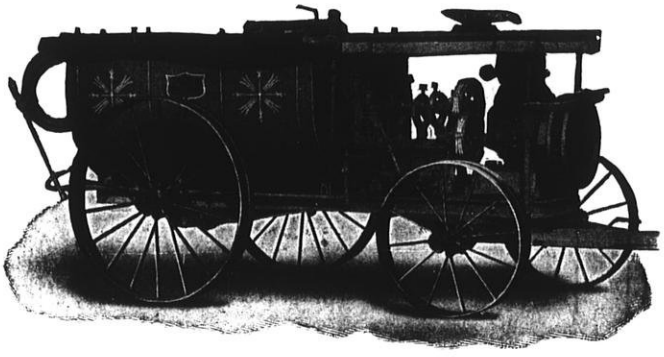

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MADISON, WISCONSIN

WISCONSIN HORTICULTURE

Vol. XIX MARCH, 1928 No. 7

Fitchett Dahlias

28th year

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TABLE OF CONTENTS

	Page
More Gardens—Happier Youth	155
It's Not a Home Until It's Planted	157
Varieties for our Home Fruit Plantations	160
In Orchard and Garden—Observations	162
Wisconsin Visits the South	163
My Garden	165
Fight Oyster Shell Scale	167
Editorials	168–169
About the Home and Garden	170
A Flower Show for Every Community	172
Potato Growers Department	174
News from Our Locals	176
Overcoming Horticultural Troubles	178
Nurserymen Form Association	182
Making Tree Digging Easy	183

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TIME TO SPRAY

PREPINK STAGES

PINK

CALYX

10-18 DAYS LATER

ABOUT AUGUST 1-20

Supplement Wisconsin Horticulture

March, 1928

Wisconsin Farm Orchard Spray Program

Mixture Used	Insects & Diseases Controlled	Remarks
1 gallon liquid lime sulphur to 40 gallons water	Apple and Pear Scab	Apply this spray only in case rainy weather prevails during the early bud development period.
1 gal. of liquid lime sulphur (or 3½ lbs. of dry lime sulphur) .1 to 1½ lbs. lead arsenate 40 gals. of water.	Scab, brown rot of plum, curculio, bud moth, green fruit worm, canker worm.	Spray entire orchard as soon as early blooming varieties are in the pink and separated in the clusters. Spray later varieties at this time regardless of whether or not they are in the pink stage.
Same	Scab, brown rot of plums and cherries, curculio, cherry leaf spot, first brood of the codling moth, and currant worm on currants and gooseberries.	Apply on all of the fruit trees as soon as most of the petals have dropped from late blooming varieties of apples. Fill the calyx cups with spray solution.
Same	Same	In case of much rainy weather during the first week after the calyx spray make this application within a week or ten days after the preceding spray. If dry weather prevails, delay this application for two weeks or 18 days. Spray the entire orchard.
Same	Same, also sooty blotch and the second brood of codling moth.	Date for this spray varies with seasons and localities. This spray should be timed so it will precede the second brood of the codling moth, which is usually from 7 to 8 weeks after the "10 to 18 days later" spray. Omit all early apples in this spray.

Note: If plant lice are present add nicotine sulphate or Derrisol to the spray solution. Use ½ to ¾ pints to 50 gallons of spray mixture.

Where Oyster Shell or San Jose scale is present and not being controlled use a dormant spray of lime sulphur. Strength, one gallon to seven gallons water. Miscible oils are replacing lime sulphur as dormant spray.

Prepared by Wisconsin State Horticultural Society, University of Wisconsin Horticulture Department and State Entomologist cooperating.
Issued by Wisconsin Horticulture,
119 E. Washington Ave., Madison, Wis.

Wisconsin Horticulture

Wisconsin
State Horticultural Society
Organized 1865

Devoted to better fruits, flowers and vegetables

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More Gardens---Happier Youth

Gardening Has a Place in the Educative Phase of Home Life That Should Not Be Denied Our Youth. Horticultural Society Offers Prizes to Club Members.

W. McNeel, Ass't State Club Leader

SPRING is coming! Every letter in this statement has a thrill in it. The great god Pan with his merry pipes stirs anew the fires of life that winter seems to kill, and a great opening takes place—of buds, of seeds, of the throats of birds and the heart of men. In the Spring even the most prosaic soul can get sublimely poetic without feeling at all abashed, and a seed catalog commands an interest that the "best seller" never could arouse with all the pressure of modern advertising methods.

So Spring days are days of youth—of seeds, of buds, of tadpoles, and of lambkins; so it is only fitting that the youth of our land, our boys and girls, be inspired to participate fully in the joys of the season. To enjoy fully means to have a hand in the creative work that nature is carrying on. The vegetable and flower garden offers the most ready chance to the largest numbers of boys and girls; and a garden is a veritable laboratory of nature.

Youth and Creative Work

It is a law of nature that to do the thing means you shall have the Power, but they who do not shall not have the power. The educative value of creative work is axiomatic. Especially is this true during the formative years. Aside from the purely productive standpoint, gardening has a place in the educative phase of home life that should not be denied our youth.

Youth and War Gardens

Under the fear and emotional stress of the war every available argument, incentive and form of persuasion were brought to play upon our youth to get them to be producers. They responded wholeheartedly and grew wonderful gardens. But why did we stop providing the incentives and inspiration?

As I look back over those days and bring to mind the many men and women who then assumed an interest in getting youth involved in productive enterprises, who, in these piping times of peace and security, show no concern whatever about the activities of our youth, I can't help but think of the man whose conduct varied with the imminence of danger. He was on his knees in prayer during a thunderstorm, but beat his wife unmercifully when all nature seemed full of joy.

The real value of war time gardening by youth was not pri-

All in favor of 4H Club work raise their hand.

marily in what they produced, important as that was. It is found in the opportunity and the activity offered in providing youth with a chance to grow by expressing themselves in eminently worthwhile creative work. There are few, if any, 'teen age youth but could grow a garden, and find delight in furnishing the home with flowers and vegetables.

Why Stop With the War

The need for expressive activity on the part of youth is urgent at any time. The need for wholesome occupation of youth in production that a vegetable and flower garden affords, and all the aesthetic activities involved, is as urgent now as during the war. Yet with the signing of the Armistice came abruptly the stopping of this source of inspiration to thousands of our youth. It was as though we thought the victories of war more important than those of peace, or that it is not as important to live for our country as to die for it.

We could have been a nation of eminent gardeners today if we had continued to challenge our youth to excellence in this worthy occupation. And if we want to prognosticate further, we might say that we would today be a far more wholesome people, as well.

There is so much to be learned, so much of good philosophy and psychology in gardening that it takes no stretch of the imagination to see why we should interest our youth wholesale in this activity. Clubs of adults who are looking for a chance to be of service will find in sponsoring such clubs in their communities abundant outlet for all they want to give in thought, time and encouragement.

Horticultural Society Offers Help

Last year the 4-H clubs of the extension department of the College of Agriculture had 1444 boys and 827 girls growing gardens on the farms of our state. These clubs offer helps to youthful gardeners in cultural methods, and incentives in achievement pins, honor pins and prize trips, in addition to many chances for social good times. The services and literature of the 4-H clubs are free to any community, whether village, city or in the open spaces, that wishes to serve its youth.

One of the happy developments of this year in this plan of involving youth in the growing of vegetables and flowers is the interest shown by the State Horticultural Society. This is evidenced in the offerings of financial awards, prize trips, and the invitation to youth to participate in the program of the annual state meeting of the society.

This is the plan in brief: To each of the first eight counties applying, the society through its secretary, H. J. Rahmlow, is offering two prizes to the two best demonstration teams in the county, the subjects of which demonstrations cover some phases of vegetable and flower gardening, either in culture, beautification or economic uses. The first prize is $10.00 and the second $5.00.

If the team winning first place happens to be the best demonstration team in the county on an agricultural subject, the State Fair authorities pay its transportation to the State Fair and 4-H Club Camp. Here the team demonstrates in competition with other garden and flower teams representing other counties with the purpose of selecting the best one to demonstrate at the annual meeting of the society.

The Society is especially eager to encourage the growing of flowers either in connection with the vegetable garden or as a separate flower garden.

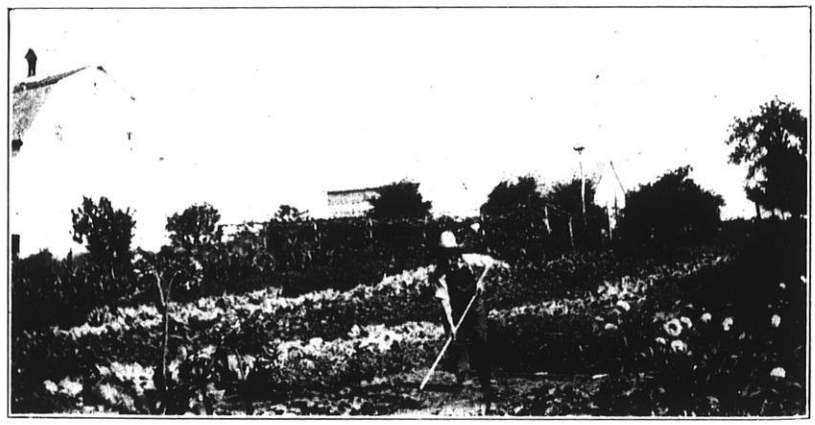
Demonstration Work Fine

A demonstration team is made up of two or more members. The members of the team work cooperatively to show by speech, by device, and by illustration the very best methods to employ in carrying on the particular type of work under discussion.

The possibilities of the demonstration team work as a device to spread the gospel of better methods and the wider employment of our youth in worthwhile endeavor are limitless. This is the reason why the Society chooses this plan.

Helps in demonstration work or in the organization of vegetable and flower clubs and what to plant and how to plant for best results, may be secured by writing the Secretary or the State Club Department, College of Agriculture, Madison, Wisconsin.

(Continued on page 175)



Henry Divan, age 15, state champion 4-H gardner in his garden. Henry has flowers in his garden and a bird house.

It's Not a Home Until It's Planted

"A Thing of Beauty Is a Joy Forever." Hints on Making Your Home a Better Place to Live.

E. A. PETRANEK
Landscape Architect

"IT'S not a Home until it's Planted"—a slogan that I have taken from the nurserymen as a text for this article—a slogan that is meaning more and more every year to the Wisconsin home owners. The city dweller and the farmer alike are striving to beautify their properties and thus make them as attractive and as enjoyable as possible.

That this condition should exist is only natural since Wisconsin has long passed the pioneering stage where the poor man went to eke out an existence. Our code of life today includes a standard of living far above that of even a few years ago. Among other things, we consider the automobile indispensable. We have finer homes with all modern conveniences, as well as a deeper appreciation of the appearance of the home grounds.

A coat of paint on the old house, a few well placed and well selected shrubs about the foundation, and a nicely mowed turf of grass extending away to the road will transform the appearance of the homestead surprisingly. This represents the first step in the landscaping of the home. You may wish to go a step farther in the beautifying of your home grounds in which event you will add a planting of trees to shade and frame the house. Possibly you will want a hedge or a border planting to enclose your grounds, either for the sake of appearance or as a guard against trespassers. Lastly, you may want to make your back yard more attractive and by a few strokes of good judgment change this back yard from an unsightly eye sore to a place where you will want to live, and where you will want to invite your friends to share the beauty of your creation.

The foundation planting rep-

The foundation planting ties the house to the rest of the grounds. Courtesy: McKay Nursery Co.

resents the beginning of your landscaping or beautifying treatment of your home. Here you try to cover up the unsightly foundation of the house and tie the house down to the grounds.

Let us imagine that your home is being photographed from the front street. The picture is being taken at such a distance that all of the grounds on both sides of the house and in front of it are included in the photograph. The picture comprises the house and the entire front land surrounding it. It will reveal some sky line, the atmosphere on either side of the house, and the front lawn. Such a picture would portray what the eyes of the public would see as they pass by your place day after day. Now have this picture enlarged to about 18x24 inches and you have a large picture of your home on a photograph, which let us assume, you are going to paint. For your colors you will use the growing materials of nature.

We would paint some low growing shrubs about the foundation, with a few medium height growing shrubs about the entrance. Other corners or angles of the house might also be improved by some of these larger growing shrubs. You may want a few Evergreens to pronounce the entrance, for the entrance to your home is the first glad hand that is extended your friends and visitors, and should be dressed up at its very best.

The following low growing shrubs lend themselves very well to foundation planting use: Barberry, Spirea Anthony Waterer, Spirea Froebelli, Regals Privet, Alpine Currant, Hydrangea Arborescens, Hydrangea P. G., Spirea Arguta, Snowberry and Almond. The Rugosa Roses, Dogwood, Bridal Wreath Spirea and Viburnums grow to a medium height and can be used where a higher growing shrub is wanted.

Evergreens suitable for use near the house include the Arbor Vitae (White Cedar) and the Juniper (Red Cedar) families. Both of these families of trees have a large number of varieties which grow to different heights and in different shapes. Accordingly, you can select the variety or varieties that meet the requirements of the place you would plant them. Along with these, I should mention the Mugho Pine as a low growing inverted washtub form of Evergreen that can be used in plantings close to the house. The rest of the Pines, and practically all Spruces and Firs, are on the large growing order and should be used as specimen trees off to one side of the lawn or in the border plantings.

With this list of materials

The house is framed in by a tree on either side of it. Courtesy: McKay Nursery Co.

and the help of a reliable descriptive and illustrated catalog, you are ready to paint your picture. In selecting your materials you are constantly visualizing them as they will appear fully grown and fully developed. First you try different varieties of shrubs on either side of the porch steps to see how they look. Then you experiment with some in the corners, or about the corners of the house, and lastly fill in between. Possibly you are thinking of a Pyramidal Evergreen on either side of the entrance, or a group of low spreading Evergreens in front of the house, or it may be some Bridal Wreath Spirea and Barberry in a corner, or even a row of Hydrangea Arborescens (Hills of Snow) to cover up the foundation on the north side of the house. If these seem to fit into the picture, use them.

The foundation need not be covered up entirely for parts of it can be left to show on the picture but we have all seen many foundations that would have been better unseen. Much depends on what you have in your picture to start with, and that in turn will determine what colors and how much of them you are going to use to make a finished painting of your home. The planting distances for foundation plantings will vary from two to three feet, and these would be planted about 18 inches from the house.

Don't use too many varieties of shrubs about your house, preferably as few as possible. Use several shrubs of one variety to a group, and select your groups so as to have some succession of bloom or ornamentation throughout the year. This, of course, is impossible on a small place with only a few shrubs, but can be worked out successfully in planting larger grounds.

Perhaps it might be well to mention a few vines with which to adorn this house. The Ivy may be used on any masonry work such as the fireplace, or on a stucco, brick or stone wall. With the aid of some wood trellis, wood ladders or woven wire supports, you can grow thereon your favorite Climbing Roses, Clematis, Trumpet Vines or Bittersweets. These may help to extend the season of bloom, and perhaps add to the color of the home.

Having completed the landscaping or painting of the house itself, let us consider the shade trees and try to fit them properly about the house. Shade trees have a twofold use: first, to provide shade itself; second, to frame or screen the house. Any of our large growing trees such as Elms, Maples, Lindens (Basswood), Ash, etc., will afford excellent shade trees.

The Elms are the old standby most generally used. In the last few years a few of the larger nurseries of the Northwest have taken up the grafting of selected forms of Elms. These grafted Elms are faster growers and will grow more uniform than the old type of seedling Elms. You wouldn't think of buying and planting a seedling Apple tree any more. Instead you demand a grafted tree grown from a selected form of the Apple like the Snow or Delicious. Likewise the time will come when the nurserymen will be grafting most varieties of shade trees.

To date, the Elm is being grafted from two forms of selected trees. One is called the Moline type of Elm which grows in a pyramidal or upright form. The other is the Vase type of tree, and as its name implies, it grows in an open top or vase shape.

In the Maple family you have the Hard Maples, Norway Maples and Soft Maples. The Soft Maple, although a fast grower, is not recommended ordinarily as a shade tree because of its brittleness.

Having selected the variety of tree you are going to use, locate them in such positions that you will get the shade where you want it, and when you want it. For instance, you may want to shade the dining-room at noon, the living-room in the afternoon, and the kitchen toward evening when the preparation of the evening meal is in progress. If you can place your shade trees to shade and at the same time to frame your house, you will be killing two birds with one stone.

Visualize again, if you will, the picture of your house from the street or road. With the foundation planting painted in, see if you would place a full grown Maple tree 15 or 20 feet directly in front of the middle of your house. I don't believe you would. That would hide the house completely, or at least cut your picture into two distinct parts. You would rather place a tree on either side of the front of the house, I believe, and some distance ahead of it. This will generally serve to shade, and at the same time frame, the house. Now looking at your picture you can see the house, almost a full view, framed in by a tree on either side of it. Likewise, two or three towering trees behind the house would provide a background for what might otherwise be an unattractive roof line and serve as a desirable setting.

Avoid planting trees in straight lines. In nature they either stand out as single specimens, or in irregular groups. A specimen Evergreen or a group of Evergreens out in the lawn can often be used to hide some architectural imperfections in the house. The same group of trees may be used to cut off the direct view from the street to the rear yard. The same use can be made of the Flowering Plums, Flowering Crabs, Thorn Apple or Mountain Ash, all of which grow only as small trees.

(To be continued)

(EDITOR'S NOTE: *Next month Mr. Petranek will discuss the use of hedges, border plantings, and the adornment of the back yard.)*

Varieties For Our Home Fruit Plantations

Combine Quality and Hardiness in Making a Choice.

JAMES G. MOORE
Wis. College of Agriculture

CHOOSING varieties of fruit is in some respects like choosing a wife, one's selection is largely controlled by the available material and his own tastes. Conditions differ so much in the various localities that the varieties available for selection vary materially.

The first requisite of an acceptable variety is that it be reasonably hardy. There is no way of determining hardiness except by subjecting the variety to adverse winter conditions and observing how it comes thru. Frequently this requires many years before one is justified in concluding that a variety is hardy in a particular section. That is the reason why the experiment station is not able to tell you promptly whether a new variety is hardy or not.

For small orchard planting, a variety may be somewhat less hardy than for commercial planting. Other factors entering into the choice of a variety may make it so desirable that we may be willing to sacrifice something in hardiness in order to secure the other desirable characters. However, no matter how desirable the other characters may be, it is a waste of time and money to plant a variety which is not reasonably hardy in your section.

THE "BEN DAVIS" STANDARD

The second most important consideration in selecting a variety for a home orchard is the preference of the grower. Of course, one can do little in advising you as to what varieties you should plant from this standpoint. I recall a man coming to my office one day and asking me, "Have you any good apples?" When a man comes at you that way it is best to be cautious, so I replied, "Just what do you have in mind?" You can imagine my relief when he said, "Well, do you have any Ben Davis?" I was quite confident that we could easily meet the quality standards of anyone who classified Ben Davis as a good apple. So, Mr. Farm Orchardist, you are entitled to the varieties you may want in your orchard whether or not they measure up to the quality standard set by your neighbor or by the committee appointed by some organization to advise concerning varieties.

It is well to remember, however, that there are times when our tastes can be improved. I imagine it would not have been difficult to have educated the man who asked for Ben Davis to the fact that there were other varieties which possessed all of the good qualities of Ben Davis, and was superior to it in many ways. So don't let your tastes be so pronounced that it keeps you from listening somewhat to those who may have had a wider experience than you. They may be in a position to recommend some variety which you may find suits you better, after all, than the one you had in mind.

In selecting varieties for the home fruit plantation, provision should be made for covering the range of season of the particular fruit, and in the case of apples, to provide good keeping sorts for storage which will prolong, as much as possible, the time during which this fruit may be had.

There are several other characters which are desirable attributes for home orchard varieties, but which are not absolutely necessary. High color, good size, attractive appearance and productiveness are highly desirable to best success, but any one or all of these may be sacrificed to a considerable extent and the variety still be worthy of a place in the list.

VARIETIES TO ELIMINATE

Disease resistance also enters into the problem. It is, of course, desirable to choose so far as possible, varieties which are most resistant to the more serious diseases. This applies particularly in Southern Wisconsin to the disease of apples and pears known as fire blight. Certain very desirable varieties as judged from other standards should not be included in the list because of their susceptibility to this disease. The two more common ones are Transcendent Crabapple and the Yellow Transparent apple.

VARIETIES FOR SOUTHERN WISCONSIN

We now come to the shortest, but most difficult part of this subject—naming the varieties. Permit me to suggest that this is no easy task because my preference may not coincide with yours. Also because even relative slight advantage, as for example proximity to Lake Michigan, may make it possible for you to succeed with varieties which would not be at all satisfactory in most parts of Southern Wisconsin.

The list of apples includes varieties for eating and cooking, covering the season from summer until early spring if reasonable storage conditions are available. They are named approximately in order of their ripening: Charlamoff, Oldenburg, commonly called Duchess, Wealthy, St. Lawrence, McIntosh, Delicious, Fameuse or Snow, Salome, Northwestern Greening and Willow Twig. In the more favored sections there might be added Grime's Golden, Jonathan, Northern Spy and Stayman's Winesap. All four

are high quality eating apples and the last three well fitted for cooking.

One will usually want one or two varieties of sweet apples. Golden Sweet, summer, Baileys Sweet, fall, Prices Sweet and Tolman Sweet, winter, are four good varieties. We do not recommend Golden Russett because it comes into bearing tardily, is inclined to be a shy bearer and stores poorly, unless stored under unusually good conditions.

For Crabapples, Whitney, extensively used for an early apple for eating out of hand, Florence, Virginia, and Hyslop make a good list. Probably it would be desirable to use but two of the three last named varieties.

Pears are quite uncertain except close to Lake Michigan. Keiffer is hardiest, but is satisfactory only for canning, and as grown in Wisconsin, not very satisfactory even for that purpose. Flemish Beauty, when properly sprayed seems to be quite generally successful. Other varieties to be included in a list for trial use are: Clapp Favorite, Bartlett, Sheldon and Anjou.

The European or blue plum can be grown fairly well in Southern Wisconsin. Lombard, Italian Prune, Tatge, and Damson do reasonably well at the Experiment Station grounds. The new group of American hybrid plums give promise of becoming very important in the home orchard. The undesirable characters of the Native or Americana plums have been eliminated in some of these new varieties and they are, therefore, much better adapted to canning and culinary uses than the varieties which have been commonly grown. LaCrescent, Underwood, Tonka, and Elliot of Minnesota origin, and Waneta, Kahinta and Tokata produced in South Dakota make a good list from which selections may be made.

Only two kinds of cherries are recommended for culture in Southern Wisconsin, Early Richmond and Montmorency.

Peaches seldom give satisfactory results, for while an occasional crop may be secured, the trees usually are very short lived.

Strawberry List Large

More people are probably interested in strawberries than in any other small fruit. Premier doubtless heads the list of early varieties. Senator Dunlap is still the most popular mid-season sort. Gibson is another good one for this season. Cooper is a new mid-season variety which has gained considerable popularity.

It is more difficult to select a late variety. Doubtless Aroma, Sample and Brandywine would be as satisfactory as any. Pearl is a new extra late sort. It has not been tried out enough to warrant recommending, but is so highly spoken of that it would seem to be worthy of trial. Mastadon seems to be the best everbearer.

Raspberry List Small

The list of raspberries and blackberries is very short. Red Raspberries, Lathan and King, with Herbert a possibility. Black Raspberry, Cumberland; Purple Cane Raspberry, Columbian. Blackberries, Snyder or Eldorado. Currants, Wilder or Perfection. Wilder is placed first because it will do better in many situations than Perfection, although the latter is a somewhat larger fruited sort.

Of the Gooseberries, Downing is the standard sort, but Porman, a new variety, may replace it in our gardens if it does as well here as it has done in the east. It is at least worthy of trial. If the gooseberries are thoroughly sprayed, then a large fruited sort as Smith Improved or Triumph may be grown.

While Concord is grown more in Southern Wisconsin than any other variety of grape, I believe that Worden is preferable. It is earlier than Concord and our conditions make an early grape desirable. Moores Early, a grape very similar to Concord, but even earlier than Worden, is another valuable sort. These three varieties are probably the most sure.

If one prefers green grapes, Niagara, similar to Concord in quality, is the hardiest. Diamond is of better quality, but somewhat less hardy. Agawam, Delaware and Brighton are the most satisfactory red varieties. Agawam is large, late and of good quality. Delaware has small bunches and berries, but is the standard of quality in American grapes. Brighton is intermediate as to size and similar to Agawam in quality.

From the lists of varieties I have suggested, one can select the major part of his home fruit plantation. To this he may add those varieties the catalog descriptions of which strike his fancy. Occasionally he may find a superior variety, but for the most part they will not come up to the standard of these older varieties which have proved themselves the most worthy of the countless varieties which have been tried out.

Diseases are being cured by the "Fruit Diet." The old meal of meat, potatoes, gravy and coffee is giving way to a variety of fruits and vegetables, both cooked and in salads.

Latham Red
Raspberry Plants
State inspected
Free from Mosaic and other disease
$3.50 per 100 postpaid
Chas. Heimstadt
R. 5
Eau Claire, Wis.

In Orchard And Garden

Observations of Tom Ato and Alex Ander

Dear Mr. Rahmlow:

WE ARE busying ourselves these days getting ready for spring.

In Wisconsin so often it comes with a rush that if one isn't ready to get under way promptly he soon finds he is far behind with his work.

Time isn't worth as much now as it is a little later on, so we're using our cheap time getting the sprayer and other tools in first class condition. Time spent in tinkering with the sprayer during spraying, when overhauling it in March would have avoided the delay, is a very expensive proposition. So we check over all the machinery and tools at this time, repairing what we can and placing our orders for anything new. Then we're ready to go when the right time comes.

The plant pathologists tell us that often when we set our plants in the field or garden, we plant with them diseases which prevent them giving best results, and frequently causing death. This happens because we fail to take sufficient precautions in growing the young plant in the hot bed or plant house.

Certain diseases are carried over in the soil, therefore its a poor plan to use the same seed bed or the same soil successive years for growing the same type of plant. Some diseases are carried over on the old stalks of last season's plants. If they are used in the compost or in manure used on the beds or in the field, serious infestation may result.

From this it would seem that the person who depends upon plants should take a leaf out of the stockman's book and give more attention to sanitation methods in connection with his hot beds and in his field operations.

Making Use of "Cheap Time"
Planting Diseases
We Do Not Live By Bread Alone
Follow Advice Cautiously
Be Sure You're Right, Then Think Again

We have heard ministers use this text "It is written, man shall not live by bread alone". That seems to be the theme of several articles we have read the last month, and it begins to look as though at last we are beginning to appreciate the fuller meaning of that statement.

I picked up a copy of "Horizons" the other day and became very much interested in an article by Prof. Elwood of Iowa State College on "Rural Housekeeping Out of Doors". That title ought to attract the attention of any farmer or farmer's wife. The article contains a lot of good suggestions, but here's one which I think every member of the Wisconsin Horticultural Society should take to heart, and see if we can't help further the idea. Prof. Elwood says: "We should emphasize the finer, more lasting qualities of rural life, and train the coming generations to respect and love country life." But how?

One way is by having a few boys' and girls' clubs in home improvement, home landscaping, planting, cleaning up and planting contests. These should be led and supervised by the already well-established official agencies even if we have fewer pig and chicken clubs for the time being. These forces should teach the boys and girls on the farm how to live happily and increase their respect and enjoyment of their rural environment. In this way we should be able to count on a more permanent and contented rural "population".

It would seem that the new garden project being undertaken jointly by the Society and the leaders of the Boys' and Girls' Club work in Wisconsin is in full harmony with the sentiment expressed by Prof. Elwood.

It's encouraging to know that such sentiments are not confined to the professors, but are beginning "to take" with many of us who live on farms. One of the farm papers has been having quite a debate running in its columns about the advisability of flowers on the farm. How's this from the pen of a real "dirt farmer"?

"Stock raising and breeding is not the only thing a good farmer occupies his mind with if he is going to make a success. We should diversify our farming and try to make our homes more attractive and flowers are one of the things that will help do it."

Of course you have heard about the fellow who asked a friend where he should cut off his dog's tail, and his friend's reply, "Right behind his ears". But following that advice wouldn't have been much more foolish from the standpoint of the welfare of the dog than was the orchardist who set fire to a heavy growth of dead grass in his young orchard. When asked why he did it he replied, "My neighbor told me it was the best way to kill the bugs."

He probably killed quite a few bugs, but he likewise killed his orchard. All of which leads us to the conclusion that one should consider well the source of the advice which he follows. We should read our papers, but that isn't all, we should read them discriminatingly.

(Continued on page 179)

Wisconsin Visits the South

Impressions of a Good Will Tour that Will Mean Much in Direct and Indirect Benefit.

THE Wisconsin Southern Tour was a success. 27,257 people passed thru the five exhibit cars in the 27 different cities in which the train stopped. San Antonio led with 2,891 visitors; Gulf Port second with 2,542; Guthrie, Oklahoma third with 2,368; followed by Lake Charles, 1,955; Austin, Texas, 1,532; Mobile, Alabama, 1,348. These were the six highest in attendance.

In addition to those visiting the cars, large numbers attended the banquets given at each stop by Commercial Clubs. This gave the leaders an opportunity to tell the city officials and leading business men about Wisconsin — its products and beauties.

The Horticultural Exhibit

The exhibit of apples, canned cherries, potatoes, mosaic control demonstration and cranberries, with signs and photographs, put up by the State Horticultural Society, occupied 25 feet in the Agricultural car.

These particular products were of especial interest to the southerners. A large proportion of the Wisconsin cherry crop is sold in the States visited, also practically all of the certified Triumph seed potatoes. As yet we sell no apples there, but that is our own fault. From Oklahoma south we find that no apples are being grown, but Western apples were on display. It is a good market, as the southerners like apples, cherries and cranberries.

Many exclamations of surprise were heard from visitors when they saw the cherries, potatoes and apples. A glass bowl filled with canned cherries in a 60% sugar syrup, and toothpicks, were provided so everyone could taste real cherries. This proved a good advertising stunt, as it demonstrated the quality of our fruit to those familiar only with other brands. These cherries were furnished by the Door County Fruit Growers Union.

A large display of cherries in glass jars and in tins, furnished by the Fruit Growers Union and Reynolds Canning Co. of Sturgeon Bay were exhibited on a 2½ foot table along the side of the car. Next there were eight trays of apples and a display of potatoes.

The apples, altho not Wisconsin's best, made a good impression. We had not planned on the trip until it was too late to get good show fruit. The apples shown were Gano, Salome, Delicious, Jonathan, and Windsor, furnished by N. A. Rasmussen of Oshkosh, and the Door County Fruit Growers.

Potatoes are Eye-Openers

From the expressions heard as visitors filed thru the car, they had evidently never seen a real display of potatoes. The exhibit consisted of Triumphs from the Price County exhibit that won first place at the State Potato Show last fall. In uniformity, size, and shape they were hard to beat, and made a real impression.

Prof. J. G. Milward, of the University of Wisconsin Horticultural Department, had furnished a supply of potatoes in flower pots to show the difference between healthy and mosaic diseased plants. With this were enlarged photos and an explanation of the method used in the Tuber Index Method of mosaic control.

We found large shipments of certified seed from Nebraska, Montana, and the Dakotas in the towns thru which we passed. The exhibit should bring out the quality of Wisconsin seed and open up a larger market for our growers. But few states are using such efforts to control this disease.

Market for Fruit is Open

From Oklahoma southward no apples or cherries are grown, but many peach, pear, and pecan orchards were seen. The demand for fruit in these states is good, and the cities seem to be growing very rapidly. In fact, it is surprising to find so many cities of from 50 to 200 thousand population down there.

The cherry and cranberry growers only need to produce a product of the quality they are now putting up—the market is waiting. The apple growers will have more trouble—a lot of competition to meet. Triumph potatoes can be sold if good quality stock is offered with an active selling campaign to push the Wisconsin Brand.

Impressions of the South

Southern hospitality and politeness is proverbial. It was impressed upon us as we made stop after stop going south. Beginning at Oklahoma, we also noticed quite strongly the southern accent, which to most northerners is quite pleasing.

Not in all cases can a northerner be transplanted into the south with satisfaction. At San Antonio a young couple visited the train who illustrated this point. The husband was a Wisconsin war veteran who met the young lady while in training at Waco. He was anxious to return to Wisconsin because he could not make a success of his work in the south. His wife was a "dyed in the wool" southerner, and could not bear to think of the cold winters of Wisconsin;—tho she had never been here. The husband could not stand the hot, dry summers of the south, so it was a rather delicate situation.

The booster spirit of the southern people is very obvious. Everyone is boosting and anxious to tell you of their wonderful opportunities. That may be the reason their cities are booming and increasing so rapidly in population.

The cities of the south are very modern. The homes in the best residential sections are beautiful. The streets are well kept, and the lawns well landscaped with shrubs, especially with evergreens. In fact, the evergreen borders as foundation plantings, and along the walks were seen in larger numbers than we have noticed in cities of the same size in Wisconsin.

In contrast to this was the appearance of the country. We are still wondering why it is that the farm homes impressed us in just the opposite way. Being accustomed to large dairy barns, nice homes, well arranged and neat home surroundings, and especially farm homes at short intervals, at least in the greater part of Wisconsin, it surprised us to see farm homes far apart—and really nothing to them. It may be because they don't need buildings, as they say, since their cattle are outside all year round. However, the farmsteads showed a lack of appreciation of beauty, or perhaps pride in the home.

In the far south the social barrier between laborers and professional people is very pronounced. The work is done largely by negroes. That was the reason a southern friend emphasized the fact that before Wisconsin farmers buy land and move south to farm they try out the life for a year by working for a southern farmer. The social life may have a serious effect upon their families, as they will be in a different class than when in Wisconsin.

The Daily Program

The program at each stop was somewhat alike, depending upon the time of arrival and length of our stay.

In most every case the train was met by a committee of the local Chamber of Commerce, who escorted their visitors to the hotel or club rooms, if it were meal time, and gave them a free sight seeing tour of the city.

After each banquet, breakfast, dinner, or lunch, as the case happened to be, a short program was given. We were told of the glories of the country in which we were visiting. In turn, our own speakers told of things produced in Wisconsin; our dairy farms, factories, and recreational features. We really expect a large increase in the tourist business as a result of this trip.

The entertainment was usually furnished by our own group—the University Haresfoot Orchestra, Barron County Guernsey Quartette, and Chief Silvertongue, an Indian singer with a wonderful voice, sent by the city of Kilbourne.

Not all the Wisconsin delegation could attend the banquets and take part in the tours. Some had to remain in the cars and take care of exhibits and explain to the crowds the things of interest about the different booths. This was really a very important feature of the trip, since a great many more people came to the train than attended the banquets.

The Train Make Up

The train consisted of five cars of exhibits and nine sleepers. The first two exhibit cars were filled with exhibits from different counties of the state. These exhibits consisted of displays of cheese, butter, potatoes and other farm products, also some manufactured goods and photographs of recreational features. Circulars were handed out by the various counties, displaying the agricultural possibilities and also the lakes and recreational opportunities.

The third car was the State Department car. It contained exhibits by the State Experiment Association consisting of seed grains, corn, etc. Next was the State Department of Education with pictures of Wisconsin schools, a model one acre country school ground and a model country school building. This was a very interesting exhibit. Following this was the Horticultural Society exhibit which we have previously described.

Across the aisle from these were the displays of the State Live Stock Breeders Association consisting of maps of Wisconsin showing shipments of Wisconsin dairy cattle, also a display by the Department of Agriculture showing large photographs of Wisconsin scenes on glass in a frame. An electric light behind each picture displayed it to great advantage. The fourth car was an exhibit of butter and cheese by the Department of Markets. A complete electric refrigerator system made a very fine showing.

The last car was an exhibit by the Conservation Commission which was probably the most beautiful car on the train. It was a representation of a dense forest of pines, hemlocks, etc., with wild animals among the trees. Quite a few negroes showed the whites of their eyes when they suddenly came upon the mounted bear standing behind a tree.

In all there were 162 men and women from Wisconsin on the train, including State Officials, Members of the Department of Agriculture, County Agents, County Board Members, the Legislative Committee and Wisconsin Business men and farmers.

Modern homes in our cities contain many conveniences. Everything seems to have been thought of excepting the vegetable cellar.

My Garden

Varieties Used in Creating Pleasant Home Grounds.

Written for "About the Home and Garden"

MRS. R. MALICH, Hales Corners

THE most interesting subject to any one of us is "My Garden". It does not matter whether this garden is merely a flower box or an extensive estate, everybody loves his own garden best.

Being just a beginner in the art of gardening, I am afraid I cannot tell the experienced gardeners very much, but perhaps there are some who are just beginners like myself.

When we moved into the country about four years ago we knew nothing of gardening, but were very much interested in the subject.

We gathered as much information as we could from friends, books in the library and magazines. At present we get great inspiration and instruction from our Milwaukee County Horticultural Society and our Garden Club.

Our grounds take in about two and one-half acres. The home is built on a knoll the west side of which slopes down toward a little creek. On this slope we made our rock garden. Rocks are plentiful in our locality. See picture No. 1.

We had a large quantity moved to this spot, they were not arranged, but just a few here and there to leave pockets in which to plant the flowers.

We found it more effective to plant one kind of flower in a pocket rather than using different varieties.

On the slope the lower growing plants are better than the taller ones, as the latter lean over too much and smother the smaller plants beneath.

Sedums are ideal rock plants, some being evergreen. Our rock gardens can be almost as beautiful in winter as they are in summer. In taking a walk through ours the other day it looked most refreshing to see the masses of deep green. Sedums are easily grown from seed; we have about ten different varieties from one packet. However, one objection to using mixed seeds is that you must wait until they bloom before finding out their true names.

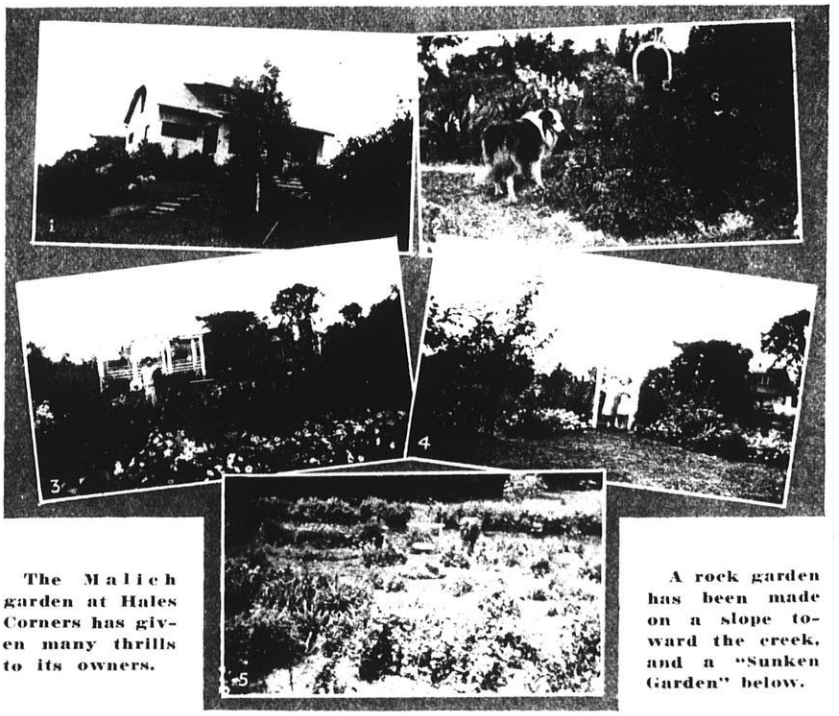
Other good low growing plants are the Sempervivums, Cerastium, Arabis, Saponaria, Aubretia, Cheddar Pinks, Phlox subulata, and Alyssum saxatile. One of the lowest growing plants is the Spergula, it grows about half an inch high, looks like moss and has tiny white flowers. Since we got the seed from Europe, we do not know how hardy it is. On examining it the other day we found it still as green as it was in the summer.

Veronica repens is another plant that creeps along the ground and has very neat foliage. Lychnis alpina, Gypsophila repens and Arenaria are good.

Among the taller flowers are the different Pinks, the new double Tunica, and the Polemonium with its delicate fern like foliage. Violets tucked underneath the rocks somewhere are very satisfactory and so are the pink For-get-me-not.

If you like lots of color there is no better plant than the Cheiranthus alloni with its brilliant orange flowers that bloom all summer.

The grey or silver foliaged plants like Stachys, Santolinas and Nepeta mussini are good; with the latter be sure to get the right variety. We were not very pleasantly surprised when ours turned out to be nothing but the ordinary Catnip.



The Malich garden at Hales Corners has given many thrills to its owners.

A rock garden has been made on a slope toward the creek, and a "Sunken Garden" below.

The trouble with plants that we are not familiar with is that we do not know what to look for. We had planted some Potentilla and they came up nicely. After we had transplanted them into the garden they looked much like a weed that resembled a strawberry plant. As they did not bloom last year we are still wondering if we have a weed or a Potentilla.

In spite of some disappointments it is very fascinating to raise perennials from seed.

Coming back to the description of our grounds, the slopes of the hill on either side of the rock garden were planted with wild roses and Sumac.

Below is quite a level space of ground of rich, virgin soil. This was tiled and here we made what we call our sunken garden. It is merely a formal garden laid out in a geometrical design. At the lower end of this is a semi circle of French Lilacs, in back of a round white garden seat. See picture No. 2.

On the west side is a Russian Olive hedge and on the upper end, on a higher elevation, a tea house. This looks very much like a pergola, but is enclosed on three sides. At the different columns we planted climbing vines such as Roses, Honeysuckle, Begonia and Wisteria. As this was done last year they have not yet reached to the top. In back of the house is quite a space of lawn with stepping stones leading to the rock garden and formal garden. This is bounded with a border of perennial flowers. In back of this is a hedge of Currant bushes which divides that section from the vegetable garden. See pictures No. 3 and No. 4.

The vegetable garden is surrounded with fruit trees and berry bushes. Right through the center of it is a straight garden path with a border of perennials on either side. On the outer edge is a row of dwarf pear trees.

The garden path was made last year, and it gave us much pleasure. It is about one hundred and twenty feet long. One enters the path thru a rose arch and at the end is another rose arch with seats.

In order to break the monotony, about half way up the path we made a little pool and had the path lead around this. See picture No. 5.

The pool was made out of an ordinary wash tub sunk into the ground and lined with rocks on the inside and outside, which completely hides the tub. In this we planted just one water lily, a few water Hyacinths, water Poppies and Parrot feather. On the edge among the rocks we planted Japanese Iris, Columbine, Pinks and different rock plants.

The perennials on either side of the path are planted in groups of six or eight. A group of one kind of plants is repeated about every seven feet or so all the way up the border. Take for instance the Iris, when overlooking the garden path from the bedroom window, which is on an axis with the path, it appears as though the whole border is one mass of Iris, tho the groups are actually quite far apart.

Another flower which is quite effective planted in this way is the Hesperis or Sweet Rocket. It is almost as showy as the hardy Phlox is later in the season. Coreopsis is planted in the same way and the yellow all the way up the border is really quite beautiful.

By using lots of white, too much clash of color is avoided. Just a few of the flowers, are the Oriental Poppies, Peonies, Aquilegias, Gaillardias, Shasta Daisies, Valerians, Lychnis Delphiniums, Digitalis, Canterbury Bells, Physostegia, Astilbes, and Regal Lilies. On the outer edge are the taller perennials, such as Hibiscus, hardy Aster, purple Cornflower and Hollyhock. On the inner edge the lower varieties, like English Daisy, Tunica,

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Arabis, Pinks, Mertensia etc., were used.

All the vacant places are filled with annuals, assuring a wealth of bloom throughout the season.

So far our experience has been limited. A person keeps on learning. What we may consider nice now may not appeal to us later. Gardening is like any other art, we learn and our tastes develop.

Nothing teaches us more than observation, time and experience.

FIGHT OYSTER SHELL SCALE

C. L. KUEHNER

March and April, preferably the latter date, are the months in which dormant sprays are applied in Wisconsin farm orchards which are infested with Scale insects.

Of these scale insects the oyster shell scale is the most common and causes more damage than any other scale found in our orchards. In some orchards it is so numerous that trees have been so weakened they have become unproductive. In some instances trees have been killed or are near death. No tree can do well under such conditions.

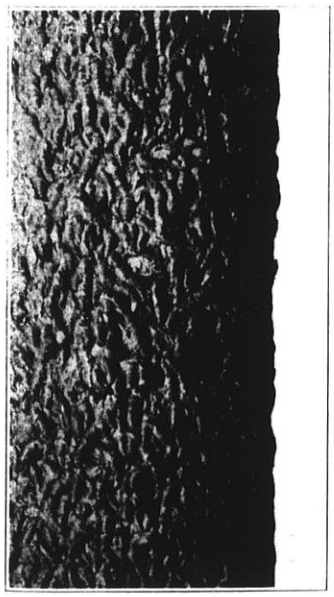
The scale must be controlled if the tree is to be fruitful and profitable. In the past farmers have controlled the scale by dormant sprays of liquid lime sulphur using one gallon of the lime sulphur to 7 to 9 gallons of water. According to the State Entomologist, bad infestations are more satisfactorily controlled by using one gallon liquid lime sulphur to 7 gallons of water, or by using one of the miscible oils.

The spray is applied in the late spring before any buds show green. Oil sprays have been used and have given satisfaction. Where these are used the manufacturers' instructions should be followed as to the concentration of the solution. Scalecide, Sunoco, and Dendrol are some of the oils which are being used in dormant sprays.

The effectiveness of the dormant sprays depends upon the thoroness of the application. Every bit of the entire bark surface of the tree must be covered with the spray. The scales are found everywhere, on the trunk, big branches, cracks, spurs, and the topmost twigs. Thoro and complete coverage is absolutely essential if the scales are to be controlled.

In our spray ring orchards we have found that badly infested orchards can be cleaned up with two dormant sprays in two successive seasons. In some orchards where the scale is not very abundant one dormant spray will clean the trees sufficiently so that the regular summer sprays will keep the few living scales in check.

While pruning you have a splendid chance to ascertain whether or not you will need to apply the dormant spray. At any rate, prune the orchard before you apply the spray. It will make spraying easier, cheaper and a great deal more effective.



Oyster Shell Scale on a Branch

GLADIOLUS BULB BARGAINS

4 Willie Wigman ---- 40c
3 Roanoke ---------- 30c
3 Alice Tiplady ------- 30c
1 Orange Glory ------- 10c
1 Panama Pink ------- 10c
1 Glory of Kennemerland ---------- 10c

This collection of 13 bulbs, value $1.30 for $1.00 postpaid to you.

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Wisconsin Horticulture

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WE HAVE received a number of letters from members stating that they enjoy reading Wisconsin Horticulture, and consider it one of the best horticulture magazines published.

We appreciate that, of course, but realize that there are several horticultural publications of national circulation putting out a more elaborate magazine.

We believe, however, that for Wisconsin people we can offer something not to be found in any other publication of this kind — information based on Wisconsin conditions. After reading most of the horticultural publications of national circulation we find a very small proportion of the information of value in this state.

For example, in one of the best magazines we find an article entitled "Apples for Roadside Markets". Looks like a dandy, and so it is, but not under our conditions. Not a single variety mentioned has been proven in this state.

That's why we believe the Wisconsin Horticultural Society has a mission. The magazine reaches 3,500 homes this month. That is a good number, but why should it not be 7,000?

If you agree, tell your neighbors and help build up the society.

OUR ADVERTISERS

YOU have noticed the increase in number of advertisers in the magazine this month. Without them it would be impossible to put out a publication of this size—because of the cost.

To obtain and be of value to our advertisers we must have a large circulation. To be able to afford to send out a large magazine to a large circulation we must have advertisers. It works in a circle.

It will pay to patronize these advertisers.

SPRAY SCHEDULE ENCLOSED

WE ENCLOSE in this issue a spray schedule for farm orchards. This is done at considerable extra cost in the hope that it will help make spraying effective on Wisconsin farms, and improve the quality of fruit.

We wish to acknowledge the co-operation of Prof. C. L. Kuehner, extension specialist in horticulture, in preparing the details of the chart.

The schedule has the approval of the State Entomologist, and the Horticultural Department of the College of Agriculture.

We hope our members will keep this chart for future reference, or hand it to a friend who has use for it.

We have printed extra copies, which may be obtained from us at cost, by county agents, or anyone interested.

OUR COVER PAGE

The growing of Daffadils and other bulbs of the Narcissus family has become an extensive industry in the United States. What could be more inspiring than a field such as this—even without the figure at the left.

THE BEST CHERRIES ARE WISCONSIN CHERRIES

"WISCONSIN cherries are the best quality cherries in the United States", we were told by Brokers and Wholesalers in several southern cities while on the Wisconsin Southern tour.

The only kick we heard was that shippers were not able to fill their orders. Some years shipments were less than 50% of the amount the Brokers wanted. Also, they thot the price was a little high—it's a little more difficult for them to sell cherries at present prices, so they would prefer to have them cheaper, and consequently easier to sell.

Our observation while on the tour was—that if the cherry growers wish to continue to make money on their crop they should watch their step, stick together in marketing, and be very careful of their quality.

We were in many cities of the far south where good cherries were unknown. That means opportunity for selling more Wisconsin cherries. Inferior brands were available at lower prices but were not selling. That means, if production is increased and the quality lowered, competition with inferior cherries will—we hate to think of it.

THE SOUTHERN FARMER

WE VISITED with farmers in Texas, Oklahoma, Louisiana, and Alabama. They are a polite, hospitable people. They took us for auto rides about the country and showed us their farms. The average Wisconsin

farmer, however, would be disappointed with the appearance of the country—it is so different from Wisconsin.

These states are all anxious to have our Wisconsin farmers migrate and farm down there. As a Texas County Agent remarked "We need good farmers more than anything else".

Why is it—with all the advantages of long season, wonderful soil, etc., that they tell about—that the farm homes are so shabby, and the farmsteads so shiftless looking. Several good business men in southern cities made the suggestion that before Wisconsin farmers buy farms in southern states they work on a farm for a year, to get acquainted. We hope that suggestion will be followed. It will save heart aches and money.

Many farmers from Wisconsin are taken to lower Texas every year on "Excursions", and before they can get away, buy land at $1,000.00 per acre, more or less. It is a well known fact that good land can be purchased for a lot less down there by one who knows the country.

A tempting bait gets many a fish.

HAVE Wisconsin fruit growers an *"Inferiority Complex"?* Sometimes we are inclined to think so.

Why don't we hear that Wisconsin apples are the best to be had? Perhaps because the grower doesn't believe it himself. Why is it that we see Westerns box apples in the grocery store window of a city from which carloads of apples are shipped?

Men who know will tell you that in quality the Wisconsin McIntosh is as good as the Delicious at its best. Surely it is better than many of the varieties of Western box apples you see in any fruit store window right now.

Here in Wisconsin we continue to talk about lack of markets, overproduction, and low prices.

Let's talk about how to put good Wisconsin apples into these store windows, to sell at 5¢ each.

It's a good subject, and we are going to say a lot more about it. The spray chart is the first step.

Mr. I. J. Schulte gives us a fine report of the meeting of Milwaukee Rose Society this month. He mentions the outstanding points brought out by the speakers at the meeting.

We hope every local society in the state will make such reports every month. If there is no report given of your society, we will appreciate if you will take it up at your next meeting and instruct the secretary to write us, or appoint a special reporter. Reports should be in by the 20th of the month.

IT WAS with a great deal of pleasure that we met a number of fruit growers and members of the Horticultural Society in attendance at the Annual Farmers' Week of the College of Agriculture in February.

A good program for fruit growers was presented at the Horticulture building. Insect and disease control, spray rings, and other orchard problems were ably discussed. The main program was also very good.

As the "Wisconsin Farmer" states editorially, "Probably the most significant feature of Farm Folks' Week was the relatively small stress placed upon legislative schemes for improving Agricultural conditions". That is encouraging and the chances are we will get somewhere.

There is opportunity of developing a strong program for Horticulturists during Farmers' Week and bringing in a large number of our members.

For several years the outstanding special sessions, i. e., before and after the main program, have been in the poultry department. Several times they have had to move to a larger hall to accommodate the crowd. They usually import several speakers, and present a very intensive program.

An intensive program along Horticultural lines would bring out a large number of our members. Something new is being discovered every day and tho we sometimes wonder what can be presented that is of interest, we find many of our leading men in the business in attendance at the meetings. They have found it pays and will come again.

ABOUT ROSES IN WISCONSIN

The above is a title of a little circular printed in 1926 by the State Horticultural Society. We have a number of these booklets on hand and will be pleased to send them free of charge to members of the society in return for three or more names of prospective members. Just drop us a line and give us the name and address of people you know who might be interested in becoming members.

The booklet was written by Mr. Frederick Cranefield and is very thorough in its treatment of roses in Wisconsin.

HOUSEWIVES FAVOR CANNED CHERRIES

M. B. GOFF

HORTICULTURISTS are getting busy here with pruning, over-hauling their spray machinery and tractors, in anticipation of a busy season. It is still too early to forecast the crop with exactness but all are hoping that 1928 will show a return to normal production.

The tendency here seems to be more and more away from fresh fruit shipment. This indicates that the housewife is becoming tired of standing over a hot stove to can and preserve

(Continued on page 173)

About the Home and Garden

Mrs. C. E. STRONG, Editor

THERE IS PLEASURE IN TRYING OUT NEW PLANTS

WHEN the plants are growing thriftily in the window under the regular watering and fertilizing treatment—perhaps your thoughts turn longingly to some plant seen in a florist shop, or have read about in catalogues.

Are you a bit fearful that they will not grow for you? They will. I shall never forget my first venture. I had received a very fascinating catalogue from Florida, which told of many Ferns. I looked at the Boston ferns in the windows which were growing so nicely—why could I not grow these others just as well?

I sent a sum of money with this request, "Please send me Ferns for this amount, no Boston ferns or any of the sports".

When the box came it held twelve ferns, each in a tiny paper pot, all different. No one but a real plant lover would understand my delight, nor believe how much time I spent in potting them up.

I potted them in a mixture of leaf-mold and sand, in pots about two sizes larger than the paper pots they came in, watered them well, then placed them in a north window. I spent all my spare time for the next three weeks watching them grow, for they surely did grow, especially after the first week.

After this successful venture I haunted florist shops and studied plant catalogues and soon a small orange tree was added. This also grew and its fragrant blossoms delighted numerous pretty brides, "Real ORANGE BLOSSOMS"—they were surely going to be blissfully happy.

And do you know that so far every one of those brides look as though the Orange blossoms had indeed brought happiness.

Then came the American Wonder Lemon with its large creamy white thick petaled flowers and fruits weighing two pounds and more—the flavor of the pies made from these lemons still lingers fondly in the memories of partakers thereof.

Figs, Guavas, those delicious little Japanese oranges, called Kumquats, Pomegranates, all were given a place in the window, all were interesting and most of them are as easily grown as Geraniums.

The Pomegranate is especially beautiful with its brilliant scarlet Fuchsia like flowers that actually cover the plant all winter long. But you must remember to feed it liberally and not allow it to ripen many of its rosy many seeded fruits.

An Airpine fastened to a small slab of bark, grew as tho it were at home, sending out its long curious spikes of bloom. All the care this plant needed was a good soaking in warm water once a week.

Allamanda Williamsi is another good blooming plant, it needs plenty of room as it is a sort of half climbing shrub, (that may sound like a queer description) but it fits just the same. This plant is a constant bloomer also, and the waxy golden yellow morning-glory shaped flowers are very attractive; it is well worth trying out.

I remember exhibiting a plant in full bloom one year at the State Fair. As we carried the plant into the Horticultural building, an Italian laborer threw up his hands with joyful exclamation, "Oh the Allamanda, she is just like to home." I think he came in to look at it every day, his face showing as much pleasure as tho it were some friend he had thus unexpectedly encountered. No doubt he regarded it as such, not only for its beauty, but for the memories it brought to him of the far off home across the sea.

A window garden can be made as interesting as the outdoor garden. You will find the cold days going by with magic swiftness if you are watching new plants growing. Soon you will be saying to your friends and neighbors, "Why really it is no trouble at all to grow these plants, and they are so interesting, you just cannot be lonely or dispirited when there is something new to watch in your window garden.

If you see a plant you admire in a green house or florist shop, buy it, or if you have read of some plant in one of the catalogues, something you have never seen—send for it, and after you have it—get acquainted with it. Water and feed it of course, and study the plant; notice the root system, does it do better when pot bound—or will it stand frequent repotting. Try it in full sun, also in a window where it has sun only a part of the day.

I have had plants that seemed to positively dislike being repotted, they sulked, leaves turned yellow, blossoms fell off, no matter how carefully I did the work. With such plants, liberal feeding, and setting the pot in another pot several sizes larger, then packing the space tightly with sphagnum moss, helped to put off the evil day.

When you are watching the plants there is not much danger of insects such as red spider, green aphis, and mealy bug do-

ing much damage, because you are watching. Immediately the first one appears, sprinkle every day with water for red spider and with soap suds and nicotine for aphis and mealy bug, until they disappear.

Did you say that meant a lot of work? It is really very little trouble compared to what it would be if those pests got a good start.

After you have tried out a few new plants, you will do as I have done and am still doing—keep right on getting acquainted with other plants, for the more you know about them, the more interesting you find them. For,

One slowly creeps to unassuming grace,
One climbs, one trails,
One drinks the light and moisture,
One exhales.
Up through the earth together, stem by stem,
Two plants push swiftly in a floral race,
Till one sends forth a blossom like a gem,
And one gives only fragrance.

From shapeless roots and ugly bulbous things
What gorgeous beauty springs.
Such infinite variety appears,
A hundred artists in a hundred years
Could never copy from the floral world
The marvels that in leaf and bud lie curled.
Nor could the most colossal mind of man
Create one little seed or plant or vine
Without assistance from the First Great Plan,
Without the aid divine.

Just why the bloom and fragrance of the rose
Or why the white camellia, without scent,
Up through the same soil grows;
Or how the daisy and the violet
And blades of grass first on wild meadows met.
Not one, not one man knows,
The wisest but suppose.
This flower room of mine
Has come to be a shrine,
And I go hence
Every day with larger faith and reverence.

—Extracts from "My Flower Room", by Ella Wheeler Wilcox.

When writing to our Advertisers mention Wisconsin Horticulture.

ARE YOU SATISFIED
With Your Home?

At new low prices we offer graduate landscape architects to design, plant, irrigate, and drain areas of any size.

Beautiful specimen evergreens, unequaled for beauty, by the carload.

M. Edwards Company
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Hartland, Wisconsin
General Line of
Ornamentals and Fruits

SCAB hibernates on fallen leaves—plow them under as soon as soil and weather permit. Then—when new leaves are the size of mouse ears—spray with **"Orchard Brand" Oil Emulsion** or **Bordeaux Mixture.** This, and the cluster bud spray on apples, are the vitally important scab treatments.

While peaches are in bloom, protect against brown rot by dusting with **"Fungi" Dust** or spraying with **"Dritomic" Sulphur** (without an arsenical).

Gauge your work by the development of the trees—**not** by calendar dates. And remember—you're investing in **control,** where **quality alone** can assure the results you're after.

Ask us to send you the 1928 Annual, "Cash Crops." It is free, on request.

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SPRAY & DUST MATERIALS

A Flower Show For Every Community

Several Shows May Be Held During the Season When Flowers Are in their Prime.

Florists Department—HURON SMITH, Editor

THE question of prizes for flower shows is a perplexing one, because there are so many factors that determine what sort of a show you may promote. If premiums are to be in cash, then you must have considerable means to run a show.

In the National Flower Show of the Society of American Florists, above $25,000 are given in prizes. Other expenses bring the total cost of the ten day show to a hundred thousand dollars. That means an attendance of two hundred thousand visitors at half a dollar to break even. The National Show must conduct an almost constant advertising campaign. Any show that expects to pay cash prizes had better decide to charge a gate fee, and to attract the necessary number, it will be necessary to do some concentrated advertising, and plan just how it will attract the necessary number to pay expenses.

If it is an amateur show, it is better to give inexpensive prizes, such as ribbons, a cup or two, or some small cash prizes, ranging from fifty cents to three dollars. Prizes in stock are acceptable to a real amateur. The amateur is sufficiently rewarded by his success in the growing, and is quite satisfied to have the public know that his flowers are the best, though he earns but a ribbon. The Milwaukee County Horticultural Society members pay ten cents a month into a premium fund that is exhausted by their summer flower shows.

While we are on the subject, why not have a *column in Wisconsin Horticulture, devoted to the coming shows in Wisconsin? As soon as the dates are determined, they should be sent in for publication.*

This article on flower shows is written by Mr. Smith as a result of numerous requests from local flower and garden clubs for information on the subject.

Don't fail to send in the dates for your show, together with a short article on the general plan, for publication.

A step further would be to have published a list of the various local horticultural societies and garden clubs over the state, and their meeting nights. For instance, the Milwaukee society through the winter always meets the fourth Tuesday of the month. In summer, they meet twice a month, the second and fourth Tuesdays, and have garden pilgrimages on Sundays when there are no flower shows. Many of us travel about and if we knew where the clubs are, and what day they meet, we could do more interclub visiting.

No single flower show in any town can do justice to garden flowers. Any flower show that is organized should be the result of a live county or town horticultural society, rather than trying to organize a flower show, *de novo*. That would be putting the cart before the horse. Flower shows of garden flowers naturally fall into definite days on the calendar, just as regularly maturing as the regular floral holidays of the commercial florist. The time of chrysanthemums, dahlias, tulips, Easter lilies, and calceolarias are so definite, that you might almost set your floral watch by them.

Flower shows must then be set at the dates when various classes of flowers are in their prime. The several shows might be named from the dominating flower that occurs on any certain date. We suggest that these shows take the name of that particular flower such as Iris Show, Peony Show, Gladiolus Show, Dahlia Show, or Fall Flower Show. Prizes might be confined to the above listed flowers, but no one should be discouraged from bringing in anything they have that is in its prime at the same time. Rather they should be encouraged to do so by offering prizes in any case where there are six entrants of flowers in any non-listed premium item.

Each class of flower has different grading points for national ratings. The scale of points can be seen in the "Flower Grower". Use the national scale and many of the national societies will donate special trophies. That is the case with roses, gladiolus, dahlias, iris and others. From experience, we would suggest a spring flower show the last Sunday in May. Prizes might be offered for tulips, narcissus and other bulbous flowers. In the middle of June, you will want an Iris Show. To this show will come oriental poppies, anemones, pansies, lily of the valley, columbines, wallflower, bridal wreath, sweet rocket, Shasta daisies, lupine, for-get-me-nots, rock garden plants and a few early peonies.

By the end of June a peony show is indicated. The second week in July is a good time for a perennial show. At the end of July, another one will be ready. By the middle of August gladiolus should occupy the stage, or it may be a little later in the month. Next comes a dahlia show in September. And lastly, an aster and fall flower show. About the first of September comes the great amateur show at the Wisconsin State Fair.

If your local florist is a live wire, he will be glad to organize with your help, flower shows in the winter, where house plants may compete for prizes. Although the prize feature has not been tried in Milwaukee, local people have sent in potted plants to the Fall and Spring Museum Shows, the first Thursday to Sunday in November, and the middle of March. This year it is to be from March 15th to March 18th.

Our advice is not to try to jump full-fledged into a complete show, as Minerva is fabled to have sprung from the brains of Jupiter, but to start out in a small way accumulating experience as you go. You have a chance for some delightful shows that tend to unite the people of your city as no other subject would. Race, creed, politics, nor any other fighting divisions of mankind have anything to do with flowers. They are the "Stars of Earth", the messengers of God urging "Peace on Earth, Goodwill to Men."

HOUSEWIVES FAVOR CANNED CHERRIES

(Continued from page 169)

fruit, which she is able to purchase with ease and safety in the factory packed container.

People are finding that good cherries packed by the present method, have flavor fully equal, if not superior, to that of the home packed cherries, also, the cost of labor and fuel considered, they are much cheaper.

We Sturgeon Bay horticulturists, therefore, make our bow to the public with a suggestion that our highly specialized industry can most completely assist in serving canned cherries through the medium of our scientifically controlled factory packed cans.

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A Practical Proven Power Cultivator for Gardeners, Suburbanites, Truckers, Florists, Nurserymen, Fruit Growers, Country Estates and Poultrymen.

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2. Is it readily available for plant use after application?
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ARCADIAN Sulphate of Ammonia scores on every count!

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NOTE: See your dealer now regarding your requirements for this season. Remember there was a serious shortage of Sulphate last year. Place your order now. We'll send you a free sample—just mail the coupon.

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We'll send you—FREE—enough Arcadian Sulphate of Ammonia to fertilize 25 sq. ft. of soil. We will also send you free bulletins by leading authorities telling how best to use Arcadian. Just fill in the coupon and mail it—today!

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Please send me sample package of Arcadian Sulphate of Ammonia. I am especially interested in.....
(Write names of crops on line above)
and wish you to send me bulletins on these subjects.

Name_____

Address_____

Potato Growers Department

J. G. MILWARD, Editor
Secretary of the State Potato Growers Association

POTATO SONG

(Tune Rubin, Rubin)

1

Old Yon Yohnson raised pertaters
They got scabby every year.
Now he uses some good treatment
And the scabs they disappear.

2

Rhizoc. Rhizoc. that's the reason
Why potatoes stand so thin.
The dirt that "don't come off in washing,"
Starts the fungus with a vim.

3

Bi-chloride has been standard treatment
For years and years for scab and scurf,
And will insure that the sprouts start
When it's used for what it's worth.

4

Hot formaldehyde they tell us,
Kills the fungus at the start,
And the young sprouts from the seed piece
Make good plants that please the heart.

5

Dip Dust and the new Semesan Bel
Organic Mercury they say
Are the kinds of new seed treatment
Good to use and here to stay.

R. E. VAUGHAN.

WISCONSIN SEED POTATOES ON TRIAL IN SOUTH

In cooperation with the Horticultural Department, several Wisconsin potato growers have furnished seed stock for Southern Experimental fields.

These fields are located mainly at San Benito, Texas, Alexandria, Louisiana, and the A and M College, Mississippi. At San Benito Mr. Henry Alsmeyer, County Agent, formerly from Wisconsin, is in charge of the Experimental plots. At Alexandria, Mr. J. M. Weston, formerly of the Michigan Agricultural College is in charge of the work. Professor H. H. Wedgworth of the A and M College, Mississippi is directing the work. At all of these points seed stock from several Northern and Western States has been assembled.

Reports received from the south state that the seed has been planted. The plots will be inspected during the regular Southern Potato Tours, usually held about the middle of April.

These Southern trial field plots offer an excellent opportunity to check on the behavior of certain Northern strains of seed well in advance of the Wisconsin planting date in June.

Wisconsin growers who have furnished seed include John Conradi, Phillips, Wm. Dama, Phillips, John Putz, Spooner, J. W. Smith, Bryant, Charles Kosloski, Coleman. The Spooner Branch Station has also supplied samples from seed improved thru the tuber index method.

WISCONSIN SEED POTATOES REACH MANY MARKETS

Over 250,000 bushels of certified seed potatoes were produced in Wisconsin during the season of 1927. 40% of this crop, or 100,000 bushels were Triumph, one of the leading standard early varieties. Practically all of these have already been marketed. The Triumph growers find an outlet for their seed stock in the states of Florida, Mississippi, Alabama and Texas.

The counties in Wisconsin leading in Triumph production are: Price, Oneida, Langlade, Marinette, Washburn, Sawyer, Vilas and Oconto.

Long Island dealers and growers purchased upwards of two thirds of the total crop of certified Green Mountains. Oneida, Sawyer, and Lincoln counties figured prominently in producing the 50,000 bushels of this variety.

Many growers sold their stock at digging time, or soon after. A fair advance over table market prices was received.

Wisconsin Green Mountains have given excellent satisfaction in the East. In competitive trials on the Island with potatoes from other States, Wisconsin Green Mountains ranked very high. Indications are that there will be an increase in the number of applicants for inspection of this variety in 1928.

Forest, Langlade, and Oneida Counties are leaders in Irish Cobbler production with a yield of 45,000 bushels or 90% of the total crop of the certified Cobblers in the State. The acreage planted to this variety had been materially increased during the past year.

Of the Rural New Yorker variety, upwards of 50,000 bushels were produced. Barron, Marinette, Oconto, Door and Rusk Counties respectively produced the major portion of this variety. The marketing season for certified Rural New Yorker stock continues from February until planting time.

In general, the type and quality of the certified seed is good. But little loss thru late blight rot or frost injury occurred during the season of 1927.

STANDARD GARDEN TRACTOR
Plows
Seeds
Cultivates
Mows Hay and Lawns
A Powerful Tractor for Small Farms. Gardeners, Florists, Nurseries, Fruit Growers and Poultrymen
DOES 4 MEN'S WORK
Walking and Riding Equipment.
Free Catalog. Does Belt Work.
STANDARD ENGINE COMPANY
3241 Como Ave. Minneapolis, Minn.

MORE GARDENS HAPPIER YOUTH

(Continued from page 156)

One of the requirements in belonging to a demonstration team is the actual carrying out of the project in the field by the members. If a team demonstrates one of these subjects—"How to Plan a Flower Garden" or "Grow Flowers and Be Happy", the members of the team must be engaged at home in this work. This verse illustrates the value of the demonstration:

I'd rather see a sermon
Than hear one any day;
I'd rather one would walk with me
Than tell to me the way.
I can soon learn how to do it
If you let me see it done—
For I can watch your hand in action
But your tongue is apt to run.

STATE CHAMPION GARDENER

Last year Henry E. Divan, age 15, Green County, received the honor, and the prizes that went with it, of being the champion gardener among the youth of our state. Here is his story:

"The garden is one of the most important crops on the farm. When a very small boy I began by helping Mother plant the seeds, set out onion sets and pull weeds. There is nothing nicer than to go to the garden and get a big turnip or a ripe tomato. It is pretty fine too, just to go to the garden and get all the muskmellon you can eat, and then when winter comes to have nice vegetables, pickles and fruits in the cellar.

My garden is on the south slope of a hill. The soil is black with quite a little sand in it. We put sand on the chicken house floor and then put it in the garden. It helps to make the soil nice. I plowed the ground when it worked well and then it dragged nice and fine. But this summer it has been so dry my garden is not very good. I hope to have a better one next year.

I exhibited thirty-six different vegetables at the Green County Fair. I received thirteen first prizes, three second, one third, four fourths, two fifths, five sixths, making a total of 28 ribbons. I also received fifth place in garden display. I received second prize for my record and story. I received $36.00 for premiums and record. This is my first year. I hope to do much better next year."

No boy is happier than the lad devoted to a task. We want more like Henry in Wisconsin. Our boys and girls are ready. Where are the men and women to lead our youth in this work?

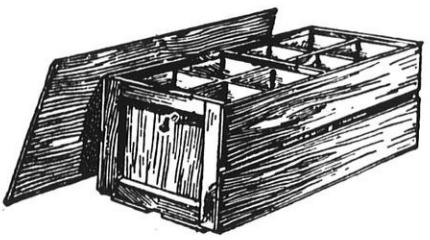
PEONIES, IRIS, PHLOX

Other Hardy Perennials
Gladiolus and Dahlia
Bulbs

Catalog Free

Edw. J. Gardner Nursery

West De Pere, Wisconsin



BERRY BOXES AND CRATES

Either made up or in the K. D., American Quart Berry Baskets, Climax Grape and Peach Baskets, Fill or Repacking Baskets, Plant Boxes and Veneer Tree Protectors.

Circular and Price List Mailed Upon Request

Write for special prices on Car-load Lots. Liberal Discounts on Early Orders.

SHEBOYGAN FRUIT BOX COMPANY
SHEBOYGAN, WISCONSIN

HARDY PERENNIALS

New & Standard Varieties

300 Kinds

Strawflowers—All Varieties

J. F. HAUSER
Bayfield, Wisconsin

Send for Price List

WISCONSIN NURSERIES

To get acquainted we make the following special offers. Our selection.

10 Apple trees (Farmer's Orchard) 4 to 6 ft.	$2.50
10 Pear trees, 4 to 6 ft.	4.00
10 Cherry trees, 3 to 4 ft.	4.00
10 Plum trees, 4 to 6 ft.	4.00
10 Red currants	1.50
10 Gooseberries	1.50
10 Black or red raspberries	.50
10 Blackberries	.50
10 Grape vines	1.50
100 Mastadon strawberries	2.00
10 Shade trees, 6 to 8 ft. Elm, Ash, Box Elder or Carolina Poplar	5.00
10 Extra hardy roses	3.00
10 Climbing roses	2.50
10 Shrubs	1.50
10 Paeonies. Assorted colors	2.50
10 Hardy phlox. Assorted colors	1.50

The fruit and shade trees must go by express. The other collections can be mailed if twenty-five cents extra is sent to cover postage and packing.

Beautiful catalogue for the asking.

W. J. Moyle & Sons

Union Grove, Wis.

News From Our Locals

MILWAUKEE COUNTY HORTICULTURAL SOCIETY

Meetings are held the fourth Tuesday of each month during the winter months. During the summer, meetings are held the second and fourth Tuesday of each month. Garden pilgrimages are held on Sundays when there are no flower shows.

The spring Flower Show at the Public Museum, Milwaukee, will be held from March 15th to 18th. Miss Martha Krienitz, 7418 National Ave., West Allis, is secretary.

OSHKOSH HORTICULTURAL SOCIETY MEETING

The regular monthly meeting of the Oshkosh Horticultural Society was held at the Public Museum, Monday evening, Feb. 6th.

The program was unusually informative and interesting. Mr. C. R. Fiss gave a talk on "Why, When and How I Build my Coldframe". Mr. Fiss has had many years' experience in starting plants for the home garden. Instead of buying from plant growers, he told us there is much more pleasure and benefit in growing your own, and described his method of growing plants.

Mr. J. W. Roe, who is spending the winter in Florida with Mrs. Roe, sent a very large and interesting selection of plants from Florida. The various flowers and foliage sent, all being labeled as to species, made a very interesting display and was greatly appreciated and enjoyed by members present.

Mrs. John Kueble was named chairman of the Flower Show committee, and plans for the annual Flower Show will soon take definite form.

Reported by MERLE A. RASMUSSEN.

WAUKESHA GARDEN CLUB

The Waukesha Garden Club held its second meeting at the Y. M. C. A. Monday Evening, February 13th, at 8 o'clock. The President, Mrs. Charles Atkin, presiding. Mrs. C. E. Strong of West Allis, Wisconsin, gave a very interesting talk on "Gardens" telling us what had been accomplished by the West Allis Garden Club during its seven years of existence and encouraged us by stating that for several months their club consisted of three members.

At the business meeting, the following were elected: Mrs. Harry T. Volk, Vice-President; Miss Mary E. Gibson, Secretary and Treasurer. As only three Directors were elected at the initial meeting, three additional were elected; Messrs. L. A. Thompson, F. H. Mayfield and Frank Roberts.

Discussion as to plans and work followed, but no definite action was taken.

(Miss) MARY E. GIBSON,
Sec'y–Treasurer.

SPRAY RINGS JOIN SOCIETY

At the Annual meeting of the Jefferson County Fruit Growers Association, we voted to extend to our members a membership in your society. I am enclosing a list of 83 members, which we hope will grow. We hope they may receive the March issue of Wisconsin Horticulture.

Yours truly,
THEO. S. WARD, Secy.

CRANBERRY GROWERS AFFILIATE WITH SOCIETY

48 members of the Wisconsin State Cranberry Growers' Association were affiliated with the Wisconsin State Horticultural Society during February.

Mr. Albert Hedler is president of the Wisconsin Cranberry Association, and Clare Smith is Secretary. The Cranberry Association provided 10,000 copies of a booklet containing recipes and information on the use of cranberries for the Horticultural booth on the official Wisconsin southern tour. These were eagerly taken up by the visitors passing thru the train.

RASPBERRY PLANTS

Mosaic-Free LATHAM and KING.

We have the genuine Redpath strain of Latham.

McINTOSH—The highest quality apple.

COURTLAND—A McIntosh seedling of better keeping quality.

HARALSON—A new Minnesota winter variety.

We GROW a complete assortment of fruit and ornamental nursery stock.

Write for catalogue.

J. V. BAILEY NURSERIES

Daytons Bluff Station

Dept. W St. Paul, Minn.

MEETING OF MILWAUKEE COUNTY HORTICULTURAL SOCIETY

The February program was opened with a Nature Poem entitled "The Death of Flowers" by C. Bowles, which was read by Mr. Alfred Holzapfel. Mr. J. F. Fitchett, of Janesville, Wisconsin, gave an interesting talk on dahlias discussing the methods of planting, their care, and the control of pests. He also displayed a number of lantern slides of the various kinds of dahlias. This was followed by answers to questions put to him by various members of the society.

The next speaker, Mr. Julius Barke, of Milwaukee who is also a grower of dahlias, gave a short talk on the care and planting of dahlias which was followed by questions put to him by members. Mr. Barke has been successful in propagating a number of new dahlias and is usually a prize winner when he displays his blooms.

Our President, Mr. Smith, read a paper written by Mr. Julius Erdmann, Superintendent of the Mitchell Park Conservatory, on "Cannas." Mr. Erdmann then answered questions relative to the care and culture of cannas.

Mr. A. MacDonald, manager of Gimbel's Flower Department gave a helpful and instructive talk on how to buy which was greatly appreciated by those present.

Mr. Fay Coon, instructor in the High Schools of West Allis also gave a short talk about the progress made by the High School Students of West Allis in their flower gardens and gave considerable credit to Mrs. Strong for her contributions.

The next meeting will be held March 27th.

FRANCIS P. GILOTH.

(Mr. Erdmann's article on "Cannas" will be printed next month—Editor.)

ROSARIANS MEET. BEST VARIETIES AND SPRING CARE DISCUSSED

AT THE regular monthly meeting of the Milwaukee County Rosarians, held on February 14, 1928, in the trustees room of the Public Museum, Mr. August C. O. Peter spoke of his experience with hybrid perpetual roses. Instead of pruning the canes back in the fall he bends them down in hoop formation. These criss-crossed hoops not only present a delightful sight covered with blooms, but the blooming season seems to be lengthened.

Mr. Herman F. Koch spoke on the spring treatment of roses. He said roses should be uncovered as quickly as possible after the frost is out of the covering. Roses grow rapidly at the first sign of spring and the spring growth is quite hardy. If frost comes later the bushes can be covered lightly to protect the early growth. Hybrid perpetuals should be pruned vigorously before the sap begins to flow, since pruning after the sap flows, shocks the plant. Hybrid teas should not be pruned until the canes show signs of life. They should be cut back into the sound wood.

Mr. Louis R. Potter spoke on the subject of hybrid teas that can be grown successfully in Wisconsin. He said that in this climate it was not advisable to plant pernetianas for the reason that they die back and they stop blooming if the blooms are cut with long stems. The exceptions are Souvenir de Claudius Pernet and Souvenir de Georges Pernet.

If hybrid perpetuals are grown they should be planted in a separate bed from the hybrid teas, according to Mr. Potter. He recommended the following hybrid perpetuals as among the best:

Red: Fisher Holmes
Gloire de Chedane Guinoisseau

(Continued on page 179)

Permanent Positions

FOR a limited number of responsible people, to sell our complete line of NORTH STAR QUALITY, Hardy Northern-Grown Nursery Stock. .·. Write for our liberal sales proposition.

THE NORTH STAR NURSERY CO.
Lock Box B 4321
PARDEEVILLE, WISCONSIN

Perennials

Grown on the shores of Lake Superior

20 acres of all leading varieties

Lupines

We have fine lot for spring or immediate shipment.

	Per 100	Per 1000
Blue white and pink	$6.00	$55.00
Moerheimii, very good	10.00	90.00
Princess Mary, yellow and violet	10.00	90.00
Downer's strain, new	12.00	100.00
Harkness Hybrids, new shades	12.00	100.00
Tunic, deep rose shades	10.00	90.00
Regal, various shades	10.00	90.00

Special prices given when grown on contract. Write for list of other perennials.

Chequamegon Flower Gardens

Washburn, Wis.

Overcoming Horticultural Troubles

E. L. Chambers, State Entomologist, Editor

THE BATTLE FOR SUPREMACY OVER OUR PESTS

AGRICULTURE cannot prosper when production is curtailed by plant diseases and labor is dissipated in raising crops which insects destroy. These limiting factors in the success of this great industry can for the most part be controlled by putting into practice methods already devised by our scientists, but frequently the cost of such control so increases the overhead that little or no profit remains to pay the owner for his efforts.

In spite of the big strides which have taken place in the study of insects and disease control and the innumerable successful methods which have been devised for destroying these parasites, our losses due to their ravages are continually increasing.

As we bring more and more wild land into cultivation we naturally reduce the number and kinds of plants growing on it. We destroy large tracts of land having literally millions of specimens, consisting of hundreds of different species of plants, and substitute them with a few thousand plants of perhaps a single species. A hill of corn or potatoes is planted where probably a hundred wild plants grew before the land was cleared and, as a result, the insect and disease population which formerly had plenty of vigorous plant food to browse upon, now migrate to the few tender plants growing in their stead and consequently often seriously damage or even destroy them.

The principal reason for the continual increase of insect pests is that we have for more than a century been importing more and greater varieties of plants, animals, and their products from all parts of the earth, as civilization spreads. Accompanying this spread of plants and animals has come the spread of the insects and disease organisms which live upon them, and thus many of our worst pests, such as the European Corn Borer, Japanese Beetle, Gipsy Moth and San Jose scale were accidentally introduced from foreign lands.

After considerable effort on the part of those familiar with this menace, congress passed the necessary laws to establish effective regulations to restrict such movements and to determine the freedom from insect pests and plant diseases of all products thought capable of introducing them.

Man has gained his place of dominance in nature by his wits and he must outwit the insects if he is to maintain this position. If he does not learn how to control them his food may become their food more and more as the years go by.

History reveals the fact that many famines have been due to the destruction of the food supply of a people by insect and plant disease enemies. From the earliest time, in fact, insect outbreaks have wrought havoc to man's crops. The Bible, for example, offers some most interesting accounts of just such outbreaks as we might expect to hear of today in parts of Asia Minor, Central China, or some such places where modern science has not yet affected the agricultural methods.

The failure or impracticability of many control practices in insect work has been due to insufficient knowledge of what each different kind of pest will do under varying conditions. Many insects practically harmless in one locality may prove to be very destructive in another.

Since the number of different kinds of insects is far greater than of all other kinds of animals, the entomologists have much more to learn. There are now 640,000 kinds of insects described and it is estimated that more than 5,000,000 probably exist.

For every plant feeding insect there are from two to a dozen or more parasitic insects that live entirely at its expense. This accounts for the cycles of insect outbreaks that appear seriously for a year or two and then almost entirely disappear for a period of years. The pest under ideal environment and plenty of food supply may develop in enormous numbers, which makes it possible for its parasites to find plenty of prey, and they in turn become more abundant until they appear in such enormous numbers as to practically exterminate the pest. As a result, they have no food and themselves perish, thus giving the pest an opportunity to establish itself again before sufficient parasites develop to reduce its numbers.

The farmer can now call in a professional entomologist to advise him how to save a crop much the same as he can call in a veterinarian to save his sick horse, or a doctor for his family. The state of Wisconsin, like most other states, not only provides entomologists for this purpose but also empowers some of them to carry out laws requiring nursery stock to be inspected and only certified when found to be free from dangerous insect pests and

plant diseases, also to restrict the sale and movement of such stock in this state, grown in other states, to those firms or individuals which comply with our regulations.

The state entomologist is also authorized to prohibit the sale of insecticides and fungicides that do not meet the requirements of the department. Such products must do as claimed by the manufacturer and must be safe to use on the crops.

ROSARIANS MEET

(Continued from page 176)

Pink: Georg Arends
Paul Neyron
White: Frau Karl Druschki
Yellow: Mme. Albert Barbier

He also recommended the following hybrid teas as being suitable for Wisconsin:

Red: Etoile de Holland
John Russell
Souvenir de Georges Pernet
Padre
Pink: Wilhelm Kordes
Mrs. Henry Morse
Dame Edith Helen
Betty Uprichard
White: Miss Willmott
Westfield Star
Yellow: Souvenir de Claudius Pernet
Mrs. Erskine Pembroke Thom
Eldorado
Mary Pickford
Ville de Paris
Orange: Independence Day
Angele Pernet

The following poem (author unknown) read at the meeting expresses our sentiments fittingly with regard to roses:

"Roses always roses are.
What with roses can compare?
Search the garden, search the bower,
Try the charms of every flower,
Try them by their beautious bloom,
Try them by their sweet perfume.
Morning's light it loveth best
On the rose's lap to rest;
And the evening breezes tell
The secret of their choice as well.
Try them by whatever token,
Still the same response is spoken,
Nature crowns the rose's stem
With her choicest diadem."

I. J. SCHULTE,
Secretary.

IN ORCHARD AND GARDEN

(Continued from page 162)

I pick up a farm paper and read, "the new rose, Sensation, is the finest rose brought out in many years, and is absolutely hardy." The article is signed by Bill Smith. I'm interested, of course, but I wonder just how much Smith knows about roses. Where does he live anyway? Are the conditions under which he tried out this rose as severe as those where I live? Upon the answer to these questions depends entirely whether the 'Sensation" is a rose in which I would be justified in investing.

It's the same with some recommended garden practice or orchard operation. The experience and the advice of others are often of great value to us, but we ought to know something of the reliability of the source before we put too much dependence upon it.

Davy Crockett used to say,
(Continued on page 182)

Spray Materials

Arsenate of Lead Calcium Arsenate

Lime Sulphur
(Liquid and Dry)

Bordeaux Mixture
(Paste and Dry)

Nicotine
(Liquid and Dust)

Write for Prices and Spray Calendar Now

Manufactured by

Cream City Chemical Works

766-774 Kinnickinnic Avenue Milwaukee, Wis.

GOOD VEGETABLE VARIETIES

H. C. CHRISTENSEN

ALL through the past month the seed catalogs have been making their appearance and it is interesting to compare varieties and strains of vegetables.

The average grower is apt to be somewhat confused by the long list of names. However, some of our seedsmen are beginning to cut down and are concentrating on the more standard varieties, trying to keep up the quality of these.

We have a remarkable example of the persistence of good strains in the Danvers carrot and onion. Over a half century ago, gardeners living around the Massachusetts city of Danvers, raised such a superior strain of these two vegetables that the name has clung to them all these years.

A great many of our hardier vegetables will stand considerable frost if properly hardened off. Onions, parsley and lettuce are probably the hardiest and it is usually safe to set out the plants when the outdoor plants from fall sown lettuce seed begin to show the first leaf between the seed leaves.

It is rather difficult to grow good head lettuce in most sections of Wisconsin on account of our hot summer but if good sized plants are set out early, they will generally head up before hot weather. Because of the fact that most of our head lettuce comes from California our market seems to demand a white crisp heading variety known as New York, Wonderful, or Los Angeles. For home use the butterheading varieties are best. Migonette and May King are very early and are of fine quality.

Cauliflower also needs cool weather for proper development. If potted plants are set out early they will usually head up before hot weather comes. The snowball strain seems to suit Wisconsin conditions best. Only the highest quality of seed should be used, for anything else means failure.

The varieties of cabbage are legion, and we certainly need some simplifying here. For home use, the Jersey Wakefield is probably the finest flavored cabbage we have but the market seems to call for a round solid head. Copenhagen Market as first introduced filled the bill, but later several varieties of similar type were brought out. In the late varieties we have the Ball head and Hollander. It is true there are different strains but they could be standardized as has been done in the "Wisconsin Hollander".

With tomatoes the same confusion exists. Nearly all of the earliest tomatoes are a strain of the Earliana, and of the second early there are probably a score of varieties similar to the Bonny Best. In late varieties the "Stone" for years was the standard but for some reason the quality was not kept up. Today the Marglobe seems to take its place.

The kohlrabi is gradually being more widely used, and deservedly so, as it is a delicious vegetable. White Vienna is an early and good variety. Plants should be set out early and later sowings made outside. For home use they are best when the size of a hen's egg, but for market they are allowed to grow larger.

The pepper is another vegetable whose use has greatly increased of recent years. "Harris' Earliest" on account of its earliness is best for ripe peppers. Ruby King and Oshkosh are larger and better for green peppers.

Blue Spruce

Ready to plant this spring
Wholesale or Retail
Come and select yours
WRITE FOR PRICES

Mys Brothers

Route 1, Menasha, Wis.

EVERGREENS

Austrian Pine	Per M
4-6 in. Trans. once	$45.00
6-8 in. Trans. once	$60.00
Norway Spruce	
4-6 in. Trans. once	$30.00
6-8 in. Trans. once	$40.00

Write for latest trade bulletin on lining out stock and seedlings.

Evergreen Nursery Co.
Sturgeon Bay, Wis.

Cabbage and Cauliflower Seeds

The Most Perfect and Dependable Strains Grown

Offered at Reasonable Prices

Early Jersey Wakefield per pound	$2.25
Golden Acre, Genuine. Earliest of all	7.00
Copenhagen Market. Early Selected	2.75
Enkhuizen Glory. Selected	2.25
Early Winningstadt. Selected	2.25
All Season. Selected	2.25
Danish Roundhead, short stem. Selected	2.50
Danish Ballhead, short stem. Selected	2.25
Danish Ballhead, tall stem. Selected	2.25
Premium Late Flat Dutch. Selected	2.25
Ferry's Hollander, Own Strain. Genuine. One of the best for shipping and storage. Solid medium sized heads	7.00
Back's Hollander. Own Strain. The most Perfect late Shipping Cabbage	3.50
Back's American Shipper. The Best late Yellows Resistant Cabbage	5.00
Wisconsin Hollander. Yellows Resistant	4.00
All Season. Yellows Resistant. The Famous Kraut Cabbage	5.00
Savoy, Cabbage Danish Perfection	2.50
Mammoth Dark Red. Improved	2.50
Danish Dark Red Stonehead	2.50
Danish First Prize. Best Dark Red	3.25

Ounce at one tenth of pound price

Supreme Cauliflower Seeds

Direct from The Champion Cauliflower Seed Grower in Denmark, who is awarded the highest points year after year by the Danish Experimental Stations. There is no better Cauliflower Seeds to be had.

Extra Early Dwarf Erfurt Earliest New Snowball Danish Giant or Dry Weather. ½ Oz., $1.00; Oz., $1.70; ¼ lb., $5.75.

When you really want the Best Seeds let me furnish you.

Cabbage and Cauliflower Seeds has been my specialty since 1903 but I will be glad to quote you on any other seeds and you can be certain they are the highest grade obtainable.

The Best for Wisconsin
Growers of Cabbage and Cauliflower Seeds Since 1903

Back Seed Company
Highway 20—R. F. D. 3
Racine - Wisconsin
Visitors always Welcome
Home of Yellows Resistant Cabbage

INDEX TO ADVERTISERS

	Page
Appleby, Mrs. E. F.	182
Back Seed Co.	180
J. V. Bailey Nurseries	176
Barilani, F. W.	182
The Barrett Co.	173
Beier, Chas. J.	182
Big Elk Hatchery	182
Bush, D. F.	150
Chequamegon Flower Gardens	177
H. C. Christensen	182
The Coe, Converse & Edwards Company	183
A. B. Coleman & Son	166
Cream City Chemical Works	179
Cumberland Fruit Package Co.	181
Dawson Bros.	182
M. Edwards Co.	171
Eschrich's Nursery	183
Evergreen Nursery Co.	180
Fitchett Dahlia Gardens	154
Floria Dale Gardens	167
Edw. J. Gardner Nursery	175
C. A. Gelbke & Sons	182
General Chemical Company	171
F. R. Gifford Co.	183
J. F. Hauser	175
Fred Hecklinger	182
Chas. Heimstadt	161
Hicks, Howard	182
Hildebrand Embroidery Co.	183
Irish, L. B.	182
Kellogg's Nursery	166
Kinkade Garden Tractor	173
Lothe, B. A.	183
McKay Nursery Co.	184
McKenney Dahlia Gardens	182
W. J. Moyle & Sons	175
Mys Brothers	180
North Star Nurseries	177, 183
L. L. Olds Seed Co.	154
Patterson, Emma E.	182
Pioneer Manufacturing Co.	184
Rasmussen's Fruit Farm & Nurseries	154
E. B. Rosa	182
Sheboygan Fruit Box Co.	175
Sisson's Peonies	184
Standard Engine Company	174
Stonecrest Gardens	182
The Swartz Nurseries	167
Terrell's Aquatic Farm	182
W. A. Toole	181
White Elm Nursery	171
Whitford's Berry Farm	182

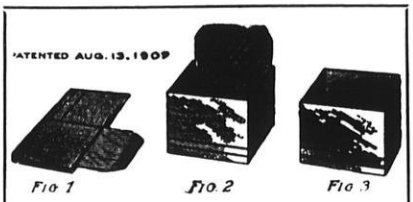


Fig 1 Fig 2 Fig 3

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 material 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.

FRUIT GROWERS OF DOOR COUNTY HOLD ANNUAL MEETINGS

Sturgeon Bay, Wis.—The annual meeting of the Fruit Growers' Canning company, at which officers were elected for the coming year, was attended by a record-breaking crowd. The directors elected were: A. W. Lawrence, P. P. Donahue and H. W. Ullsperger. The additional members on the board are W. O. Brown, David Goldman, Dr. A. J. Gordon, J. G. Martin, W. E. Marshall and H. J. Hahn.

The officers elected were A. W. Lawrence, president; W. O. Brown, vice-president, and H. W. Ullsperger, secretary-treasurer.

In the afternoon the annual meeting of the Door County Fruit Growers' Union was held. New directors elected were: W. O. Brown, D. H. F. Eames, Kurt Stock and A. W. Lawrence. The officers elected were Dr. A. J. Gordon, president; M. B. Goff, vice-president; John Boler, secretary and H. W. Ullsperger, treasurer.

—Green Bay Press Gazette.

TOOLE'S COLLECTION PERENNIAL SEEDS $1.65 WORTH OF SEEDS FOR $1.00, POSTPAID

For those wishing to try growing a perennial garden from seed, I have selected a DOZEN VARIETIES THAT ARE NOT HARD TO GROW, AT THE LOW PRICE OF ONE DOLLAR FOR TWELVE PACKAGES OF SELECTED SEED. No change may be made in this collection at the price quoted. The collection contains ONE PACKAGE EACH OF ANTHEMIS TINCTORIA KELWAYI; CANTERBURY BELLS, mixed; FOXGLOVE, mixed; SWEET WILLIAM, mixed; HOLLYHOCKS, mixed; SHASTA DAISY ALASKA; DELPHINIUM GARRY-NEE-DULE MIXED HYBRIDS; COREOPSIS LANCEOLATA GRANDIFLORA; GAILLARDIA; BABY'S BREATH; PERSIAN DAISY; ROCKY MOUNTAIN SALVIA; ORIENTAL POPPY. VALUE $1.65 — FOR $1.00 POSTPAID TO YOUR DOOR.

Toole's Seed Collection For The Rockery

A Dollar Value for 75 Cents

The following ten varieties, not difficult to grow from seed, will give a wonderful start for the Rockery. $1.00 VALUE FOR 75 CENTS. One regular packet of each of:

Alyssum Compactum.
Campanula carpatica.
Cerastium Tormentosum.
Dianthus deltoides.
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W. A. TOOLE

Garry-nee-Dule, Baraboo, Wis.

The Growers Market

Advertisements for this department will be accepted from members of this society who produce the articles offered for sale. Rate 2 cents per word, minimum charge 25c per issue. "Adds" of nursery stock and plants will be accepted only from those listed by the State Entomologist as having been inspected. No discounts from these prices.

Copy should reach us by the 20th of the month. Send cash with order.

REGAL LILY—BEAUTIFUL NEW white lily, hardy. Four blooming sized bulbs $1.00. $2.00 per dozen. H. C. Christensen, 1625—9th St., Oshkosh, Wis.

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IN ORCHARD AND GARDEN

(Continued from page 179)

"Be sure you are right, then go ahead". It may be difficult to be dead sure that you are right, but one should do his best to determine he is before he goes too far.

Some years ago a friend of ours thought he knew what to use in spraying his apple trees. He didn't check up, and although he only made the little mistake of leaving the lime out of his Bordeaux mixture he ruined the crop on several acres of apples.

Had we known when we started out that this was going to be so much like a sermon, we might have taken a text, but it's rather late for a text now.

Sincerely,
TOM AND ALEX.

NURSERYMEN FORM ASSOCIATION

The Wisconsin Nurserymen's Association gathered at the Chamber of Commerce, Madison, on Feb. 28–29 to discuss matters of mutual interest.

Thirty nurserymen representing 25 nurseries, attended. The following officers were elected:

F. C. Edwards _____President
Chas. Hawks Jr., Vice President
W. G. McKay _____Sec.–Treas.
Geo. Moseman _____Director
M. C. Hepler _____Director

The members attended the hearing of the Department of Agriculture on the plan of charging a fee for inspecting nurseries, held on Feb. 29. They were in accord with the plan of charging a moderate fee, which has been found necessary to help pay the expenses of the work.

The Association met with Mr. Nagler and Mr. Harrington of the Conservation Commission, and pledged their support to the program of Conservation. They

WANTED—HEAR FROM OWNER good Farm for sale. Cash price, particulars. D. F. Bush, Minneapolis, Minn.

EXPERIENCED DAIRYMAN, MILKER and Herdsman, wants farm work. Married. M. A. Christian, Route 3, Mukwanago, Wis.

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Emma E. Patterson
Burlington - Wisconsin

asked however that the use of trees furnished by the State be restricted to forest planting, and should not be allowed to be sold for profit later, nor moved until large enough for forest products.

M. R. Cashman, Awatonna, Minn., past President of the National Nurserymen's Association of 1,000 members addressed the meeting. He was elected an honorary member of the Association.

MAKING TREE DIGGING EASY

A HOME made digging machine accomplished two things for Walter Young, enthusiastic horticulturist of Galesville. It took the tree digging kink out of his back and brought trees out in much better shape than possible by hand digging.

Out of five hundred fruit trees dug with this machine last spring at Decoraland only one failed to grow when replanted. A discarded grader blade was used for the knife of the digger. Beams fastened at the side of the knife float along at the surface of the ground keeping the digger from going too deep. Two cables as long as the row of trees to be dug are attached to the beams and four horses or a tractor are required to pull the cables at the end of the row. One man on each handle keeps the digger going straight.

The blade goes well under the tree roots, cutting off but few of the laterals and leaving the ground in a loosened condition. It is a simple matter to lift the trees by hand after the digger has loosened them.

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The Coe, Converse & Edwards Co.
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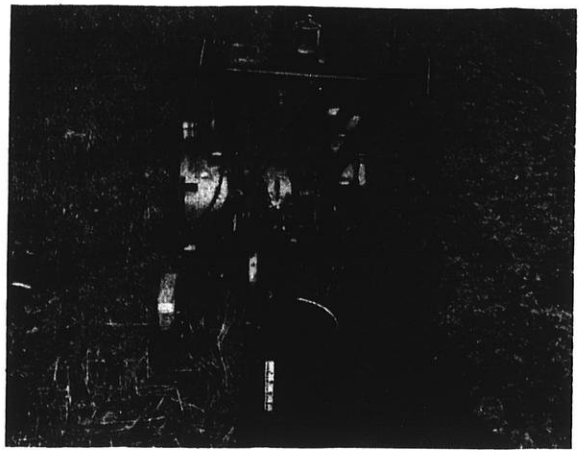

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The characteristic of the Moline Elm is its conical shape and pyramidal growth. A fast grower. Especially suitable for planting on narrow streets or where spire-like specimen are desired on the lawn.

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WISCONSIN HORTICULTURE

Vol. XVIII APRIL, 1928 No. 8

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TABLE OF CONTENTS

	Page
Junior Forest Rangers	187
Bird Bath Attracts Birds	188
Fertilizers for Bush Fruits	189
Starting a Rock Garden	191
It's Not a Home Until It's Planted	192
In Orchard and Garden	194
Culture of Lupines	195
Good Lawns—Better Homes	196
New Facts About Roses	199
Editorials	200
4H Club Premiums	200
Potato Acreage Increase	201
Growing Celery at Low Cost	201
About the Home and Garden	202
Letters from Readers	203
Florists Create a Fairyland	204
Potato Growers Department	206
News from Our Locals	208
Overcoming Horticultural Troubles	210

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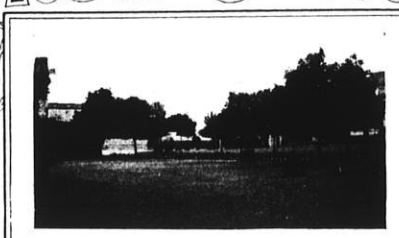

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Junior Forest Rangers of Wisconsin

A New Organization for Boys Which Will Become a Factor in Conservation

W. McNeel

LAST year 428 boys planted trees, studied conservation methods and learned the part they could play as boy citizens in the conservation movement. Incidentally, though of the highest importance, they were preparing themselves by this participation to be the custodians of the future prosperity of our state.

The movement is known as the Junior Forest Rangers of Wisconsin and is fostered by the Wisconsin College of Agriculture, the U. S. Department of Agriculture, and the State Conservation Commission, cooperating. All together these boys planted over 120,000 seedlings, the total planting area being somewhere between 90 and 100 acres.

To be sure, this was not much compared with the 10,000,000 acres of cut-over land that awaits development in our state. But it was a start—the planting of the acorn which with proper nurture may become a gigantic oak. Besides many started their own nurseries so that they might have the joyous satisfaction of planting in three years, trees of their own raising.

A thousand boys in our state each having a back yard nursery which in three years time would turn out in total anywhere from 300,000 to 600,000 seedlings is no dream.

What the Boys Learn

Besides, these boys engaged in many activities of out-door life that is the God-given right of every boy to enjoy. Among these activities are tree and wood identification, making of a herbarium, construction of bird houses, learning to know the birds and their benefits to mankind, the making of bows and arrows, learning to make fire without matches, learning how to build fires to meet particular purposes as cooking, back log, etc., studying life histories of trees, collecting their own tree seed, learning life histories of insects and mounting butterflies and moths. The number of such wholesome activities is legion. Besides there are many activities that have a social bearing, as helping become forest protectors, always ready to help

Junior Forest Rangers setting out pine seedlings on cut-over land in Price County.

distribute and post fire warning material; to talk conservation at schools, to give public demonstration of their work and make exhibits at fairs.

Many interesting things have developed as a result of leaders adding their ideas. In Oneida County, many boys were each given 10 acres of tax delinquent land upon payment of a nominal stipend, the deed to which land will be given to each when three-fourths of the area is well reforested. That beats most anything yet done to tie a lad to his community and to some of the fundamentals.

This is the way it works:

Any boy between the ages of 14 and 21 may join providing he has his parents' consent and has some opportunity to carry out the work of a Junior Forest Ranger. Five or more such boys in one community constitute a club. The club must have a local leader. The state club office provides directions for carrying on the work and the Conservation Commission furnishes free 300 trees. Each boy must furnish information which shows beyond doubt that the trees will be properly planted, in suitable places and then protected from fire and grazing. This information is furnished in a map drawn by the Ranger himself.

The badge of the Junior Forest Ranger is a felt pine tree emblem worn on the work shirt to the left of the button line, just over the heart. The work is divided in four orders generally conforming to the years in the work. These in order are, the Forestcrafter, Planter, Woodsman and Cruiser.

A camp for Rangers, who meet the requirements of the work in the most commendable way, is being planned for the middle of August in Vilas County and the Club Department is now securing prize trips to the camp from people who are interested in seeing our youth encouraged to do this

work. A folder explaining the work more in detail will be sent upon application to anyone. Write

4-H Club Office
College of Agriculture
Madison, Wisconsin
or the
Secretary of the Horticultural Society

He knows about the work from first hand experience as a leader of over 100 boys engaged in this work.

THE EARLIEST SWEET CORN AND PEA VARIETIES

I would suggest a trial of Sunshine Sweet corn. A. F. Yeager, N. Dakota Agricultural College, is the originator. This is a yellow, high quality, good sized corn at least a week ahead of Bantam. I have abandoned Bantam for Sunshine. The earliest sweet corn is Pickanniny, a black small corn for the home garden. The earliest yellow sweet corn is a Canadian corn named Banting. Pickanniny and Banting are of fairly good quality with me.

The best early pea is Burpee's Radio.

C. V. PORTER,
Menomonie, Wis.

BIRD BATH ATTRACTS THE BIRDS

I wonder, now our birds are coming back, if we could inspire people to build some baths for them. The enclosed shows one built of stone, five feet long by two and a half feet wide. It is two and one half inches deep at one end, gradually deepening to five inches. Laid up at the cost of one bag of cement.

In the spring I get roots of water cress and leave it until it blooms. This forms little "islands" for the birds. Last year at migrating time I counted 27 Blue birds in it at once. This spring I am planting Boston Ivy to ornament the stonework.

ANNE S. KNIGHT.

A bird bath built at the cost of one bag of cement.

Commercial Fertilizers and Lime for Bush Fruits and Grapes

C. J. CHAPMAN (Asst. Prof. of Soils)
University of Wisconsin

THE fruit of the raspberry and the blackberry is born on the lateral branches which grow out from the one year old cane the second year. In the case of gooseberries and currants the best fruit is found on the one, two and three year old wood, and although some fruit is produced on the spurs of older wood, it is desirable to cut out the three and four year old wood each season and produce a heavier growth of the younger, more vigorous wood. In the case of grapes, the fruit is produced on new spring growth (green shoots) starting from buds of one year old wood. Strong buds on vital new wood are necessary for good fruit.

It is apparent that with bush fruits and grapes, it is desirable to promote a good growth of well matured cane or wood in order to insure a good crop of fruit the following season. Proper fertilization is therefore of greatest importance in producing this new, healthy, vital cane and fruit producing new wood.

STABLE MANURE EXCELLENT FERTILIZER

Well rotted manure is probably the best all round fertilizer for bush fruit, since it not only supplies the plant food necessary to promote the growth of the new wood and fruit, but supplies organic matter and humus which adds to the water-holding capacity of the soil. However, the limited supply of manure available to the commercial grower has necessitated the substitution of commercial fertilizers to supply plant food and of cover crops and green manuring crops for humus and organic matter.

Good crops cannot be obtained unless the soil is right. Profits depend on the correct fertilizer being used for each crop.

WHAT KINDS OF COMMERCIAL FERTILIZERS?

Excessive nitrogenous fertilizers for bush fruits should be avoided, especially for the red raspberry and blackberry. Of course, the types of soil and the previous fertilization of the land are factors which must be considered in selecting fertilizers for bush fruits. Too much nitrogen, however, will produce a rank, spindly growth of cane in the early part of the season. Furthermore, it will result in leafy growth which shades the fruit.

There is less danger of excessive nitrogen fertilization in the case of currants and gooseberries than with raspberries or blackberries. The habits of growth and nature of root system of the latter are largely responsible for this difference. The roots of the raspberry and blackberry feed out over a larger area and pick up soluble nitrogen and available plant foods at quite a distance from the base of the bushes. The root system of the gooseberry and the currant is clustered around the stump and is rather shallow.

A well balanced fertilizer must be used under all conditions, and this must be suited not only to the type of bush fruit we are growing but to the soil.

SOIL CHARACTERISTICS DETERMINE KINDS OF FERTILIZER

The lighter soils, such as the sandy loam and sands, are for the most part low in their content of nitrogen and frequently very deficient in potash as well as phosphate. If commercial fertilizers are used on this type of soil for small fruit, a liberal amount of phosphate, nitrogen and potash must be supplied in the mixture. Such fertilizers as the 5-8-7, 6-12-9, 4-8-6, etc., can be used advantageously and should be applied at rates of from 1000 to 1500 pounds per acre.

For gooseberries and currants on these lighter soils this treatment may be supplemented with 100 to 200 pounds per acre of nitrate of soda or ammonium sulphate in order to produce a growth of new wood.

Of course the amount of fertilizer to use will depend somewhat on the state of fertility of the land and the age of the bushes, but in general, applications of the fertilizers mentioned should be made each year.

On the lighter colored silt loams and clay loams the need for potash is not so great. The fertilizer should contain a liberal amount of nitrogen and phosphoric acid. Such mixtures as a 9-7-3 or even 5-10-5, in fact a 4-8-6 or a 5-8-7 may prove to be as good as any. On the heavy clays, however, which are naturally high in potash, the proportion of this element may be reduced or entirely eliminated in the commercial fertilizer mixtures.

On the dark colored soils high in nitrogen where cane growth is normally excessive the fertilizer should consist largely of phosphate and potash. Mixtures such as the 0-16-8 or 0-14-14 or even the straight acid phosphate should be used. The black fine sandy loams and bottom soils, naturally high in their content of lime, are generally very deficient in potash. Fertilizers on

these soils should be relatively higher in their content of potash. Mixtures such as the 0-8-24 or 0-9-27 would be desirable under these conditions.

Rates of application of course for the silt loams, clay loams and dark colored soils should be somewhat less than on the light sandy loams and sands. Applications up to 1000 pounds per acre are frequently made with profit.

Time and Method of Application

Commercial fertilizers should be applied early in the spring or in very late fall after the plant has gone into the dormant state.

When applied in the late fall most of the nitrogen should be eliminated since this element may be lost by leach before the plant is ready to use it the spring following. A small amount of nitrogen applied in the fall might be advisable since it can then be taken up in the cell sap of the plant and is ready to promote a quick growth of leaves and fruiting stems in the spring. The precaution, however, which I wish to stress is the danger of supplying nitrogen fertilizers late in the summer which will result in succulent, immature wood which seldom lives through the winter.

Commercial fertilizers then, should be applied largely in the early part of the season and distributed along the sides of hedge rows or around individual bushes at distances ranging from one to three feet in the case of raspberries and blackberries or from six to eighteen inches in the case of gooseberries and currants. This fertilizer should then be thoroughly worked into the soil as deeply as possible without injuring the roots of the bushes.

Nitrate of soda or ammonium sulphate applications as a supplement to the regular treatment with mixed fertilizers, can be applied on the top of the ground since these fertilizers will dissolve and be carried down by soil moisture and rain. These nitrogen fertilizers should be applied early in the season.

Functions of Nitrogen, Phosphorus and Potash

Nitrogen or ammonia produces leafy, vegetative, succulent growth and makes for healthy, dark green, thrifty bushes. The lack of nitrogen manifests itself in stunted growth and yellow foliage.

Phosphates promote the setting of fruit, and in combination with nitrogen and potash, makes for strong, healthy, vigorous cane and wood. Phosphate hastens the maturity of both fruit and cane and is absolutely essential for normal and balanced feeding of bush fruits.

Potash makes for sturdy, strong, disease resistant wood and improves the quality of the fruit.

Mulches and Cover Crops

Clean and frequent cultivation should be practiced. Cover crops and catch crops such as oats, vetches, or even rye may be sown in the fall to pick up any available nitrogen which might otherwise be lost from leaching and further add to the supply of humus and organic matter. This is especially important on sandy soils. Oats as a cover crop sown in late August are preferable under most conditions to rye, since this crop is killed by winter freezing and does not make any growth the spring following. The oat cover crop may be plowed down in the spring and adds to the humus and organic supply of the soil.

Strawy manure, shavings and cornstalks should be removed in the spring if used for cover unless they are fairly well rotted or decomposed. Fresh straw, shavings or even cornstalks will depress somewhat the early growth and may seriously effect the yield of fruit. The reason for this is that, in the rotting or decay of this cellulose material (shavings, straw, and cornstalks) the fungi which attack them are responsible for their decay. They also feed heavily on nitrogen and this element is derived from the soil thus robbing or competing with the roots of the bush fruit. Of course if this mulch is fairly well rotted it may not result in any serious consequences.

If nitrate of soda or ammonium sulphate were added and sprinkled over the straw, shavings or cornstalks at rates of from 100 to 200 pounds per acre, this would supply a sufficient amount of nitrogen for both fungi and crops and at the same time hasten the rotting of the mulch. This might, however, result in excessive amounts of nitrogen becoming available in the late season, which would promote late cane growth and prevent the maturing of the cane or wood.

The small amount of strawy material added from a cover crop plowed down in the spring will not have much of any effect in depressing the growth or absorbing or tying up the nitrogen since this material is very quickly and very easily broken down and furthermore is not present in sufficient quantities to do any damage.

Lime Requirements of Bush Fruits

There has been very little experimental work done on the lime requirements of bush fruits, but the Rhode Island Experiment Station has presented data in bulletin 160 which shows very conclusively that black cap raspberries are injured from liming. Red raspberries, at least the variety Cuthbert were benefited.

The two varieties of currants used in the experiment, namely the Prolific and White Dutch, were markedly benefited from the use of lime, but gooseberries were not. The blackberry crop (variety Snyder) seemed to do better on the unlimed plot.

(Continued on page 214)

Starting a Rock Garden

W. A. TOOLE
Garry-Nee-Dule

FADS and fancies come and go in gardening quite as much as in dress, though the changes are slower to take place. At present the great interest is in rock gardens. For years we thought this fascinating type of garden would not succeed in the trying climate of Wisconsin but

Rocks should only be used to increase the effectiveness of the plants.

we find we may have most beautiful rockeries here by studying the subject and using those plants that will endure our hot dry summers, and trying springs.

The rock garden may take many forms and range in size from a square yard to large areas. It is well suited to a corner of the back yard. It may harbor many choice and rare plants or it may be a showy mass of color from comparatively common plants of every culture.

If a natural slope is not available, and the rock plants are not to be used in a rock wall or cliff-like rockery, a flat area in a corner of the garden may be used. First decide on the space you wish to use for your rockery. Mark the outlines with a stick, avoiding regular lines. If the soil is not naturally porous, so as to provide good drainage, excavate to a depth of 8 to 12 inches and fill in with brickbats, coarse gravel or broken stones to provide good underdrainage. The soil thrown out can be used to provide elevation in parts of the rockery.

The rocks used may be any kind that may be most available. Glacial boulders will do, or any native rock you can secure. Place the stones as far as possible so only weathered or irregular surfaces show. Porous rocks such as sandstone or limestone are somewhat preferable, if available, because the moisture they contain helps to carry the plants through summer dry spells. Avoid regular arrangements of the rocks; but place them as near a natural appearance as you can. Sink at least one-half of the rock below the soil. Do not choose small stones entirely for your rockery, but have a good number as large as you can handle. Small stones will be entirely covered with the growth of most of the stronger growing plants. The charm of the rock garden is largely in the contrast of the stones showing through the plant growth.

Soil conditions vary so that it is hard to tell you just how to mix your soil. Our own is a heavy clay and we find a mixture of one third of our good garden soil, one third sand and one third leaf mold makes a good combination. Avoid excessive richness as most varieties used in rockeries are more graceful in growth if the roots have to hustle a bit for their living.

If a wall or cliff type of garden is decided upon, care must be used so that there are pockets of soil back of the plants that the roots may run into. Lay the stones so that the upper surface slants back into the soil so as to carry rain water back to the roots. Either type of rockery may need artificial watering during the excessively dry spells in the summer.

While a direct southern exposure is to be avoided, if possible, many rock plants are sun lovers and do best if they get the sunshine a part of the day; prob-

(Continued on page 198)

A Rock Garden on an almost flat surface.

"It's Not a Home Until It's Planted"

A Story on Beautifying the Home Grounds Continued From March

E. A. PETRANEK
Landscape Architect

LAST month the first essentials in attempting to beautify your grounds were discussed. There was pictured the home as the central feature. Whatever is done to beautify the grounds, it was pointed out, has to center around this home, for it is in the home that all family activities center, and it is this home that you are trying to make more livable for your family and more presentable to your friends.

A foundation planting represents the first step. A few well placed shrubs about the entrance and around the corners will tie the house to the ground and cover up the masonry foundation. A few trees will shade the rooms, and if properly placed, will frame the house.

THE LANDSCAPE OUTLINE

A. Foundation Planting:
   a. Entrance, Main Feature
   b. Foundation Masonry
   c. Vertical Angles of House
B. Shade Tree System:
   a. To Shade House
   b. To Frame House
C. Lawn:
   a. A Carpet of Grass
D. Border Planting:
   a. Corner Groups
   b. Hedges
   c. Naturalistic Border
E. Rear Yard:
   a. Service Area
      Garage, Drive
      Laundry Yard
      Children's Playground
      Vegetable Garden
   b. Outdoor Living Room
      Informal (Naturalistic)
      Formal (Ancient)

An open lawn surrounding the house is as important as any of the landscape treatments. It represents a green carpet leading up to the central feature of the picture, the house. Keep the front lawn free of all clutterings of shrubs, flower beds, etc. A good clear lawn, well kept up, will make your property seem larger.

In this article I shall discuss the border planting and the treatment of the back yard. By the border is meant the margins or boundaries of the lot. The treatment of the border may range from nothing at all in the case of a very small city lot, to a very heavy planting of shrubs and perennial flowers on a larger ground.

The simplest scheme of treat-

A city backyard is not a thing of beauty in its natural state. Courtesy McKay Nursery Co.

ing the border would be to break up the outside corners with a corner group planting of a few shrubs or evergreens. On a very small lot this might be only three Barberry plants in each of these corners. On larger properties, this triangle could be enlarged to include a dozen or more shrubs. Sometimes it is desirable to have a corner group on either side of the walk, leading up to the house. Very often an evergreen, or a group of three evergreens, will be appropriate in a corner group planting of this kind.

While evergreens are more expensive than shrubs, there is a warmth or cheerfulness about them that is reflected on cold winter days, when all else is tucked away to sleep for the winter. A few evergreens worked into your planting will warm up the appearance of the outdoors on cold winter mornings, even if they don't reduce your coal bill.

ADVANTAGES OF THE HEDGE

The hedge represents the second type of border planting. A hedge planted along the front, and possibly the sides of your lot will fence in your property and tend to keep the neighborhood children off your lawn. It will also ward off the "short cutting" pedestrian. A good low growing hedge can be made up of Barberry, Amoor River North Privet, Regals Privet, Cotoneaster, or Alpine Currant. If a higher growing hedge is preferred, I suggest the Tartarian Honeysuckle, Buckthorn, Bridal Wreath Spirea, Viburnums, Dogwood, Lilacs or Rugosa Roses.

A privet hedge looks its best, if sheared or boxed square across the top and sides. It makes no difference to the Barberry whether you let it grow naturally or box it square. On the other hand, it would be folly to attempt to shear a Bridal Wreath hedge into shape, because the plant is graceful in its growth and does not lend itself to such retention.

The third type of border planting would consist of informal, unsheared shrubs placed along the lot lines on both sides of the house. This border might be made up entirely of shrubs, or of shrubs, roses and flowers. A very acceptable border planting may consist of a few groups of medium and high growing shrubs in the back ground, with flowers in the foreground. By varying the widths of this bed, by waving or scalloping the margin, you can create bays and vistas with very natural effects. A bird bath tucked away in one of these nooks is a pleasant invitation to the birds to linger. For shrubs you could use Mock Orange Syringas, Honeysuckle, Highbush Cranberry, Lilacs, Ninebark Spirea, Dogwoods, Sumacs, Elders, Snowberry, Rugosa Roses, Barberry, and in

(Continued on page 215)

The same backyard after it's planted. Not only beautiful, but furnishes cut flowers for the home and recreation and pleasant occupation for the owner

In Orchard And Garden

Observations of Tom Ato and Alex Ander

Dear Mr. Rahmlow:

OUR old complaint, spring fever, has us fully in its grip right now and we are so busy that we scarcely have time to write, but there are two or three things in which we thought you might be interested.

There's an old quotation which always comes to mind at this season which has saved us lots of grief in the past. Here it is: "Make haste slowly".

You know one of the common evidences of a bad attack of spring fever is sowing seed and setting plants before conditions are at all favorable. Such a practice invariably means loss, and frequently a delay in getting the vegetable we were planning on having so early. One should remember that seeds which are planted before the temperature of the soil is high enough to give rapid germination are quite likely to decay, and if they should eventually produce plants they are usually weaker and take longer to get under way than plants from seeds which were planted under favorable temperatures.

We watched a neighbor of ours one season plant his tomatoes three times, because he got in too much of a hurry. The fact that the grocer or seedsman has tomato plants for sale is no indication that the time for setting plants in the garden has arrived. The facts are that tomato and plants of other "warm crops" usually appear on the market two or three weeks before they should be set out of doors.

We have seen tomato plants which had been set about two weeks, which, although still alive, were poorer plants than they were the day they were set. They had been set when the atmosphere temperature was too low for the growth of tomatoes. So we have learned that often we are farther ahead in harvesting by being a little behind in planting.

Yes, we have Spring Fever!
Don't tear off Roots in Transplanting.
To Water, or not to Water.
When your McIntosh produces Ben Davis apples.
"Save the Girdled Trees".

Speaking of planting reminds us that most successful planting depends upon a few cardinal principles. The chief factor in successful planting is to be sure the roots are in firm contact with the soil. Too many planters seem to think that if the soil is pressed firmly against the stem at the surface of the ground and left nice and smooth that the planting is well done. Neither of these things are essential, but it is necessary to have the soil pressed tightly around the roots.

We like to set the plants with stems, deeply. Whether setting out of pots or dirt bands or plants dug out of the plant beds, we remove the bottom leaves and set the plants so that they extend only a short distance above the surface. We believe this gives a better root system and repays us for the slight additional work necessary. Of course, one can't set lettuce and celery that way as it doesn't do to cover the crown with the soil. With this type of plant we get our leaf reduction by taking off some of the outer leaves or by cutting or tearing the leaves back about half their original size.

Another thing that helps and is easily done when transplanting by hand is to keep a goodly supply of roots and keep soil on them. We figured out rather early in our gardening that the reason a plant set from a pot gave us quicker results than one dug out of the plant bed was that it wasn't checked by the operation. Its root system wasn't reduced or disturbed. Well, why not apply that same principle as far as possible to dug plants. We spend a little more time digging our plants or taking them out of the flats in order to save the roots and keep the soil on them. And possibly it takes a trifle longer to set them, but we think we make a good profit on the additional time invested in this kind of planting.

Oh! Yes. Water! I guess the garden Hamlet would have said, as he was about to set his plants: "To water, or not to water, that is the question". In spring planting, water is seldom necessary. Later on, when planting late tomatoes, late cabbage, egg plant and peppers, the soil may be so dry as to make the use of water highly desirable. We like the following method. Fill the holes from two thirds full to full of water. Allow it to settle away and set the plant in the overly moist soil using the soil removed in digging the hole to refill it. A layer of fine, loose soil should be left on the surface after firming the plant. Our experience is that watering after the plant is set is not very satisfactory.

Did you ever have the experience of nursing a fine looking apple tree along until it was large enough to bear, and then find out that your nice McIntosh tree produced Ben Davis apples? If you have, you felt like we did when that happened to us, which was to give it the same treatment the fellow told about in the Bible gave his vineyard which produced only wild grapes.

(Continued on page 213)

Lupines in Bloom at Chequamegon Flower Gardens.

Culture of Lupines

V. E. BRUBAKER

DURING the past five years few perennials have become more popular than Lupinus polyphyllus, or perennial lupine. In herbaceous borders and among shrubbery beds landscape gardeners and flower lovers in general are fast finding a permanent place for this splendid flower. And many times it is used on sunny, dry hillsides, planted in large groups, giving a great mass of either white, blue, pink or yellow blooms.

The lupine is a legume, bearing nodules on its roots nearly as large as soy beans. Some of the annual varieties have been long used in Germany, to build up soils sandy and low in fertility, in many cases where the soil was too poor to grow any variety of clover.

At the age of 3 years, the lupine, when successfully grown, will produce from twenty to fifty long spikes. The usual height is from twenty-four to thirty inches. In many localities the plant will reach a height of over three feet. The flowering spikes are from eighteen to twenty-four inches in length.

In some localities the lupine will not thrive from seed, but, when grown one year from seed under proper climatic and soil conditions, it may be successfully planted, thriving in almost any part of the United States. To be grown successfully from seed it requires cool nights and sandy or light clay loam soil.

FERTILIZERS FOR LUPINES

A commercial fertilizer may be used at the rate of 400 pounds per acre, in combination with barnyard compost or green crop plowed under. Any good garden fertilizer may be used; possibly a 3-10-3 formula could best be recommended.

The question of using lime for lupines has been argued pro and con. Information coming from different sources shows that lime is not detrimental to most varieties of lupine. However, the yellow varieties are more or less lime haters. The writer has applied lime liberally to lupines and they seem to do well. If lime is used, it should be applied when the soil is ready for seeding or planting. Finely ground limestone should be applied at the rate of two tons per acre, and if hydrated lime is used, one ton per acre is sufficient.

Climatic conditions should determine the time of sowing the seed. In northern or cooler climates we find it necessary, in most seasons, to sow seed early in the spring. This may be done before the frost is entirely out of the ground. If the ground freezes after seeding, it will aid the germination of seed. However, seed may be sown as late as June 1 with success, unless it should be an exceptionally dry season. Seed may also be sown in the fall, just before the soil freezes permanently. This should be done, however, late enough to prevent seed from germinating. There is some danger of the seed's washing from the rows in early spring from fall seeding.

Early spring is the best time to transplant lupines. At this time the plants derive the benefit of the spring moisture, which is necessary to start them well. Where there is a sufficient water supply they may be transplanted any time until June 1. Fall transplanting is also practiced successfully, but should be done from the middle of September up until October 1, so that the plants will be well established before the winter starts.

The common varieties of lupine are blue, white, pink and yellow. There is also a wild species of a dwarf nature and blue in color, found in north-central Wisconsin, Minnesota and Michigan. In recent years this plant has been hybridized by hand pollination, resulting in new varieties. Some of the best of these are Downer's strain, the Harkness hybrids, the Regals, Moerheimii, Tunic, Rosy Morn, Princess Mary, Sunshine and Golden Spire.

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Good Lawns Make Better Homes

Pointers in Lawn Making and Maintenance

J. G. MOORE
Wis. College of Agriculture

Every home should have a good lawn. In this article the necessary steps are outlined. Proper preparation of the soil, fertility and the right seed are important requirements.

A GOOD lawn is the first essential of an attractive home grounds. The proper establishment or building of the lawn insures a better lawn and less trouble later on in maintaining it. The first error commonly made is failure to supply sufficient good soil. To make a first class, permanent lawn, there should be a foot of good top soil. This does not mean that there should be a foot of so-called surface soil or top dressing, but that eight inches or more of the soil under the four or five inches of top dressing should be such as to insure good drainage, a good food and water holding reservoir and permit of deep rooting of the grass.

When a good foundation soil is lacking, one must be built up. The two principal considerations are texture or physical condition and plant food. Physical condition is paramount. A heavy soil must be made looser, a light soil must be fitted to hold moisture and food materials better. The application of organic matter is a most important method of attaining these results. On heavy soil, the addition of lime, coal ashes or even sand, may be found desirable.

Organic matter is best applied as well rotted stable manure. When this material is difficult to secure, substitutes such as decomposed leaves (leaf mold), peat or muck may be used. A load of any of these materials to one thousand square feet of lawn will not be excessive.

Rough grade the lawn area, plow the land, apply the corrective material, and then thoroughly mix it with the top soil by discing or spading. When none of these materials are available, and the soil is deficient in organic material, a cover or green manurial crop should be grown and worked into the soil.

PLANT FOOD SHOULD BE APPLIED DURING PREPARATION

Plant food requirements are partly taken care of if manure is used, but as a rule an additional supply will be beneficial. On clay or clay loam soils, five pounds of nitrate of soda, sulfate of ammonia, or dried blood and ten to twelve pounds of bone meal per one thousand square feet may be used. On sandy soils, it is probably best to use two to three pounds of muriate or sulfate of potash, in addition to the above. If desired, one may use as a substitute fifteen to twenty pounds of complete fertilizer containing two to four percent nitrogen, eight to ten percent phosphoric acid and four to six percent of potash. A like amount of "lawn or garden" fertilizer may be used instead.

Grass seeds are so small that some people think that the seed bed needs to be no more than an inch or so in depth. If the feeding roots are to develop properly and enable the plants to withstand unfavorable conditions, the soil should be made fine and crumbly two or three inches in depth. It is possible to make a lawn without deep preparation of the soil, but it will be more expensive and less satisfactory in the end. Make the soil as fine as practical. Roll it with a heavy roller and then loosen the surface with a light harrow or with the garden rake before sowing the seed.

THE SEED DETERMINES THE LAWN

Buying grass seed involves three problems: kind of seed, quality and amount. The grasses to be grown should be adapted both to the soil and other environmental conditions. No one kind is best under all conditions. This means that one must study his conditions and make his purchase accordingly. There are some "cure-all" seed combinations, but they are usually less satisfactory than one in which only adapted grasses are used.

Of course, one can buy seed mixtures on the market. Cheap seed mixtures are to be avoided, as they usually contain a goodly proportion of seed of grasses not adapted to lawns or else lawn grass seed of low germination. Cheap grass seed is usually the most expensive in the end, therefore, it is economy to buy the best seed available. Personally, I prefer to mix my own grass seed, even for re-seeding. Then I know just what I am getting and the proportions of the various seeds used.

KENTUCKY BLUE THE FOUNDATION GRASS

Kentucky Blue Grass is the foundation grass of most of our lawns. It thrives under a variety of conditions and forms an important part in a majority of good grass seed mixtures.

It is usually supplemented with Red Top. This grass succeeds on both dry and moist soils and may be considered of second importance in most grass seed mixtures.

The other grasses added to the mixture are determined by conditions and the whims of the

purchaser. Many grass seed mixtures will contain some Dutch White Clover. Its use is entirely a matter of taste. It is a nuisance if it once gets started in the flower or shrub beds.

Creeping Bent or Rhode Island Bent are often used in mixtures. The former has come into prominence thru its use for golf greens. One should not expect the same results on his lawn as are secured on "greens" as the methods used on the greens are not practical on the average lawn. If creeping bent is used, one should endeavor to secure the South German strain of seed, the plants of which are said to root from the stolons without "top dressing".

Shady locations demand special seed. Addition of Rough Stalked Meadow grass to a standard mixture will usually give the desired result. In very bad cases English Rye or Italian Rye grass may be used. The area will need quite heavy reseeding annually.

Sow the seed early. The proper mixture is important. Bent grass is a new variety of much promise. Covering unnecessary if sown while ground is frozen, and before a rain.

A Basic Seed Mixture

The following mixture may be used alone or as a basis to which other kinds may be added. Kentucky Blue 4 pounds, Red Top 2 pounds, Creeping or Rhode Island Bent grass 1 pound. This is enough seed for two thousand square feet of lawn. For shady places, add 2 to 3 pounds of Rough Stalked Meadow grass and sow at the same rate. If Dutch White Clover is used, ½ pound may be added.

The seed should be thoroughly mixed before sowing, even though ready mixed seed is purchased. This is necessary because the difference of the weight of the different seeds in the mixture may cause the heavier ones to settle to the bottom. If the seed purchased is not mixed, sow the white clover separately.

Seed as early in the spring as possible. Even before the snow is all off, or when there is no snow when the ground is still freezing at night is an ideal time. Seeding may also be done in late August or early September. Under ordinary conditions, it should not be done in June, July or early August or after the middle of September.

Seeding should preferably be done when there is no wind. Divide the seed into two lots and scatter one half crossing the lawn in one direction. The other half should be sown crossing the lawn at right angles to the first seeding. For large areas, some of the improved types of grass seeders will be found very advantageous. On small areas, seed is usually sown by hand. Hold the hand close to the ground and distribute the seed with a sweeping motion, letting the seed slip out over the ends of the fingers.

If the seed is sown while the ground is frozen in the spring or just before a rain in either fall or spring, covering will not be necessary. If the seeding is done when the soil is dry, raking may be practiced or the seed "washed in" by thorough sprinkling.

In raking, care should be taken not to rake the seed in windrows. The small lumps or clods should not be raked off as it is practically impossible to remove them without also removing much seed. Deep raking is also likely to waste seed by covering it too deeply.

Rolling the lawn immediately after seeding presses the seed into the soil and insures conditions favorable to a good supply of moisture to the germinating seed and the young plant.

Re-seeding a Necessity

Many seem to think that the lawn, once built and seeded, should take care of itself indefinitely. Such an assumption leads to sorrow later on. The old adage, "A stitch in time saves nine" is applicable when it comes to lawn management.

Re-seeding should be a part of the lawn program each fall or spring. Not as much seed will be needed for re-seeding as in the initial seeding, but as the use of seed is one of the cheapest and easiest ways of keeping a lawn in good condition, one should not be too economical in the amount used for re-seeding. One may vary the amount, depending on the thickness of the stand on different areas. On what would be considered a good stand, I like to use *one, to one and one half pounds per thousand square feet.*

Fertilization is another important factor in lawn maintenance. Well rotted manure, if free from weed seed is a good fertilizer. It should be put on in the fall, any coarse particles being removed in the spring. Prepared sheep manure is sometimes used as a substitute for stable manure. Fifty pounds per thousand square feet is a good application. Leaf mold, if available, may be used as a substitute for manure.

Commercial fertilizers are being more extensively used. One application annually is the minimum. A better practice is two or three applications at intervals, using smaller amounts. Sulfate of ammonia is a very satisfactory lawn fertilizer. One pound per thousand square feet put on at three week intervals during the growing season tends to keep the grass growing vigorously. It should be distributed evenly, no chunks, just in advance of a rain or be washed into the soil with the hose or sprinkler.

Some like to supplement the nitrogen fertilizer with ten to fifteen pounds of bone meal per thousand square feet, applied in the spring. There are also ready mixed lawn fertilizers on

the market which are very satisfactory.

Weeds Are A Problem

The weed problem is best met by care in securing top soil free of weed seed, avoiding weedy manures, keeping a thick, vigorous stand of grass secured by re-seeding and fertilization. Even then, some hand weeding will be necessary. A weed in the lawn should not be permitted to go to seed.

The use of sulfate of ammonia will help materially in keeping out many kinds of weeds. Dandelions are sometimes controlled by spraying with iron sulfate, although most people do not take kindly to this method. Close mowing is an indirect method of encouraging weed development.

Do Not Cut Grass Too Short

Nearly everyone cuts the grass too short for the good of the lawn. To make matters worse, they are also quite likely to mow the lawn too often. Remember that the roots of the grass are fed by the top, that they prefer a cool, moist soil, and that keeping the grass shaved off exposes the soil to the hot rays of the sun, which suck out the soil moisture and almost literally cook the roots. It is also a good plan to leave at least part of the clippings on the lawn. A satisfactory method is to let the clippings lie, then after they have dried, rake the areas where there are enough to make the lawn appear unsightly. Most people mow their lawns too late in the fall. Mowing should cease early enough so that the lawn will go into the winter with a good growth of grass covering the ground.

Do Not "Sprinkle" The Lawn

Watering with the old fashioned rotary sprinkler can never be very efficient, as the water cannot be distributed evenly. A new type of oscillating sprinkler which covers a rectangular area is very satisfactory.

STARTING A ROCK GARDEN

(Continued from page 191)

ably a southeast exposure is most nearly ideal.

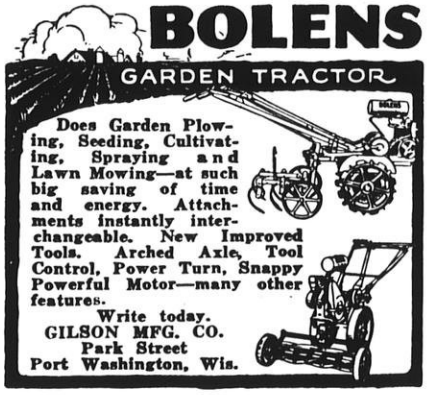
If your rock garden must be in shade, you may find it well to depend largely on our native ferns and plants, and dwarf evergreens for your rockery. Be sure that the winter drainage is such that pockets or sheets of ice will not form over the plants and smother them.

Do not be afraid to go ahead and build according to your best ideas. If you are not entirely satisfied with the results, all the better, for you can have all your fun of rebuilding the rockery another season. The principal thing is to do something. Get all the information you can, but do not be disturbed if your friends tell you that you have made mistakes, for they are probably wrong themselves. There are few rules about making a rockery except to imitate natural methods as much as you can.

Be sure that the soil is well firmed about the roots of the plants when they are set in the rockery. In the wall or cliff type, it is usually best to set in the plants as the rocks and soil are placed. A large rock may often be placed right on the roots, pressing them into the soil below.

In this type of rock garden each succeeding layer of rocks may be set back from the one below, providing ledges or pockets for the plants.

(This is the first of a series of articles by Mr. Toole on Rock Gardens. The next will appear in the May issue. Mr. Toole is a specialist on Native and Rock Garden plants. "Garrynee-Dule" at Baraboo is worth visiting if interested in this line.)



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New Facts About Roses

Rosarians Discuss Varieties and Cultural Methods

I. J. SCHULTE

THE meeting of the Milwaukee County Rosarians on March 14 was the best attended of any meeting we have had so far.

Mr. Huron H. Smith, Curator of Botany of the Public Museum told of his visit to the National Flower Show at Louisville, Kentucky. Of all the different kinds of national and international shows none seems to draw the attendance that the National Flower Show does. Last year at Detroit the attendance was 257,000, and the show was staged at a cost of $128,000.

At the Louisville show roses with nine foot stems and masses of petals were exhibited. Joseph Hill of Richmond, Indiana, who probably has the largest amount of glass and grows the largest stock of roses in the country, received first prize of $1,000 for a vase of roses which he said represented the remains of 2,000 plants from which there had been pinched 20,000 roses. A bed of roses 150 feet long was exhibited by Hill, who also received three gold medals from the American Rose Society for three new roses.

Besides the rose exhibit there were rock gardens, bulb gardens, and naturalistic gardens of all sorts prepared especially for the show by exhibitors from all parts of the country.

Mr. Louis Potter, who also attended the National Flower Show, described the three roses which were awarded gold medals by the American Rose Society. To receive such medals means that the roses must rate ninety or better. These roses are the E. G. Hill, Johanna Hill, and Rose Hill, all introduced by Joseph Hill of Richmond, Indiana.

E. G. Hill is of a beautiful cherry red color, a bit longer pointed and not quite as globular as Radiance. It is about midway between a loosely built and a heavily built flower and has quite a bit of fragrance. The stems are fairly heavy and dark green, which is a good indication that it will be a good outdoor growing rose.

NEW VARIETIES THAT WILL DO WELL OUTDOORS

Johanna Hill is longer pointed than E. G. Hill and about a half inch longer than Columbia. It has at least forty petals and is quite double, but it opens slowly into a perfectly shaped rose. It is a beautiful light apricot shade and is quite sweet scented.

Rose Hill is a sport of Columbia, shaped like Radiance, a pointed rose when in bud. It must have at least fifty or sixty petals. It is a clear shade of pink, some of the petals being edged almost half way up with gold. It has the Columbia characteristic when fully opened to form a sort of double bloom. Rose Hill is at least a fifty per cent improvement on Briar Cliff.

Silver medals were also awarded for two new roses: Mrs. Edna Baum and Jubilee. Mrs. Edna Baum is a very light pink, shading to white. It is a sport of Premier and almost the shape of Premier. Premier is not an outdoor rose, and it is not likely that Mrs. Edna Baum will do well outdoors.

Jubilee is a new Canadian rose. It is the exact color of Mrs. John Laing, but the bloom is fully twice as large and fifty per cent longer in point than Briarcliff.

In addition to the reports on the National Flower Show our regular program covered the

(Continued on page 211)

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ONE of the problems which caused the editor unnecessary worry before taking over this position was—where can interesting material be obtained to fill this magazine month after month, without repetition.

We have been agreeably surprised to find that it is a very easy matter. In fact, it has given us a little worry to get all the good articles available into the 32 pages we have set as a standard. Last month we held over two feature articles and several short items, due to lack of space. This month we must do the same.

We wish to express our appreciation to those who so freely give their time and labor without pay. Special credit should go to the three department editors: Mrs. C. E. Strong, H. H. Smith, and E. L. Chambers, who so faithfully keep up their departments each month. C. L. Kuehner has now been added to the list and will contribute regularly.

Our members have shown a splendid spirit of co-operation. When asked for an article on some subject they have always responded.

The Horticultural Department of our College of Agriculture has given much help in the form of articles and information. Other departments of the College have been more than willing to help, especially the Department of Agricultural Journalism, Agricultural Extension, and Boys & Girls Club Department.

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4 H CLUB PREMIUMS

ALMOST a full quota of Counties have now taken advantage of our offer of special prizes of $10 and $5 for the best Boys & Girls Club Demonstration Teams on a Horticultural Subject.

A few more can be taken on. The rules are simple. If you have two or more Horticultural Clubs in your County, and they develop demonstration teams who compete in a public contest, you are entitled to the prizes. We can take only 10 counties this year. We can also give some individual prizes of a year's subscription to WISCONSIN HORTICULTURE to a number of counties. Put your request in at once.

A FORMER member of the Horticultural Society remarked a short time ago that he had not kept up his membership "because a certain group had gotten control".

He believed in reform—"put the other fellow out and my crowd in".

We have tried to find signs of any group, or person, trying to get control of this society. We wish they would; the more the better. If they did they would be doing things. If we could get the fruit men, the florists, the gardeners, etc., all trying to have their interests promoted the most this would be some live organization.

If any one group in the past seemed to be having the most to say at the Convention and their line was mentioned the most in the magazine—it's a good goal for the others to strive to reach.

At the next Convention we want a large crowd of each branch of horticulture to attend—so large we can't put them all into one hall. We will be glad to have a separate meeting with good speakers for each group.

We want to have a special summer meeting for each branch of horticulture. We want articles along the line you are interested in, for the magazine.

We want you to try to make the Society of the most benefit to your branch of Horticulture.

In other words, no group is getting too much. Perhaps some branch has been or is being neglected, but it's not intentional. Help us overcome it.

In other words, we will be glad to put your crowd in—but not the other fellow out!

HOW'S THIS, SPRAY RING MEMBERS?

The following letter from Theo. Ward, Sec. of the Jefferson Co. Fruit Growers Ass'n, offers a suggestion.

This association is a federation of the Spray Rings of Jefferson County:

"The increase in membership in our organization this year has been particularly gratifying. We feel that this may be due to two reasons. One, the spray ring members feel the need of an organization to carry on some of the work formerly done by our County Agent. *Secondly, your special membership proposition has enabled us to offer memberships in your Society*

and our Association at our regular Annual membership rate.

We hope you may see fit to continue with this special membership proposition.

It is needless to say that the co-operative buying of spray materials plays an important part in holding our membership together. We have just placed an order for a carload of spray material."

Yours truly,
THEO. WARD.

INCREASE REPORTED IN POTATO ACREAGE

REPORTS seem to indicate that there will be an increase of 11.9% in the acreage of potatoes planted this spring over last year, in the United States.

In Wisconsin, our Division of Agricultural Statistics reports the intentions appear to be an increase of 12% over last year. It is important that farmers consider this fact in making their plans for planting this spring. Last year, in spite of adverse weather conditions in certain sections, it seems that we had plenty of potatoes, as prices were none too high last fall and early winter.

With an increase of 12% in the acreage, should good weather conditions prevail this summer, the prediction would be that potato prices would be low.

Of course weather and market conditions between now and planting time may change the present plans. These reports are made so those who desire to make proper crop adjustments based on advanced information may have something to go by.

Reports for the United States show increases being planned for several other crops, namely, barley 23.9% increase; tobacco 15% increase; flax 14%; corn 2.8%.

Decreases are reported only on spring wheat, 1.5%; oats 1.4%; and tame hay 1.4%.

GROWING CELERY AT LOW COST

OUR experience with celery has been very satisfactory as far as growing it is concerned. Marketing the crop on a large scale is another problem;—one which takes experience and a lot of work to overcome, especially if it must be shipped.

One of the problems in growing celery is to do it cheaply, or the Michigan growers will "run one ragged". Several times we have tried to estimate what the growers in Michigan receive for celery delivered to Northern Wisconsin for less than $1.00 for a crate of three to four dozen bunches. Surely not more than two cents per bunch.

At that rate, anyone wishing to produce this crop to sell has the problem of economical production to solve.

It would not be economy to transplant the young plants from the seed bed before setting out into the field, for the main or late crop. Labor is the big item of cost. Our most successful and cheapest method has been to sow the seed in cold frames. These were set up each year, using prepared two inch planks for the frame, and covering with hot-bed sash.

The frames were set up in the garden after the soil had been carefully prepared for them. This was very quickly and easily done, as the garden had been plowed and dragged with a team, so all that was necessary was to rake it thoroughly by hand.

The frame was then nailed together and set on the prepared ground. The seed may be sown either in rows or broadcast. Broadcasting requires experience, and may not be desirable. Rows two inches apart, made about one-fourth of an inch deep with the edge of a lath, work well. Sow the seed into these rows, not too thickly, and cover lightly with soil. A good way is to scatter a little loose soil over the entire bed and press down with a board.

After sowing the seed, a very important and simple operation is to cover the bed with burlap. Rip a gunny sack and spread it on the bed and then give it plenty of water. This insures quick and even germination.

Of course the burlap must be removed as soon as the seed comes up, or the plants will be spindly.

The advantage of a cold frame is to protect the plants from bad weather, heavy rains and cold nights. If the plants come up too thickly; thin them out. When they are large enough to be handled easily and the weather is fit, they can be set into the field. They are planted six inches apart in the row. Care must be used not to set them much deeper than they were in the cold frame. The plant roots must be kept moist while handling and must not be exposed to the sun.

Celery needs plenty of moisture, nitrogen, and potash. Muck soil, fertilized with potash and nitrogen fertilizers, is probably the most economical, and the soil most commonly used for commercial celery production.

BEST VARIETIES

We would recommend only two varieties for main and late crop plantings: The "Golden Plume" and "Golden Self Blanching". The best strains are none too good.

The Self Blanching will hold up the best in storage, and is the one to use for late crop planting. Golden Plume is the best quality celery we have ever seen, and should be used when shipping from the field.

OUR COVER PAGE

Our cover picture was sent in by Miss Edna Billings, Racine. It shows candidum Lilies in the garden of J. B. Simmons, Racine.

About the Home and Garden

Mrs. C. E. STRONG, Editor

WHEN WISHES COME TRUE

WHEN I was a small girl I believed that if you wanted anything very, very much, enough so you thought about it a great deal of the time, and you just wished and wished—and were a fairly good girl, and did everything you could to help, a very good Fairy would some day VERY suddenly grant your wish.

I knew this was so because I even got the RED LEMONADE at the circus and promptly wished I hadn't wished so fervently for it. It did not taste one single bit as good as it looked. Wishes were like that sometimes, but you could not know everything. Any way if you wished real hard you DID get your wish.

As years went by, I got over thinking the fairies granted your wishes, but I still persisted in thinking that if you really wanted anything very much you could get it if you tried.

Once in a while some things seemed almost hopeless, but eventually, sometimes very unexpectedly, "my wish came true".

Are you wondering what this "looking backward", is leading up to? Ever since I took charge of this department I have wished most fervently for letters about gardens, not letters that I had coaxed people to write, and they had reluctantly consented, but spontaneous letters showing interest in the garden work. Letters that told stories of the writers' gardens —letters that held pictures of gardens. But weeks, months, even years went by and that fervent wish seemed farther from fulfillment than in the beginning. Almost I began to doubt, then suddenly—just like the red lemonade—my wish began to come true.

Mrs. Strong had the misfortune to suffer a bad fall this past month, and was confined to her bed most of the time. In spite of this she managed to contribute to her department, which we appreciate.

We hope our readers will continue to write Mrs. Strong about their flowers and gardens.

Her address is 80th and George Streets, West Allis.—(Editor.)

Unlike the lemonade the reality is even better than anticipation. The letters are so interesting, so are the pictures, the stories about gardens cannot help but aid others in planning their gardens.

Once more I am saying, "If you wish hard enough, if you really and truly want this, you will get it, it is so—it IS."

So now I am wishing that every week the mailman will bring more letters about gardens, flowers, vegetables, shrubs, pictures of gardens, your way of growing plants. We are all interested. Besides, won't it really make you happy to think you are helping make "dreams come true".

HAVE YOU?

A FEW HINTS FOR THE VEGETABLE GARDEN

Have you been wise enough to order your seeds early, so the packages are all ready and waiting to scatter their contents in the cold frame or in the garden rows?

Were you thinking about your garden last fall? Did you spade up some ground, leaving it rough so that spring wind and sunshine would dry it out, and early in March you could plant peas, radishes, lettuce, onions, all the things that frost will not harm, even six inches of snow will not dismay.

If you did not do this—if you did not know how much this would help you to have an early start, just remember for next year.

If you are one of the many who planned to start their own plants in a cold frame, no doubt you fixed it up nicely last fall, then covered it up snugly so when you needed it, there it was. All you needed to do was put the glass on and let the sunshine thaw and dry out the ground.

Then sow the seeds, carefully writing down the name of the seeds and the number of the row in a blank book you have for this purpose.

Of course you know that the seeds must be watched carefully so that they do not become dry.

If you did not know about doing these things, just remember for next year.

If you are an old experienced gardener, you know of course that the soil should not be wet when you start to make a garden. If you are a beginner, just

A very fine photo of the farm grounds and flower garden together with an article by Mr. and Mrs. E. E. Haasch of Wauwatosa were included in Mrs. Strong's article. The picture was so good we wish to run it on the front cover in the near future. The article will be published at that time.

remember that, especially if you have a heavy clay soil.

Soil is just right to work when you can take a handful and squeeze it lightly, and it will not pack solidly, just crumble softly as you rub it through your fingers. Remember a garden that is started in soil that is in a right condition, is much easier to care for.

LETTERS FROM OUR READERS

Dear Mrs. Strong: I've been intending for some time to write about a little Amaryllis plant I am caring for. I raised it from seed. The plant from which the seed came, had great amber-golden blossoms, one of the loveliest Amaryllis I ever saw.

The owner of the bulb let the seed ripen for me—there were only two seeds—one so small I had little hopes of its germinating, but both germinated and sent up tiny shoots. The smaller one died very soon, but the other grew and is still growing, has its fourth leaf now, it looks so thrifty and must have quite a bulb.

I enjoy watching it and am hoping for something as lovely as the parent blossom.

I also have a dozen small Cyclamen bulbs from seed. A bulb raised from seed by a friend, is the finest Cyclamen I ever saw, I think it must have upwards of thirty blossoms on it now, a lovely white with rose colored center.

I raise quite a few bushes from slips and that is a pleasure too; snowberry, snowball, weigelia, syringia, spirea, bush honeysuckle, roses, especially climbers.

I read one article from a plant enthusiast, who said he or she believed that any bush would grow from slips.

Such work is pleasant any way.

ALLURA COLLINS HOLLISTER,
Mukwonago.

(Continued on page 208)

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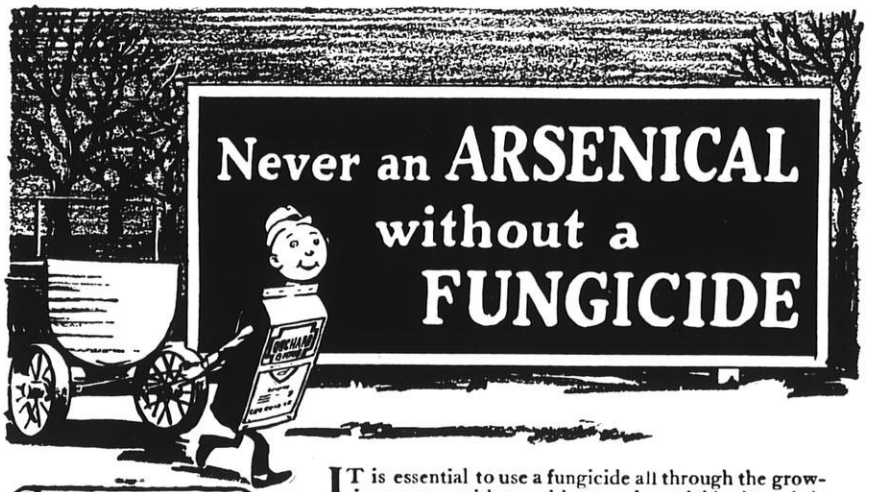

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IT is essential to use a fungicide all through the growing season, with or without an insecticide, but—**it is never profitable** to use an insecticide without a fungicide.

Start early, using **"ASP" Dust, or "Dritomic" Sulphur** with the double-dose **"Orchard Brand" Arsenate of Lead** calyx spray on apples, and the petal-fall arsenical spray on the stone fruits.

Remember! It's the calyx spray kill that prevents heavy second and third broods of codling moth. Double the dosage now and you'll not need heavy arsenical spraying on the growing fruits.

"ASP" Dust, "Dritomic" Sulphur and **"Orchard Brand" Arsenate of Lead** are adding thousands of dollars to the harvest value of the crops in every fruit-growing district. Clean and full-color fruit commands a premium. Use these materials and sell at the top of the market.

If you haven't received the 1928 Annual, "Cash Crops," send for a free copy NOW!

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Florists Create a Fairyland

Annual Spring Show Attracts Milwaukee People

Florists Department—HURON SMITH, *Editor*

Left: One of the many groups of foliage and blooming plants. Center: The Rock Garden. Right: The "high light" of the show—the Amaryllis exhibit.

THE Annual Spring Flower Show at the Milwaukee Public Museum was the best ever put on. "Bigger and Better" well fits the efforts of the Milwaukee florists in staging the event March 15th to 18th.

The show was held under the auspices of the Botanical Department of the Museum, the entire first floor being used.

Seventy-eight florists contributed their bit to the ensemble and the result was acclaimed the best, by all who visited the show.

Last year's attendance at this free show was 112,225, and the attendance this year was as great or greater.

Expenses of the show were defrayed by the Milwaukee Florists Club, the Milwaukee Florist Publicity Association, and the Public Museum. No advertising was given individuals, but the business as a whole gets a big boost.

Large numbers of out-of-town visitors saw the show. The returning florists from the National Convention at Louisville saw it and praised it highly. They were kind enough to say that in quality of stock, with the exception of roses, it surpassed the National Show. There were visitors from Denver, Los Angeles, Seattle, New Orleans, New York and other cities who praised the show. Fifteen auto loads in one motorcade from Racine, Wis., attended the opening day.

Since it is a city show, the Mitchell Park Conservatory assisted by decorating the rotunda, or entrance. In a Moorish window, they staged forty baskets of blooming orchids of several different species. Other common orchids were placed on the tables. Azaleas, cinerarias, Rehmannia, primroses, wall flowers, stocks and Primula malacoides edged their exhibits. A hundred pots of real shamrock featured the show on St. Patrick's Day. In an octagon space four dining tables with the finest table service, exhibited the best of floral centerpieces and table decorations. Tall palms further enhanced the picture, such palms as the florist cannot afford to handle. Nine huge hanging baskets of chinese ivy filled the spaces between the marble columns.

The entrance room to the show was almost entirely filled with a rose garden staged by the C. C. Pollworth Company. The largest room was the Ethnology Hall. At the entrance a special fine vase of fifty six-foot Godfrey Callas from Wm. Rayner & Son, Oconomowoc, Wis., made the best exhibit of callas ever seen here. They averaged eight inches across. Just around this corner was the "perfume section" started with a large orange tree in full blossom, with some fruit upon it. Sweet peas in profusion, and mignonette with gardenias helped get the sweet scent across. Some new begonias were shown, as yet unnamed, but a cross of Chatelaine and another variety, were much admired. They were the product of a newcomer in the growing end, Geo. Knoelke and Julius Bahrke. In this room besides four tables, were the special banquet table set-ups by James Fox, Inc. and the Semler–Leidiger Co. They were especially effective. The largest group of the show occupied the central part of this room and was a group of foliage and blooming plants staged by the Holton & Hunkel Company. Their Potsdam nana compacta cinerarias edging the group were the best grown we have seen. Genistas, azaleas, astilbes, tulips, hyacinths, various narcissi and other blooming plants were effectively grouped around

palms and a large variety of foliage plants.

A forty foot bench along a hundred foot communicating aisle carried a hundred vases of the best carnations, in the greatest range of color seen here, including some likely seedlings. Spring baskets stocks and varieties of snapdragons covered the other sides of the aisle.

The most beautiful piece of the show was a spring garden with growing tulips and other flowers, worked out with rustic background and fallen birch logs by the Aug. F. Kellner Co., who did the entire decorating for the show. We saw nothing that touched it at Louisville. Spruce and cedar trees 25 feet tall were used in the background to cover up the marble stairway.

Roses were exhibited in the next hall, flooded by spotlights. Retail arrangements vied with vases of the newer roses in quantity.

The best advertised feature of the show was a large rock garden in the next hall, ten feet by fifty. It was the special care of the Kellner Co. who forced a number of wild flowers especially for it. 150 fabricated rocks by the taxidermy department of the museum, successfully fooled all comers, and reduced the weight several tons, since the exhibit was elevated to a height of forty inches, and sloped to a young mountain nine feet high at the back. In the same room were 24 tables of retail flower arrangements, and also two very noteworthy groups. This was the exhibit of the Forest Home Cemetery, whose Scotch grower, James McGregor could take a prize any time he wanted to exhibit at the National Show. His hundred pots of huge Amaryllis were all in perfect bloom and seemed to be the high light of the show. One flower was pure white, with no trace of red or pink.

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See your dealer now about your requirements for this season.

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Please send me sample package of Arcadian Sulphate of Ammonia. I am especially interested in.....
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Address_____

Potato Growers Department

J. G. MILWARD, Editor
Secretary of the State Potato Growers Association

POTATO SEED TREATMENT

R. E. VAUGHAN

CORROSIVE sublimate as a disinfectant for the control of potato scab was first put forth by H. L. Bolley of North Dakota in 1891. Since that time it has been widely used in all the potato producing sections of the country where scab and scurf are abundant. The action of the corrosive sublimate is to kill the disease producing germs on the surface and allow the sprouts to grow without competition with the fungi.

The recommended treatment with corrosive sublimate is 1 ounce to 7½ gallons of water (4 oz. to 30 gals.). Immerse the unsprouted tubers in the solution for 1½ hours. The strength of the solution is rapidly weakened with use but may be kept up to strength by adding ¼ to ½ oz. of chemical for each 4 bushels treated. The amount to add will vary with the dirt on the tubers, the more dirt the more chemical required. Another method is to immerse the first lot of potatoes 1½ hrs., the second lot 1¾ hrs. and the third lot 2 hrs., after which a new solution of chemical is prepared.

The cautions in using corrosive sublimate are that it is a deadly poison if taken internally and must be kept and used away from farm stock and irresponsible children. It should be used on uncut potatoes. The potatoes should be dried immediately after treatment. If possible treat a week or more before planting.

Formaldehyde as a disinfectant for potatoes was first used by J. C. Arthur of Indiana in 1897, that same year it was advocated for oat smut by Bolley in North Dakota. It was widely used for potato treating for some ten or fifteen years but was largely discarded for the earlier corrosive sublimate because of its lower efficiency. The strength used was 1 pound to 30 gallons of water. The uncut seed was soaked for 2 hours.

HOT FORMALDEHYDE GOOD

Hot formaldehyde was first advocated by Melhus in Iowa in 1918. It proved to be somewhat more efficient than corrosive sublimate, at least under laboratory conditions, did not have the deadly poisonous quality of corrosive sublimate and was cheaper to use.

The cautions to be observed in the use of hot formaldehyde are that it must be kept within rather narrow temperature lim-

BROWN STEM CANKERS

The black scurf fungus, Rhizoctonia, attacks the stems and underground parts, causing these cankers. It frequently kills all the young shoots causing missing hills. June is the month of most serious injury.

THE STATE POTATO SHOW

The State Potato Show will be held at Rice Lake on October 22nd to 26th, 1928.

Special Community and Individual Potato Contests are being planned for the show.

A special committee is now working on the details of the plan together with a score card to govern the judging. Details will be published next month.

Special prizes will be given to communities and individuals based on actual performance records. These special prizes will be in addition to those given at the shows in the past.

We look forward to one of the most interesting and instructive Potato Shows ever held.

BLACK SCURF ON TUBERS

This disease is carried from year to year in this "dirt that won't wash off." Corrosive sublimate or hot formaldehyde seed treatment is recommended.

its i. e. 122°–125° F. This is usually hard to do without the use of specially constructed treating machines or steam supplied from a boiler. It is necessary to use a tested thermometer because temperatures below 122° F. are not very efficient in killing the scab and scurf germs and temperatures much above 125° are likely to injure the germination of the potato.

The time of immersion in the hot formaldehyde is 2½ to 3 minutes. The strength to be used is 1 pound to each 15 gallons of water. Cover the potatoes 1 hr. after treatment and then dry promptly thoroughly. For further details in regard to treating with hot formaldehyde or corrosive sublimate write for College of Agriculture Extension Circular 218, 1927.

New Treating Materials

Organic mercuries for seed treatment purposes were first brought out by Friedr. Bayer & Co. in Germany as tested by Riehm in 1913. Owing to the advent of the world war the results of these experiments were not available in this country until 1919. Since that time a considerable number of organic mercury compounds have been offered on the market. Those primarily designed for treating potatoes for the control of scab, black scurf and black leg are Dip Dust put out by the Bayer Co. and Semesan Bel put out by the Dupont Co. These materials seem to be somewhat similar in composition and action. In some tests they have been as efficient as corrosive sublimate or hot formaldehyde in scab and scurf control, in other cases no improvement in disease control has been seen.

Advantages which are claimed for the organic mercuries include their use on either the cut or uncut seed and the lack of injury to eyes even after they have started.

The cost for the treatment is 8 to 11 cents per bushel as compared with 4 to 5 cents for corrosive sublimate and 1 to 2 cents for hot formaldehyde. The time of treatment is short, only 1 minute in the solution being required. These materials are worthy of trial but should not be accepted in place of corrosive sublimate or hot formaldehyde until more information is secured under a wide variety of conditions.

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Ferry's Hollander, Own Strain. Genuine. One of the best for shipping and storage. Solid medium sized heads	7.00
Back's Hollander. Own Strain. The most Perfect late Shipping Cabbage	3.50
Back's American Shipper. The Best late Yellows Resistant Cabbage	5.00
Wisconsin Hollander. Yellows Resistant	4.00
All Season. Yellows Resistant. The Famous Kraut Cabbage	5.00
Savoy, Cabbage Danish Perfection	2.50
Mammoth Dark Red. Improved	2.50
Danish Dark Red Stonehead	2.50
Danish First Prize. Best Dark Red	3.25

Ounce at one tenth of pound price

Supreme Cauliflower Seeds

Direct from The Champion Cauliflower Seed Grower in Denmark, who is awarded the highest points year after year by the Danish Experimental Stations. There is no better Cauliflower Seeds to be had.
Extra Early Dwarf Erfurt Earliest New Snowball Danish Giant or Dry Weather. ½ Oz., $1.00; Oz., $1.70; ¼ lb., $5.75.
When you really want the Best Seeds let me furnish you.
Cabbage and Cauliflower Seeds has been my specialty since 1903 but I will be glad to quote you on any other seeds and you can be certain they are the highest grade obtainable.

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[ ] 500 Plants _____ 12.00
[ ] 1000 Plants _____ 20.00

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News From Our Locals

MEETING OF LOCAL SOCIETIES

Milwaukee County Horticultural Society will meet at the Trustees room Public Museum, Milwaukee, April 24th, 7:30 P. M.

Subject—Fruit Trees.

Speakers—W. J. Moyle, Union Grove; Prof. R. H. Roberts, College of Agriculture; N. A. Rasmussen, Oshkosh.

Miss Martha Krienitz, Secy., West Allis.

Oshkosh Horticultural Society will meet at the Public Museum, at 6:30 P. M. April 2nd.

The May meeting date is May 7th. Location of this meeting not yet decided, probably at the home of a member in the country.

Miss Agnes Phillipson, Secy., 1629—9th St., Oshkosh.

Eau Claire—Mr. L. M. Arnold, Secy.

"Rather an informal Garden Club of enthusiastic and successful flower growers. Our meetings have not been held regularly. It may develop that later more definite plans will be made."

They put on a very successful Annual Flower Show.

The Eau Claire members will find it very interesting to have regular monthly meetings with local and outside speakers.

Brown Valley Horticultural Society has again affiliated for the coming year. Mr. Harry Brooks, Mindoro, is secretary, and sent in the membership fees this month.

The Ellison Bay Potato Association will hold a meeting at Pfeils' Hall, Ellison Bay, on April 10th. County Agent Rusy and Prof. R. E. Vaughan, will be on the program.

Prof. Vaughan will speak on potato pests and diseases.

J. A. Hass, Ellison Bay, is secretary.

OSHKOSH SOCIETY MEETS

The March meeting of the Oshkosh Horticultural society was held on Monday evening at the Oshkosh public museum. E. H. Ristow read a paper on "Gladioli," which was followed by a general discussion on topics of interest. Plans for the annual flower show will be taken up at the next meeting, it was announced. The Monday evening session was largely attended, about seventy-five being present. The usual picnic supper was served before the program.

SONG OF THE OSHKOSH HORTICULTURAL SOCIETY

(Melody: America the Beautiful)

Oh, dear old Oshkosh, by the lake,
Thy virtues we proclaim;
We love to labor for thy sake,
To hold aloft thy name.
We love thy gardens at our door,
Thy fields of waving grain;
We praise thy beauties o'er and o'er,
Forever and again.

We rally here at Nature's call,
In one united band,
And gladly answer, one and all:
We're here with heart and hand
To plead our common cause again
To join in work we love,
And here to learn, from fellow-men,
How we may still improve.

So may our motto ever be,
As Nature's champions true,
To shield the flower, shrub and tree,
To stimulate anew
The cultivation of the soil,
The love of fields and flowers,
And gladden hearts bowed down by toil
Within this world of ours.

Mention Wisconsin Horticulture when writing our advertisers.

The West Allis Garden Club will meet at the home of Miss J. Lindauer on Wednesday evening, April 18th.

The subject for the meeting will be "Early Spring Flowers".

Miss J. Lindauer is secretary.

The regular meeting of the Madison Garden Club will be held on Tuesday evening, April 10th, at the Madison Public Library.

Mr. Fredrick Cranefield resigned as president of the club at the last meeting because of pressure of other duties. Mr. Cranefield is editor of a new weekly newspaper in Madison, called the "West Side News".

Vice-President Mark Troxell was elected president. George Morris is secretary.

Five flower shows have been planned by the Madison Garden Club for the coming spring and summer.

LETTERS FROM OUR READERS

(Continued from page 203)

We heartily agree with you Mrs. Hollister, such work is pleasant. We trust you will come again soon to our circle and tell us just how you grow these plants and shrubs.

GOOD WORDS FOR "HORTICULTURE"

Dear Mrs. Strong: A copy of WISCONSIN HORTICULTURE accidentally came to my attention a few days ago. The first copy I have ever had the pleasure to read. I have long wished for just such a magazine and expect to subscribe for it. Enjoyed your article on "Feeding Plants for more Blossoms". There seems to be so many who are at a loss to know just how to feed plants.

I notice in your copy you ask for recipes so I am going to forward you my recipe for "Mixture for Asters".

6 parts cow manure
2 parts wood ashes
3 parts leaf mold
1 part fine bone meal
1 part Scotch soot (soft coal soot)
1 part tobacco dust

For years we seemed to always have splendid Asters, but finally they just became a real "fizzle", no difference how or where we planted them.

The last few years we prepared the soil with the above mixture and find it very fine.

I hope to come again and tell you something about my garden work.

MRS. W. C. LANGMAN,
Argyle, Wis.

We also hope you will come again Mrs. Langman, you are telling us the very things we like to hear. We hope that you will tell all your friends about us now that you have become acquainted with WISCONSIN HORTICULTURE—for if every Garden lover in Wisconsin would pass along a bit of their experience to other Garden lovers through the pages of WISCONSIN HORTICULTURE—what an interesting magazine we soon would have.

A BEAUTIFUL GARDEN

One of Racine's most beautiful gardens is that of Mr. J. B. Simmons. It has the advantage of Lake Michigan for a background. It is framed with graceful willows, whose spreading branches allow glimpses of blue water, passing boats, and soaring gulls. All of this, though not part of the garden, adds much more to the garden-picture than garages and back-doors, which most city-lot gardeners have to work so hard to conceal.

The photograph of the Candidum Lilies shows the lake and the willows in the background, as well as the tea-house at the edge of the bluff. (See cover picture) Delphinium grows back of the lilies and a few peonies in the foreground.

Cottage tulips, in various shades of pink, rose cream and yellow, rise out of a carpet of early tall forget-me-nots in the other photograph, with the graceful branches of an English Eglantine bending over them. This combination proved to be a very happy one, and one hard to repeat, as the season does not always bring into bloom at the same time the groups of flowers we see in our mind's eye at planting time.

Cottage Tulips and Forget-me-nots, with English Eglentine bending over them.

Mr. Simmons' garden is full of delightful surprises like this at every turn. Many rare and unusual flowers can be found there. Often friends, home from distant lands with a "wonderful find" for this garden, are surprised to learn that a similar plant has been growing there for years.

The garden was evolved under Mr. Simmons' devoted care and planning through twenty-five years, into the place of beauty which it now is. Mr. Simmons believes that a garden turned over to the attention of others can not give the same joy to its owner as one in which he works with his own hands and plans with his own mind. Walking through this garden, one can not but feel that he is right and that his is an individual achievement.

MISS EDNA BILLINGS,
Racine.

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Overcoming Horticultural Troubles

E. L. Chambers, State Entomologist, Editor

PLANT REFUSE CARRIES DISEASE

R. E. VAUGHAN

AMONG the causes of plant diseases are found many fungi, bacteria and a few slime molds. When plants die from the growth of some of these organisms on or in the tissues, the dead parts such as leaves, stems, fruits, or roots carry the organisms over till the next season or through unfavorable conditions. The special fungus structure designed for this purpose may be a bunch or knot of threads as in the case of black scurf on potato, special heavy walled spores as in the case of the damping-off fungus, or pockets in which spores may be developed as spring opens as in the case of apple scab.

CROP ROTATION CONTROLS DISEASE

The organisms causing diseases in one kind of plant rarely cause disease in another plant unless it is very closely related botanically. For example, the black rot on cabbage does not damage the potato but is found on cauliflower and even turnip which is a close cousin. Farmers and gardeners can and do take advantage of this fact in plant disease control by practicing rotation. Even rotation within the limits of a garden is a great help in preventing any disease that may spread through plant refuse, such as cucumber spot rot, tomato blight and potato scab.

The interval of rotation depends somewhat on the nature of the plant refuse but usually three or four years is sufficient to permit the disease producing organisms to die out.

DEEP PLOWING HELPS

Where there is an accumulation of plant refuse, deep plowing is a great help in hastening decay, not only of the plant tissue itself but that of the fungus tissue also.

It is generally much better to dispose of plant refuse by burying than by burning, because the latter destroys so much needed humus. This is especially true in garden soils where baking, following loss of humus, would lead to crop reduction. Sometimes finely ground lime stone or air-slaked lime is thrown over the refuse as it is plowed down. This practice speeds up the plant decay and tends to neutralize any acid condition that may develop.

Where it is not convenient or safe to plow under plant refuse the dead stems and leaves may be raked and burned at the side of the garden.

SEED TREATMENT AND SPRAYING

Just as in human disease control where sanitation is supplemented by diet and sometimes by medicine and surgery, so in plant disease control sanitation is supplemented by spraying, seed treatment, the development of resistant strains and sometimes by elimination of some plant or plants altogether.

Cherry leaf spot for example is caused by a fungus which passes the winter in the dead leaves under the trees. When the blossoms fall in the spring the fungus develops and discharges spores, which, lodging on the leaves start the disease for another season. If the leaves are destroyed by early plowing a large part of the infection will be eliminated. But since it is impractical to destroy all the leaves on the ground, a spraying program is carried out to protect the new leaves as they develop.

Cucumber anthracnose is carried from season to season on old dead vines and on the seed. Rotation and deep plowing will effectively check the spread of the fungus from the vine refuse, but what about the seed? Since the fungus is on the seed surface it can be killed by seed treatment. Soaking the seed 5 minutes in corrosive sublimate 1–1000 has proved very efficient.

Cabbage yellows is a fungus disease that may be carried with the seedlings, hence it is important to grow the young plants where the soil is free from contamination. Where such clean soil cannot be obtained, or where the soil in the fields themselves has become infected, there are now available resistant strains of cabbage in all the standard varieties.

The cabbage yellows resistance work was started by Professor L. R. Jones when the Plant Pathology Department of the College of Agriculture was organized nearly twenty years ago.

MOSAIC IS CONTROLLED

Cucumber mosaic or white pickle is a so-called virus disease that frequently causes heavy losses to pickle growers. It has now been amply demonstrated that the virus passes the winter in some wild plants like wild cucumber, milk weed, ground cherry and poke weed. Where these weeds occur in the vicinity of a pickle patch, their eradication is a great help in controlling the disease. Several communities have worked together in Wisconsin, Illinois, and Maryland to control pickle

mosaic. What has been done can be done again.

The big idea in plant disease control is prevention because once a fungus gets inside the surface covering of plants little can be done. Sanitation by removing the sources of infection is one of the leading practical ways of supplying plant protection.

NEW FACTS ABOUT ROSES

(Continued from page 199)

planting, pruning, diseases, and care of climbing roses.

Mr. Huron Smith discussed planting and diseases. He said that in the strict sense of the word there was no such thing as climbing roses since there are none that attach themselves to a wall or surface the way climbing plants like the Virginia creeper or ivies do. All seem to agree that in the treatment of climbing roses one should only allow the canes to become one or two years old and that most of the old canes should be cut out after two years.

One should have a pocket of good soil to start with. The hole should be about two and one half feet in diameter and about two feet deep. It should not be right up against the house, for free circulation of air will be cut off and you will invite two of the worst enemies of the rose: mildew and black spot. None of the fertilizer should come into contact with the roots of the plant. If they are planted in the fall then you may expect a few blooms the first season, but you won't get the very best blooms until the second year in any case.

One of the finest mulches for roses is finely chopped up tobacco stems, which can be had from cigar factories for about three or four cents a pound.

The rose is subject to a number of diseases. The rose aphid lays its eggs on the bark of the rose and does its damage by sucking the sap of the leaves and the younger twigs. Aphids can oftentimes be dislodged by a strong spray of water from a hose, or Black Leaf 40 is recommended.

Rose slugs which skeletonize the leaves can be fought with arsenate of lead, or they can be hand picked. Black Leaf 40 is also recommended. The rose leaf hopper is controlled by tobacco extracts. It should be sprayed from below since the hoppers are found on the under sides of the leaves. The rose leaf roller is controlled with arsenate of lead. The rose chafer or June bug is mostly controlled by hand picking into a pan of kerosene. Melrosene also is used. Rose scale is controlled in the winter or early spring by a spray of lime sulphur. The rose curcullio responds to arsenic poisoning, or it can be hand picked. It eats holes in the leaves. The rose caterpillar, a very beautiful little beast should also be fought with arsenate of lead.

(To be continued in May issue)

Spray Materials

Arsenate of Lead Calcium Arsenate

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THE KIND OF ORNAMENTALS TO PLANT

The committee on ornamentals, appointed by the Horticultural Society, has recommended the following trees for street planting: American Elm, Sugar Maple, Norway Maple, Horsechestnut, White Ash and Pin Oak.

They also recommended the following shrubs for planting in shady places: Flowering Currant, Alpine Currant, Common Elder, Ground Hemlock, Hydrangea arborescens, Indian Currant, Red Snowberry, Maple-leaf Viburnum and Witch Hazel.

Other ornamentals recommended by this committee will be published in future issues.

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INDEX TO ADVERTISERS

	Page
Appleby, Mrs. E. F.	212
Back Seed Co.	207
Bahr Nursery	214
Barilani, F. W.	214
The Barrett Co.	205
Beier, Chas. J.	214
Big Elk Hatchery	214
Chequamegon Flower Gardens	209
H. C. Christensen	214
Cleerman's Hatchery	214
The Coe, Converse & Edwards Company	215
Cream City Chemical	211
Cumberland Fruit Package Co.	213
Dawson Bros.	214
Doll Coathe Gardens	214
M. Edwards Co.	203
Eschrich's Nursery	207
Fitchett Dahlia Gardens	186
Floria Dale Gardens	198
Edw. J. Gardner Nursery	207
General Chemical Company	203
F. R. Gifford Co.	215
Gilson Mfg. Co.	198
Grasselli Chemical Co.	212
J. F. Hauser	207
Fred Hecklinger	214
Hicks, Howard	214
High Twelve Hatchery	214
Island Fruit Farms Inc.	207
Jensen, John	214
Jerome, Ren	214
Kellogg's Nursery	198
Kinkade Garden Tractor	205
Krueger, John	214
Lake View Berry Farm	212
Leverich Fruit Farm	212
Lothe, B. A.	215
Mathews, W. L.	214
McKay Nursery Co.	216
McKenney Dahlia Gardens	214
North Star Nurseries	209, 215
Patterson, Emma E.	214
Rasmussen's Fruit Farm & Nurseries	216
E. B. Rosa	214
"Rose Gate"	212
Sisson's Peonies	216
Standard Engine Company	195
Stonecrest Gardens	214
The Swartz Nurseries	199
Terrell's Aquatic Farm	214
W. A. Toole	213
Western Stoneware Co.	186
White Elm Nursery	203
Whitford's Berry Farm	214

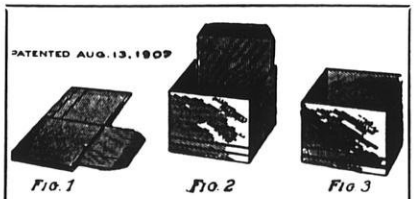

Fig. 1 Fig. 2 Fig 3

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Cumberland Fruit Package Company

Dept. D, Cumberland, Wis.

(Continued from page 194)

In this case, we thought twice, however and decided that we wouldn't need to waste all the time and energy we had put into that tree if we would top graft it. Just before growth starts, we are going to get some twigs of last season's growth off a McIntosh tree, cut off several of the branches that are about an inch to an inch and a half in diameter and put in these scions. We got Stencil Bulletin No. 62 from the Horticultural Department of the University which gives detailed information on how it is done.

Another bulletin, from the College, called "Save the Girdled Tree" has come in handy in repairing some injury by mice which worked under the tree protectors we put on last fall.

Have to check up the test we are making on some of our garden seed yet tonight, so more letter is out of the question.

Sincerely,

TOM AND ALEX.

TOOLE'S COLLECTION PERENNIAL SEEDS $1.65 WORTH OF SEEDS FOR $1.00, POSTPAID

For those wishing to try growing a perennial garden from seed, I have selected a DOZEN VARIETIES THAT ARE NOT HARD TO GROW, AT THE LOW PRICE OF ONE DOLLAR FOR TWELVE PACKAGES OF SELECTED SEED. No change may be made in this collection at the price quoted. The collection contains ONE PACKAGE EACH OF ANTHEMIS TINCTORIA KELWAYI; CANTERBURY BELLS, mixed; FOXGLOVE, mixed; SWEET WILLIAM, mixed; HOLLYHOCKS, mixed; SHASTA DAISY ALASKA; DELPHINIUM GARRY-NEE-DULE MIXED HYBRIDS; COREOPSIS LANCEOLATA GRANDIFLORA; GAILLARDIA; BABY'S BREATH; PERSIAN DAISY; ROCKY MOUNTAIN SALVIA; ORIENTAL POPPY. VALUE $1.65 — FOR $1.00 POSTPAID TO YOUR DOOR.

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The Growers Market

Advertisements for this department will be accepted from members of this society who produce the articles offered for sale. Rate 2 cents per word, minimum charge 25c per issue. "Adds" of nursery stock and plants will be accepted only from those listed by the State Entomologist as having been inspected. No discounts from these prices.
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REGAL LILY—BEAUTIFUL NEW white lily, hardy. Four blooming sized bulbs $1.00. $2.00 per dozen. H. C. Christensen, 1625—9th St., Oshkosh, Wis.

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FERTILIZERS FOR BUSH FRUITS

(Continued from page 190)

It has been recognized for years that the effect of lime on cranberries is extremely unfavorable. In fact cranberries seem to like an acid soil, requiring but very little lime.

FERTILIZERS FOR GRAPES

Fertilizer for grapes should contain relatively large amounts of nitrogen, but should nevertheless be well balanced with phosphoric acid and potash. Liberal supplies of phosphates and potash will produce healthy, thrifty new wood with strong buds which produce strong green shoots and set fruit more heavily.

As to time of application and rate of application for grapes the same precautions should be taken as in the case of raspberries and blackberries regarding late vine growth resulting from excessive nitrogen fertilization. Furthermore fertilizers should

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Emma E. Patterson
Burlington - Wisconsin

be worked in as deeply as possible without injuring the running root stalks of the grape vine.

Lime for Grapes

It would appear from data presented in Bulletin 160 by the Rhode Island Experiment Station that Concord grapes are not benefited from liming except in the case of a soil acidity of extreme acidity. In the case of the Delaware variety there was a pronounced benefit from lime both on the very acid and the moderately acid plots. The benefit to grapes was measured in yards of the new growth of vine each year.

IT'S NOT A HOME UNTIL IT'S PLANTED

(Continued from page 193)

Southern Wisconsin, the Weigelas. These might be placed in a straight row or staggered in a scalloped bed. By using shrubs of high, medium and low growing varieties in this border, an interesting wave may also be created in the skyline. It may be too, that you want to hide some undesirable view from the dining room windows. A group of small trees or high growing shrubs in just the right part of the border will accomplish your purpose. Likewise, advantage may be taken of a good view by the use of medium or low growing shrubs. Sometimes good views may be emphasized by framing them in, with dominant shrubs or trees.

Perennials to Brighten the Border

A few perennial flowers in front of this border of shrubs will brighten it up and add a finishing touch. There are hundreds of varieties of perennials that are good. In my opinion, there are four, however, which are indispensible: German Iris, Peonies, Larkspur, and Phlox. These varieties constitute the backbone of a beautiful and hardy perennial flower garden. Other good varieties would include Columbines, Oriental Poppy, Hardy Pinks, Hollyhocks, Achillea, Shasta Daisy, Coreopsis, Gaillardia, Monarda, Lemon Lily, Platycodon, Campanula, Tiger Lily, Sedum, Veronica, Boltonia, and Hardy Fall Asters. A few annual flowers might be interspersed in this bed to augment Fall bloom.

To summarize the border planting, then, we have: first, the corner groups and their place on small lots and properties; second, a hedge, either sheared or unsheared on medium to large properties; third, the extended border planting of shrubs, or shrubs and flowers, or shrubs, evergreens and flowers on larger properties.

(To be continued in May issue)

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W. T. Macoun, Dominion Horticulturist of Ottawa, Canada, writes in regard to origin of FOREST WINTER:

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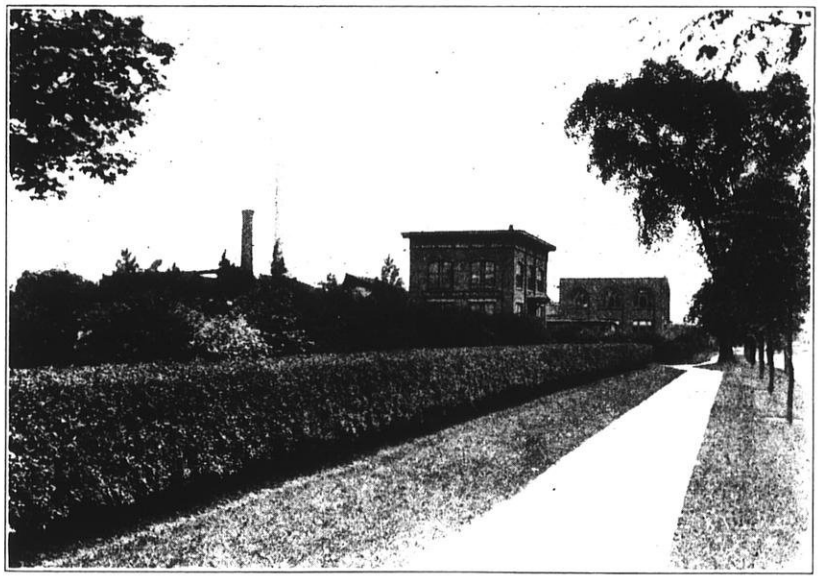

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WISCONSIN HORTICULTURE

Vol. XVIII MAY, 1928 No. 9

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TABLE OF CONTENTS

	Page
Spring Care of Peonies and Irises	219
Spray Rings Solve the Problem	221
Why the Doctor Still Comes Around	222
Visit Cherry Land at Blossom Time	222
Growing Quality Dahlias	223
It's Not a Home Until It's Planted	224
Using Fertilizer in the Orchard	225
In Orchard and Garden	226
The Cherry Aphid and It's Control	227
No Poison in a Tin Can	229
Germination of Vegetables	230
What Crops Need Lime	230
New Facts About Roses	231
Editorials	232
Summer Meeting at Sparta	232
Summer Meeting at La Crosse	232
Michigan Tour	232
About the Home and Garden	234
Florists Department	236
Potato Growers Department	238
News From Our Locals	240
Grades for Strawberries	242

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Spring Care of Peonies and Irises

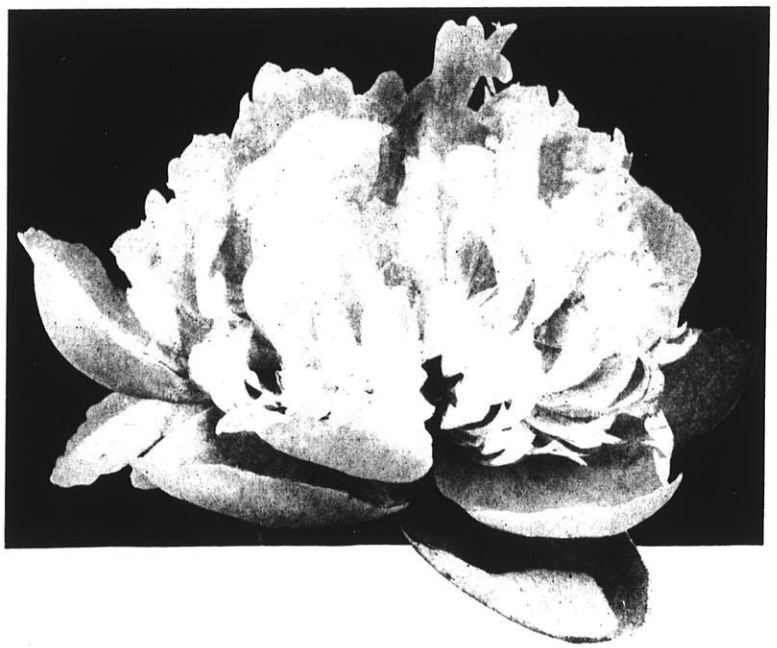
W. A. Sisson
Rosendale

Irises should be in your garden

ASK most any grower you know, about Spring care of Peonies and Irises and they will at once offer you complete information covering every phase of the matter. They will tell you in addition that they grow all the best varieties and have had years of experience and so are competent to offer expert advice.

I do not like to write and I don't like to talk, but I do like to crawl around the plants in my gardens and work with roots and bulbs and so have learned a few things. I would not want any one to follow my directions blindly. I would prefer that you try out suggestions that I may make and take nothing for granted from myself or any one else. It is just possible that you do not need advice and that you know how to do your garden work. But I have found that where I take issue with another person, later on I may be influenced, after due consideration, to do some things differently, making improvements for the better—all due to an interchange of opinions. We should I believe, keep our minds unbiased and open to take on or try out anything that looks feasible.

We are engaged for the most part with expensive stock. While we try to grow the best



The Queen of the Spring Flowers
Cuts by courtesy W. A. Toole, Baraboo

of the standard varieties we are taking on and watching the new varieties, which almost invariably are high priced. I have been twitted by men high in Horticultural circles about this very thing. They ask—"What is the difference between a fifty dollar peony and a fifty cent one?" and give the answer as—"Forty nine dollars and fifty cents." That may seem very funny to them but for myself, I am not content with yesterday. I am looking forward and expect to grow with the age and keep up to date.

We never solicit business. Our goods are on display in our gardens. The people can decide for themselves what are the better varieties. The majority of the people know only the "piny" of our grandmother's garden and the common field iris, they know nothing of the improved varieties.

Best Planting Time

Since our stock is valuable we have certain rules for planting and for their care. We cannot afford to deviate from rules. The time to plant peonies is from about September first until freeze up. The reason for this rule is because at no other time are the roots in a dormant condition. If handled at any other time there is damage and loss. The time to plant Irises is July and August. They are not ready to be transplanted until this time and if planted any later may not have gotten hold of the ground before freeze-up and may winter kill.

On all sides we hear statements to the effect that peonies and irises are planted any time during the growing season with first class results. I take no stock in anything of the kind and am content to follow rules I have found to be sound and good after giving them years of trial. Anyway, why take a chance. Nights were intended for our rest and sleep, day time for work and recreation with three meals. You well know that any deviation from this program does not tend for the best.

If you have prepared your gardens for their winter sleep you will find your plants and bulbs ready to put up a successful fight with our freezing and thawing spells which usually occur during early Spring.

What we plan to do during the growing season is to keep the ground well cultivated and hoed. This is not done to kill weeds and grass but to keep the ground stirred up so that it can take on air fertilization. This is the only fertilizer we use. If we can keep the hoe and cultivator in constant work we find we are not bothered with any pest whatever.

As long as one has a garden, one has a future, and as long as one has a future, one is alive.
—Frances Hodgson Burnett

When Fall comes and just before freeze up, we ridge up our rows of plants. This holds the plants in position without heaving and keeps the water off the crowns of the plants. Where there is any danger of water standing, dig an outlet for the water to drain off. In the Spring you will find your plants high and dry. Much of the ridged dirt has perhaps been washed away so that there is little to be drawn off.

The first thing to do in the Spring is to see that the covering is intact and is kept so until the frost is all out of the ground and it is dry enough to work. Also keep off your garden until it is dry enough to work and all danger of freezing is over. Then clear away surplus dirt over the plants and cut away the old peony tops and remove them from the field. See that last Fall's plantings are aided in sticking their noses thru when they make their start. Keep the dirt loose. I like to mulch over the roots and around the stalks of my choice plants. This conserves the moisture and keeps off the hot rays from the sun.

The first year after planting, the plants need special attention, because the roots have not gotten hold of the ground. With the irises, the roots or rhizomes cannot be hilled up or covered. Brush away the dirt so that the rhizomes are exposed to the sun's rays. The more they bake the better they like it. Clear away the dried stalks and keep the ground stirred up.

Peonies and irises are naturally healthy and they will keep healthy if planted in absolutely well drained gardens which have any ordinary soil. More important than anything else, the soil should be stirred up deeply at intervals and lightly or top cultivated every day. With these ideal conditions existing, you won't need to consult any specialist, use any dope on your plants or have any worry. Your plants will be thrifty and all the pests that infest the earth will go over to your neighbor's garden as they cannot live and thrive except in still dirt.

The flowers that we specialize in have names and they are exactly like persons to us. We know their families, their parents, their brothers and sisters and their ancestors. Until you know the names of your friends

(Continued on page 238)

Spray Rings Solve the Problem

Wisconsin Farmers Are Turning Neglected Orchards Into a Source of Profit

CONRAD L. KUEHNER
Wisconsin College of Agriculture

THE co-operative spray ring has found its place among Wisconsin farm orchardists. This organization consists, on the average, of a group of 8 to 10 farmers who are near-by neighbors. They buy a power sprayer and each one pays for a share in the machine. The share is no higher, usually less, than the price an individual farmer has to pay for a good hand barrel sprayer.

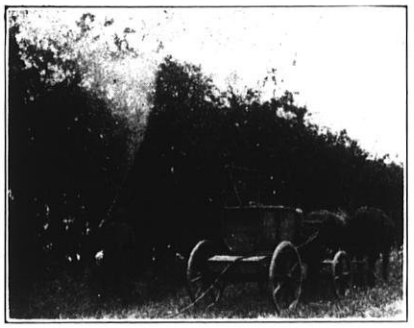
The officers of the ring hire one of their members as spray operator. It becomes his duty to spray all the orchards in the group. He keeps track of the amount of material used in each member's orchard each time he applies a spray. He also makes a record of the time it takes to do the work. From this record each member's spray cost is figured, and he pays accordingly.

The arrangement whereby one man does all the spraying makes it possible for the shareholders to remain at their other farm duties while the hired operator does the spraying in their orchards. By doing this work constantly he learns to do it better and more quickly than one who sprays only his own orchard. Also there is a big saving to the farmers because the cost of material is considerably lower. The lime sulphur and arsenate of lead are bought in large quantities and frequently a saving of 50% is made.

The co-operative spray ring has been so successful in Wisconsin and other neighboring states that hundreds have been formed in the past ten years. Wisconsin alone has 128 of these organizations and prospects are good for a doubling of this number in the next five years.

REQUIREMENTS FOR SUCCESS

Some of the most important factors which determine the success of orchard spraying, regardless of the size of machine used are as follows:



Elmer Prochnow, Luxemburg, doing a good job with a "gun"

1. Knowledge of the pests to be controlled. When the life history of the insect or disease is known, control measures can be so practiced as to destroy the pest at a period in its life history when it is most easily killed in large numbers. This is true of apple scab control when we apply the spray solution before a rain rather than after the rain, and it is the reason why spray applications are made at certain definite times to control the codling moth and curculio most satisfactorily.

Our so-called Spray Program takes cognizance of these facts, and was devised as a guide for our farm orchardists so that the important factor of timeliness can be observed more closely.

2. Suitable equipment is necessary if the work is to be done in a satisfactory manner. It is possible to do good spraying with a small knapsack sprayer in cases where the owner has ample time to do the work by hand. Nevertheless, few Wisconsin farmers can afford to depend upon a hand operated barrel sprayer when they have an opportunity to join a spray ring or when they can equip their hand sprayer with engine power.

Members of spray rings know that their investment for a share in a power sprayer is one of their best profit making investments. This is true, even in cases where the farmer had to "junk" his hand sprayer when he joined the ring.

A fine mist spray that covers everything. Mr. Prochnow is operator of a Spray Ring in Kewaunee County, organized by County Agent H. R. Lathrop

PROPER EQUIPMENT

All hand sprayers should be equipped with one or two angle disc nozzles. The angle nozzle is better adapted for thorough spraying than the straight nozzle. Most barrel pumps should be equipped with two angle nozzles on a Y, because their capacity is sufficient to supply two nozzles. Besides, every one of these sprayers should be equipped with a minimum of 25 to 35 feet of ½ inch spray hose, and a ten foot bamboo spray rod with a shut-off valve.

Power spray pumps should be equipped with at least fifty feet of ½ inch high pressure spray hose and an orchard gun when the pump has a capacity of five or more gallons per minute at 250 pounds pressure. The gun will do good work with a pump of this capacity. If, however, the pump is one of less than five gallon capacity at 250 pounds of pressure, the gun should not be used. In this case, the bamboo spray rods with angle disc nozzles will do much better work.

3. Every spray outfit, large or small, should be carefully cleaned at the end of each day's work. This is done by pumping several pails of clean water thru the pump, hose and nozzles. Thorough cleaning each night will help to lengthen the life of the machine, avoid costly delays and save much repairing and trouble.

Running parts of the machine must be kept well lubricated at all times.

4. The most important single factor responsible for the success or failure of the spray work is the "man behind the gun". Thoroughness of application depends upon him and results will tell whether or not he did a thorough job on all parts of every tree in the orchard every time he sprayed it. All parts of the tree must be sprayed both from the outside and the inside, if complete coverage is to be obtained. Enough spray material must be applied in the form of a mist spray to cover every surface of the leaf, twig and fruit with a thin film of the mixture. Most people do not use enough material. A medium sized apple tree may require from 4 to 7 gallons of spray mixture before it is completely and effectively covered.

The spray program given in the supplement to the March issue of WISCONSIN HORTICULTURE should be used as a guide.

WHY THE DOCTOR STILL COMES AROUND

THE following is taken from the address of Dr. Amos Dernberg of Pittsburg at the Annual Convention banquet of the Virginia Horticultural Society.

In 1926 was the biggest apple crop the U. S. has ever produced—40 million barrels of commercial apples. And so we hear the cry of "over production" or "under consumption" and the apple-growers twaddle their thumbs and bemoan the low prices. It is foolishness. Forty million barrels of apples a year will give less than one-half of an apple a day to each man, woman, and child in America. You call that over-production? That is under-production. LIMIT production? That is foolishness. Give up, in the face of "box-apple" competition? NO. Improve the quality and appearance of your fruit and go into the box apple business yourself for domestic shipments. Business is a battle—not a basketball game.

The national health could be improved fifty per cent by a greater consumption of apples. But the people don't know this. The apple grower has had handed to him on a silver-platter the greatest slogan ever coined: "An Apple a Day Keeps the Doctor Away," and yet most people never heard of that slogan.

Oh, they have heard of Florida "grape-fruit and real-estate" lemons, they have heard of Dromedary dates. Each week the *Saturday Evening Post* tells them that their life and home-brew depends on California raisins. We have read of Sunkissed oranges until we have come to think the sun shines only in California. Is there a child in Virginia who doesn't know that grape-nuts make brain power? That the Ford is the greatest automobile in the world for the price? And that the great opera singers get their voices by smoking "Lucky Strike" cigarettes?

And yet—not a word about apples. The answer is "NATIONAL ADVERTISING FOR APPLES."

VISIT CHERRYLAND DURING BLOSSOM TIME

AN INVITATION has reached this office which was extended to all those interested, by the Reynolds Preserving Company of Sturgeon Bay, to visit "Cherryland" while the cherry trees are in bloom:

"Blossom Time in 'Cherryland' is truly a marvelous sight, surpassing in floral beauty and uniqueness anything that Wisconsin can offer in any other spot. It is our particular pride to lead visitors through miles of orchards and thousands upon thousands of trees covered with delicate waxy blossoms white with the splendor of full bloom. Here is the most concentrated cherry section in the world.

"Our whole community is preparing to welcome the thousands of visitors that come annually to Door County in May. Our Company is planning to serve delicious cherry pie to every guest, and you know how good that cherry pie will be. You will find Sturgeon Bay a wonderfully hospitable city with excellent facilities."

(Signed)
THE REYNOLDS PRESERVING COMPANY.

Growing Quality Dahlias

GEORGE MORRIS
State Seed Laboratory

DURING the past few years the Dahlia has probably been improved more than any other flower. From the small, hard, unattractive ball Dahlias of our Grandmother's gardens there has been an ever increasing improvement, every year adding to the long list of wonderful Dahlia creations. Such Dahlias as Marmion, Elite Glory, Hathor, Mariposa and very many others have been produced by careful selection of the parent plants.

The history of the Dahlia dates back many years, the first plants being found growing wild in the mountains of Mexico. Time does not permit me to enter into this interesting phase of the subject.

This subject "Growing Quality Dahlias" is one in which every Dahlia lover is interested. Every dahlia fan wants to know how to grow the best flowers and produce the strongest tubers. Let us assume that you have received a shipment of Dahlia tubers from a grower and they have arrived before you are ready to plant, how should they be cared for? This is very important. Upon receipt of the tubers do not put them in some out-of-the-way place to dry out and die. Unpack them and lay the tubers flat on their sides in a box of damp earth or sand, taking care to see that the sprout or eye is turned up. Do not use wet or sticky soil. Cover the tubers with about three inches of this soil and set the box away in a cool place until planting time.

The time to plant Dahlias varies with the locality, as well as with the time you wish the Dahlias to bloom. In the middle Atlantic states planting can be done from May first to June fifteenth. Personally, I prefer to begin planting about May 15.

Further south planting may be done in February and March. Nothing is gained by planting too early. It is best to wait until the ground becomes thoroughly warmed, and is in good working condition. If planted too early when the ground is cold and damp, the tubers may rot.

LOCATION FOR PLANTING

An open sunny place is the best location for the great majority of Dahlias. Except in a few instances they do not succeed in a shaded place. Some of the more delicately shaded varieties will do well in partial shade especially during the hottest part of the day. If there is too much shade the plants run to long stalks and there are few or no flowers.

SOIL AND ITS PREPARATION

Dahlias do well in a great variety of soils. A light, well drained sandy loam is the best suited to their needs, but they will grow and do well in clay loam, sand and even in ashes. The large tubers require a great deal of moisture, but wet soil is fatal to them, so that good drainage becomes very essential. If the soil is heavy, it may be made suitable by the addition of sand, leaf mold or even coal ashes, thoroughly worked into the soil in order to break up the heavy portion.

The soil should not be prepared until it is in good working condition. Never plant in wet, sticky soil. The soil should be finely pulverized and is then in the proper condition for receiving the tubers. It should be dug to the depth of about twelve inches.

PLANTING THE TUBERS

The tubers should be planted from five to six inches below the surface of the soil. This puts them down in the moist layer of the soil and prevents them from drying out and becoming stunted during the hot, dry weather of mid-summer. Dahlias are great lovers of moisture, and this can only be constantly maintained at this depth.

Lay the tuber on its side. Never stand a tuber upright or on end, as the new roots are produced from the junction of the sprout with the tuber. If these are not well covered and in a constantly moist situation they will fail to develop the large roots which eventually become tubers.

In planting see that the eye or sprout is turned upwards, so that it can grow without hindrance. The eye can be found on the crown end of the tuber. The crown end is the portion where the tuber joined the stalk of the old plant from which it was taken. When you have laid the tuber on its side, sprout up, and five or six inches deep, cover with finely pulverized soil, filling the hole about half full, pressing the soil firmly about the tuber, but being very careful not to break the sprout. The reason for filling the holes only half full is to assist the sprouts in getting to the surface more readily, as the plants grow, new soil is filled in around them.

(Continued on page 242)

"It's Not a Home Until It's Planted"

A Story on Beautifying the Home Grounds

(Continued from April)

E. A. PETRANEK
Landscape Architect

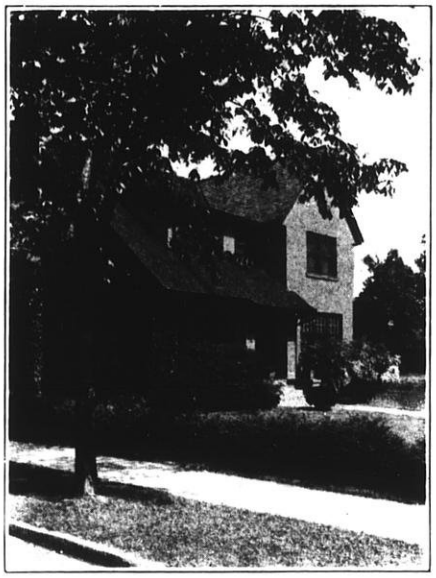
IN CONTINUING the visualization or painting of the picture of your home, and its outdoor environment, consider whether the size, shape or location of your front yard would be benefited by a border planting. Is your front yard such that you want it all in lawn or does it require a border planting to frame the picture? If so, will a set of corner groups cut the corners enough to balance up the house plantings, or would you prefer a hedge? Possibly you would fancy an extended border planting on either side of the lot, with an unsheared hedge across the front.

Above all, it is well to bear in mind that you are beautifying your grounds to suit yourself. While the various rules and regulations on landscaping are offered as aids in achieving the correct treatment, after all it is your place, and you will get a lot of fun in making your own plans this spring and in carrying them into effect.

BACK YARD IS THE OUTDOOR LIVING ROOM

Thus far we have been considering only the front or public area. Now let us consider the rear yard or private area. The back yard has become more and more a private place of beauty, instead of an unsightly dumping ground. With attractive border plantings of shrubs and flowers, it has become an outdoor living room, a haven or refuge from the street and office, a safe playground for the children, where they can romp and learn to love nature. What could be more enjoyable?

A planting of shrubs, trees, roses and flowers in this rear yard will transform it into an



outdoor living room, where you can entertain your friends in privacy. To the farmer, this would mean a planting to cut off some of the direct views from the house to the outbuildings so far as possible. To the city dweller, it means the hiding of the neighbors' barns, garages and other undesirable views.

The first function of the average rear yard is to serve, to harbor the garage and drive, the laundry drying yard, the children's playground and the garden. In spite of all the ordinary service functions required of the rear yard, it is still possible to arrange this area in such a way as to make the most economical use of the rear yard, and at the same time make it an inviting place in which to live.

Perhaps you have one of our standard city lots, 45′ by 120′ in size. You have your house located on the center of the lot and a proper distance from the front. The drive flanks the house on one side and leads to the garage, which is located some 15 or 20 feet to the rear. This leaves a nice garden plot behind the garage and allows for a concentration of all the above service functions into one half of the rear yard. The other half would then be free to be used for this outdoor living room, about 25′ x 70′ in size.

To begin with, you would plant a border of shrubs around the margins of this area and line it on the inside with flowers, both perennials and annuals. This would close it off from service area and also from neighbors' properties. You would again screen off undesirable views, with trees or high growing shrubs. An informal or naturalistic scheme for this outdoor living room would call for an unbroken expanse of lawn, like the carpet in your house, bounded by masses of shrubs and flowers. The higher growing shrubs in the rear and the lower growing ones in front of these might resemble the walls of a room in your house together with smaller things nearby.

To create a center of interest in this picture of the outdoor living room, you might consider a simple garden seat, bird bath, pool or pergolla at the extreme rear of the plot.

Possibly you would like a formal arrangement of this garden better. If so, you will lay out some rose and flower beds in a geometrical pattern or design. They might be square, oblong, oval, round or various other harmonizing patterns.

Then you would enclose this outdoor living room with a sheared hedge instead of a naturalistic border planting. You

(Continued on page 241)

Using Fertilizer in the Orchard

Tree of unfertilized section of apple orchard. Leaves have fallen before the tree has had time to store up the necessary carbohydrates for next season's fruit buds.

Tree of section of apple orchard, fertilized with Sulphate of Ammonia. Rapid growth has stopped, but the leaves remain to manufacture carbohydrates.

ACID phosphate or potash fertilizers do not seem to give enough increased yields in the orchard to warrant their use, tho they may be of help to the cover crop, but nitrogen fertilizers give good results.

A generous supply of quickly available nitrogen is needed before blossom time to balance up the starches and sugars stored in the tree by the leaves the fall before.

Lacking available nitrogen the early part of the season, the tree will not set a full crop of fruit, nor from a good supply of fruit buds for the next year. Apple blossoms begin to form almost a year before they appear and develop throughout the summer and early fall, opening in the spring.

How to Apply Nitrate Fertilizer

The nitrate fertilizer may be applied by hand, spreading evenly over the soil occupied by the feeding roots. These start about three feet from the trunk and extend several feet beyond the ring formed by the outer drip from the branches.

Amount to Apply to Orchard in Sod

The need for available nitrogen in sod is greater than in the cultivated orchard. A sod orchard may give good results if properly fertilized. Usually if it is not giving good results it is due to lack of nitrogen.

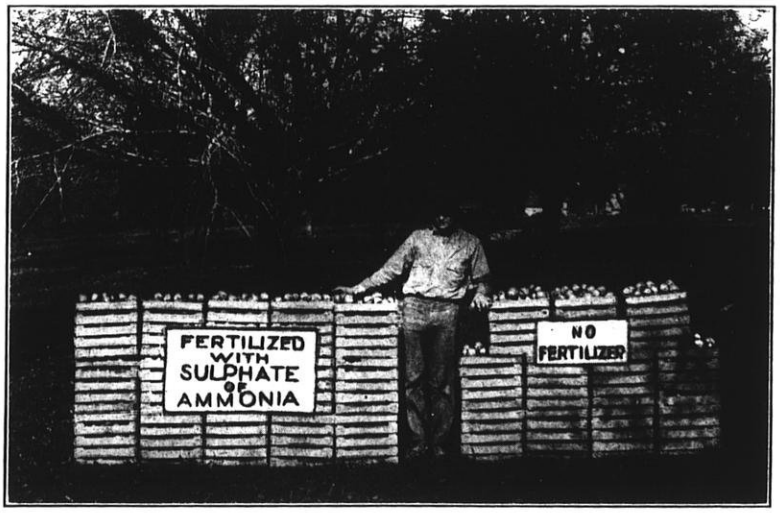
From three to five pounds of sulphate of ammonia or nitrate of soda should be applied per tree (about 150 to 250 pounds per acre) in the young bearing orchard, and from four to six pounds per tree (200 to 300 pounds per acre) in the old orchard. In rich soils the amounts may be reduced. In fact the amount should be determined by the extent of growth made the previous season.

The Cultivated Orchard

On fairly productive soil only a small amount of nitrogen will be needed in the cultivated orchard. Generally two to three pounds of nitrate fertilizer per tree will be sufficient.

On less productive soils three to four pounds per tree will be needed.

(Continued on page 245)



Average yield from fertilized tree on the left and unfertilized tree on the right. Variety: Northern Spy.

Treatment	Average Yield of Apples per Tree
No Fertilizer	11 bu.
Nitrate Fertilizer, 4 lbs. per tree	17 bu.
Gain	6 bu.

In Orchard and Garden

Observations of Tom Ato and Alex Ander

Dear Mr. Rahmlow:

"HISTORY repeats itself". This old statement has proved to be true again, for we see by the press that someone has resurrected the "paper mulch culture" scheme. A number of years ago there was a similar furor about it. We read that the system was first tried out in Hawaii in the growing of pineapples, and then introduced into California. Evidently, "What's sauce for the goose" isn't always "Sauce for the gander", for it didn't seem to prove practical in this part of the country, and it is doubtful if it would become any more popular than it was formerly if tried out now.

Many of us are familiar with the old saying about locking the stable after the horse is stolen, but few of us seem to think that the coat may fit us. When there's plenty of soil moisture we don't spend much time thinking that probably before the season is over there will be times when some additional moisture for the flowers or vegetables would be very beneficial. Now is the time to prepare for the emergency.

Overhead irrigation has proved its worth in many commercial gardens in the middle west and east, and is proportionately just as beneficial in the smaller gardens. *Where one feels that he cannot afford one of the regular overhead irrigation systems, he will find the oscillating type of lawn sprinkler is a very satisfactory substitute.*

Rotary sprinklers, or those which distribute the water over a circular area are not to be compared in efficiency, especially in the garden, to the oscillating type. The latter cost more in many cases, but they are well worth the additional expense. They water rectangular areas so that it is not necessary to overwater some areas in order to apply enough water to others. They are efficiently operated from the tap either of the home or city water system.

"Paper Mulch" Again.
Irrigation to Prevent Frost.
Club Work For Local Societies.
Flower Demonstration.
Varieties of Flowers for 4H Clubs.

In some sections, overhead irrigation has been very beneficial as a means of preventing frost injury. Cases have been reported where the entire equipment has paid for itself by enabling the owner to save his crop from late frosts. It is a good guess that overhead irrigation is going to increase in popularity, not only in the commercial garden and small fruit plantation, but also with the home gardener.

We're for this garden contest which the Society is fostering as a Boys' and Girls' Club project.

It's sort of trite, of course, to say that the boys and girls of today are the men and women of tomorrow. And in this day when there seems to be a great tendency on the part of many parents to let the children "come up" rather than to "bring them up", one might be considered real old fashioned if he were to recall that "as the twig is bent the tree is inclined".

We have a very strong feeling, however, that if the boys and girls become interested in flowers, and through actual contact with them learn to appreciate them, there will be fewer homes in the future devoid of those things which make a house and grounds attractive and contribute much towards making a "place" a real home.

The success of this new work on the part of the Society is going to depend to a considerable extent on the support the local horticulturists give it in their communities. We think that helping put this over is about the biggest contribution a local society or a local member could make to the future of horticulture in Wisconsin.

We hope that the local societies will all get behind you, Mr. Secretary, in this proposition, and lend some real aid in the matter.

If one is going to preach, he really ought to practice at least a little of what he preaches. Of course, you want to get in on this too, so if you'll print a few suggestions we'll at least have made a start at practicing.

They say you should be positive rather than negative, that one, in giving instructions, should say "do" and not "don't". Our experience is that there are a whole lot of "don'ts" connected with gardening. Here are some for the boy or girl who is going into this contest:

Don't attempt too much. Select a few kinds to start with and learn how to grow them unusually well. Don't pick the hard ones to start on. If you go into this, you go in to win, and while you may like asters better than snapdragons, you will be surer of success if you stick to the "snaps".

As I understand this contest, about the most important thing in winning is to put on a good demonstration. That is, to tell how you grew the products and how to use them after you get them grown. Once I saw two girls put on a flower demonstration of this kind. They had big card boards on which they had pasted pictures of the different kinds of flowers which they grew. One of the girls told just why they had selected each kind

(Continued on page 244)

The Cherry Aphid and Its Control

A. A. GRANOVSKY
University of Wis., Department of Entomology

A terminal shoot of cherry twig moderately infested with cherry aphids

THE black cherry aphid, or plant louse, *Myzus cerasi* (Fab.), proved to be one of the most serious insect pests of cherries. It causes a considerable amount of damage to cherry trees year after year, and inflicts serious losses to the cherry industry of Wisconsin and other cherry growing States.

Cherry aphids invariably infest the tender leaves of terminal shoots either in the center or on the outside of the tree. They live in colonies often very crowded on the lower side of the leaves, and feed by sucking the sap, thus draining the vitality of the tree. If a large number of aphids are developed on the infested leaves, as often is the case, these leaves become yellow and distorted. The leaves of sweet cherries are very badly curled. The infested leaves in such condition cannot function properly and as a result the terminal growth of infested shoots is considerably retarded.

APHID REDUCES YIELD OF CHERRIES

The setting of the cherry fruit, among other factors, depends upon the length of the terminals produced during the growing season. It is evident that the future potential yield is governed by the number of fruiting spurs set per terminal growth. Heavily infested shoots have their leaves bunched in clusters and spaces between the leaves are reduced to a marked degree. Such shoots will set only a few, if any, fruiting spurs. This has a direct bearing on the yield of cherries, which remain thus affected for the following two or three years. If the same terminals are infested several years in succession, failing to produce the fruit spurs and leaf buds, they have a whip-like appearance and are totally unproductive. In many instances the leaves on twigs, some distance back of the infested branches, turn prematurely yellow and often drop off during the late summer. This also weakens the tree for lack of properly functioning leaf area. In general, it is clear from the above discussion that the cherry aphid injury to cherry trees is of tremendous economic importance.

Since the State of Wisconsin is considered one of the leading states of sour cherry producers, this insect deserves careful consideration. It infests both, Early Richmond and Montmorency varieties, but usually prefers the former.

Two wingless cherry aphids feeding on a small portion of a cherry leaf. Highly magnified.

Spraying cherry orchard with the delayed dormant spray. At this time the leaf surface area is negligible, and only a fraction of a gallon of spray is used to thoroughly wet the whole tree. This assures better control, being easier to hit the insects, as they are unprotected by foliage and are exposed to the action of a contact spray.

There are two mature forms of this insect — winged and wingless. Both are small— about one millimeter long, with soft shiny black bodies. The young are of a reddish dark brown to black, but soon acquire a shiny black color.

Interesting Life History

The life history of this insect is very interesting and can be summarized as follows:

The black, shiny eggs are deposited in the fall around the buds and in cracks of bark on the small branches. These eggs pass the winter in a dormant condition and begin to develop with the advance of warm weather in the spring. The overwintered eggs hatch between the middle of April and the early part of May.

This is the time when the buds begin to swell and the cherry trees are in the early and delayed dormant condition, depending upon the temperature.

The young lice which hatch from the eggs are called stem mothers or the first generation. They feed on scales of buds and never were observed to feed on young green leaves which appear through the bud scales. They shed their skins four times and it requires nearly a month for stem mothers to reach maturity.

As soon as they become mature they at once, without mating, begin to deposit their living young. One female is able to give birth to seven or more young per day. These young crawl to the young green leaves where they feed and molt four times until maturity. They constitute the second generation. Upon maturity they, as well as all the following summer generations, deposit their living young without mating. A single female may deposit as many as 80 or more living young during her life time. Each of the young upon maturity, give rise to a similar number of young, and very soon many leaves are completely covered with large colonies of aphids and the whole tree may be literally covered with them.

The first, second, third and fourth generations are normally developed on cherry, which is the primary host plant of this aphid. The first three generations are normally wingless, while the fourth generation becomes winged. These winged aphids are called spring migrants. They disappear from the cherry trees in search of secondary food plants such as wild pepper grass, shepherd purse, several species of mustard and probably other wild plants.

The fifth, sixth, seventh, eighth, ninth and partial tenth generations are normally produced on summer or secondary host plants. The first few generations on the secondary host are wingless, while many individuals of the eighth, ninth and tenth generations become winged and fly back to the cherry trees in late August and through the month of September. These are called fall or return migrants and as soon as they reach the cherry trees, they deposit their living young, which develop into wingless sexual females. The males are winged and are produced on secondary host, usually in the eighth and ninth generations. They fly to cherry trees, and mate with the wingless, sexual, or egg laying females. After mating, the oviparous females which form the eleventh or twelfth generation, deposit several eggs, usually from 4 to 7, on the bark and around the buds during the months of September and October until killing frost. These eggs overwinter and this cycle again repeats itself.

Although spring migration begins with the fourth generation, about the latter part of June and continues until the latter part of July, a few small colonies of wingless aphids may stay on cherry leaves throughout the summer until fall. These aphids in the fall produce winged individuals which do not migrate to secondary hosts, but fly to the uninfested cherry twigs, where they give rise to oviparous sexual females. This, however, occurs only rarely for the reason that the left over colonies are usually devoured by insect predators such as the lady bird beetle, lace wing fly, etc.

This, nevertheless, shows that the cherry aphid may propagate on cherry trees throughout the summer. The males are, however, produced only on the secondary host, so far as is ascertained by the present knowledge.

Commercial growers are primarily interested in the efficient control of the pest. This cannot be accomplished successfully without knowing the specific habits of feeding and reproduction of the insect in question. The time of application, the kind and strength of spray, amount which should be applied, and stage of seasonal development of the tree, are important factors to consider.

Right Time to Spray

The cherry aphid can be controlled to a fair degree of success if the orchards are sprayed against it before the development of the foliage. This treatment unfortunately, is seldom considered at that time of the year. Most growers take chances until later they discover that their cherry orchards are badly infested. But then it is extremely difficult, almost next to impossible, to control this insect. It should be remembered that preventative measures are more effective than the curative ones. This equally applies to the problem in question, and in the end the preventative measures are cheaper.

The first regular spray used on cherries is about the time when the blossoms begin to fall. When a contact spray, such as "Derrisol" or "nicotine sulphate" is added to a regular commercial spray, used at that time against the biting insects and fungous diseases,—it can, at the same time efficiently con-

trol cherry aphids. Both "Derrisol" and "nicotine sulphate" are about equally effective at the strength of one pint to 100 gallons of water, which gives the spray 1 to 800. Derrisol is cheaper, however, more pleasant to apply on account of being odorless, non-poisonous to man and gives a better coverage, for it has its own spreading agent, although it takes from 24 to 48 hours before aphids die after spraying.

When cherry trees are sprayed against aphids later in the season, when the leaves are fully developed, the control may be quite disappointing for the reason that the insects are protected by large and numerous foliage. Aphids feed on the lower sides of the leaves and are difficult to hit with a spray, and they must be hit with a spray in order to kill them. At this time of the year cherry aphid control is much more expensive, for it takes from 5 to 7 times as much spray as it would take earlier in the spring before the leaves have fully developed and before the aphids have reached large numbers and spread all over the trees. Naturally the later sprays are more expensive because they consume more time, labor and material.

Early Spray Best

The best time for control of the cherry aphid is early in the spring, just when the buds are fully developed and begin to open their leaves.

No Poison in a Tin Can

A SHORT time ago a friend opened a tin can of cherries, and being called away left the fruit in the open can for a short time.

On coming back to empty the can he was emphatically informed by one who presumed to know, that the fruit was poisoned from being thus left exposed in the tin. By no means should it be eaten—so it was thrown away.

Have you had that experience, and do you believe in the poison theory? If you do we are going to shock you by stating it has now been proven there is no such a thing as ptomaine poisoning.

Dr. E. G. Hastings, head of the Department of Bacteriology of the College of Agriculture, states that there is no reason why fruit exposed in a tin can should become poisonous. The only type of change liable to take place in acid fruit is alcoholic fermentation. Not only that, but he went farther to say that research during the past few years has proven there is nothing to the old "ptomaine" theory. In other words food *does not spoil chemically* in contact with metal.

Bacterial action in the case of non-acid vegetables is not the same as with fruit. Peas, beans, etc., decompose on exposure to air, which can be detected by smell or taste. This is the sour spoilage which we all know.

However, the presence of tin would have nothing to do with it, and if it takes place in tin, is no different than in any other container. Furthermore, poisoning from eating canned food is very rare—think of the millions of cans used in this country. Any actual poisoning from eating food is due to "botulism". It is caused by a specific organism, or germ, picked up by the food from the soil or elsewhere.

This organism in itself is not poisonous but if present might form an organic substance which is poisonous. Fortunately, not only is the organism very rare, but the poisonous product is *at once destroyed when the food is heated to the boiling point.*

Ask ten housewives and probably nine of them will tell you "never let anything stand in an open tin can." Careful scientific research shows that nothing happens if you do—that is, nothing different than would happen if left in a glass or china container.

We are not recommending that you leave things in tin cans, but don't throw away fruit because it has been exposed that way. Dr. Hastings expressed the opinion that acid fruit might ferment in a tin container and not become poisonous. All cans are now soldered on the outside, so no lead touches the food.

There is a type of trouble you may have noticed as a digestive disturbance from eating food. Sometimes it may be at a chicken pie supper, or again, something in your own home. Investigation shows this to be due to some type of infection. A certain type of bacteria comes in contact with the food while it is being prepared, and those who eat it get "sick".

The Department of Bacteriology of the College of Agriculture is anxious to investigate this type of trouble. It is usually not serious, but may effect quite a number of people in case of a large gathering. If notified at once and some of the food kept, the Department will try to find the cause.

There is usually a lot of uncertainty about these cases and many times the blame is placed on the wrong food.

While this type of trouble is not serious, it is aggravating and unpleasant. The blame is usually placed upon some type of canned food, whereas prac-

tically all cases investigated proved the trouble to be contamination of some food, having nothing to do with the can.

THE WISCONSIN DEPARTMENT OF AGRICULTURE HAS ESTABLISHED THE FOLLOWING STANDARDS OF GERMINATION FOR VEGETABLE SEEDS FOR 1928

Seed	Standards of Germination Per cent
Asparagus	70
Beans	85
*Beets—Garden	75
Brussels Sprouts	75
Cabbage	80
Caraway	70
Carrot	60
Cauliflower	75
Celery	60
Celeriac	60
*Chard—Swiss	75
Citron	65
Collard	80
Corn—Sweet	70
Cress	75
Cucumber	80
Dill	60
Egg-plant	65
Endive	75
Kale	75
Kohl-rabi	80
Leek	70
Lettuce	80
Melon—Musk	80
Melon—Water	75
Mustard	80
Okra	70
Onion	75
Parsley	65
Parsnip	65
Peas	85
Pepper	60
Pumpkin	75
Radish	80
Rhubarb	65
Rutabaga	80
Salsify	70
Spinach	65
Squash	80
Tomato	80
Turnip	85

* The standard of germination for beets applies to the number of balls producing sprouts. The vigor of the seed is partially indicated by the number of sprouts which should approximate 140. If seeds in commercial packets germinate more than 5% below these standards the packets must be labeled with the actual germination of the seeds contained therein.

It takes 30 or 40 leaves to make one good apple, say horticulturists of the United States Department of Agriculture.

WHAT CROPS NEED LIME?

DO ALL crops need lime? This is a question difficult to answer in all cases, especially as regards vegetables, fruits and flowers.

The Rhode Island Experiment Station in bulletin 160 gives some interesting figures. These may not be correct under all conditions, but give the Horticulturist something to think about.

The number indicates the degree of benefit to the crop from liming when grown on a slightly acid soil according to the Rhode Island Experiments. –0 means harmful effects, while 3 means greatly benefited.

3 Asparagus	0 Potato
0 Beans	2 Muskmelon
3 Beets	3 Onions
1 Brussels Sprouts	3 Parsnips
	3 Peppers
2 Cabbage	1 Peas
1 Carrots	1 Pumpkin
2 Cauliflower	0 Radish
3 Celery	1 Rhubarb
2 Chard	3 Salsify
0 Chickory	3 Spinach
–0 Cranberry	1 Squash
1 Cucumber	0 Tomato
2 Egg Plant	–0 Watermelon
1 Endive	2 Horseradish
1 Kale	1 Kohl Rabi
3 Leek	3 Lettuce

RESULTS WITH FRUITS

The results of the experiment with fruit trees and small fruits are interesting. No benefit was found by liming for apples, cherries, plums or shade trees. It is the opinion among some fruit men that fruit trees will do better on a limestone soil. This experiment indicates that the limestone does not benefit the trees. Probably the beneficial effect is due to better drainage on these soils. If the lime increases the growth of the cover crop it would help the trees indirectly.

Blackberries, currants, gooseberries and red raspberries were benefited enough to make it pay to lime them. Strawberries were only slightly benefited, while blackcap raspberries were actually injured by liming.

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New Facts About Roses

Rosarians Discuss Varieties and Cultural Methods

I. J. SCHULTE

(Continued from April)

Powdery mildew occurs on the leaf whereas the black spot is in the tissue of the leaf. Black spot is the more dangerous of the two. Mildew starts when there is no circulation of air, so that free circulation is a good preventive. It is controlled best with finely pulverized and powdered sulphur. Don't use the ordinary flowers of sulphur.

Black spot spreads very rapidly. The leaves should be picked off and burned. Prevention is better than cure; a fungicide should be used before the black spot appears. Bordeaux is supposed to be good, but it spoils the color of the foliage. Better use a mixture of sulphur and arsenate of lead, ninety per cent sulphur and ten per cent arsenate, sprayed with a dust gun. Elbow grease: clean culture has a good deal to do with keeping black spot away.

Mrs. John Rock spoke on pruning and illustrated her talk with a practical demonstration, using a potted rose. She said that the majority of gardeners are too afraid to prune with the result that the plant becomes too large for the root to support. If a trellis is to be covered pruning need not be indulged in to a great extent, but if you want flowers you must prune vigorously. One's plants should be studied thoroughly before anything is done; then take out the dead wood, but be careful not to rub the bark on the other limbs. After the plant is through blooming in the spring the old canes should be cut down to the roots. Not more than two canes should be left. New growth will then come from the roots and you will have a bushy climber.

If a trellis is to be covered let the rose grow as high as is wanted, and then pinch out the end. The branches which will form should again be pinched back when they reach the height you want them to go. In this way the plant will branch and cover the trellis much better than if the canes are allowed to grow without pruning.

Mrs. Rock also demonstrated how the rose canes can be layered and how she propagates by cuttings.

Dr. William Hopkinson spoke on varieties of climbing roses and their winter protection. He illustrated his talk with colored lantern slides showing to what extent he and Mrs. Hopkinson had transformed their yard, which is but a 40 by 120 foot lot with a house and garage on it, into a veritable paradise with a great variety of roses as well as all sorts of perennials and annuals.

For winter protection it had been Dr. Hopkinson's practice for some time to take down the canes, mound up the earth around the roots, and then cover the canes with dirt and well rotted manure. In uncovering in the spring he found that some of the canes were still growing and it appeared that they had been covered too deeply; also that they were not left down long enough, for the ends died back if they were put up too early before the sap had time to circulate to the ends. Last year the climbers were not covered so much; the canes were pegged down and covered with marsh hay. How they will come out this spring remains to be seen.

Before the canes are laid down they are sprayed with Bordeaux mixture and again after they are laid down. In the spring as soon as they are uncovered the ground is sprayed. The result is that they have very little trouble with black spot or insects.

The climbers recommended were:

Yellow:	Albertine
Red:	Paul's Scarlet Dr. Huey
White:	Mary Lovett Purity Silver Moon
Pink:	Christine Wright Mary Wallace

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Our cover picture this month shows a desirable border planting. It was furnished by the McKay Nursery Company, Madison.

It illustrates some of the points brought out in Mr. Petranek's article "It's not a Home until It's Planted".

TO LOCAL SOCIETIES

Tom Ato and Alex Ander say, "We think that helping put over the Boys and Girls Club project is about the biggest contribution a local society or member can make to the future of Horticulture in Wisconsin".

By writing the Boys and Girls Club, Department College of Agriculture, Madison, full information may be obtained on how to organize 4 H Clubs.

SUMMER MEETING FOR BERRY GROWERS AT SPARTA

SATURDAY, June 9 is the date for the first Summer Meeting of this Society. This will be our special meeting for strawberry and raspberry growers. It will be held at Sparta in cooperation with the Sparta Fruit Growers and the County Agent of Monroe County.

We will assemble at 9:30 A. M. in the Park at Sparta. The forenoon will be devoted to talks by some of our leading small fruit growers.

The State Bureau of Markets will give a demonstration on the grading of strawberries under the new ruling.

Mr. E. L. Chambers, State Entomologist, and Professor A. J. Riker of the Pathology Department will discuss diseases and insects of small fruits.

At noon there will be a picnic dinner.

The afternoon will be devoted to a tour, visiting some of the big strawberry and raspberry plantations. Here the variety tests will be discussed. Several growers have as high as twelve varieties under trial. This feature will be worth the trip alone. Results of fertilizer trials, different methods of covering, soil conditions, diseases and pests will be explained.

Probably some of the berries will be ripe, and at least we can have fresh strawberries for dinner. This is the best time to see the results of different cultural methods, diseases, etc., as the berries will be almost full size.

County Agent L. G. Kuenning, Sparta, has charge of local arrangements. In case of rain the meeting will be held in the Courthouse, which will also be headquarters.

SUMMER MEETING AT LA CROSSE

LA CROSSE was chosen as the location for the official summer meeting of the Society, by the Board of Managers at their meeting in April.

The time was set for August 10th and 11th. County Agent Spreiter writes that he is reserving these dates and will help make the meeting a big affair.

In addition to the program and field tour, details of which will be announced later, this is the official summer meeting of the society. The Executive Committee and Board of Managers will meet to transact business.

Reserve these dates for your vacation.

MICHIGAN TOUR FOR HORTICULTURAL SOCIETY MEMBERS

PLANS for the Fruit Growers' tour of Western Michigan have materialized. The cost will be less than expected.

The Door County Fruit Growers' Union is arranging the details of the trip, to take place the latter part of June. The State Horticultural Society is co-operating with them. All members of the Society are invited to take part in this tour.

A special rate has been obtained from the Carferry Company, from Sturgeon Bay to Frankfort, Michigan. The rate is $3.00 for a round trip, providing 75 tickets are sold. Mr. Ullsperger, manager of the Door County Fruit Growers' Union, informs us that there will be seventy-five from Door County alone in attendance.

Details of the trip will be announced in the June issue.

As stated here before, Professor Gardner and his associates have promised to conduct the tour and we are thereby assured of a very interesting and instructive trip. The trip will last two days.

If interested, we suggest you write us of your intentions. We will then send you detailed plans by mail, and make reservations.

Mention WISCONSIN HORTICULTURE when writing our advertisers.

WHAT WE MAY SEE ON THE MICHIGAN TOUR

JUST as we go to press, we have a letter from Professor V. R. Gardner, head of the Department of Horticulture of the Michigan Agriculture College, relative to our proposed trip to Michigan. The following are some of the places he suggests we visit taking in as many of them as we have time for:

"The large cherry orchard of A. J. Rogers near Beulah; the Crystal Lake apple orchards which are located only a couple of miles from Mr. Roger's cherry orchard; the apple orchard of Mr. A. L. Hopkins at Bear Lake; one or two of the large raspberry plantations and the packing house of the Co-operative Fruit Growers if possible at Onekama; a very large apple orchard, one of the largest in the state, near Manistee; a couple of large sweet cherry and sour cherry orchards in the vicinity of Hart, Michigan; the packing house and storage plant at Shelby; a couple of apple orchards and storage plants in the vicinity of Casnovia and Kent City; our horticultural experimental substation a couple of miles outside the city limits of Grand Rapids; several apple, pear and cherry orchards in the vicinity of Fennville; the cherry and peach orchards in the vicinity of South Haven; our South Haven experimental substation; several vineyards, melon fields, pear, apple, peach and plum orchards in the vicinity of Benton Harbor; the Benton Harbor public market."

Watch the June issue of WISCONSIN HORTICULTURE for full detail of the trip.

WE CONTINUE TO GROW

DURING April two more organizations voted to become members of the Horticultural Society.

The Sparta Fruit Growers, and the Warrens Fruit Growers Association, both large organizations of strawberry, raspberry, and blackberry growers, voted to affiliate at our special membership rate.

This extends our membership to the two largest small fruit sections in the state. At Warrens as high as eight carloads of strawberries have been shipped in one day.

Why not adopt the slogan "A Horticultural organization in each live community in the state. Each local a member of the State Society."

It affords me a great deal of pleasure to enclose herewith check of the Waukesha Garden Club for $20.40 being paid up membership fees for 51 members.

We are planning "great" things and as soon as anything definite materializes will be glad to advise you.

Yours very truly,
MARY GIBSON,
Secy.-Treas.,
Waukesha Town Garden Club.

CUTTING DOWN ACREAGE

WHAT good does it do to talk about cutting down crop acreage anyhow?

Early in April the Arkansas strawberry crop was forecasted as 34,000,000 quarts compared to 20,000,000 quarts for last year. By the end of the second week in April low temperatures had occurred in the Ozark regions and now the opinion is that there won't be any more than last year.

Sometimes we hear discussions that farmers should organize and stabilize their production the same as manufacturers are able to do. Well, the weather is one reason why it isn't so easy to do.

The National Horticultural Magazine says that applying lime will sometimes prove a surprising stimulant to lilacs that are not flourishing.

SOCIETY SECURES TELEGRAPH WEATHER FORECASTS FOR KICKAPOO

AT THE request of a number of Gays Mills fruit growers, the State Horticultural Society obtained daily fruit spray forecasts by telegram during the 1928 fruit spray season for this section. The following letter was just received April 20th from Mr. H. J. Cox in charge of the U. S. Weather Bureau.

Dear Sir:

"I am pleased to advise you that your application for daily fruit spray forecasts by telegraph during the 1928 fruit spray season, to continue until approximately August 31, has been approved. We shall be pleased to begin these forecasts as soon as they are needed. Please send notification through our Milwaukee office. We shall notify the telegraph office at Gays Mills to make delivery to Professor Miller, as indicated in your letter of April 17."

Respectfully,
(Signed) H. J. Cox,
Senior Meteorologist.

Professor Miller is connected with the Plant Pathology Department at the College of Agriculture and is stationed at one of the Gays Mills orchards on investigational work on fire blight. The Gays Mills people have agreed to run a telephone line to his headquarters and all arrangements have been made for him to broadcast the telegram by telephone to the fruit growers at a certain hour. This will enable Mr. Miller to not only give the weather forecast but make recommendations to the growers as to spraying operations.

Onions should not be planted on ground that is not free from weeds. A good onion grower near Fargo says he would not think of planting onions without at least three years' preparing the ground for the crop.—North Dakota Horticulture Items.

About the Home and Garden

Mrs. C. E. STRONG, Editor

GARDEN CLUBS

IT IS becoming quite the fashion nowadays to have a garden — and decidedly the proper thing to belong to a Garden Club. We old fashioned garden lovers are extremely thankful that fashion deigns to follow such a delightful and worthwhile trend.

Because of this interest in gardens and Garden Clubs, many questions are being asked about organization.

HOW TO ORGANIZE

Must we have a formal organization?

Is it advisable to affiliate with the State Horticultural Society, and what benefit would this Society be to us?

Should a Garden Club give Flower Shows? Our Club is so small we would not be able to make much of a showing.

Must a Garden Club do civic work in order to be a real worth while club?

Do you think all Garden Clubs should devote part of their time to the interesting of children in gardens?

There really are no hard and fast rules about organizing a Garden Club. You may meet informally, agree to form a Club, elect a President and Secretary and then plan on doing the things that interest you most.

Or, you may send to the Secretary of the State Horticultural Society for sample copies of Constitution and by-laws, also asking for the presence of the Secretary at your first meeting, as he will be able to help you with many suggestions.

You may send notices of this proposed meeting to the papers, also give personal invitations to those you know are interested, urging them to be present, also to come prepared to give suggestions on what work this proposed Club might be able to do.

Interest in this department is growing every month.

If you are interested in a Garden Club or Flower Show, don't miss this article. Incidentally, you will read why it's a good thing to belong to the State Horticultural Society.

Lest you forget to write we will repeat Mrs. Strong's address — 80th and George St., West Allis—Editor.

THE HORTICULTURAL SOCIETY

It is advisable and beneficial to belong to the State Society, for this Society is made up of people from all over the state who are interested in the very things you are. As a member it will be your privilege to ask for help in any of the problems that are sure to come to all gardeners.

Not only may you ask, but you may be sure of the help.

It is a privilege to attend the winter and summer meetings of the Society. There you may listen to and participate in the discussions on better gardens, flowers, vegetables and fruit.

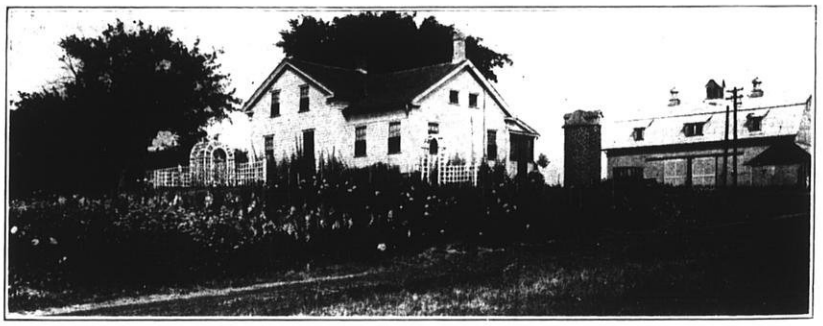
I have heard it said that the State Society gives most of its time to the Fruit and Vegetable growers. If that is true, perhaps the reason is there are more people present at the meetings who are interested in these subjects. When there is a desire on the part of the members for more talks on beautifying the home grounds, on special varieties of flowers, shrubs, bulbs, trees, etc., that program will be there for them.

It has ever been the desire of the officers of the State Society to give to the members present just what they most wanted and needed.

THE MAGAZINE

Then through the pages of WISCONSIN HORTICULTURE, a magazine that is devoted almost exclusively to Horticulture in this State, you are kept in touch through the year with what is being done along Horticultural lines. It tells you what other Clubs are doing, which may help you. If in turn you send in a report of your Club's activities, this will help some other Club.

WISCONSIN HORTICULTURE is, we know, a small magazine, but it is in a healthy growing condition. With proper care and feeding, there is no reason why



Farm home of E. E. Haasch, Wauwatosa. From a sodless hill to this in 3 years

it should not increase in size and fruitfulness.

We are assured of the care—the feeding must come from those who are interested in growing things. It is now and will continue to be worth reading by every member of a Garden Club.

Flower Shows

In answer to the question, "Should a Garden Club give Flower Shows?" I would say Yes, also fruit and vegetable shows as well, if you have members who are interested in growing these things. There is no better way to interest people and spread the love of gardening than through shows. No matter how small a Club you may have, you can put up an exhibit that will be of interest to all who see it. You need not dignify this display by the name "Flower Show". Ask permission from the officers of your bank, and show your flowers there, in attractive arrangements, carefully labeling them with the common and also botanical name. If possible have one or more members present to talk to interested persons about the exhibits, also about your Club. This is an excellent way to get new members.

The Public Library is another excellent place to display flowers. Here the children will soon become familiar with the names and will ask questions that will be of help to them later on. The more people seeing the show without any special effort on their part the better. After they have become accustomed to seeing them they will go anywhere to see them—it becomes a habit. Soon your Club will find they are really putting up a very fine Flower Show in spite of their fear of not being able to do very much.

Sometimes we need to remember that it does not make so much difference *how sure we are that we can do a thing well,* as *how willing are we to try to do the things that need to be done.*

Because I believe that children are very important, I think all Garden Clubs should devote a part of their time to children's garden work.

There are so many ways of interesting the children in gardening. Offer prizes for the best garden cared for by a child of a certain age, also for the best essay on growing flowers or vegetables or both. This means preparing the soil, planting the seed and care of plants.

Encourage School Horticultural shows and have the members of your Club talk to the children about gardens.

If you have any time or energy left after doing any of these things, and caring for your garden, you may aid in making the parks more interesting. Establish a wild flower garden in some park where these lovely flowers may be admired, but not destroyed. This would be a worth while project for any Garden Club.

I cannot close without a word to those who hesitate to join a Club, because, as they say, "we have no time for any outside work, we can care for a garden, but that is all." To these I would say: when you paint a living picture with trees, vines, shrubs and flowers, that pleases the eye of every passerby; when you encourage others to do likewise, by gifts of seeds, plants and kindly advice, you are doing your share to make Wisconsin beautiful. We need such members in every Club; we need such members in the State Horticultural Society.

In every community there is need of a Garden Club. You who love a garden, YOU be the one to start, never mind whether you think some one else could do this work better or not; perhaps those same persons are thinking, "some one else could do better than I could," and so nothing is done.

Mention WISCONSIN HORTICULTURE when writing our advertisers.

White Elm Nursery Co.
Hartland, Wisconsin
General Line of
Ornamentals and Fruits

OUR GARDEN

Dear Mrs. Strong: This photo taken August 28, 1927, of our annual flower garden, illustrates what can be accomplished in the short time of three years, from a bare sodless hill, very poor soil and full of quack. Transformed into a spot of beauty and joy to ourselves and our friends, as we share our flowers with our friends, those who are sick and the shut-in, also the various institutions. By so doing we feel we are doing something for a good cause.

Last fall Mr. Huron Smith urged the members of the Milwaukee County Horticultural Society to try and make entries in Flowers and Plants at the State Fair, thus helping along the work being done by Mrs. Strong.

Because we felt this work was deserving of all the help that could be given, we gathered the choicest of our blooms. Along with the pleasure we experienced in exhibiting (for it is a pleasure to exhibit, to see the interest shown by the visitors at the Fair in blossoms that were new to them, and to be able to tell about them, and the best way to grow them), we also had the pleasure of winning 9 first and 2 second prizes.

This means that plans for our 1928 garden are many. We are looking forward to a more beautiful garden and a better and bigger exhibit.

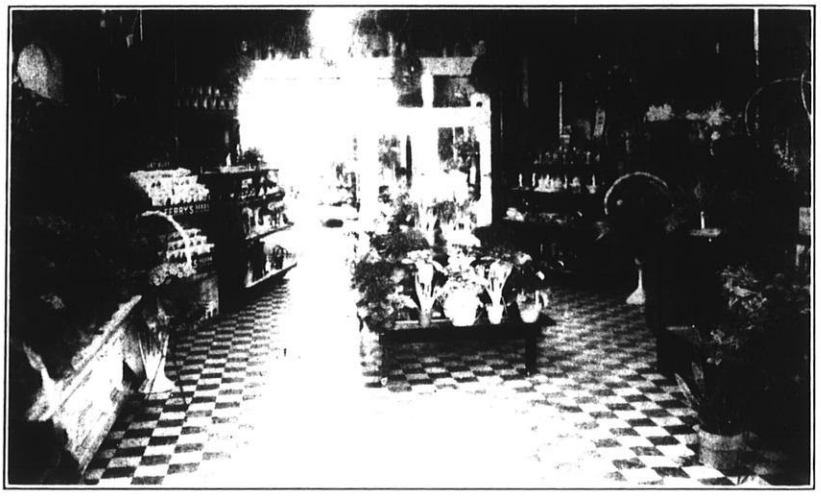
MR. AND MRS. E. E. HAASCH,
Wauwatosa, Wis.

(Continued on page 246)

Green Bay Florist Shows Progress

Identification of Plants by Museum

Florists Department—HURON SMITH, *Editor*



Interior DeClerc flower shop, Green Bay

LOYAL W. DECLERC seems to find Green Bay, Wis., a very good town which he has rediscovered since graduating from the florists' school at the University of Illinois. Twenty years ago, the firm was DeClerc and Gaffron, situated on Adams Street, Green Bay, but Chas. DeClerc bought out Gaffron about that time. In 1918, Chas. DeClerc moved the business to the present address, 213 N. Washington Street (the main business street). He died shortly after the move, leaving his wife, Mrs. E. DeClerc, young Loyal and his half brother, William DeClerc. Mrs. DeClerc carried on with good success, giving Loyal his education at Urbana. He is now active as business manager at the store, trying out his teaching. 1927 justified his labors by giving him a twelve per cent increase over 1926.

The writer sat in with the sales force for one of the Wednesday sales analysis meetings at the close of day, and discovered it to be a fine means of attaining an interested sales force. Weekly graphs and charts were analysed and discussed. The average of all sales for the past week showed an increase over the preceding one and the average sale proved to be exactly $4.84. Employees vowed an attempt to raise the general average to $5.00 even. Considering the large number of potted plant sales at $1.00 and their Saturday special dollar day sale, we thought that a fine average for a city even larger than Green Bay (35,000).

The DeClercs live at the edge of Green Bay on Velp Avenue, where they have a small range of seven greenhouses. These, Mr. DeClerc considers rather more as a service adjunct to the store than a serious source of cut flowers in this northern country. They do turn out some nice blooming potted plants such as giganteum and Harrisii lilies, cineraria, bush roses, hydrangeas and bulbous stock, but most of the cut flowers are shipped in. Wm. Van Langendon has been their grower for the past 14 years, assisted by his brother, Frank Van Langendon, Joe Coopman, Wm. DeClerc and Ed Melotte. Their houses were in good shape for Easter. Carnations were doing the best they have this year. Calendulas, stocks, callas, freesia and sweet peas were furnishing the bulk of the cutting. Gladiolus were about ready for the first cutting.

The store has just been rearranged to give more selling space. A new four-door McCray refrigerator partitions off the work room in the rear. It is flanked by a storage refrigerator of the same size, opening towards the rear. Both are cooled by Frigidaire. The store is 21′ by 102′, with two large entrance show windows. The front and back of the store are equal in space.

IDENTIFICATIONS

"MY AUNT'S sister told my cousin's uncle that his brother's sister-in-law saw a plant once somewhere in southern Oregon that looked like a turnip gone wrong. Why did it look that way?"

Such requests for identifications are common to the botanical department of the Milwaukee Public Museum. The inquirer is usually certain that we can't know much if we do not at once recognize the plant in question.

It is reminiscent of the entomological students at college, who took the body of a caterpillar, and carefully glued upon it the antennae of a moth, the wings of a grasshopper and the feet of a beetle. When they took it to the bug professor for identification, he recognized it as a curiosity and asked the leader if they had observed it making any noise as they captured it. The leader replied that it "hummed like anything." "Then," said the Professor, "it must be a humbug".

Our latest query is from a member of the Horticultural Society, who encloses the following description of a plant from an Indian:

"Perhaps Prof. Huron Smith will be kind enough to give us the name of a *shrub* which I will describe. While gathering flowers for a wild flower bed, I found what I thought was a yellow violet. The blossoms and leaves looked like that, but the root was a tiny straight thing like a young carrot. After shading and watering it for a time, it grew to be about eight or ten inches high with a thick stalk and many branches. The blossoms were bell shaped and about as large as a thimble with colors ranging from white to pink, bright red and yellow *(Some Range)*, all blooming at the same time and remaining very long. The mystery and joy of it has remained with me all winter. I would not exchange it for a diamond".

Let me say to start out that the Museum has an herbarium that includes every native wild flower, shrub and tree in the state of Wisconsin. Except for colors and the use of the word shrub, I would say that the plant in question is a Bellwort (Uvularia perfoliata) belonging to the Lily Family. But from the description, that would be only a guess.

The proper thing to do when seeking an identification of any plant, is to send the specimen by mail with care to see that either flower or fruit are present, if possible, for upon these features identification depends. In case a number of specimens are sent, then number each specimen, reserving a duplicate at home with the same number. Make sure that the number cannot become detached. The identification will then be returned by number. This service is free. The specimen may be a dried herbarium specimen or fresh material. If fresh, some effort should be expended to keep it fresh en route, that is, pack it in moist cotton, moss, or moistened newspaper, and securely wrapped so that most of the contents will reach us and not be strewn over the floor of the mail car.

We are constantly identifying all sorts of plant specimens, native flora, cultivated annuals, perennials, bulbous plants, shrubs, both native and culti-

(Continued on page 247)

3 points to question

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Potato Growers Department

J. G. MILWARD, Editor
Secretary of the State Potato Growers Association

THE LOUISIANA POTATO TOUR

PREMIER POTATO EVENT OF THE SOUTH

THE writer has just returned from a two weeks' trip through Louisiana and Texas. A detailed report on the trip will be reserved until a later issue of "WISCONSIN HORTICULTURE. This statement will relate mainly to the Louisiana Potato Tour covering four parishes during the weeks of April 16–20.

Wisconsin growers would find many points of similarity between Southern Potato Tours and our own state tour held annually in August.

The Louisiana Potato Tour under the direction of Professor G. L. Tiebout has been unusually successful in drawing upon the attendance of representative groups from practically every section of the United States. Professor Tiebout at one of the field programs announced that thirty-three states were represented in the field. These men and women included growers, shippers, seed distributing agencies, railroad men, state and government officials, representatives of northern and western seed inspection departments, agricultural colleges, the agricultural and general press.

Questions relating to seed potato inspection were given precedence at programs and conferences. Extensive plantings were inspected and in each instance the owner of the seed stock was designated. In this way inspection officials were able to offer much interesting information relating to the records of the seed in northern and western producing states.

The 1928 Louisiana Tour covered three Parishes west of New Orleans including Le Fourche, Terreboune and Alberia. About 80 cars of certified Triumphs were distributed in this territory by the Louisiana Farm Bureau, practically all grown in Nebraska and Montana. A few fields were planted from seed grown in North Dakota and Wisconsin.

Although the cool season has resulted in retarding the crop in Louisiana this year the fields visited were in excellent condition. Prospects for a good crop in southern Louisiana are favorable.

Low temperatures for several days preceding the tour provided ideal conditions for expression of mosaic. As a rule, mosaic counts ran very low indicating a high quality of seed is now being furnished to Louisiana growers.

Wisconsin growers generally are familiar with the malady, Rhizoctonia (black scurf), causing mal-formation in vines and aerial tubers. A similar condition was found in several Louisiana fields this year with evidence of disease on underground stems and roots. This condition, in the south, is known as "Haywire".

The Louisiana Potato Tour is known as the premier potato event of the south. Preceding the tour this year, a conference of southern interests was called at New Orleans *to organize an all southern seed potato buying pool.* Wisconsin Triumph growers will be especially interested in this conference and arrangements for an authentic report will be made in the next issue of WISCONSIN HORTICULTURE.

Wisconsin growers will also be interested in a brief report of conditions in the Lower Rio Grande Valley in Texas, which will be published in the June issue.

BULLETINS ON ROADSIDE PLANTING

We have received a small supply of two bulletins from the U. S. Department of Agriculture on Roadside Planting. Probably the better one for Wisconsin conditions is entitled "Planting the Roadside". It has a number of illustrations and plans for roadside planting. Some of the chapters are as follows:

Planning for the trees; spacing the trees; arrangement of shrubs and perennials; kinds of trees to use; planting the trees; pruning the trees; and, later care.

Another bulletin is entitled "Trees for Roadside Planting". This is a rather general bulletin describing different species of trees. Some of the chapters are:

Kinds of trees suitable for the roadside; regions of adaptability; trees for special purposes; and, descriptions of roadside trees.

These bulletins will be sent free of charge, to anyone interested, while the supply lasts.

(Continued from page 220)

and the people you associate with daily, you won't care anything in particular about them. The first thing you ask of a person you meet is, what is your name please. It's exactly the same with flowers, you will never get to know them or care for them until you know their names. But this is another story for some other time if you would care to hear it.

SUNRIDGE ORCHARDS ORGANIZED

Dear Mr. Rahmlow:

Am writing to let you know that the property and business of the Weston Orchards at Menomonie have been taken over by a newly organized corporation, the Sunridge Orchards, Inc. Officers of the new firm are C. T. Bundy, Pres., Paul Grant, Vice-pres. and manager, J. D. R. Steven, Sec'y–Treas.

To the 160 acres which originally comprised the Weston Orchards, the new company has added 80 acres, giving a total of 240 acres.

I hope that if you are in this part of the state this season, that you will drop in and see us.

Yours truly,

PAUL E. GRANT.

"ETHYLENE GAS" INFORMATION

Prof. L. O. Regeimbal, University Farm, St. Paul, writes in regard to additional information about the use of Ethylene Gas:

"I do not know whether or not I have further information on the use of ethylene. It is possible that if you could pass me some of your questions I could answer them. It seems that there are always a lot of minor details which we do not touch in an article and which, altho clear to the majority of people, are not quite clear to some of the readers. I would be glad to answer any of these questions either personally or collectively to you so that you can pass the information on to your readers".

If any of our readers have questions on the use of Ethylene Gas, write to Wisconsin Horticulture, and such questions and answers will be printed here.

Mention WISCONSIN HORTICULTURE when writing our advertisers.

KANSAS SUFFERS FROM SPRING FREEZES

A letter from the Kansas State Horticultural Society reports a great deal of damage from spring freezes to the fruit prospects of the state. The following is the report in part:

"The peach crop will be a total failure, except in the northeast portion of the state, and possibly in some localities in the southeast portion of the state. Pears, except in the above sections of the state will also be a total failure. Cherries have been but slightly injured. Grapes so far have escaped injury. Some damage has been reported to the early strawberry bloom."

Damage to the apple crop is reported serious in some places tho 50% of blossom killing does not mean a corresponding loss of fruit.

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Hardy Wisconsin grown stock
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Some vegetable crops which are sensitive to acid soil are cauliflower, muskmelons, parsnips, egg plant, asparagus, onions, beets, celery, lettuce and spinach.

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300 Kinds

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Golden Acre, Genuine. Earliest of all	7.00
Copenhagen Market. Early Selected	2.75
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Danish Roundhead, short stem. Selected	2.50
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Ferry's Hollander, Own Strain. Genuine. One of the best for shipping and storage. Solid medium sized heads	7.00
Back's Hollander. Own Strain. The most Perfect late Shipping Cabbage	3.50
Back's American Shipper. The Best late Yellows Resistant Cabbage	5.00
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Savoy, Cabbage Danish Perfection	2.50
Mammoth Dark Red. Improved	2.50
Danish Dark Red Stonehead	2.50
Danish First Prize. Best Dark Red	3.25

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Extra Early Dwarf Erfurt Earliest New Snowball Danish Giant or Dry Weather. ½ Oz., $1.00; Oz., $1.70; ¼ lb., $5.75.

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Cabbage and Cauliflower Seeds has been my specialty since 1903 but I will be glad to quote you on any other seeds and you can be certain they are the highest grade obtainable.

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News From Our Locals

PROGRAM AND DATES

LOCAL SOCIETY MEETINGS

Lake Geneva Gardeners' Association—Meetings Wed., May 9th and Wed., June 13th, at 7:30 P. M.

Meetings held at Horticultural Hall, Lake Geneva.

Program on Practical Gardening.

HENRY WEST,
Secretary.

Oshkosh Horticulture Society—Meeting June 4th, 7:30 P. M.

At home of some member in country.

Plans for flower show will be taken up.

MISS AGNES PHILLIPSON,
Secretary.

Waukesha Garden Club—Meeting June 4th, at 8 P. M.

Place, Y. M. C. A.

Good program being arranged.

MISS MARY GIBSON,
Secretary.

MILWAUKEE HORTICULTURAL SOCIETY

THE May meeting of the Milwaukee County Horticultural Society will be held on May the 22nd in the Milwaukee Public Museum.

The topic for this meeting will be "Hardy Lilies and Sweet Peas". The speakers will be ers will be Mr. J. H. Burdett, Mr. J. H. Burdett, seed expert from Vaughan's Seed Company, who will speak on Hardy Lilies, and George Ball, Glenview, Ill., on the subject of Sweet Peas.

Mention WISCONSIN HORTICULTURE when writing our advertisers.

Madison Garden Club—Regular meetings of the Madison Garden Club are held the second Tuesday of each month at the Public Library. Time, 7:30 P. M.

The club has secured the permission of the Park & Pleasure Drive Association and is planting flowers in the Parks. Members are furnishing plants and transplanting them free of charge.

UNION MILLS HORTICULTURAL SOCIETY

THE Union Mills Horticultural Society held their regular meeting Tuesday evening, April 3rd at the Stevenstown hall. The meeting was called to order by the president. Minutes of the last meeting were read by the secretary. After the business meeting the following program was put on by the program committee.

Piano Duet by Mrs. Elex Dahlby and Miss Thelma Dahlby.

Violin solo by Ernest Skogen accompanied at piano by Mrs. Skogen of Holmen.

Song, "How Do You Do" by Misses Ryder, Barclay Fischer and Hendrickson.

Reading, "When Daddy Cuts my Hair", by Vernon Hendrickson.

Yodeling by William Skoy of Holmen.

Reading, "One Hundred and One Stitch", by Ileen Fischer.

Music by Miss Myrtle Hendrickson.

After the program lunch was served in the dining hall.

Our next meeting will be held May 1st. Everyone welcome.

JOSEPH GAVIN,
Secretary.

INTERESTING PROGRAM FEATURES MONTHLY GATHERING OF OSHKOSH HORTICULTURAL SOCIETY

The April meeting of the Oshkosh Horticultural society held at the museum Monday evening, brought out a good attendance of members. The usual delicious picnic supper was served at 6:30. The Misses Anna and Agnes Phillipson were hostesses at the meeting.

The meeting was opened by the singing of the Horticultural song, after which Master Richard Hansen, son of Mr. and Mrs. Harry Hansen, 103 Winnebago street, gave two vocal solos accompanied by Miss Marion Oaks.

A paper entitled "Our Flower Garden," written by C. Phillipson, was read by the secretary. James E. Taylor gave a talk on the arrangement of flowers, and demonstrated by arranging several baskets with flowers. At the conclusion, names were drawn for the winner of the lovely basket of blossoms he presented to the society, and Mrs. Bertha Gruenewald was the recipient.

Plans were made for the flower show to be held this summer. Miss Merle Rasmussen was elected chairman and she will appoint a committee to assist her.

It was decided to hold the May meeting at the museum, after which the balance of the summer meetings will be held out of doors. Mr. and Mrs. C. R. Fiss will entertain at the May meeting.

In sowing fine seeds, mix them with dry sand to avoid planting too thickly. All hardy perennials do better if sown in the spring than later in the summer.

This gives them a longer growing season and the young plants will be stronger and better developed before cold weather sets in.

MILWAUKEE SOCIETY DISCUSSES FRUITS

THE April Program was opened with a Nature Poem, entitled, "Almond Blossoms" by Edwin Arnold which was read by Mrs. Mary Kramczack. Mr. Walter Arndt also read a poem which he clipped from one of the local newspapers.

The first speaker of the evening was Mr. N. A. Rasmussen of Oshkosh who gave a very interesting talk on small fruits, discussing in detail the following: strawberries, raspberries and currants. His choice of strawberries is the Oshkosh, of raspberry, the "Cuthbert", of currant, the "Perfection". This discussion proved very interesting.

Professor R. H. Roberts of the Department of Horticulture of the University of Wisconsin was the next Speaker. His opening remarks were to the effect that he did not suppose a Society whose members were mostly interested in flowers could be entertained on a supposedly dry subject such as apple trees, and that he would tell us some things that were not found in books. His Socratic method of making the audience furnish the answer by questioning proved very conclusively that his topic was not a dry one, but possessed unusual interest. Everyone enjoyed his splendid talk and were impressed with his vast knowledge upon this subject.

Mr. W. J. Moyle, of Union Grove, Wisconsin, followed Professor Roberts and gave a very short and interesting talk on pear and plum trees. The evening furnished so much of interest that Mr. Moyle did not have as much time as I feel he should have had and we will look forward to hearing both Mr. Moyle and the above two speakers at some future meeting.

FRANK P. GILOTH.

Mention WISCONSIN HORTICULTURE when writing our advertisers.

IT'S NOT A HOME UNTIL IT'S PLANTED

(Continued from page 224)

might have a sun dial, bird bath or pool in the center of this formal flower garden. You could still have a pergolla, arbor or seat in the rear of this garden. In such a formal garden, you could have perennial flowers, annual flowers and roses to your heart's content. There would be flowers for outdoor beauty as well as for cutting purposes. Of course, the naturalistic arrangement would give you flowers too, except that since all of the center is left in grass, there would be less area devoted to flower beds. This latter style, however, is more informal, resembling the work of nature. It gives you a feeling of freedom and restfulness, for there is a certain enjoyment and relaxation in getting out among growing things. That is the reason we are drawn out to the woods and parks in the spring.

A discussion of this kind, of course, is necessarily inadequate in outlining a landscape course to fit a particular problem, for general situations and the usual desired effects must be considered. I do hope, however, that I may have conveyed an idea here or there that will prove helpful to you, or one that may start you to thinking, planning, and acting in the enjoyable task of making your home grounds even more beautiful.

SETTING THE PACE

Janesville, Wis.—(AP)—The school board has set out on the grounds of the Janesville high school 192 shrubs and 12 Lombard poplar trees, as its contribution toward beautifying the city. It has also authorized the expenditure of $200 in landscape work on the school grounds.

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Chequamegon Flower Gardens
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Washburn, Wis.

Tentative Wisconsin Grades for Strawberries

A. W. POMMERENING
State Bureau of Markets

TWO hearings were held April 5 and 6 at Sparta and Warrens to discuss Wisconsin grades for strawberries.

The result was that growers and shippers expressed their intention to try out the tentative grades this season.

These grades are not compulsory but may be used by growers anywhere in this state.

The Department of Markets will gladly assist growers with their grading problems and is in a position to furnish carlot inspection on application.

The following are the grades:

WISCONSIN EXTRA FANCY

Wisconsin Extra Fancy shall consist of strawberries of one variety, with the cap (calyx) and short stem attached, which are clean, firm, well-colored and not overripe, underripe, undeveloped, decayed or mouldy, and which are free from hard formed tips and from damage caused by dirt, moisture, disease, insects or mechanical or other means.

Unless otherwise specified the minimum size shall not be less than one and one-eighth inches in diameter.

In order to allow for variations other than size incident to proper grading and handling, not more than a total of 3% by volume of the strawberries in any lot may be below the requirements of this grade.

In addition not more than 5% by volume, of the strawberries in any lot, may be below one and one-eighth inches in diameter.

WISCONSIN FANCY

Wisconsin Fancy shall consist of strawberries of similar varietal characteristics, with the cap (calyx) and short stem attached, which are clean and firm, not overripe, underripe, undeveloped, decayed or mouldy, and which are free from hard formed tips and from damage caused by dirt, moisture, disease, insects or mechanical or other means.

Unless otherwise specified the minimum size shall not be less than seven-eighths of an inch in diameter.

In order to allow for variations other than size incident to proper grading and handling, not more than a total of 5% by volume of the strawberries in any lot may be below the requirements of this grade.

In addition not more than 5% by volume, of the strawberries in any lot, may be below the seven-eighths of an inch in diameter.

WISCONSIN STANDARD

Wisconsin Standard shall consist of strawberries of similar varietal characteristics, with the cap (calyx) attached, which are firm, not overripe, underripe, or undeveloped; and which are free from mould or decay and from damage caused by dirt, moisture, foreign matter, disease, insects, or mechanical or other means. *Unless otherwise specified* the minimum size shall be not less than five-eighths of an inch in diameter.

In order to allow for variations other than size incident to proper grading and handling, not more than 10% by volume, of the strawberries in any lot may be below the requirements of this grade, but not to exceed one-half of this tolerance or 5% shall be allowed for defects causing serious damage, and not more than ⅕ of this amount or 1% shall be allowed for decay.

In addition, not more than 5% by volume, of the strawberries in any lot, may be below the specified minimum size.

WISCONSIN NO. 2

Wisconsin No. 2 shall consist of strawberries which are free from decay and from serious damage caused by disease, insects, mechanical or other means.

The minimum size shall not be less than one-half inch in diameter.

In order to allow for variations other than size incident to proper grading and handling, not more than a total of 10% by volume, of the strawberries in any lot may be allowed for defects causing serious damage but not to exceed $\frac{3}{10}$ of this amount or 3%, shall be allowed for strawberries affected by decay.

In addition not more than 5%, by volume of the strawberries in any lot may be below one-half inch in diameter.

UNGRADED

Ungraded shall consist of strawberries which are not graded in conformity with the foregoing grades.

MARKING REQUIREMENTS

Each crate containing strawberries intended to be marketed as of a grade contained in these standards shall be marked, branded or labeled to show the grade, net contents, packer's name and address. Such strawberries shall be marketed in new crates containing 16 full quart boxes.

Strawberries not intended to be marketed as of a grade contained in these standards are not subject to the foregoing marking requirements, but are, nevertheless, subject to the marking requirements contained in section 352.08 Wisconsin Statutes.

DEFINITIONS OF TERMS

As used in these grades:

"Overripe" means dead ripe, becoming soft, a condition unfit for shipment and necessitating immediate consumption.

"Underripe" means so immature that less than two-thirds of the surface of the berry is of a pink or red color.

"Undeveloped" means not having attained a normal shape and development owing to frost injury, lack of pollination, insect injury, or other causes. "Button" berries are the most common type of this condition.

"Damage" means any injury from the causes mentioned which materially affects the appearance, edible or shipping quality.

"Serious damage" means that the strawberries are soft or leaky, or have broken skins. Strawberries which are caked with dirt or which show no pink or red color shall be considered seriously damaged.

"Diameter" means the greatest dimension at right angles to a straight line running from the stem to the apex.

"Similar varietal characteristics" means that there shall not be more than two varieties of strawberries allowed in any cup.

"Well colored" means that at least three-fourths of the surface of the berry is of a pink or red color.

Decay or other deterioration developing in storage or in transit on strawberries otherwise up to grade shall be considered as affecting the condition and not the grade.

April 10, 1928.

DAHLIAS

(Continued from page 223)

As soon as the sprouts have grown two or three inches above the ground it is time to cultivate. Hoe the surface of the ground and keep free from weeds. This should be done often and the surface should never be allowed to form a crust. Never cultivate when the ground is wet. The day following a rain is usually

the best time. Cultivate deep, two to three inches, and continue until the plants begin to bloom; then stop as cultivation will now do harm.

When your Dahlias need water, soak the ground at least a foot deep, then cultivate as soon as sufficient drainage has taken place, and do not water again until necessary, which will be a week or more.

Do not spray your dahlia bushes, and sprinkle the surface of the ground with water every night or so, for this will only pack the surface, preventing air circulation and causing the soil to crust and dry rapidly in the sunshine. This also draws the feed roots to the surface, to be sickened by the heat of the sun's rays. The flowers obtained are soft, and the roots developed very poor, low in vitality, and hard to winter.

The question of fertilizers for dahlias is one that is much discussed and too often misused. There are several good dahlia fertilizers but probably one of the best combinations is as follows:

5 pounds raw bone meal
10 pounds unleached wood ashes, or
1 pound muriate or sulphate of potash (not both)

Bone meal may be doubled if soil is very poor. This combination should be sown broadcast after spading and mixed thoroughly into the top soil to every 100 square feet of ground or to each ten dahlia hills.

About the middle of August scatter broadcast over the ground not closer than six inches nor more than 18 inches from the stalk, and rake in to every ten hills:

1½ pounds raw bone meal
4 pounds pulverized sheep manure
5 pounds unleached wood ashes, or
½ pound muriate or sulphate of potash (not both)

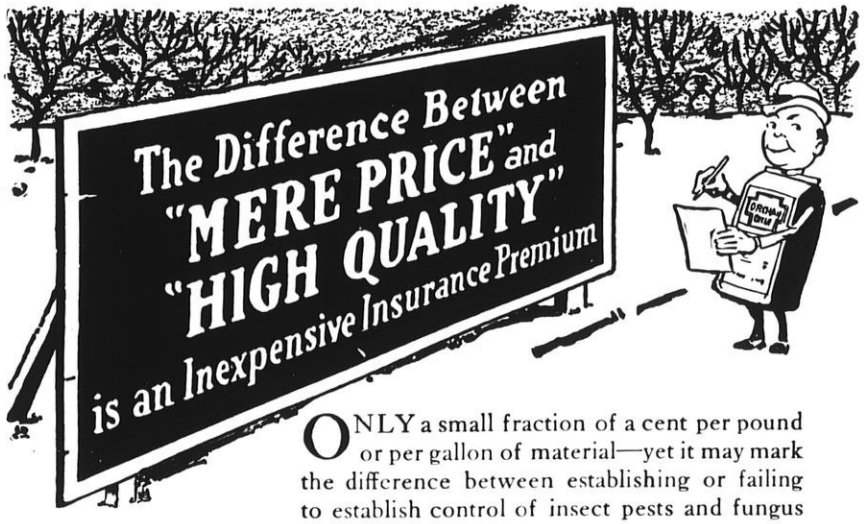
Good Varieties

Perhaps a suggestion as to good varieties for the home garden might be in order. In reds will be found good varieties like Pride of California and Shelikoff, both decorative. For profusion of blooms, but small flowers, Rene Cayeux, a cactus is good. In pinks and lavenders we find Margaret Masson, a truly wonderful flower; Millionaire, large but inclined to fade; Sanbicans Rose, Frances Lobdell, Mariposa. If you grow only one Dahlia, grow Mariposa. Mrs. Carl Salbach is also a very fine pink and is reasonably priced.

Good whites are not plentiful —Snowdrift, Giant Edelweiss, Queen Wilhelmina and Alpine Wonder are good.

The best yellow dahlias are high priced and there are many very wonderful yellows. Comstock is one of the reasonably priced yellows. Of the autumn colored Dahlias we have Amun Ra, Talisman, The Oriole, Lotus, Billionaire, Laura Barnes and many other very fine varieties.

Among the variegated Dah-



ONLY a small fraction of a cent per pound or per gallon of material—yet it may mark the difference between establishing or failing to establish control of insect pests and fungus infections that will reduce the value of the whole fruit crop.

"Orchard Brand" Quality in spray and dust materials means so much in **results accomplished** that, even at a fractional price difference, it costs least in the season's final accounting of loss or profit.

Send us a postcard request for your copy of the 1928 Annual "Cash Crops"

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lias are found Our Country, Gorgeous, Oregon Sunset, San Mateo and others.

"DAHLIA DON'TS"

Don't grow trash, good varieties are more satisfactory.

Don't buy cheap stock, get a few good ones to start.

Don't over fertilize.

Don't use nitrate of soda at any time.

Don't plant too early.

Don't use the sprinkling can to water your dahlias—use the hose once a week when necessary.

Don't plant your Dahlias in the shade.

Don't plant the whole clump, one tuber is better.

Don't plant your Dahlia tubers on end, lay them flat.

Don't buy high priced varieties to begin with.

GRASSELLI

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REG. U.S. PAT. OFFICE
SPRAY PRODUCTS

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Grasselli Nicotine

The leading Wisconsin growers prefer *Grasselli Grade* because they know from experience that brand name means *certainty* of protection and the largest yield of first grade fruit.

And while protecting your orchard, don't forget your truck crops and small fruit—they also need spraying at this time.

THE GRASSELLI CHEMICAL COMPANY, CLEVELAND
Founded in 1839

GRASSELLI GRADE
A Standard Held High for 89 Years

IN ORCHARD AND GARDEN

(Continued from page 226)

and where they had planted it in the garden. They had tall plants for the back and smaller ones in front of them, and the little short ones for the very front of the beds. After they got through telling about how they grew the flowers, they demonstrated how they used them in decorating the rooms and dining table. They told just how the flowers should be put in the vases to be most attractive, what kinds were best for bouquets for the living room and for the table.

Believe me, they knew more about how to use flowers than most grown ups. One of the girls couldn't have been more than ten or eleven years old, either. Isn't it just wonderful to know all about such things and to be able to tell other folks how then can get the most enjoyment out of flowers? Even though one might not win the prize, one who does a stunt of this kind has gotten something which is going to give him big pay as long as he lives.

Well, my enthusiasm for this contest kind of got the best of me and if I'm not careful this letter is going to get too long before I get around to suggest some good plants for the beginner. Here are some which I am sure any boy or girl could grow successfully, and most of which will make good material for a demonstration in making bouquets and table decorations:

Annual phlox, bachelor's button, calendula, cosmos (dwarf or early flowering kinds), larkspur, marigold, nasturtium, scabiosa, Shirley poppy, snapdragon, stocks, verbena, zinnia. These are nice for low flowers along the edge of the garden and for around the edge of the bowl holding low bouquets: ageratum, candytuft, sweet alyssum.

By the way, it just occurred

INDEX TO ADVERTISERS

	Page
Back Seed Co.	239
Badger Hatchery	246
Bahr Nursery	246
Barilani, F. W.	246
The Barrett Co.	237
Chequamegon Flower Gardens	241
H. C. Christensen	246
Cleerman's Hatchery	246
The Coe, Converse & Edwards Company	247
Cream City Chemical	218
Cumberland Fruit Package Co.	245
Eschrich's Nursery	239
Fitchett Dahlia Gardens	218
Edw. J. Gardner Nursery	239
Gelbke, C. A. & Sons	246
General Chemical Company	243
F. R. Gifford Co.	247
Gilson Mfg. Co.	229
Grasselli Chemical Co.	244
J. F. Hauser	239
High Twelve Hatchery	246
Jensen, John	246
Kellogg's Nursery	230
Krueger, John	246
Lake View Berry Farm	247
Menomonie–Eau Claire Nurseries, Inc.	246
North Star Nurseries	241, 247
Rasmussen's Fruit Farm & Nurseries	248
Reynolds, Mrs. C. W.	246
"Rose Gate"	247
Sisson's Peonies	248
Stonecrest Gardens	230
The Swartz Nurseries	231
W. A. Toole	245
Western Stoneware Co.	248
White Elm Nursery	235
White, E. L.	246

to me that Wisconsin Circular 212, "Outdoor Flowers for the Home", which can be secured by writing to the Agricultural College, Madison, tells a whole lot of things about growing flowers. They also have a bulletin for those interested in growing vegetables.

Guess there isn't room enough to say anything more than good-bye.

TOM AND ALEX.

FERTILIZER FOR THE ORCHARD

(Continued from page 225)

In general, the proper amount will depend on the natural fertility, age and size of the trees, and system of culture. The tree should make a terminal growth of six to ten inches per year.

The Maine Experiment Station in bulletin 322 states: "The use of twenty cents worth of nitrate fertilizer per tree resulted in an increased yield of more than one barrel of fruit per tree."

Nitrogen fertilizers should be used with some caution however. Good results in the beginning may lead the orchardist to become enthusiastic and apply large amounts, which would cause underproduction.

There is evidence that large applications may cause winter killing. Manure is slowly available and slow acting nitrogen may produce late growth.

Nitrogen fertilizers should be quickly available and should be applied early.

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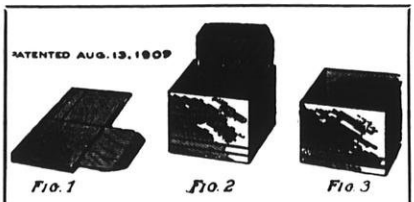

Fig. 1 Fig. 2 Fig. 3

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We manufacture the Ewald Patent Folding Berry Boxes of wood veneer that give satisfaction. Berry box and crate material in the K. D. in carload lots our specialty. We constantly carry in stock 16-quart crates all made up ready for use, either for strawberries or blueberries. No order too small or too large for us to handle. We can ship the folding boxes and crates in K. D. from Milwaukee. Promptness is essential in handling fruit, and we aim to do our part well. A large discount for early orders. A postal brings our price list.

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$1.65 WORTH OF SEEDS FOR $1.00, POSTPAID

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Alyssum Compactum.
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Linum perenne.
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Arabis Alpina.
Platycodon grandiflorum.
Saponaria ocymoides.
Tunica saxifraga.

Send for my illustrated catalog of Perennials, Rock plants and native Wisconsin Plants and Ferns Free.

W. A. TOOLE

Garry-nee-Dule, Baraboo, Wis.

The Growers Market

Advertisements for this department will be accepted from members of this society who produce the articles offered for sale. Rate 2 cents per word, minimum charge 25c per issue. "Adds" of nursery stock and plants will be accepted only from those listed by the State Entomologist as having been inspected. No discounts from these prices.

Copy should reach us by the 20th of the month. Send cash with order.

LILIES

REGAL LILY—BEAUTIFUL NEW white lily, hardy. Four blooming sized bulbs $1.00. $2.00 per dozen. H. C. Christensen, 1625—9th St., Oshkosh, Wis.

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SHRUBS — ORNAMENTALS — ASPARAGUS Plants. West Park Nursery, C. A. Gelbke and Sons, Appleton, Wis.

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STRAWBERRY PLANTS — HARDY, raised on new land. Beavers, $7.50 per 1000, 80c per 100. Reynold's Special, $6.50 per 1000, 70c per 100. Warfields and Dunlaps, $4.50 per 1000, 50c per 100. John Jensen, Warrens, Wisconsin.

THE FAMOUS BAYFIELD, NEW ground, strawberry plants. Dunlaps, state inspected, strong plants, $5.00 per 1000, 75c per 100 postpaid. John Krueger, Box 382, Bayfield, Wis.

STRAWBERRY PLANTS—BEAVERS, Dr. Burrill, Coopers, Champion, Progressive. Blackberry Plants, Ancient Britton, Snyder, Eldorado, Cumberland. No. 1 Plants. Write for prices. F. W. Barilani, Genoa, Wis.

STRAWBERRIES: PROGRESSIVE $1.50 per hundred. Reynolds Special $1.25 per hundred postpaid. Write for additional information. Mrs. C. W. Reynolds, Tomah, Wis.

WANTED—Lady or gentleman representative for nursery stock. Experience unnecessary. Bahr Nursery, Manitowoc, Wisconsin.

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HICKS
Are Money Makers. Place your order with us and decide for yourself.
CLEEREMAN'S HATCHERY
Green Bay, Wis. **R2J**

ABOUT THE HOME AND GARDEN

(Continued from page 235)

We surely thank you for the real appreciation and help given. Readers of HORTICULTURE, as well as State Fair visitors will, I am sure, be glad to get some of those helps to grow prize winning blossoms, as well as the methods used in making the barren hill "bloom like the rose".

"A HOLLYHOCK FOR EVERY BURDOCK"

Dear Mrs. Strong: WISCONSIN HORTICULTURE came today and I turn to the Home and Garden section first. Your, "When wishes come true," appealed to me ever so much. I grinned in sympathy with the wish that you had not wished so fervently for some things, for I have had some experience along that line myself.

And I too believe that dreams come true, especially if you do all you can to help along.

When we moved here burdocks grew in every corner of the yard—front yard as well as back yard. At first the babies kept me busy, but as soon as possible I took a turn with the burdocks. I adopted a slogan: A hollyhock for every burdock. The burdocks are just about exterminated and where the weeds grew the tallest, is where I spend happy hours among my flowers.

I was interested in the letter on seedling Amaryllis, as it was written by one of my mother's teachers. I wonder if she, or some one will tell me how to make Amaryllis bloom, I have six pots of them and not a single flower this winter. They are supposed to be Equestre, two shades of red and a hybrid pink.

I have a Hoya Carnosa grown from a six inch cutting made in 1924. It bloomed last year and this year it has eight clusters of buds. I was told to put it in a small pot, so planted it in a paint can about the size of a tea cup. This winter I repotted it for the first time and feared that with more root room growth would result at the expense of bloom, so am glad to see the buds.

My geraniums which I tried to winter down cellar are all dead. My mother used to winter them in fine condition, wonder what I do or don't do.

Then my plants up stairs here have a small fly like a house fly only smaller. What is cause and remedy?

ALICE ONISCH,
Mukwonago.

Thank you, Mrs. Onisch for the kindly words of appreciation. I just had to include a few of them in the letter sent in. What a splendid slogan you have, I hope you will send a picture of the flower garden that grows where once grew burdocks.

You did not say how you

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Menomonie, Wis.

cared for the geraniums, so we can not tell why they did not live.

The flies usually are plentiful where fertilizers from the barnyard are mixed with the soil. If, before using the soil for potting it is heated thoroughly, there will be no flies. This has been my experience, has any one else a remedy?

Will some one tell Mrs. Onisch how to care for her Amaryllis so they will bloom.

IDENTIFICATIONS

(Continued from page 237)

vated, and trees both native and cultivated. Even wood specimens alone are determinable by use of the hand lens or microscope.

Besides the two thousand people that drift into the office during the course of the year for identifications of fungi and plants, last year 86 different packages were sent in by mail and 115 the year before that. Some of the sendings consisted of as many as 200 specimens. We perform this service for florists, also, being rather familiar with the materials used by the florist. In fact, the writer is the appointed botanist to the Society of American Florists and Ornamental Horticulturists.

While the Museum is only a Municipal Museum and is not obligated to do state work as some have thought, nevertheless, we are glad to do this work of identifying, trusting that it will not become too onerous. The Assistant Curator of Botany, Mr. Albert M. Fuller, from River Falls, Wis., and a graduate of the University of Wisconsin, does his share of the identifications.

So now you know where AND HOW!

HURON H. SMITH.

Mention WISCONSIN HORTICULTURE when writing our advertisers.

Portland, Me.—(AP)—Frozen strawberries having made a big hit in large cities of the country, Maine's blueberry growers claim that a demand has now been created for frozen blueberries.

This state produces about 92 percent of all blueberries grown in the United States. The demand for the frozen blueberries is expected to stabilize prices, thus making business more profitable for the growers.

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$2.50 per 100 — $20 per 1,000
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Most things in separate colors. Specialty BLUE FLOWERS.
A full line Vaughans (Chicago) Vegetable and Flower Seeds. Prompt service.
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What can be more delicious than FRESH FRUIT on the table every day? Our PLANTERS GUIDE AND CATALOG tells how you can grow your own and save money.
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The tree is hardy and a good grower. Fruit of good size, somewhat similar in shape and better quality than Delicious.

W. T. Macoun, Dominion Horticulturist of Ottawa, Canada, writes in regard to origin of FOREST WINTER:

"We have grown this variety for many years. It was one of the very few winter varieties that would stand our severe climate."

We recommend the FOREST WINTER APPLE as one of the hardiest, late keeping, best quality apples we have.

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No. 1 trees, 4–5 ft.,	1.00 each	11.00 doz.
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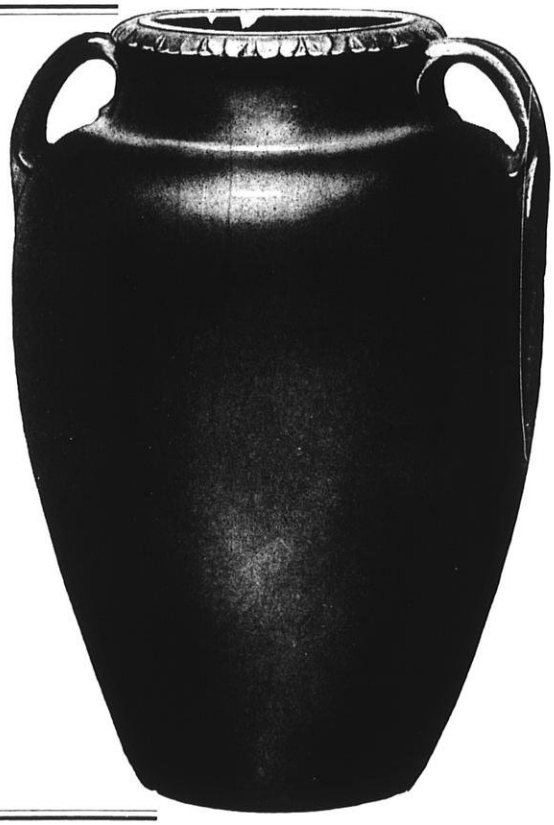

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Blossom Time

OUR SUMMER PROGRAM

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Michigan Tour—June 28–29.
Garden Club Summer Meeting—Lake Geneva, July.
Summer Meeting—La Crosse, Aug. 10–11.

Vol. XVIII JUNE, 1928 No. 10

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28th year

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Favorably Known

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New Catalogue free on request

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735 E. Milton Ave., Janesville, Wisconsin

TABLE OF CONTENTS

	Page
Wychwood—A Native Plant Sanctuary	251
Peony Time is Here	253
Outlook for a Fruit Crop	255
Junior Forest Rangers Active	256
Blossom Time in Cherryland	257
In Orchard and Garden	258
Taming the Wildlings	259
Summer Care of Dahlias	261
What the County Agents are Doing	261
Tender Roses Survive the Hard Winter	262
A Flower Box Demonstration	263
Editorials	264
The Michigan Tour	264
Another Meeting—For Garden Clubs	264
Affiliated Organizations	265
Why Have Garden Clubs	265
About the Home and Garden	266
Letters from Readers	266
Overcoming Horticultural Troubles	268
Codling Moth Control	268
Maggots Reported Serious	268
Potato Growers Department	270
Spraying Versus Dusting	271
News From Our Locals	272
The Forest of Fame	274
Students Start 4-Acre Forest	274
Apple Growers Hearing	279

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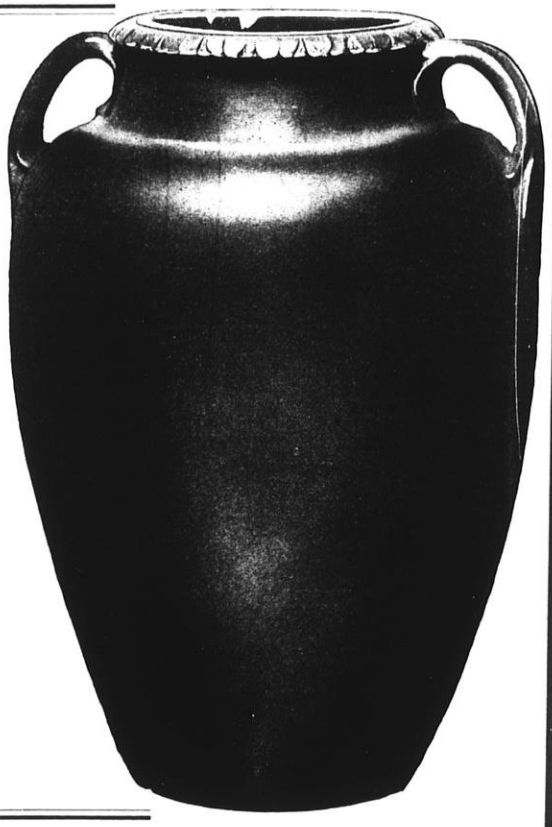

Wisconsin Horticulture

Wisconsin
State Horticultural Society
Organized 1865

Devoted to better fruits, flowers and vegetables

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Wychwood

A Sanctuary for the Native Plants and Birds of Wisconsin

The Hutchinson Home at Wychwood.

ONLY by seeing them can one appreciate the beauties of wild flowers, ferns and fungi, mosses and grasses growing in woodland preserved in its natural state. And when one can see thirty different varieties of flowers in bloom at the same time in one bit of woodland it is indeed impressive.

That is what the editor saw at "Wychwood", Lake Geneva on May 16. Mr. Wm. P. Longland, gardener in charge, who has devoted about 27 years to gathering different Flora of Wisconsin and caring for the estate, very kindly conducted a tour of inspection, describing and naming the different species.

Wychwood is called "A Sanctuary for the Native Plants and Birds of Wisconsin. Mrs. Longland, who is as interested in plants and birds as her husband, has mounted and classified hundreds of plants, and last year kept a record of 120 different species of birds she saw at Wychwood.

The trees, flowers and plants are not the only interesting features to be seen. The estate overlooks wonderful Lake Geneva and the shoreline is much as it must have been when the Red Man was the only one to see it, excepting that more wild flowers and plants have been added and low spots filled in. Set back from the lake is the summer home and garden of Mrs. Hutchinson, very interesting because they are like the house and garden of Wm. Shakespeare.

But we must come back to the flowers to be seen throughout the forest. We followed Mr. Longland along the long winding paths covered with velvety native moss, being careful not to step on the young plants which may later have beautiful blossoms. The following were in bloom:

Trilliums—white, red.
Violets—Crowsfoot, common blue, wood, yellow, variagated, white.
Golden Bellworth.
Martensia—Virginia Cowslip.
Narcissus Tulips.
Anemone.
Pepper root.
Spring beauty.
Wood Anemone.
Bunch berry.
English Primrose.
Buttercup June.
Lithospermum or Puccoon.
Arabis.
Wild geranium.
Yellow Ladyslipper.
Jack in the Pulpit.
Purple Avens.
Wild Ginger.
Mandrake.
Acquilegia or Columbine.

Phlox Divaricata.
Shooting Star.
Polemonia Repens—Jacobs Ladder.

The following taken from a booklet just printed, written by Frances Kinsley Hutchinson, Director, will give a better conception of Wychwood:

How the Idea Started

One brilliant Autumn day in 1900 while my husband and I were strolling with friends along the shores of Lake Geneva, we came into a bit of woodland that from the beginning had remained in its natural state.

Here was an ideal opportunity for the cultivation of native plants and we seized it eagerly.

Our very ignorance encouraged us and our daily exercises gave a new zest to life.

We named the place Wychwood after the wych-hazel which we found growing in abundance throughout the woods.

How the Idea Developed

Under the guiding hand of that distinguished leader in Horticulture, the late Prof. Charles Sprague Sargent of the Arnold Arboretum, we planned our work and each year added new material, being careful to follow Nature in the arrangement of the planting.

Finally we decided to confine our efforts to the Flora of Wisconsin and the selection of native plants for all purposes proved a stimulating occupation.

To attract birds and provide them with food we planted a variety of berry-bearing bushes whose fruit lasted during many months. These birds not only delighted our senses but they made away with all sorts of harmful insects. They also served us in another totally unexpected manner, for they took an active part in the planting and it is to them that we owe many of our most interesting effects.

The Final Aim

As the years went by and we began to see the results of our experiment, as the immediate country-side became more and more civilized, as the swamps were drained and the fields cultivated, our seventy acres grew more and more precious.

The Stemless Lady Slipper.

It was an expression of the real wilderness surviving from the Indian days, with its animal life, its varied trees, its berries and blossoms, its ferns and fungi, its mosses and grasses.

Man's life is ephemeral but, if not disturbed by human hands, a woodland goes on forever.

Could we save this special tract for future generations to enjoy?

After studying the question, after visiting many reservations in different parts of our country, after consulting with scientists, it was decided to leave the property to a self-perpetuating Board of Trustees with a sufficient fund to endow it.

Accordingly in 1926 the property known as Wychwood was formally deeded to this Board with full power to administer it forever. It was arranged that the Board should consist of three members; one an eminent botanist, one an eminent ornithologist and one a business man.

The Donor was retained as Director.

Now our ambition is to have a card catalogue of every manifestation of Nature on the place, not only in the botanical department but also in the animal kingdom from the smallest slug to the big raccoon who introduces his youngsters to our vegetables each summer.

A herbarium has already been started.

A working library of about three hundred books has been catalogued.

A record of seeds planted in a special nursery has been begun.

A water-garden, fed by a natural spring is in process of formation.

GENERAL INFORMATION

Wychwood is in no sense a public park.

Visitors are admitted only by permission to be obtained by writing or telephoning to the Gardener in charge, William P. Longland, Lake Geneva, Wisconsin; telephone number, Lake Geneva 449W.

(Continued on page 279)

Jack in the Pulpit.

Peony Time Is Here

Varieties and Methods in Wisconsin's Well Known Gardens

MRS. W. A. LAWSON—Elmway Farm, Rosendale

WHAT a beautiful sight. Isn't that the loveliest picture? Did you ever see anything more beautiful? These and other exclamations of delight burst forth from hundreds who visit our gardens when in full bloom. No wonder they exclaim: for it is a long way from the old fashioned "piney" of our grandmother's day to the marvelously beautiful blossoms of to-day, with their variety of exquisite coloring.

The peony is a universal favorite. It appeals to every type and class alike. We realized this fact during the last few years when the people who came ranked from the humble working man in his overalls to the millionaire. Each one enjoyed the flowers equally and I really must say I never enjoyed anyone more than an old man just from work who came to enjoy the "pinies" and who just reveled in their beauty.

In color, fragrance and form, the peony rivals the rose, and has the great advantage of being hardy, will grow in almost any soil, and will thrive in one spot for a generation. It increases in beauty year after year, and rarely, if ever, is troubled with insect pests or diseases so common to most plants.

Thousands of new enthusiasts are beginning to grow this most lovely flower, and the demand seems to grow each year as new varieties are introduced.

Before I tell something about these gardens of ours, I must tell something about Mr. W. A. Sisson the owner and manager of "Sisson's Peonies". Through the influence of a sister, he took up the peony, about ten years ago, and gave up his position as manager of the Western Union Telegraph Company in Ripon, Wisconsin, to devote all of his time to them. He made a mistake of beginning with the cheaper varieties, but soon found that to enter the commercial world, he needed the finer varieties so began specializing in the rare and expensive kinds. In the ten years, he has built not only a reputation as a grower of fine flowers, but has made it pay, and is beginning to be known by all the big growers in America.

Upon his mother's death, he brought his peonies to the home of a sister in the little village of Rosendale located about centrally between Ripon and Fond du Lac on Highway 23 and between Oshkosh and Waupun on Highway 26. He hopes this little village of about 300 will be on the map as a home of fine flowers. (We know that it will.) It has a reputation now as a place of fine cattle being the home town of Scribner, Gillett, and Hill, all of them nationally known men. After a couple of years he had to "spread out" as the town garden was too small. He then established the "Farm Garden" at ELMWAY the home of his nephew and namesake W. A. Lawson. This comprises several acres and is a beautiful sight during the blooming sea-

The Peony has Few Rivals in the Herbaceous Border.
Cut by Courtesy W. A. Toole.

son. This garden is on Highway 26 about a mile north of Rosendale.

The finest thing about "Sisson's Poenies is the wonderfully fine things he has done with them. He gave a collection of 250 varieties to Galt Ontario for a trial garden in honor of his friend Mr. Webster formerly of Ripon. He gave enough to beautify the grounds of an Industrial School for girls at Mountain View, Kentucky, and has given hundreds of plants to schools in the vicinity of Rosendale. Perhaps his finest gift was to Riverside cemetery at Oshkosh as a memorial to his Father and Mother. He furnished 56 of his rarest and most expensive plants which are planted in the shape of a maltese cross, and it is a beautiful spot in a well kept cemetery.

Hundreds of sick have been cheered by his gifts of flowers, as he makes a business of sending blossoms to the hospitals and to homes where there are shut ins or illness.

And now about some of the varieties in our garden. Many of our visitors ask. How many varieties have you, and what colors? When I answer that there are about six hundred kinds out there they are perfectly amazed. ANAMOLA with its moss like foliage and its scarlet blooms is the first to blossom. The Tree Peony follows. In eight or ten years it may reach a height of four to six feet and its flowers are of immense size and lovely color. Next comes the Fern peony with its fern-like leaves of both double and single varieties, but the double is the most desirable. OFFICINALIS comes next and is the "Piny" of our grandmother's day. It blooms about Decoration Day. The others follow in quick succession and last about three weeks.

The garden is "like a sea of glory", and one writer has said "that a field of 50 to 100,000 of these flowers transcends anything we have ever seen". One is reminded of that wonderful carpet captured from the Persians by the Saracens which was a mass of gems, only the garden is more wonderful.

Most Popular Garden Varieties

Pages could be written about new varieties of peonies, but I think that it will be more interesting to hear about the most popular kinds in the garden. Of course I mean the best sellers at a moderate price. People who buy from our gardens while visiting usually want just a few plants, and prefer the cheaper varieties for these are not less lovely than the rare ones.

When people are buying several kinds we always advise the three old standard varieties to start with, namely: FESTIVA MAXIMA for white, EDULUS SUPERBA for pink, and FELIX CROUSSE for red. There are a few splendid whites that come after Festiva Maxima; Duchess de Nemours; Avalanche, with fine creamy center and with stripes of carmen; Baroness Schroeder, beautifully formed and one of the finest in existence; Mons. Dupont, sulphur white, tall and robust; Mme. Emile Lemoine with lovely full blooms wins much admiration; Courronne D'or, a solid tall white with a yellow reflection, which took first place in our sale of whites last season.

Among the light pink are Sarah Bernhardt, lovely as its name and lasting in quality; Grandiflora, one of the most beautiful of all peonies; Mme. Emile Galle, a showy flower; La Perle, as lovely as any rose when half opened; Marguerite Gerard, which has gained in popularity this year.

Among the deep pinks, Claire Dubois, is one of the finest cut flowers; Edulus Superba completes any garden and is so fragrant, early and good; Mons. Jules Elie almost perfection and more loved perhaps than any other; Reine Hortense always a sensation; Madam Le Bon, bright pink and silvery reflex; E. G. Hill very large and very showy, our best dark pink seller.

Among the reds, Karl Rosefield, takes a strong lead having large double blooms of rich red color and probably the best selling red in commerce; Lora Dexheimer the brightest red peony valuable for cut flowers; H. F. Reddick, tall with yellow stamens and very showy; Felix Crousse, the old red and fine for cutting. We must not forget Rubra Superba the latest bloomer; Ben Franklin; Pres. Roosevelt; and Midnight, the lovely dark one.

I have mentioned just a few of the beginners collection and now I would like to tell about some of the other lovely things in the garden.

Le Cygne comes first. First because it has the highest rating of any peony and is considered the best peony in the world. It is a pure white in curved petals and when perfectly grown looks as if the petals were carved of marble. It stands erect and graceful, and produced huge blossoms last year; Kelway's Glorious ranks next as a flower of excellent quality with a wonderful fragrance and lovely quality of petals. It is thought by some to surpass Le Cygne. As "Nina Secor" grows near the other two lovely whites, I must mention it here. It is a late variety, very tall and with its beautiful perfectly white blossoms causes much comment. We visited the home of "Nina Secor" in Forest City, Iowa, two years ago. We had a delightful visit with Miss Secor for whom this lovely white peony is named. Therese, comes right down the line with the highest rating of any pink peony and its blossoms are deserving of this honor, being huge and of lovely coloring; Tourangelle, which is as nearly like some lovely china cup in shading, was deemed the finest peony in the 1927 Peony Show. It is a lovely salmon pink shading into white. Words cannot

(Continued on page 276)

Outlook for a Fruit Crop

Reports from Growing Sections on Apples, Cherries and Small Fruits

WHAT are the prospects for a fruit crop in Wisconsin this year?

In order to give our readers this information, and to get acquainted with acreage, varieties and trend of fruit growing in some of the larger commercial sections, we asked some of our members to report.

Here are the replies:

W. H. Hanchett, Sparta, reports on strawberries and raspberries for the Sparta section.

Approximate acreage:

60 acres of strawberries.

15 acres of red raspberries.

Practically no black raspberries.

Predominating varieties:

Strawberries: Beaver, Warfield, Dunlap and Pocomoke.

Red Raspberries: Latham.

Are new varieties coming in? Why?

In strawberries Beaver and Premier are being largely planted to the exclusion of the old standbys Warfield and Dunlap mainly on account of size of fruit and healthfulness of plants. Oshkosh, Pearl, Mastadon and a few others will be tried out by some of the growers in an experimental way.

The Latham raspberry has practically superseded all other varieties on account of its quality and productiveness.

How did they come through the winter?

Strawberries came through the winter in good shape where ample winter protection of straw was given but were considerably damaged where no covering was given.

Latham was damaged at least one half where given no winter protection. It certainly does not pay to raise even the Latham without covering it for winter in this section.

What are the prospects for this year?

Fairly good at present.

W. E. Spreiter of La Crosse reports on apples and cherries as follows:

Acreage of apples and cherries:

75 acres. This is only a rough guess as we have only common farm orchards, all small.

How did they come through the winter?

Fairly well. Some fruit buds injured.

What are the prospects for this year?

Good now, if we do not get another hard frost.

What varieties of each predominate?

Wealthy, Northwestern Greenings, Duchess, Snow, Salome and a lot of very inferior varieties.

Remarks:

At this time the prospect is for a fair crop of fruit.

Hollis Sullivan of Taylor reports as follows:

Approximate acreage:

There are about ten acres of strawberries around Taylor and about two acres of raspberries.

Predominating varieties:

In the strawberries, Warfield and Dunlap are the principal varieties, but there are getting to be quite a lot of Premier. There will be a lot more Premiers next year.

Are new varieties coming? Why?

The Premier has been doing fine in this locality and sells for a premium over all other berries. The Beaver on account of its great canning qualities.

How did they come through the winter?

Most of them are more or less smothered with the ice of last winter, some patches as bad as 50%.

What is the crop outlook for this year?

The prospect is for a short berry crop unless the plants that are left out-do themselves. The ice thinned out the plants so that it will give the rest a good chance where the whole patch wasn't killed outright.

Door County Crop Good

Moulton B. Goff of Sturgeon Bay reports on the Door County Crop:

Approximate Acreage:

We have about 4,000 acres of cherries in bearing and 2,000 acres of apples.

How did they come through the winter?

Both came through the winter in very good shape. While there is some damage in Early Richmonds, there are enough good buds to promise a fair early crop, and the late cherries look good.

What are the prospects for this year?

Prospects for both cherries and apples are good.

What varieties of each predominate?

Cherries — Early Richmond and Montmorency.

Apples — Wealthy, McIntosh, Northwestern Greening, Snow and Duchess.

Remarks:

Blossom time about decoration day—a fine sight for all.

A. K. Bassett of Baraboo reports as follows:

Approximate acreage:

Approximately 200 acres of apples adjacent Baraboo. Practically no cherries.

How did they come through the winter?

No winter damage. Apparently came through fine.

What are the prospects for this year?

About one-half a crop of bloom at present indications. No doubt all danger from frost is past and most likely we will get half of a full crop of apples. One-third of the trees will have no apples.

What varieties of each predominate?

I find the most bloom among the Duchess and Northwestern Greening. Scattering bloom in Snow, McIntosh and Wealthy. Very few Tolman, Russets and Lowland Raspberry.

Remarks:

In the spring of 1927 the weather was very wet, cold and cloudy which was very favorable for the development of scab. This, followed by hot, dry weather in the summer, nearly denuded the trees. This is probably the cause of the light showing of bloom.

Green Bay Section Looks Good

C. J. Telfer of Green Bay reports as follows:

Approximate acreage:

75 A. cherries—150 A. apples.

How did they come through the Winter?

All in good shape except early cherries.

What are the prospects for this year?

Fair crop except early Richmonds which will be about 50%.

What varieties of each predominate?

Cherries—35%—early — 65% late.

McIntosh, Wealthy, Northwestern Greening and Snow.

Remarks:

Cherries in full bloom May 21. Apples about May 25.

The Kickapoo Will Have Fair Crop

Paul W. Miller, Gays Mills reports as follows:

Approximate acreage:

850 acres of apples—50 acres of cherries.

How did they come through the winter?

There is some winter injury apparent in the early cherries, (approximately 25% reduction). The apples have come through the winter O. K.

How are the prospects for this year?

The prospects are good for both an average apple and cherry crop.

What varieties of each predominate?

Cherries — Early Richmond, Montmorency.

Apples — McIntosh, Dudley, Fameuse, Wealthy, Northwestern Greening.

Bayfield Has Best Prospects in Years

J. M. Black, Bayfield reports as follows:

Approximate acreage:

300 acres.

What varieties predominate?

Marlborrough, Red raspberry.
Dunlap, strawberry.

Are new varieties coming in? Why?

Not to any extent—only being tried out.

How did they come through the winter?

All fruit came through in good shape.

What is the crop outlook for this year?

Best it has looked for years.

Remarks:

There will be a larger acreage of "Reds" planted here in the future.

Dane County Looks Good

E. H. Stoeber, Madison, reports:

Approximate acreage:

Cherries, 5 acres. Apples, 65 acres.

How did they come through the winter?

Very good.

What are the prospects for this year?

Too good.

What varieties of each predominate?

Duchess, Wealthy, Northwestern Greening.

Remarks:

Prospects of a very good crop. I have used about 5,000 gallons more material over my spray route than I did last year and about 3,000 more than I ever did. The cherries set very good. The apples should.

Mr. Ralph Irwin of Lancaster reports that the cherry crop will be very light owing to the two blizzards and cold waves in April. Weather conditions through the blossoming time have been favorable and every live blossom expected to set a cherry.

Prospects for an apple crop are very good.

Cherries will start ripening the latter part of June.

"BIG ELK" JUNIOR FOREST RANGERS ACTIVE

Robt. Parker,
Phillips, Wis.

JUNE, a wonderful month to study nature. A hike through the woods with the group to study spring flowers, birds and trees. A chance to realize how important is the prevention of forest fires. Nature calls every Junior Forest Ranger to enjoy all outdoors this month.

The seeds obtained from pine cones gathered last fall have been planted by the boys. Surplus trees will be planted on land owned by the city. This work has created an interest in beautifying their home grounds as several of the boys have planted shade trees on boulevards and ornamental shrubs around their homes.

(Continued on page 274)

Blossom Time in Cherry-land

KARL S. REYNOLDS,
Secretary Door County Chamber of Commerce

If you were unable to visit cherryland in Blossom Time visit it later when the fruit is ripening. This article will guide you in seeing the world's most concentrated cherry belt.

THE delicate beauty of snow white blossoms covering thousands upon thousands of cherry trees is drawing an ever increasing throng of visitors to Door County, the Land of Cherries. Each season, during the month of May, Spring transforms the dormant orchards from the red brown of Winter to the marvelous waxy white of full bloom. Just as the beautiful butterfly or moth emerges from its dull cocoon, so each perfect blossom unfolds from its bud and pushes forth with all its beauty into the Spring sunshine. Tens of thousands of blossoms on each tree, hundreds of thousands of trees, millions of blossoms to greet the eye and put wonder into the heart—truly a sight once seen never to be forgotten.

To fully appreciate this beauty, however, one should not attempt to see it all in one day, nor should one expect to see the really concentrated orchard sections by travelling on the main highways alone. There are three more or less distinct orchard sections in Door County, first of which is Sturgeon Bay including both sides of the bay and extending for a radius of about six miles. Here is located 50% of our producing acreage, constituting without question the world's most concentrated cherry belt. Then, 15 miles north on Route 17 lies the Egg Harbor section, and 15 or 20 miles still further on the same road the Sister Bay–Ellison Bay section. Being the most convenient and concentrated, the near-by Sturgeon Bay section is of greatest interest to the average tourist, and as such will be considered here in more detail.

Upon arriving in Sturgeon Bay go directly to the Chamber of Commerce office, a small bungalow type building plainly marked just to the left as you reach the arterial at the first principal street intersection after crossing the bridge. There you may receive detailed information about roads, hotels, distances, etc. An excellent new county map will be distributed. Every consideration will be shown, and we urge you to accept the conveniences we have provided.

For those whose time is limited the most beautiful short Orchard Tour is that along the CHERRYLAND ROUTE, marked with arrows. From the Chamber of Commerce office follow Route 17–78 for about half a mile to the point where the concrete highway swings to the right. Here *avoid the concrete and continue straight ahead* on a good macadam and gravel road. You are now on the Cherryland Route—take your time—drive slowly—look to both sides—you are entering the world's most concentrated cherry belt. Within the next 8 miles you will drive through the three largest pie cherry orchards in the world, one with 65,000 trees, another with 40,000 and still another with 30,000. Adjacent and linked to these larger orchards are numerous smaller plantings, all forming a huge continuous orchard which flanks both sides of the road for 8 miles and stretches back into the country for a half mile on either side. Notice the soft blue or green-white appearance that the trees present as a mass. There are no large leaves—they will come later after the blossoms have fallen. About 3 miles from town you will see an unbroken mass of white lying against a hillside directly ahead. This is the southermost edge of the Martin Orchards, largest of its kind. As you climb the hill look back to the left across the waters of Sturgeon Bay to the bold headland of Government Bluff. (An afternoon drive at this point is particularly beautiful, in fact, we recommend a later afternoon tour on this route in order to get the full beauty of the sun across the water at several places of vantage.) Continue on through the Martin Orchards, following the Cherryland Route arrows, to a point a mile north where you should pause for a view of 15,000 trees in one tract lying at your feet. This is a part of the Cherryland Orchards of the Reynolds Preserving Co. Half a mile further you reach a canning factory, one of four in the county that will be busy in July and August preserving the delicious fruit these blossoms prophesy. It has been the custom of this concern to serve Blossom Time visitors with free cherry pie and show them a movie depicting the entire cherry industry.

From here you have a choice of routes. A mile to your right you can rejoin Route 17 to continue the trip up the county, or by turning to your left you can return to Sturgeon Bay via the beautiful Bay Shore Drive, a combination of water and sylvan scenery seldom if ever equalled in Wisconsin. This latter route leads you through a portion of the 400 acre orchard of the Sturgeon Bay Fruit Co. Turn right at the first main cross road and wind through a tract of orchard and meadow to the brow of the bluff overlooking Green Bay, to view one of the most beautiful scenes in our county. Below lies Little Harbor with its group of cottages nestling in the shelter of a rocky point, across the bay to the west scarcely 15 miles distant can be seen the twin cities of Marinette and Menomi-

(Continued on page 278)

In Orchard and Garden

Observations of Tom Ato and Alex Ander

Dear Mr. Rahmlow:

ISN'T spring a busy time? There's so much to do with the flowers, vegetables and fruits that letters almost get left out of the program. There are two or three things, however, that we feel sure you will be interested in. Speaking of flowers reminds us that the signs of the time point to the fact that our average citizen is taking more interest in the appearance of his grounds. Four real favorable signs have come to our attention recently. The Horticultural Department of the University announced the other day that a home grounds improvement contest was under way in La Crosse County. This contest is a part of the follow-up work in the Farm Home Grounds improvement project which the Department in cooperation with Mr. W. E. Spreiter, La Crosse County Agent, has been conducting in the County for the past three years. State Trunk Highway 29 from La Crosse to the east line of La Crosse County was selected for the contest. About $100 in prizes, donated by local civic organizations, are to be awarded.

Two sets of prizes are offered. One for the farm home grounds showing the greatest amount of improvement during the season. The other is for the farm home grounds having the best appearance at the final judging. Professor Aust tells us that a score card was prepared by the Horticultural Department to be used in the contest. The grounds of the thirty contestants were scored by Professor Moore of the Horticultural Department early in May. At the same time, Professor Aust made suggestions to the individual contestants as to how their grounds could be improved. The grounds are to be scored again the latter part of August when the winners will be picked.

We just wonder if this isn't a good enterprise for other communities to foster.

Home Grounds Improvement Contest.
Beautifying the Cheese Factories.
A Tip for Cities and Villages.
Roadside Signs.
An Opportunity for Local Societies.

WHEN you were out here you remarked about the uninviting appearance of the cheese factory grounds. We learned the other day that this condition is soon to be a thing of the past. It seems that the Marschall Dairy Laboratories, of Madison, are offering some very fine prizes for the best appearing cheese factory grounds in Wisconsin. The State is divided into four districts and prizes are offered for each district. There is also a grand prize for the best cheese factory grounds in the State. This certainly stamps Mr. A. J. Marschall, proprietor of the Marschall Dairy Laboratories as a real public spirited individual. As we're sort of giving tips today, this would be a good one for some other industrial concern. For instance, it would not hurt the grounds surrounding some creameries to be improved. Who'll furnish the momentary incentive?

LIVING in Madison, you have heard of course, of the home grounds improvement project fostered by the East Side Business Men's Association. They have been having these contests for three years, each year offering several hundred dollars in prizes to "East Side" residents in an effort to make and keep the east side the most beautiful part of Madison. Prizes are given for the best home grounds of homes started since January 1, 1927; for those not over five years old; for the best flower garden; best vegetable garden; best combination garden; best lawn and the best porch and window box. There is also a grand prize offered for the best garden, any type.

Here's a tip to all of our cities and villages. Oregon put on a very successful contest of this kind last year, under the auspices of one of the local banks. Here's a tip for the banks.

EARLY last month the Friends of Our Native Landscape staged an advertising clean-up on State Trunk Highway 19 between Madison and Milwaukee. A large number of farmers cooperated in removing the signs calling attention to candy, smokes, shaving soaps, gasoline which were detracting from the appearance of their premises, or caused the side of their barns or other out-buildings to look like a ragged, worn out crazy quilt. A number of farmers vowed that they would not again be inveighled into permitting such advertising upon their premises by a promise of a few bars of soap, a box of candy, or a couple quarts of motor oil. It is encouraging to observe that it doesn't take the average farmer long, when it is called to his attention, to see that such use of his property detracts from it and lessens its actual value to say nothing of the chagrin which he must feel when he compares his farm buildings sporting a motley array of signs, in all stages of delapidation with the spick and span buildings of his neighbor.

IN JEFFERSON County, County Highway Commissioner Grehl is sponsoring roadside planting of trees and flowers and opening vistas along the Rock River so as to enhance the beauty of the drive between Fort Atkinson and Jefferson. There

(Continued on page 269)

Taming the Wildings

Wild Flowers Will Thrive in our Gardens

HURON SMITH—Milwaukee Public Museum

Interest in Wild flower preservation is growing everywhere. In this article, which Mr. Smith gave over the radio recently, he tells how and where wild flowers may be successfully grown.

THE miracle of the re-birth of the wild flowers is with us again!

With Shakespeare's King Richard the Third, we proclaim "now is the winter of our discontent made glorious summer by this sun of York." Whenever we think of Spring, we think of flowers, and our best loved poets have always sung of the two together. Felecia Hemans in her "Voice of Spring" said:

"I come, I come: ye have called me long.
I come o'er the mountains with light and song:
Ye may trace my step o'er the wakening earth,
By the winds which tell of the violet's birth,
By the primrose-stars, in the shadowy grass,
By the green leaves opening as I pass."

In the leafless or half-lit woods of spring come the most delicate and fragile children of Mother Nature, — the early spring flowers. Delicate fragrance and fragile forms are theirs,—of the earth, yet seeming unearthly. Spring flowers are the rightful heritage of children, and your choicest opportunity this spring is in taking some child to some spot where the wild flowers grow.

How can we save these wildlings? Appreciation along the lines of wild flower preservation helps. When one understands the precarious existence of the spring flowers,—sees how few insects there are to do the task of cross-fertilization, and what a short time our spring flowers have to mature their seed-children, he is more considerate of their rights. A thousand may enjoy a wild flower in its native haunt, but the one who picks it robs countless others.

However there is a way in which wild flower lovers may preserve at least some of our spring flora. That is by transplanting and seeding them in private gardens. It is not the easiest thing to do, but do we appreciate the things that come to us easiest? It can however

The Trillium Does Well in the Garden.

Yellow Ladyslipper, Yellow Slipper and Brown Purple Petals.

Mertensia or Bluebells also called Virginia Cowslip.
These are among our most beautiful wild flowers.

Cuts Courtesy W. A. Toole.

be done in Milwaukee or any other place and has been done right in our city limits very successfully.

Unnumbered generations and eras of flower growth have formed the habits of our wild flowers. They resist taming in the sense that they are unlike our cultivated flowers. The habit of years of certain environments and soil requirements are too great to be overcome within the lifetime of most of us. But we can observe the way they grow in nature, and simulate their environment and requirements, by choosing the ones that like what we have to offer in the way of a home. Up-to-date methods of soil-testing will tell us many things we want to know.

Wild Flowers Fit in the Rock Garden

Nearly all of our native wild flowers will fit in a rock garden. Rock gardens are captivating our citizens by leaps and bounds. For a long time on the continent of Europe they have been considered the most effective types of flower gardens, and now they are becoming the vogue in this country. The back-breaking lawn mower is unnecessary in a rock garden. A rock garden properly planned gives us the brightest flowers and the most interesting foliage the year around. It blooms the earliest and lasts the latest in the season. Probably all of our spring flowers can be made at home in a rock garden.

Getting down to cases,—the hepatica, the spring beauty, the false rue anemone, blood root, early meadow rue, and trilliums are early spring flowers that do well. The snow trillium will make good in the early season. Greek Valerian, or Jacob's Ladder, Pennsylvania Sedge, early blue violet, wood anemone, Dutchman's Breeches, Shooting Star, Showy Orchis, wild blue phlox, and Solomon's Seal have all proved that they thrive here when planted in our gardens. There is no lack of material.

We have 767 fit subjects right in Milwaukee County, that cover the entire growing season, or rather we did have a half dozen years ago. Now, it may be necessary to spread out fifty miles in search of the ones we want. But they had better be in your rock garden and in your yard than plowed up from their woodland home to make room for a cabbage patch, no matter how much your mouth may water at the thought of the succulent sauer kraut.

Wild flowers, native to our state, have given it a reputation for beauty that is ever growing. They are a part of the reason why Wisconsin has become the "Playground of the Summer", "The North Woods of the Nation". Without them, we would be indeed poor. Then why above all search the earth for foreign seeds to sow in our gardens and rock gardens? We can not tell from a package of seeds what sort of a home the plant had.

Often our northern climate is too harsh for the plants we import. They die in the winter before we even have a chance to see what the flower is like. Not so, our native wild flowers. Through long years, they have learned how to be at home here. Some of them even survived the glacial ages. Successful environment is ours to start with. Chances are all in our favor when we work with native stock. Let the nurseryman accumulate the experience with foreign things,—he is in that business and can more efficiently afford to take the losses.

We hope only the flower lovers will follow our suggestions. None but the flower lover will succeed. Growing wild flowers is not a matter of luck, but careful and loving attention to details, and plenty of hard work. Genius for growing good flowers is seven tenths perspiration, and the rest flower lover sense. Study the flower manuals, and list the blooming periods very carefully, note the approximate height of the flowers you want, to avoid incongruities, and plant with a very definite plan. A ten year program may be about right for you to get everything you want, and in the shape you want it. We learn to do by doing.

Do not try to cover the entire flora, but become a specialist in some related groups. You will be surprised how some of the wild flowers will respond to cultivation. In normal conditions, many of them have to struggle to hold "their place in the sun". There is a very definite reason why they must have the sun. Sunlight is their life. Without it they could manufacture no food to live upon. Their little chlorophyll grain (the green coloring matter of plants) cannot work without the stimulus of the sun. Their leaf is the grist mill, the carbon dioxide is their raw material, the chlorophyll grain is the milling machine, water is mixed with the raw material, but unless the miller (the sun) is on the job to set the factory to work, there will be nothing made. You help nature remove competition and oftentimes the result surprise you. Plants grow rampant, tha. are held in check by limiting factors in nature.

It is a fascinating study, and an almost untried field. Pansy O'Toole of Baraboo found it so, Burbank found it so, and nearly every plant lover has the same opportunity they had. It is not a field for the plant breeder, but one for the plant selector. One who can recognize the good traits, select and sow the seed of the superior flowers, can accomplish something quite worth while.

How to Collect Wild Flowers

The materials for starting in this hobby are quite few and simple. Nearly everyone already has them. Some news-

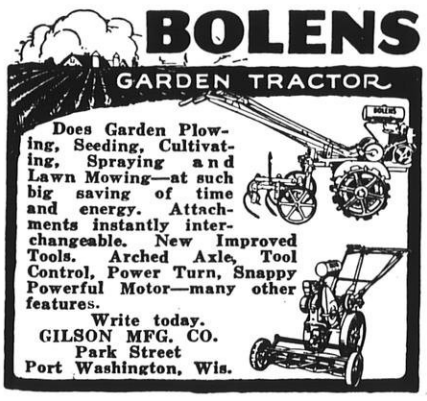
papers and twine, some tags for labeling, and an all-steel trowel are all that one needs for collecting. Tie up the root ball with natural earth still in place with some newspaper to keep the earth from drying out. This will suffice for those that can be moved directly. Some cannot. They will need to be tagged carefully and permanently with a paper tag or a wooden stick, and visited later when they have set their seed and are no longer tender. Then they may be moved before a freeze, and during the winter they will adapt their roots to the new environment, and be all ready for business next spring.

If one person assimilates this idea and acts upon it, I shall feel repaid, for I personally know from experience that their pleasure will last for many years in this delightful hobby, the "taming of the wildling."

A little thought from the Sonnets and Stanza of Wordsworth seems appropriate in closing:

"Would that the little flowers were born to live
Conscious of half the pleasure which they give;
That to this mountain daisy's self were known
The beauty of its star-shaped shadow, thrown
On the smooth surface of this naked stone."

An ice pick will prove useful in the spring war on dandelions.



SUMMER CARE OF DAHLIAS

J. T. FITCHETT
Janesville, Wisconsin

PUT a wooden label with name written in lead pencil beside each plant. It's half the fun of growing them to know their name when they bloom.

Rake the ground thoroughly as soon as planting is completed and repeat this raking every week until plants are large enough to shade the ground. If the season is dry, water thoroughly at night once a week and rake the ground the next morning. Flowers are produced on the soft growth, and if through neglect your plants have become hard and woody, better cut a part of the top off and start over again.

Fertilizer may be used to best advantage around plants just as they begin to bloom. It tends then to promote the growth of flowers rather than a rank growth of foliage.

One of your worst pests in a dry season is the Leaf-Hopper, a very small insect which sucks the sap out of the under side of the leaf and flies away as soon as you brush against the plant. The leaves appear mottled and tips turn brown, same as potato vines with the "hopper burn." We have used Derrisol-sprayed on under side of leaves—with marked success. "Black Leaf 40" and Volck are also recommended. BUT, 'Get 'em early.' "

Cut flowers early in day if possible, trim off surplus foliage and put ends of stems in HOT water for a minute, after which they may be put in cold water in the usual manner. Fresh flowers treated in this way last much longer and wilted ones are much revived by it. Do not get the hot water on flowers or leaves.

After a killing frost, let the roots ripen for a week, then cut off tops and dig the clumps of roots carefully. Label each variety and pack clumps in boxes on floor of vegetable cellar. If after a few weeks they seem to be too dry the roots may be covered with papers or sand. Do not divide clumps until spring.

WHAT THE COUNTY AGENTS ARE DOING

GEO. M. BRIGGS

COUNTY Agent Omernik of Antigo, Langlade County, conceived the idea of getting more good fruit in the city of Antigo by making arrangements with a local farmer horticulturist to spray all the trees for those people who would list the same with the county agent's office. Through the school system Mr. Omernik got the names of all the people having fruit trees in the city. To each one of these people he wrote a letter telling of the possibility of getting better fruit by spraying, and that such a spray could be put on at a nominal fee providing a sufficient number of people in the city cared to have it done and would list the number of trees they had at the county agent's office.

As a result of this little effort fifty or more city residents took advantage of the opportunity and the county agent cooperating with this farmer horticulturist, completed arrangements and such sprays are now being applied as are necessary.

County Agent Thompson of Burnett County has gained a fine contact with rural dairy factories in furnishing them a landscaping plan in cooperation with the College of Agriculture.

One of the creamery grounds was used as a model. The creamery board gladly cooperated with Mr. Thompson and is buying the necessary shrubbery yearly to fit in with such a landscape plan. This not only serves as a demonstration for other creameries and cheese factories but also for country homes.

Tender Roses Survive A Hard Winter

I. J. SCHULTE
Sec. Milwaukee Rosarians

AFTER the most unusual winter in many years it was timely that the May 8 meeting of the Milwaukee County Rosarians should be devoted to a discussion of the experiences which some of the members had with their roses.

Mrs. Hopkinson spoke about the manner in which they covered their roses last fall. She said they waited until the ground was almost frozen, at which time soil was mounded up for about eight inches around the roots of all their roses, including climbers. Then a covering of straw and hay was used to prevent thawing and freezing in the early spring. They uncovered about the middle of April and found that all of their roses came through in good shape. After uncovering, the climbers were were laid on the ground for a couple of weeks to give the sap a chance to circulate, since if the canes are tied up too soon the tops often die back. They found, however that mice had chewed some of their climbers down to the ground, so that there would be no bloom this year from those roses that had to form new wood.

It was suggested that in the fall at the time the climbers are covered they be dusted very heavily with arsenate of lead and powdered sulphur, which would effectively keep the mice and rabbits away or destroy them before much damage had been done.

Mr. Potter stated that it was his belief that any rose, if it makes sufficient growth, can live through our worst winters and springs if proper care is given. It is necessary to keep water away from the plants during the winter and spring, which can be done in this way: If the covering soil is not porous it should be made so by the use of rotted manure or preferably granulated peat moss. Sand or finely sifted coal ashes could also be used.

After mounding up with soil as Mrs. Hopkinson did Mr. Potter added about six inches or more of peat moss all around, so that if there is any moisture the peat moss will hold it instead of permitting it to get down into the soil. On top of the peat moss it is advisable to cover with tar paper, making it funnel-shaped for each rose, so that any moisture will be shed.

It was also suggested that in spring planting of roses the bud should be left at least a half inch above the ground. Planting in this way would insure better growth during the summer, keep the bud dry, and prevent killing back in the fall through excessive moisture.

PREPARING TREE ROSES FOR WINTER

Mr. Potter did not lose any of his tree roses; in fact, the majority of them had the leaves of last year green and alive this spring when they were dug up. Tree roses must be dug up in the fall and buried completely. Mr. Potter dug a trench about two feet deep and laid the tree roses in the trench. The roses were thoroughly dusted with Massey's mixture (nine parts powdered sulphur, one part arsenate of lead) for the purpose of killing off any mildew that might be dormant over winter, preventing the formation of black spot early in spring, the theory being that the black spot apparently comes from the soil, the spores of the diseases lying dormant in the soil, the mixture also keeps off the rabbits and mice.

Soil was then packed around the roots solidly up to within about a foot from the budded portion. At that point a piece of oil cloth was laid and enough peat moss poured in to cover the roses thoroughly for about a foot and a half. Tar paper (not the brittle kind) was then used to cover the whole top and peat

(Continued on page 275)

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How to Make a Flower Box

Demonstration Given by 4-H Club Member. Suggestion for Garden Clubs

This demonstration is submitted by Mr. F. Coon, West Allis. Mr. Coon has charge of Garden Club work in West Allis and has trained many successful demonstration teams. This demonstration outline will serve as a suggestion to other Horticultural club leaders.

The demonstration was given by Ernest Darow, age 14.

THIS is an individual demonstration and Ernest stands behind a table with the soil he is to mix in boxes at his left. The flower boxes are in order at his back. At his right he has the flowers in pots that he is going to put into the flower box. He is not using a formal introduction, but starts talking as follows:

"Just why do we have flower box demonstrations? Well, that is a good question to bring up and here are some of the answers. We want to show others who do not know just what to do to make a beautiful flower box. It will help those who do know how to learn more about this line of work.

"But why have a flower box? What good are they?" These are some of the questions that will arise in your minds. I must say that there are many reasons. For example, there are many flower loving people who have to live in apartments. To them a flower box is like a garden. In our small city yards, window and porch boxes make our yards seem larger. From inside and out they add a touch of beauty that we are all hungry for. Flower boxes decorate the home much better than cut flowers.

Note: While Ernest has been talking he has been getting the boxes ready.

"That little girl with the big ribbon is going to ask, 'Mister, what are you going to plant the flowers in?' Any kind of a box will do, wood, tin, or stone. They can be purchased ready made as fancy as your pocket book is deep. This box was made from a 12 ft. board 8 in. in width. Boxes should be 6 to 8 in. deep and may be 6–8 or 10 in. wide. Do not make them too big. You may want to lift one of them some time. This prune box from the corner grocery saves the time and expense of making a box. A coat of green paint to cover up the rough boards is used.

Ernest has been holding up the boxes for inspection. He places them back out of his way.

"That dignified lady is wondering what we are going to have in the boxes. Oh, that will be easy to explain. First I am taking 2 pails-ful of common garden dirt to give body and to hold the water. One pail of rich woods dirt or green-house soil to make the dirt mellow and rich, some sand to loosen it, if the garden soil has too much clay. To make it still richer I am adding a handful of bone meal. Now I will mix ready for the box.

Ernest dumps the garden soil on the table, breaks up the lumps. Puts on the black soil and the sand, then the bone meal. Mixes the soil.

"'Oh, Mister, What is bone meal?' Well, little girl, bone meal isn't from folks, but is the ground up bone of animals killed for meat and makes a fine plant food, not only for boxes, but for gardens and lawns.

Shows the bone meal.

"Now that we have the soil all mixed let's fill the box. Of course the dirt should not be too dry, nor so wet that it will be sticky. This is the gardener's test, squeese a handful. If it holds its shape, it is wet enough. If it crumbles when I push on it with my thumb, it is dry enough. This is about right isn't it? We fill the box a little over half full and pack it down with our fingers like this.

Shows the crumble test. He is filling the box with dirt. Packs it down with his knuckles.

"'But, where are the flowers?' asks the boy with the dirty face.

(Continued on page 273)

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H. W. Ullsperger.....Sturgeon Bay

Our cover picture shows a beautiful spray of cherry blossoms. It was sent in by Karl Reynolds of Sturgeon Bay.

ANOTHER CLUB AFFILIATES WITH THE STATE SOCIETY

WE ARE glad to announce that during the month of June the Sum-Mer-Del Garden Club of Waukesha County affiliated with the State Horticultural Society. This club has membership at Hartland, Delafield, Nashotah and Oconomowoc. Thirty-five members are included in the list that have affiliated.

Mrs. W. H. Hassenplug of Nashotah is Secretary of the club.

THE MICHIGAN TOUR

Fruit Growers Will Tour Fruit Belt Across the Lake

JUNE 28 and 29 are the dates set for the fruit growers tour of the Upper Michigan fruit belt, under the auspices of the Door County Fruit Growers Union.

All members of the State Horticultural Society are invited to join in the trip.

Here are the details: Embark the evening of June 27th, arrive Frankfort, Michigan morning of June 28th.

Northern Wisconsin parties can embark from Menominee, Michigan with or without their autos. Southern Wisconsin parties can embark at Manitowoc, Wisconsin, with or without autos. Anyone wishing to go without taking an auto can also embark at Sturgeon Bay (there is no dock for loading an auto there).

Fare: $3.00 round trip per person.

Autos: $6.00 round trip.

Passengers also have the privilege of returning *at any time on any Ann Arbor line boat.* Sleeping accommodations $1.50 per berth, $3.00 per State room.

THE TRIP

We will arrive at Frankfort early in the morning and after breakfast start for Beulah, Northport and Glenn Lake winding up in the evening at Traverse City.

The tour the second day may be divided, as some may wish to go south to the grape and small fruit section at Hart, Shelby, and Benton Harbor. Some may wish to spend Saturday and Sunday touring, made possible by the privilege of returning at any time on the special rate ticket.

Return tickets are good only through Frankfort, Michigan. You may land with auto at Manitowoc or Menominee, also without autos at Kewaunee.

Arrangements have been made to use school busses on the Michigan trip, for those who do not wish to take their own cars over, at a reasonable cost.

We suggest those who plan on going drop a card to either Herman Ullsperger, Sturgeon Bay, or to this Society, so we can keep you posted on further developments.

ANOTHER MEETING

A TREAT FOR GARDEN CLUB MEMBERS

ANOTHER summer meeting has been arranged! This one will be for garden club members, and will be held at Lake Geneva in July.

We have a large number of garden clubs affiliated with the Society. The members are intensely interested in gardens, flowers, and landscaping, and Lake Geneva offers an unusual opportunity for their study.

The Secretary arranged for the meeting with Mr. Axel Johnson, Secretary of the Gardeners Club, and Mr. Wm. P. Longland, gardener of "Wychwood", described on another page of this issue. The detailed program will be published in the July issue. The general plan is to meet at 9:00 A. M. in Horticulture Hall, Lake Geneva. The forenoon of the first day will be devoted to getting acquainted, and a talk by some authority on a garden topic.

In the afternoon there will be a tour to several of the beautiful estates on Lake Geneva, where the gardeners in charge and specialists will explain in detail the features of interest.

The second day will be much the same as the first. It would be impossible to do justice to what may be seen and learned at Lake Geneva of flowers, gardens and beautifying the home, in one day.

The garden clubs of Lake Geneva will have charge of the local arrangements. WATCH OUR JULY ISSUE FOR THE PROGRAM AND DATE.

ORGANIZATIONS AFFILIATED WITH THE SOCIETY

At the present time the following organizations are affiliated with the State Horticultural Society:

Belles Cooley Horticultural Society.
Brown Valley Horticultural Society.
Door County Fruit Growers Union.
Dunn County Horticultural Society.
Eau Claire Garden Club.
Ellison Bay Potato Growers Association.
German Settlement Club.
Jefferson County Spray Ring Federation.
Kenosha Horticultural Society.
Lake Geneva Horticultural Society.
Madison Garden Club.
Manitowoc County Horticultural Society.
Milwaukee County Horticultural Society.
Mindoro Horticultural Society.
Sum-Mer-Del Garden Club.
Oshkosh Horticultural Society.
Racine Garden Club.
Sauk County Horticultural Society.
Sparta Fruit Growers Association
State Potato Growers Association.
Warrens Fruit Growers Association.
Waukesha Garden Club.
West Allis Garden Club.
Wisconsin Cranberry Growers Association.

OSHKOSH SOCIETY HAS GOOD MEETING

THE Secretary attended the meeting of the Oshkosh Horticultural Society on May 6. It was a real meeting put on by a real local Society.

We suggest representatives from other locals to visit at Oshkosh. The social feature of this club is no doubt one reason why they have such a good attendance, and why the members know each other so well.

A cafeteria supper is served at 6:30. The "eats" committee arranges with certain members to bring certain dishes. Those who do not bring food pay 50c. During and after the meal the members have plenty of time for a social chat and exchange of garden experience.

The meeting begins on time, everyone feeling fine, which gives "life to the party".

OFFICIAL SUMMER MEETING

August 10–11

Plans for our summer meeting at La Crosse are progressing. W. E. Spreiter, County Agent of La Crosse County and a member of our Executive Board, is arranging the tour to be held on August 11.

The Executive Committee will meet at 1:30 P. M. August 10. A very interesting program is being arranged.

The Minnesota Horticultural Society will hold a summer meeting at Duluth August 7–8. We are invited. They may attend our meeting at La Crosse.

Watch this page next month for details.

NEW BOOKS OF INTEREST

MANY of our readers are interested in selecting books on Horticulture for their home library. In this issue we have an "add" from the MacMillan Company listing several new books.

We suggest our readers write for their catalog of Horticultural books. Among those listed of interest are the following:

Trees in Winter—Blackeslee & Jarvis.
The Cultivated Evergreens—Bailey.
The Rose in America—McFarland.
The Book of Bulbs—Rockwell.
Evergreens for the Small Place—Rockwell.
Gladiolus—Rockwell.
Rock Gardens—Rockwell.
New Creations in Plant Life—Harwood.

There is also a long list of other Horticultural books.

THE ANNUAL REPORT

IN THE April issue we enclosed a supplement order blank for the 1926–27 and 1927–28 report of this Society.

The supplement stated the reports would be sent free only to those who requested them during the month of April.

As we anticipated, this will save the Society a lot of money because we need not print reports for those who do not want them.

As some may have overlooked sending in their order, we are having a few hundred extra copies printed.

We will therefore take orders for these extra copies while they last. Just drop us a postcard. The reports will be mailed with the July issue of Wisconsin Horticulture as they are on the press now.

WHY HAVE A GARDEN CLUB

WE HAVE a number of worthwhile Garden Clubs in Wisconsin. Their work is manifest in many ways, and a city without one is unfortunate. The State Horticultural Society is anxious to help organize such clubs.

What is the function of a Garden Club? The Ladies Home Journal in an editorial, brings it out very well:

"The first function of a garden club is to give, not to its own circle but to others; to work, not alone for itself but for its community; to enrich, not only its own gardens but the gardens of its whole town. The gardens of the members, yes—but also the gardens of its neighbors need its discriminating aid.

"The garden clubs can work marvelous changes. They can make over the face of America—they can bring beauty to blossoms in the door-yards of the land. They can adopt an ideal for their town; they can arouse civic pride; they can encourage the spirit of competition; they can distribute seeds, bulbs and roots to the unfortunate. They can make their communities lovely. They can be worth while."

About the Home and Garden

80th and George St., West Allis

GARDENING A GOOD WAY TO REDUCE

Bending or stooping over your flowers,
Every day for a couple of hours,
Is the pleasantest way of taking off fat;
I know for I tried it—
So that's all of that.

Now don't forget, my too plump maid,
If you would join the thin parade;
Your enemy fat, will verily fade
Before a hoe and a garden spade.

GARDEN REMINDERS

Do you want some specially fine Peony blooms? Then do not forget to disbud, even though it is a bit late—it will still help to remove some of the smaller buds.

It will help considerably to cultivate constantly and feed with liquid manure. If the ground is rather dry, a good soaking, before giving the fertilizer, helps.

Try having a few nice annual plants in the cold frame or some out of the way corner, to fill in the bare spots we are sure to have in our borders later in the season; Larkspurs, Calendulas, Snapdragons, are easily moved and make splendid fillers.

Press the straggling branches of Alyssum saxatile into the ground. They will root, and you will have nice thrifty plants next spring.

If you cut the Alyssum plants back after blooming, the plants will be more compact and you will get a second crop of bloom in late summer.

LETTERS FROM OUR READERS

Another group of interesting letters from garden lovers.
Everywhere interest in gardens and garden clubs is growing.
Mrs. Strong will welcome your garden letters.

SUCCESS WITH CUTTINGS

Dear Mrs. Strong: I ought to have responded sooner to your request for method of procedure in starting slips of shrubs.

I began many years ago to start slips of currant and gooseberry bushes and grape vines, by putting cuttings of new wood into the ground in the fall and leaving them there for a year, then transplanting all rooted ones to a permanent place. I do the same with shrubs, except roses—those I often take the new green wood—say, a spray of blossoms, cut off the roses and put the stalk in earth, perhaps covering it with a glass so it may be sure to stay moist. Nearly everything I've tried roots quite easily.

I am much interested in our wild flowers and grow quite a few in my border, as I am no longer able to take long trips to the woods.

I have such a dear little bed of wild dicentra, cousin of the Bleeding Heart, often known as Dutchmans Breaches—the lovely delicate blossoms come so early in the spring; then I have quite a bed of Shooting Stars and a big bed of wild Violets, blue, white and yellow, also wild Buttercups.

I have several varieties of wild asters, two varieties of Golden Rod, some fine plants of swamp Milkweed and wild Columbine. Wild clematis climbs over our back porch and is loaded with its dainty blossoms every August.

The Home of F. W. Stuehmer, Wisconsin Veterans Home.

ALURA COLLINS HOLLISTER,
Mukwonago, Wis.

No one should say "I cannot afford to have a Garden", after reading this letter. Come again Mrs. Hollister with your helpful letters.

MAKING THE HOME BEAUTIFUL

Dear Mrs. Strong: I am sending a picture of my place, perhaps it would do for a cover picture. When I came here May, 1921 there was nothing but the plain house and the trees. I added the porch and bay window, also the walk and driveway; the drive does not show in the picture.

The round flower bed is made up of colossal Cannas, sweet Alyssum, and Verbenas. The shrubs are bush Honeysuckle and Spirea, with perennial Phlox.

I also planted about 300 Peonies in a bed.

F. W. STUEHMER,
Wisconsin Veterans Home, Wis.

We are glad to welcome Mr. Stuehmer and his garden, and would surely like to see those 300 Peonies in bloom. Tell us about them some time, what varieties, and how you care for them.

GARDENING IN CALIFORNIA

Dear Mrs. Strong: We want to tell you that we enjoy reading Wisconsin Horticulture so much way out here in California, we feel we still "belong" to you and the Garden Club.

We are sure the Garden Club would not be ashamed of us if they could see our Sweet Peas—nine and a quarter feet high. We planted them October seventeenth and in a week they were up and by the middle of January we started picking. We started to count the blossoms we picked during April—four thousand. I am sure we picked as many if not more during February and March. The row was only fifteen feet long and single at that.

Stems were ten to fourteen inches with three to four blossoms and such lovely colors. We feel proud of them, for they were the envy of the neighborhood. Even the gardener who comes to cut our grass said he had never seen such Sweet Peas. Just one thing we regret—we could not send any home.

To-day we planted Zinnias; we grew them from seed and have nice plants. Oh, I forgot that you did not know we had moved—you know we were never meant to be flat dwellers—so we found a nice little bungalow, when we decided to stay another year, so we could garden all we wished.

Besides the front lawn with shrubs and plants, we have a space fifteen by thirty feet to "play" in.

There were four Rose bushes here and we bought four more; have had quite a few blooms, some cuttings I made in November are in bud. I am anxiously waiting to see if they will be as beautiful as the parent plants.

We also have two dozen Shasta Daisies, a large red Penstemon that blooms constantly, and twelve Dahlias. We brought some Snapdragon seed with us from the home garden, which we also planted. It is coming into bloom just beautifully. We are also putting in quite a few Chrysanthemum cuttings, they grow beautifully here, nearly as large as the ones grown under glass.

We also have six plants of Bachelors Buttons nearly three feet high. They are full of buds, so Hattie will have plenty of her favorite flowers.

We also have onions, chives, mint and parsley. Two volunteer Tomato plants are covered with buds; I need not tell you that I have a plant for every corner, you know me well enough.

But I want to tell you that one thing, there are bugs and worms of all kinds. I say there is a pest for each leaf that grows; slugs and snails and what not, but we have been lucky with the Peas, not even aphis—and you know how they love them.

Now I have talked enough about ourselves. We went to see the Freesia farm. I never dreamed there were so many colors. There were squares of perhaps fifty feet, all the different shades in separate blocks. It looked as if patches of cloth had been cut and spread on the ground. And the fragrance! These are raised for market.

At the Dahlia show at the Biltmore Hotel, I nearly lost my mind. Stems three feet long and flowers nearly as large as a dinner plate.

Beverly Hills held its first Flower Show last fall and it was lovely. Maybe you read of the desert garden which was displayed at the New York Flower Show this spring—the same display that we had here was taken east.

You wouldn't think that sand rock and cactus could make anything of a display, but it was beautiful.

Just now the Roses are blooming—in Exposition there are fifteen thousand bushes—and you can imagine what a sight that was when they all "got going" right after Easter. Just a sea of Roses, that is all!

We had a wonderful trip to Death Valley right after Easter—nothing but sand and Cactus. We brought three plants home for a woman who does not have a chance to go and get them and is a lover of this family of plants.

The State is trying to pass a law prohibiting the digging of Cactus. I really do not blame them—you know some people dig up everything in sight and

(Continued on page 277)

White Elm Nursery Co.
Hartland, Wisconsin
General Line of
Ornamentals and Fruits

Overcoming Horticultural Troubles

E. L. Chambers, State Entomologist, Editor

THE LATER SPRAYS ARE NECESSARY FOR CODLING MOTH CONTROL

C. L. FLUKE

THERE are many fruit growers who think that after the pink and calyx sprays are over, the job is done. There are also some who think that the codling moth begins its work at the time of the calyx spray. Most growers however, are well aware that the calyx spray is put on at this time to get the arsenate into the calyx cups before the lobes close, as about 50% of the codling moth larvae go into the apple through the calyx end. This spray then, is effective throughout the rest of the season, but does not get any of the worms which enter through the sides of the apples.

The codling moth has been very thoroughly worked out at Madison, and a few interesting points have been discovered. Let us look into the evidence and see what it means. In the first place, we find that the moth has two distinct generations, thus there are two batches of eggs hatching. During an early or fast developing year, eggs of the first brood begin hatching (at Madison) June 10, and continue hatching up to July 15. If the season develops slowly, the eggs begin hatching July 1, and continue to August 1. For the second brood, the eggs will hatch from August 8 to September 30 during an early year, and August 15 to October 15, during a late year.

It will thus be seen that sprays which are put on 10 days after the calyx application, and then again about July 25 for the second, are entirely wrong for codling moth control.

We have found that the moth does not begin to hatch until nearly four weeks after the calyx application. Because of scab control, however, the first spray after the calyx is put on in about 10 days. For commercial orchardists, it is recommended that, if this spray is applied 10 days following the calyx, it would be ideal to put on another application 10 days or two weeks later. This would bring the application between June 10 and July 1, depending upon the season, and would catch most of the first brood of the codling moth. The last spray should then be applied not earlier than August 8, nor later than August 15. In case the 10 day spray could be delayed ten days more, it would be best for codling moth control and would eliminate the necessity of an extra spray. In certain years, however, it is quite necessary to make this application within a week or 10 days after the calyx spray to control scab.

It should be remembered that these notes apply to conditions at Madison. Farther north, the dates would be correspondingly later.

MAGGOTS REPORTED SERIOUS

THE large force of crop pest reporters throughout the State, are sending in many complaints of injury to garden crops from maggots. These are usually among the first pests reported each season, and indications to date seem to indicate that they are to be a real problem again this Spring. These insects which attack early garden crops, include several species. The seed corn maggot attacks principly sweet corn, peas, and beans, while the onion has a species which takes delight in feeding almost entirely on it and cabbage. Cauliflower and radishes are attacked by the cabbage maggot.

In all cases the injury is done by the young larvae, better known as maggots, of a fly of the general appearance of the ordinary house fly except for its being smaller. This group of flies which cause us so much annoyance, are among those insects which were imported from Europe with food stuff. They winter in the ground in what is termed the pupal stage, and with the beginning of growth in the Spring emerge as adult flies, laying their eggs about the base of promising host plants.

Various methods are prescribed for controlling these maggots. Corrosive sublimate used at the rate of one-half ounce dissolved in five gallons of water and applied at the base of the plants, seems to be the most effective means in use. In case of cabbage and cauliflower, the poison is applied at the rate of one-half a teacup per plant, while with radishes or onions it is poured along the row at the rate of a gallon to each thirty-five feet. For early cabbage apply soon after setting out, and for radishes it should be applied when the plants are well above the ground. Tar paper disks are sometimes placed at the base of the plants to discourage the flies from laying their eggs, but this is even more tedious and expensive than the corrosive sublimate treatment, and is not as effective.

Since the adult flies feed freely before, and during the egg laying period, a poison bait spray is sometimes used, consisting of one-fourth ounce of white arsenic or sodium arsenate dis-

solved in one gallon of water, to which is added a pint of some strong smelling molasses. This mixture is sprayed in coarse drops in strips across the field. It is not necessary to cover the entire field. This repeated twice a week from the time the onions show until the middle of June has been found quite effective by some growers.

Other growers plant cull onions a few weeks in advance of their regular plantings, which serve as a trap crop attracting the flies to them. After they have laid their eggs they can be destroyed by applying crank case draining oils. Those who have used this method report no ill effects to the soil from the oil.

IN ORCHARD AND GARDEN

(Continued from page 258)

are many highways along streams and lakes in Wisconsin where a little thoughtful planting or cutting of vistas would increase the pleasure of the passer-by immeasurably.

The American Legion is planting the triangles in intersecting highways with Flanders Poppies which will be a very acceptable substitute for the weeds which now so frequently occupy such areas.

These are all signs which, in our opinion, point in the right direction. They seem to indicate that in the future when we sing "America the Beautiful", we will not need to confine our thoughts to the beauties which Nature alone has provided, but that we will be able to include the handiwork of man as well.

If our local horticulture societies and their individual members enthusiastically support these enterprises, it will speed the day when we shall realize our ideal of unsightly or repulsive views changed to places of beauty and attractiveness.

Guess we spent too much time on this beauty proposition and will have to leave the other things we were going to say until another time.

TOM AND ALEX.

---

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Potato Growers Department

J. G. MILWARD, Editor
Secretary of the State Potato Growers Association

WISCONSIN POTATO NOTES

Prof. Milward reports on conditions and results of meetings in the northern commercial potato sections.

Important announcements are made to growers.

Antigo, May 18. The planting season to date at Antigo has been the most satisfactory experienced in recent years. A trip through the heavy commercial potato growing sections shows growers planting throughout this territory. Unusual favorable weather has enabled them to fit land in excellent shape for the fertilizer and seed.

Several two-row planters were in operation. In many of the large fields, several growers are applying fertilizers in two-row distributors operated just ahead of the planters; from 500 to 700 pounds per acre were being applied.

Professor Musback and the County Agent Omernik, have arranged a most complete set of fertilizer tests on the Krier farm at Antigo. Several combinations of Ammonia, Phosphoric acid, and potash have been worked out with great care and include many interesting variations that should provide valuable data on the best commercial practice adapted to the community. Mr. Omernik reports growers take an unusual interest in these experiments.

Several growers are using the Mercuric compounds in seed potato treatment at Antigo this year. An opportunity will be given to compare this treatment with the Hot Formaldehyde and Corrosive Sublimate methods in 1928.

It is encouraging to note a general advance and unusual healthy condition prevailing in Langlade county this year as relates to the quality of seed planted, increased attention to soil improvement, and general interest in improved seed handling operations.

About forty growers assembled at Antigo, Friday evening, to consider plans for organized summer work with special reference to seed potato inspection.

Rhinelander, May 19, 1928. That interest in seed potato improvement is not lagging was very evident judged by the spirited discussion aroused at the conference of Oneida County Growers held in the Court House at Rhinelander on May 19.

The whole question of seed potato inspection was presented and the fullest possible freedom of expression invited on all phases of the service.

Five men were in attendance who had participated in recent Southern Tours. Many important inter-state seed plot problems were reported upon from all angles.

MOSAIC IS IMPORTANT PROBLEM

Wisconsin interests fully recognize "Potato Mosaic" as a major hazard to the southern planter. In this connection, the amount of mosaic to be found in the strains of seed to be planted this year—1927–1928—were reported to growers varying from practically no mosaic up to fifty-six per cent. Several large blocks of seed were reported upon, showing greenhouse counts from 1% to 8%. Field records indicate that these superior strains of seed showing 8% of mild mosaic in the greenhouse may show a very much reduced percentage in the field.

Wisconsin growers recommend that a better organized plan should be made to test these strains in fair, impartial trials on a field in the South. The introduction of certain Western strains this year in Wisconsin on a car lot scale should provide added material for proposed field trials.

In addition to mosaic, other index and field records were reported upon, including Spindle Tuber, — uniform stand, — maturity, type of vine and tuber.

Those in attendance on recent Southern Tours called attention to the changing Southern hazards from season to season, especially as might relate to the expression of mosaic and spindle tuber.

Yield of marketable potatoes is the final test in relation to various strains and this must be determined in connection with the various disease hazards that reduce the crop.

The Counties where large blocks of improved Triumph seed will be available for inspection this year are: Marinette, Oconto, Forest, Langlade, Oneida, Vilas, Price, Washburn, Burnette, and Sawyer. Western seed stocks are concentrated this year largely in Sawyer, Vilas, and Oneida Counties.

POTATO INTERESTS ORGANIZE AT RICE LAKE FOR STATE POTATO SHOW

At a conference held at Rice Lake on Tuesday, May 22, the following organization was perfected for the State Potato Show to be held at Rice Lake, October 22–26, 1928.

General Convention Chairman—C. A. Beggs, Rice Lake.
Chairman of Publicity—A. F. Ender, Publisher, Rice Lake.
Chairman Local Exhibits—G. E. Vergeront, County Agent.
Chairman on Entertainment—Henry Snyder, Rice Lake.

SEED POTATO INSPECTION ANNOUNCEMENT

The Horticultural Department has completed a schedule of conferences in the important certified seed producing sections of Wisconsin.

Reports obtained in these producing sections indicate an increase in certified acreage of about fifteen percent.

The only important change in the service discussed at the above conferences involved the official shipping tag for "Badger State Brand". In this connection the department plans on stamping the year across the face of the tag and also plans to assign a number to each grower to be used on shipping tags. To date, the department has been able to trace back car lot shipments from the certificate number issued by the Department of Markets in connection with the loading point inspection. This has not always proven satisfactory to the buyer of seed, and the system of placing the growers' number on the tag will no doubt remedy this difficulty.

Application Blanks Will be in the Mail by June 1. Growers are requested to return these applications on the earliest date possible. The last date for filing application blanks is July 15. An early return of application assists the department in making definite arrangement for the first inspection. *Do not wait. File your applications, if possible, in June.*

SPOONER STATION DAYS SCHEDULED

Prof. Delwiche has announced two sectional Spooner Station Days.

July 26. For Douglas, Bayfield, Sawyer, Washburn County group.

July 27. All other Counties interested.

The annual Potato Day Program for potato growers on the Spooner Branch Station will be arranged jointly with these meetings. Special notice to be mailed to potato growers.

SPRAYING VERSUS DUSTING

THE use of dry dust for potatoes is increasing rapidly on Wisconsin farms. This is especially true if only an acre or two are grown, in which case the farmer cannot afford to buy horse drawn sprayers.

It is a big job to carry enough water in a small sprayer to spray even an acre, and so we were pleased to learn of the conclusions reached in a careful test of "Spraying Versus Dusting" as published in Wisconsin Bulletin 82 by John E. Dudley, Jr., and C. L. Fluke, Jr.

The following are the conclutions they reached:

Scientific workers are generally agreed that the use of Bordeaux mixture on potato foliage will increase yields.

The potato leafhopper is probably the most injurious insect pest of the potato plant, and it regularly causes serious damage in Wisconsin.

Spraying and dusting experiments were carried on in commercial potato fields of Wisconsin for four years under regular farm conditions.

The object of these investigations was to find out the cost of each treatment and how much each treatment increased the total yield and improved the grade.

Five varieties of potatoes were included in the experiments: Triumph, Green Mountain, Early Ohio, King, and Rural New Yorker.

A definite increase in the percentage of No. 1 potatoes was secured both by spraying and dusting.

The average increase of No. 1 potatoes in the treated plots was 6.1 per cent greater than in the check plots, which equals 8.4 bushels per acre.

With one exception, yields were always increased by spraying and dusting.

The average increases for spraying and dusting combined, varied from 22.7 bushels per acre in the two years of little hopperburn to 59.3 bushels per acre in the two years of heavy hopperburn.

The average yields of *all* sprayed, *all* dusted, and *all* check plots when compared, show the following distinctive results:

All sprayed plots___167.9 bu. per acre
All dusted plots____163.1 bu. per acre
All check plots _____136.4 bu. per acre

Computations show the cost of spraying and dusting for four applications per acre to be: Spraying $11.26; dusting, $11.97.

The yields from dusting and spraying were equal within the limits of experimental error.

The cost of dusting was little more than that of spraying.

The Potato Beetle can easily be controlled with the duster by using prepared dust, usually Calcium Arsenate.

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Local Society News

MADISON GARDEN CLUB HAS CHICKEN SUPPER

ON THURSDAY evening May 17th the Madison Garden Club met at the home of Mr. and Mrs. J. Gilbert about two miles west of Madison for a chicken supper.

The girls of the Washington school gave a very beautiful May fete which was greatly enjoyed by the members.

The proceeds of the supper will go to defray the expenses of putting on the summer flower show. A number of members furnished most of the food, Mrs. Gilbert of Nakoma furnishing the chicken.

The club is looking forward to having some special meetings at the homes of members having flowers in bloom.

The next regular meeting will be the second Tuesday in June which will be June the 12th.

MILWAUKEE ROSARIANS

The next meeting of the Milwaukee Rosarians will be held Tuesday evening June 12 at the Public Museum. It is expected that a number of members will have roses to display. The program will be on the growing and care of roses.

I. J. SCHULTE,
Secretary.

MAY MEETING OF OSHKOSH SOCIETY

MEMBERS assembled at 6:30 for the usual supper, after which the business meeting was held. This was opened with the Horticultural song.

Minutes of the previous meeting were read and approved.

Miss Merle Rasmussen gave the report of the committee on arrangement for the flower show to be held in June, and it was decided that an admission fee of 25c for adults and 10c for children be charged, children with parents being admitted free. There will be music furnished both afternoon and evening.

It was decided that those who contributed prizes to the flower show last year would duplicate them for this flower show, unless they notify Miss Rasmussen to the contrary, and any others who might be willing to offer a prize can notify Miss Rasmussen.

We had with us as guest and speaker of the evening, Mr. Rahmlow, Secretary of the Wisconsin Horticultural Society of Madison, who gave a very interesting talk on the work to be accomplished by the local societies, not only in their own community but also in starting similar groups in towns nearby, getting the younger people interested in boys and girls garden clubs. He also spoke on the topic "No Poison in a Tin Can."

AGNES PHILLIPSON,
Secretary.

AN ACTIVE GARDEN CLUB

SUM-MER-DEL Garden Club of Waukesha County (title composed of parts of the names of the towns in which charter members live, Summit, Merton and Delafield) held its May meeting at the home of Mrs. Henry Barnard Hitz on Pine Lake.

While the club was started last autumn, organization was not fully effected until this meeting when the Constitution and By-laws were adopted. The objects of the organization were stated to be: "The advancement of gardening; development of home grounds and civic beautification; to stimulate an interest in cooperative gardening; to aid in the protection of forests, wild flowers and birds; the extermination of noxious weeds and improvement of highways.

It was decided to accept the invitation, and affliation with the State Horticulture Society.

Papers were prepared and read by members, topics being "How to Supply Gaps in the Garden Caused by Winter Killing"—Mrs. E. A. Bergwall; Miss Helen M. Moore—"Garden Pests and How to Control Them", also Beneficial Visitors and Residents in Our Gardens". Mrs. H. E. Salsich scheduled to treat of "Gladioli and Dahlias". Reverend Ph. Henry Hartwig gave a practical demonstration of "Planting and Growing Seeds of Perennials."

Recent notable events were an illustrated lecture on our "Wild Flowers and Shrubs, How best to Preserve them; and "Types of Shrubs that Help to Attract and Feed the Birds," by Mr. A. M. Fuller, one of the Curators of Botany from the Milwaukee Public Museum. Also an all day trip to the gardens of Mrs. A. W. Rogers, Oconomowoc and to the Wild Life Preserve at Hutchinson's Woods, Lake Geneva, and to the Glass Houses of the Crane Estate with a view of the newly "created" snapdragon "Geneva Pink", and a flame-colored blossoming begonia and rambles about the Uihlein Estate at Fontana.

The June meeting will be at the home of Mrs. Roy H. Farand, Delafield, and will be largely of a social nature. Some members of the club accepted an invitation of the Public Museum's Field-trips and joined them at the woods of Mr. Everett Martin, Big Bend.

The officers of the club are:

Mrs. H. G. B. Nixon, Hartland—President.

Miss Mary A. Lowerre, Delafield—Vice-President.

Mrs. H. E. Salsich, Hartland—Treasurer.

Mrs. W. H. Hassenplug, Nashotah, R. R. 2—Secretary.

Reported by MRS. W. H. HASSENPLUG.

HALES CORNERS CLUB FOSTERS CONTEST FOR BOYS AND GIRLS

THE May meeting of the Hales Corners Garden Club was held at the home of Mrs. J. H. Paul on the afternoon of May 24th, 1928. Mrs. C. E. Strong and Mrs. J. Hyatt of the West Allis Garden Club were guests of the meeting.

Mrs. Strong urged that the Secretary of the club send to Wisconsin Horticulture a monthly account of meetings.

The club agreed to hold a contest for the best flower bed among boys and girls of the village between the ages of nine and twelve. Mrs. Paul very graciously donated five dollars to be used as prizes—three dollars for first prize and two dollars for second prize. Boys or girls wishing to enter this contest register with the school principal. Mrs. Strong, Mrs. Paul and Mr. Keiler will act as judges of the contest.

Mrs. Strong gave all members seed of Spanish Broom, a tall shrub with yellow flowers. This was a gift of the West Allis Garden Club who had received more seeds than they cared to plant. The seeds were gladly received by our local club as the plant is unknown to us.

An inspection of the garden followed the business meeting. Mrs. Paul has a beautiful display of tulips, very artistically grouped according to colors.

Reported by MRS. A. W. JOHNSON.

HOW TO MAKE A FLOWER BOX

(Continued from page 263)

Oh yes, now comes the big event. Bring on the flowers. First we pick out 2 blood-colored geraniums with the deep color in their leaves.

Holds up the flowers, then packs them in the box.

Then a Clayton fern. This fern grows out of doors in New England and will be a hardy plant for our box. Let's put the fern in the center and the geraniums on each side, like this. Now 2 tall young fucias that are to hang their flower bells above the geraniums. At the ends we will put these Mt. Vesuvius Coleus. Next to the front go 4 snow-on-the-mountain vinc a s. We must pack the soil about the roots.

Packs extra soil about the plants. Waters them.

Do not forget the water. Give them all they will drink. Leave

Home Flower-Growing

By Emil C. Volz, Professor of Floriculture, Iowa State College. Answers the amateur gardener's every question. (Rural Science Series, Edited by L. H. Bailey)_____$3.50

Spraying, Dusting and Fumigating of Plants

By A. Freeman Mason, Department of Horticulture, University of Maryland. A popular handbook on crop protection_____$5.00

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Washburn, Wis.

them in the shade for a day or two and then they are ready for their post of duty. Water them twice a week—all they will take.

"This, my friends, is an ideal flower box. Isn't it pretty? I am expecting each of you to make one now.

Tips the box so it can be seen better. Answers questions.

"This concludes my demonstration. I hope you have enjoyed it. I thank you."

THE FOREST OF FAME

MOUNT VERNON — the name is known to every American as the home of George Washington.

Mount Vernon, Wisconsin, is situated on a branch of the Sugar River the same distance and direction from the State Capitol, as Mount Vernon, Virginia is from the National Capitol.

It is here that the "Forest of Fame" was established, and George Washington trees set out on Arbor Day, 1916. Two years later elms from the birthplace of Abraham Lincoln, Hodginsville, Kentucky, were planted.

In 1919 one of the five spruce trees, which had been taken from Gen. Pershing's A. E. F. Headquarters, Chaumont, France, was placed here and the idea of the Forest of Fame took root.

Trees from the birthplaces or homes of the following illustrious persons have since been planted:

U. S. Grant, Galena, Illinois.
Rutherford B. Hayes, Freemont, Ohio.
Wm. McKinley, Canton, Ohio.
Gov. Lucius Fairchild, Madison, Wisconsin.
Gov. Jeremiah M. Rusk, Viroqua, Wisconsin.
William D. Hoard, Ft. Atkinson, Wisconsin.
Joan of Arc, Domrey, France.
Gov. Farwell, Madison, Wisconsin.
Gov. Washburn, Madison, Wisconsin.
Gov. Taylor, Cottage Grove, Wisconsin.
Theo. Roosevelt, Long Island, N. Y.
Rob't M. La Follette, Mt. Vernon, Wisconsin.
Thomas Jefferson, Monticello, N. Y.
Daniel Webster, Salisbury, New Hampshire.

Also Robin Hood Oaks, Sherwood Forest, England; Napoleon Willow, France; Babylonian and Welch Willows.

Each tree is charted and marked.

This year an American Linden tree was planted and dedicated to Francis Willard. The ceremony was conducted by the Rock County W. C. T. U.

Francis Willard's early home was on a farm near Janesville. The Linden tree was presented to the W. C. T. U. by M. S. Kellogg, whose farm and nursery is near the Francis Willard home. Mr. Kellogg is a member of the Executive Committee of the State Horticultural Society.

John S. Donald, Madison, was in charge of the program.

STUDENTS START 4-ACRE FOREST

Technical High School Boys Plant Trees in County Tract

Armed with grub hoes, 60 students of Boys' Technical High school set out on the task of making a pine forest out of a barren potato field in the county's Brown Deer tract at Cedarburg and Good Hope roads.

Under the direction of O. C. Strothman, member of the high school faculty and a forester of seven years' experience, the boys planted close to 6,000 pine seedlings on four acres.

The seedlings were planted six feet apart. The crew was divided up into teams of two each. Some of the boys drove stakes and laid out the rows. Then, working in a stagger formation across the field, came the planting teams. One boy dug the hole with a grub hoe and the other took the seedling from a pail of water and set it in the hole. Earth was stamped tightly around the seedling.

At noon the boys had a picnic lunch.

"As a result of this day's work we now have a partially trained crew of young foresters," Mr. Strothman said. "Now that these boys have actually planted trees it is not likely that they will ever destroy a tree needlesly in the future. They take pride in what they have done. To commemorate their work we will mark each row of trees with a metal slab inscribed with the name of the students who planted the rows. With this trained crew we hope to aid in the planting of trees at other places in the county."

—Milwaukee Journal.

JUNIOR FOREST RANGERS ACTIVE

(Continued from page 256)

When the birds arrived each boy had a bird house up ready for them to take possession.

We generally open our meetings with a lively song and close by singing "Taps". Right now words to some well known tune for their own club song.

We have invited the "Park Falls Rangers" to our next meeting. This will be "stunt night". The boys in the club are divided in groups of six and each group has a stunt, something original.

The High school has planted about seventy-five shrubs around the grade school building this spring and the boys have taken real interest in helping with this work.

(Note: Mr. Parker is Smith Hughes Agricultural Instructor at the Phillips High School and has done some outstanding work with Junior Forest Rangers.)

MILWAUKEE HORTICULTURAL SOCIETY ELECTS OFFICERS

At the May meeting of the Milwaukee Horticultural Society the following officers were elected:

Huron Smith—President.
Frank P. Giloth—Vice-President.
Miss Martha Krienitz—Secretary and Treasurer.
Directors—Mr. Louis Potter, Mr. William Hopkinson, Mrs. Robert Malisch.

The next meeting will be held June 26 at 7:30 P. M. in the Public Museum.

ROSES

(Continued from page 262)

moss poured around the creases and cracks, soil being used to fill in, which was stamped down. As soon as the ground was frozen a few inches of marsh hay were used for the top covering.

When these tree roses were dug up about the latter part of April the buds were swollen but had not started, some of the leaves are still green, the peat moss was as dry as when it was put in, and every one of the roses just as healthy as when they were buried in the fall.

Fall Planting Best

Fall planting is by all means preferable to spring planting, and if roses are received in the fall for which the ground has not been prepared they should be buried until spring. Roses received in the spring do not have as fine rootlets as those received in the fall. If spring planting is necessary the soil should be hilled up around the plants after they are set in, and the ground should not be taken off for at least two weeks. The spring winds are very destructive, and hilling prevents the drying up of the tops.

Mr. Smith explained that the roots of roses grow all winter long and that the rose really is not dormant at all. It is during the winter that the roots are forming their feeding rootlets for their next season's work. Mr. Smith stated that roses planted in the fall are several weeks ahead of roses planted in the spring. He also said that there was nothing better than peat moss for use in germinating cuttings, and that the percentage of germination in peat moss was considerably greater than in sand or soil. He had a bit of peat moss and showed how finely it could be pulverized and what wonderful humus it made. One bale of peat moss is enough for the ordinary backyard garden; it is much better than manure, contains no weed seeds, and does not harbor any diseases such as are found in most fertilizers. It is treated before it is baled and is in perfect shape for use. It is slightly acid, but it would take a long time before it would affect our clay soils very materially. The acid reaction is enough to prevent any of the sweet soil weeds from coming up, especially dandelions. It is just the thing for breaking up heavy clay soils.

A half hour was devoted to questions and answers, and such an interest was shown by those present that it is planned to continue this feature of our meetings.

Our next meeting will be held on June 12, at which time it is probable that some of the members will have roses to display.

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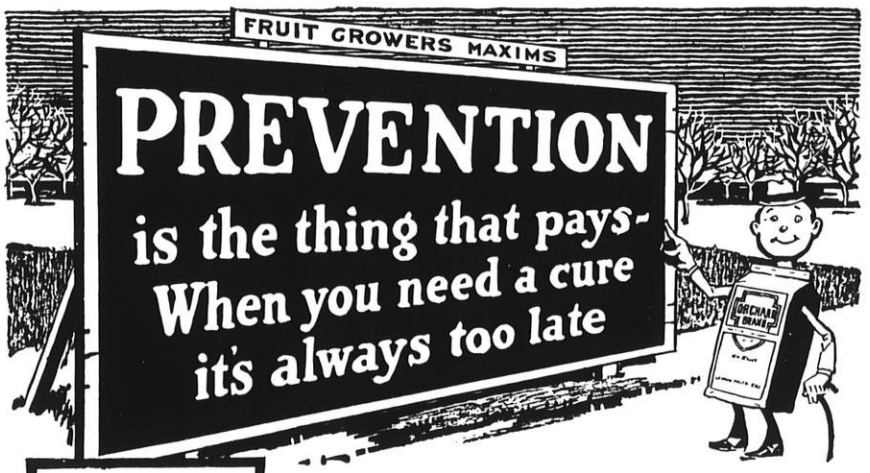

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PEONIES

(Continued from page 254)

describe it. Solange is a late blooming variety and is a peculiar pink, the petals so tightly placed that it looks compact. It attracts much attention. Cherry Hill, considered the best red landscape variety stands tall and straight through all kinds of weather and is a popular seller.

Georgiana Shaylor, a huge double pink attracts more than its share of attention. Jubilee is one of the most famous peonies in the world, as its huge feathery white blossoms often measure ten inches in diameter. Its blooms are so heavy that it has no value for landscape work, but each blossom makes a lovely bouquet. Luella Pfeiffer attracted much attention being tall and able to withstand all sun and weather conditions. Martha Bullock, a very late deep pink showed wonderful flowers this year, and held its lovely color during the season. Lewis American Beauty, a comparatively new red, gave its first blossom after five years' growth. It was really the most beautiful red peony I have ever seen, being tall with a strong stem holding the blossom upright.

Phyllis Kelway is a decidedly popular pink. It has been compared to a delicate flushed pink crepe de chene, with strong stems, fragrant, and of good lasting qualities. Wm. F. Turner is a tall new red that is taking its place in the flower world. Philippe Rivoire is considered by some to be the best red peony in the world to-day. It has a long blossoming season, is fragrant, and has good lasting qualities.

One of the outstanding varieties in our garden that attracted more attention than any other was Nancy Dolman which was introduced by Judge Vories of St. Louis. I have never seen such a huge blossom on a perfectly straight stout stalk. As it is comparatively new, one cannot say much about it, but if it remains true to the type shown in our garden, it will make a real sensation in the peony world. H. P. Sass one of the new introducers of Washington, Neb., was made famous by his peony Florence McBeth, a very fine light pink. He also originated Grace Batson, a deep pink, which will be heard from later.

We have all of the good things in Japs and singles in our garden and each year our sales of these landscape varieties grow larger and larger. Amanosode; Tomatbako; Some Ganoki; Mikado; Pure Love and Kelway's Wild Rose share in the honors. I should add that Helen, introduced by Thurlow is the finest pink single.

I have just mentioned a few

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INDEX TO ADVERTISERS

	Page
Badger Hatchery	278
Bahr Nursery	278
Barilani, F. W.	278
The Barrett Co.	269
Chequamegon Flower Gardens	273
Cleerman's Hatchery	278
The Coe, Converse & Edwards Company	278
Cream City Chemical	279
Cumberland Fruit Package Co.	277
Fitchett Dahlia Gardens	250
Edw. J. Gardner Nursery	271
Gelbke, C. A. & Sons	278
General Chemical Company	275
F. R. Gifford Co.	279
Gilson Mfg. Co.	261
Grasselli Chemical Co.	276
J. F. Hauser	271
Kellogg's Nursery	262
Macmillan Co.	273
Niagara Sprayer Co., Jas. Dance	280
North Star Nurseries	273, 279
Rasmussen's Fruit Farm & Nurseries	280
Reynolds, C. W.	278
Sisson's Peonies	280
Stonecrest Gardens	278
The Swartz Nurseries	263
W. A. Toole	277
Western Stoneware Co.	250
White Elm Nursery	267

of the many varieties. Many will wonder how much care is needed to keep the gardens in shape. Mr. Sisson, with one helper, keeps the garden absolutely weedless. This may seem impossible if one could have seen the bed of quack grass that used to be where the flowers now thrive. Sheer work with a hoe and a horse cultivator has eradicated every trace of quack grass or any other weed. Mr. Sisson works early and late tending carefully each tiny plant, shading them when necessary and guarding each one.

For those who love flowers but have never grown peonies, there is much pleasure in store. They are by nature a Northern flower, require little care, and richly reward anyone who gives them a place in their garden.

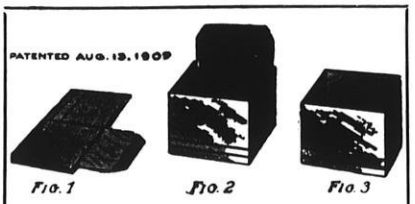

Fig. 1 Fig. 2 Fig. 3

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ABOUT THE HOME AND GARDEN

(Continued from page 267)

never take care of anything when they get them home.

The people out here have very few house plants, perhaps because there are so many outdoors. But I must have a few, or else I do not feel at home. The Begonia and Sanseveria, I brought with me are doing fine; then we have a Fern and an Ivy.

We always think of the garden friends at home when we see anything beautiful, so hope they do not forget.

GRETCHEN AND HATTIE SCHAAF,
Beverly Hills, California.

We are glad to hear of the beautiful gardens in California, but still more glad to know these friends remember the friends and gardens of "home". We hope they will be with us again some day, raising Sweet Peas full ten feet high, with just as beautiful blooms.

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W. A. TOOLE

Garry-nee-Dule, Baraboo, Wis.

The Growers Market

Advertisements for this department will be accepted from members of this society who produce the articles offered for sale. Rate 2 cents per word, minimum charge 25c per issue. "Adds" of nursery stock and plants will be accepted only from those listed by the State Entomologist as having been inspected. No discounts from these prices.
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BLOSSOM TIME IN CHERRYLAND

(Continued from page 257)

nee. Green Island is straight ahead and Chambers Island up the shoreline to the north. Sturgeon Bay lies south. Descend the bluff along the oblique roadway on its face, turn left at the bottom of the hill, and follow the shore line along a road of ever changing scenes for seven miles back to Sturgeon Bay. The total distance has been 15 miles.

Door County people are always eager to welcome visitors, whether the occasion be Blossom Time, Cherry Harvest, or Indian Summer. We have so much to show you that it is a real pleasure to direct our friends to the many spots of unusual beauty. Hotels and resorts offer excellent accommodations and in times of peak crowds, private homes are thrown open to care for our extra guests. All Door County is a hostess and we want you to feel that a personal invitation has been extended to come and enjoy our beauties, our climate and our harvest with us.

1928 promises to be a good cherry season with a probable production of 15,000,000 to 20,000,000 pounds of the delicious red fruit. Thousands of pickers will be required to harvest this crop, and in addition to our local people we can give employment to 5,000 workers from other sections of the State. As fast as picked the fruit is packed by two organizations that handle the entire crop. A considerable quantity of cherries are shipped to market as fresh fruit, but by far the greater share of the crop is preserved by canning and cold-packing. Distribution is made all over the United States and recently an additional outlet has been arranged in England and Scotland.

Further information as to roads, accommodations, employment, etc., will be cheerfully given by the Door County Chamber of Commerce, Sturgeon Bay, Wis.

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W. T. Macoun, Dominion Horticulturist of Ottawa, Canada, writes in regard to origin of FOREST WINTER:

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We recommend the FOREST WINTER APPLE as one of the hardiest, late keeping, best quality apples we have.

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WYCHWOOD

(Continued from page 252)

School Classes accompanied by teacher, and Garden Clubs may obtain permission in the same manner.

Every visitor is requested to register at the Cottage on arrival and is especially asked NOT to gather leaves, flowers, roots or seeds or in any way to interfere with the natural growth.

In order to prevent fires, smokers are begged to be extremely CAREFUL.

Picknicking is not allowed.

Wychwood is an Experiment and Research Station for the use of students under proper restrictions.

Students desiring to work there should apply to the Director or to a member of the Board of Trustees for permission.

No provision is made for living on the place but the village of Lake Geneva is a scant three miles away.

A detailed history of Wychwood will soon be issued and will be on sale at leading book-stores and at the Cottage.

APPLE GROWERS ATTEND HEARING

A HEARING was held in the office of the State Department of Markets, Madison, on May 22, 1928, to consider amending the present Wisconsin apple grades to conform with the U. S. grades.

Door and Crawford Counties were represented at the hearing. Only a few minor changes were necessary to have them conform to the U. S. Standards. The standards will be printed in booklet form and ready for distribution after July 1. Copies will be sent on application.

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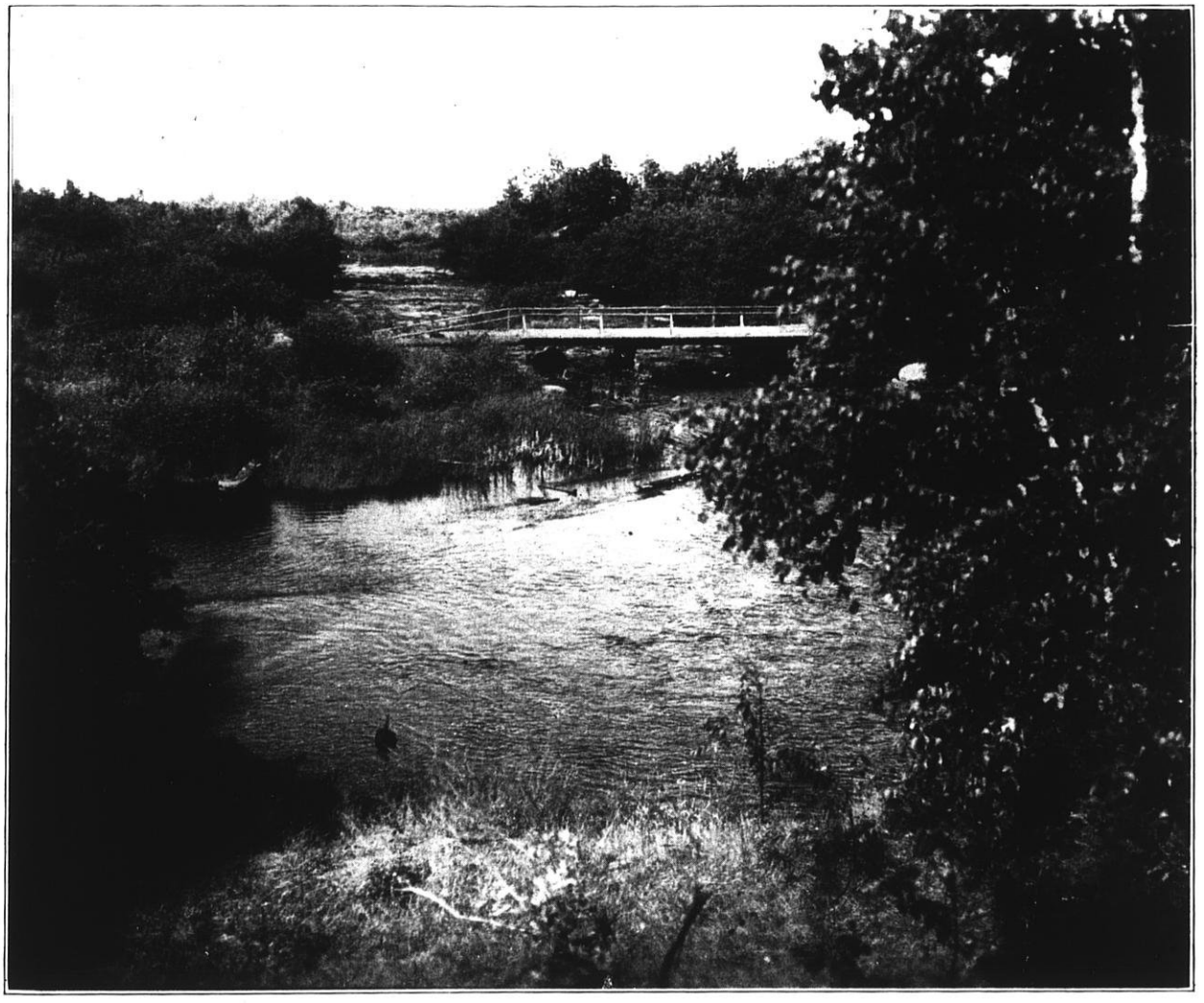
Vol. XVIII JULY, 1928 No. 11



COMING EVENTS

Garden Club Convention—Lake Geneva, July 19–20.
Summer Meeting—La Crosse, August 10–11.
State Potato Growers Tour, August 13–18.
Details in this issue.

"Good Will is the disposition of a pleased customer to return to the place where he has been well treated."

(U. S. Supreme Court)

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TABLE OF CONTENTS

	Page
Strawberry Day at Sparta	283
Apple Thinning Pays	285
Plants Which Feed Upon Animals	287
History and Species of the Iris	289
National Iris Show	292
Legion Beautifies the Highways	293
Fruit Growers Tour Upper Michigan	294
Thinning Eliminates Culls	295
The Garden Club Convention	296
Official Summer Meeting, La Crosse	297
Summer Meeting Minnesota Society	297
About the Home and Garden	298
Flower Demonstration by Club Members	298
West Allis Flower Show	301
Potato Growers Department	302
Spraying and Dusting Potatoes	303
Local Society News	304
Nursery Inspection Fees	306
Regal Lilies Resent Rich Soil	311
When Dahlias Fail to Bloom	311

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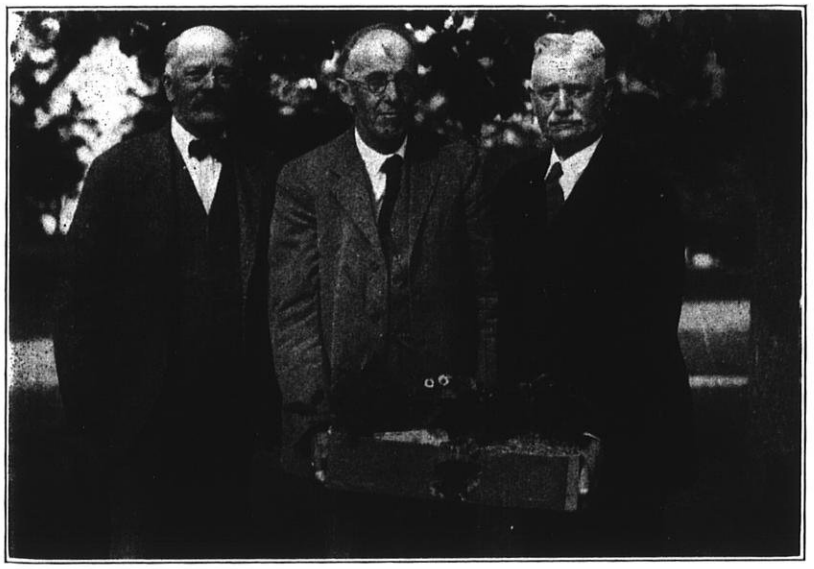
Strawberry Day at Sparta

Meeting Draws Large Attendance. A New Venture for Horticulture Society. Important Problems Discussed.

OUR first summer meeting proved to be a great success. 186 strawberry and raspberry growers attended the Wisconsin strawberry day at Sparta on June the 9th. The growers came from Sparta, Warrens, Neillsville, Alma Center, Cashton, Black River Falls, Cataract, Taylor, Tomah, La Crosse, Tunnel City, Oshkosh and Menomonie.

The weather turned so cool that the outdoor meeting as planned on the courthouse lawn was undesirable so it was held in the courtroom, which was crowded to capacity.



Three pioneer strawberry growers. Left to right: J. W. Leverich and Wm. Hanchett of Sparta, and H. H. Harris of Warrens. Taken at Sparta during the Strawberry tour. Mr. Harris exhibited specimens of different varieties of strawberry plants. These men are among the oldest commercial growers of strawberries in the state, producing many acres each year.

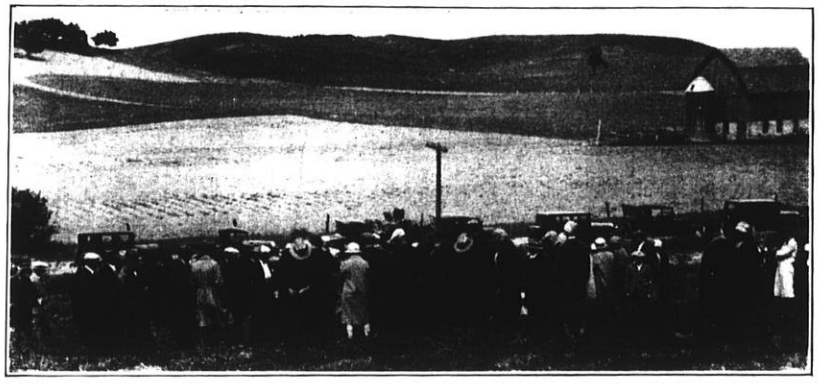
Strawberry Grades Demonstrated

The forenoon session was opened by Mr. A. W. Pommerening of the Bureau of Markets grading a crate of strawberries which had been brought in by Mr. Frank Kern, manager of the Sparta Association. He made samples of each of the five grades, namely, extra fancy, fancy, standard, No. 2, and ungraded, and passed them around so that those in attendance might see how berries are classified.

He told the growers about the different grades and explained that they are optional this year. Anyone who does not wish to use them need not do so. He said, however, that grading will help the grower obtain better prices and will help an organization to establish a better reputation.

Mr. J. E. Leverich, president of this Society, acted as chairman. In his opening address he told about strawberry growing at Sparta some forty years ago, mentioning that Mr. Thayer, one of the early pioneers, at that time had twenty acres of berries and that the Shipping Association shipped from ten to twelve cars per day. He mentioned a number of other pioneers, among them Mr. Wells, Mr. W. Babcock, Mr. George Hanchett & Son and Mr. J. W. Leverich, all of Sparta.

In fact, there were more berries produced forty years ago



Part of the crowd on the Strawberry Day tour at Sparta on June 9th.

than there are today in the different commercial sections, and the strawberry growers now have problems that the early growers did not have to contend with. Organization is necessary both for marketing and solving the production problem.

Mr. N. A. Rasmussen of Oshkosh was one of the principal speakers. He said that the strawberry growers have many unsolved problems. One of the most important is the kind of fertilizer which will give the best results. There is very little information on this subject. There are also many new varieties coming in each year, and their merits are not known to the average grower. The farmers cannot afford to run experiments and Mr. Rasmussen's opinion was that the State Experiment Station should carry on this work. He also said that growers should join the State Horticultural Society and through their organizations ask for help.

The question was raised as to the value of lime on strawberries. Mr. Rasmussen's opinion was that strawberries do not care whether they are grown on sweet or acid soil. He said that many good crops have been grown on soil known to be sour.

Growers Ask for Help

As a result of Mr. Rasmussen's talk a motion was made that the chairman appoint a committee to draw up a suitable resolution asking the Experiment Station for help. Mr. Leverich appointed Mr. Rasmussen, Mr. Hanchett and Mr. Seidel. The following resolution was presented:

"We, the strawberry growers of Wisconsin, in meeting assembled at Sparta this 9th day of June, 1928, realizing that there is but very little information available on commercial fertilizer with strawberries, and

That no definite information as to the merits of the different varieties, especially new varieties which are being introduced, is available.

Be it therefore resolved, that the Horticultural Department of the College of Agriculture be earnestly requested to establish fertilizer experiments at the Station and in the field of the strawberry section and also test out all varieties both at the station and in the field."

Signed, N. A. RASMUSSEN,
Oshkosh,
WM. HANCHETT,
Sparta,
J. G. SEIDEL,
Warrens.

This resolution was unanimously adopted by the growers.

Mr. Rex Eberdt, manager of the Warrens Association, and Frank Kern, manager of the Sparta Shipping Association, talked on the harvesting and marketing of strawberries. Mr. Eberdt stated that "the public buys with their eyes". Varieties must attract attention by their color and size. They must hold up well under shipment and have a good flavor.

Growers Invited to Meet At Warrens

Mr. Eberdt, who is manager of the Warrens Association, extended an invitation for the State Horticultural Society to hold a meeting of strawberry growers at Warrens next year.

(Continued on page 307)

Some of the Strawberry people at the Sparta meeting. Top row, left to right: Rex Eberdt, Warrens, manager Warrens Shipping Association; R. E. Harris, Secretary Warrens Association; Mr. N. A. Rasmussen, Oshkosh, grower and nurseryman; Mrs. Earl Leverich, Sparta; Mrs. N. A. Rasmussen, Oshkosh; Bottom Row. Mr. A. W. Pommerening, State Bureau of Markets; Dr. J. G. Seidel, Warrens; County Agent L. G. Kuenning and son, Sparta; Wm. Hanchett, Sparta.

Apple Thinning Pays

July is the Time to do the Work

By ALTON H. FINCH,
Wisconsin College of Agriculture

TO THIN or not to thin—a question now confronting the Wisconsin apple growers. Thinning time is here and if it is to be done at all, it must be soon. The rule is to, "do it soon after the June drop".

The "June" drop comes late in Wisconsin. There are few localities where it will be over much before July first, and in many, not until the tenth. Thinning must be over the latter part of the month, or in the latest sections by the first of August. Shall we, or shall we not thin?

The advantages of thinning are not so easily seen under such conditions as obtain in Wisconsin and other districts of the middle west. There is not such a great difference in price in favor of, say—for purpose of illustration—the 2½" apple as against the 2", here in the middle west even when the larger one is better colored. Should the thinning be done a little too heavily the yield can be decreased enough to offset any advantage gained from an increase in size and color. Thinning properly done will not reduce the total yield and will materially improve the quality.

Thinning Will Pay

Actual trials have been made the last two seasons. The results indicate that under many orchard conditions thinning will pay in direct returns from sale of the fruit in the fall. This is not the only benefit from thinning. There is an indirect advantage that should not be overlooked. The Wisconsin grower, along with the entire apple industry, would profit if only the better fruit were put on the market. There is, perhaps, no one fruit offered for sale to the consumer in as unattractive a fashion as are apples. Any procedure—of which thinning is one— that contributes to quality in the product will undoubtedly reflect in a more lively apple market. Thinning offers an opportunity to eliminate the poorer grades, and at the same time to strengthen the better grades.

Will it pay to "Thin" our apple trees? How much will it cost? How should thinning be done? These are some of the questions confronting the grower. Mr. Finch has carried on some careful experiments along this line, and in this article answers some of the practical questions.

Overloaded Wealthy tree in orchard of Joe Morawetz, West Bend. It pays to thin trees such as this.

All trees do not require the same amount of thinning. This brings us to the question of what trees to thin. Let us consider first the biennial bearing trees which load up heavily with fruit every other year. They are common in Wisconsin and represent a distinctly different thinning problem than do regular bearing trees. During their fruiting year they present the most serious need for thinning. Thinning experiments have shown that with biennial trees, thinning will increase the value of the fruit harvested by several dollars per tree in years such as 1927 when the larger size fruit sold at 50 to 75 cents per bushel more than the smaller.

How to Thin

The best practice appears to be to thin all clusters leaving only a single fruit in a place. It goes without saying that the largest fruit in each cluster is the one that should be left. Measurements of the diameter of several hundred apples early in the season and again at harvest time have shown conclusively that the largest fruit at thinning time will be the largest fruit at harvest. Scabbed or injured fruit should be picked off. Thinning the clusters to individual fruits also insures a better coloring of the fruit in the fall. This is of particular value to the Wisconsin grower since one of his big problems is to get fruit that is well colored. One grower remarked when seeing some thinned fruit go over the grading table that, "It might be a good idea to thin enough trees to provide facers for the baskets".

The distance to which individual fruits should be spaced is dependent upon the vigor of the tree. Five to eight inches will usually permit each fruit to size and color well. *If the tree is growing well it will size more fruit than if little growth is being made.* In the latter case, leaving more space between the fruit will partly overcome the difficulty. The best remedy is to get the tree growing better. This can likely be done in a few years' time by a suitable change in the

fertilizer, cultivation, or cover crop program. The amount and kind of pruning materially affects the growth of the tree and the quality of the fruit.

It appears that under Wisconsin conditions regular bearing trees of most varieties will need thinning. Since they are not heavily loaded as a rule, the fruits in a cluster will size quite well. Nevertheless, the fruit will color better and the injury from side worm and codling moth will be less if the clusters are thinned out to one fruit in a place. Records of the yield by grades of regular bearing trees of biennial "on" trees indicate that almost as large returns can be expected from a regular bearing tree each year with only a little thinning as from a biennial bearing tree every other year, even when thinned.

One grower who has fairly regular bearing Wealthy trees finds that it pays him to thin. His trees are not heavily over loaded any one year so it is a relatively short and inexpensive task to thin. About ninety per cent of his fruit will pack out in the "A" grade. Another grower who has the same variety has adopted such cultural and pruning methods that his trees bear regularly. Almost as high a percentage of his fruit is "A" grade. He has never tried thinning. Very likely it would not be profitable for him. Wealthy trees of this type are not common.

Among other claims for thinning, it has been maintained by some that thinning a heavy bearing tree will induce it to bear some fruit the next year, in other words, make a biennial tree bear regularly. This may be seriously questioned for most localities, certainly for Wisconsin. With a growing season such as we have in Wisconsin, the removal of the fruit from heavily blossoming trees as early as the late petal drop stage is too late to induce fruit buds to form for the coming season. It is hard to see how fruit buds could be formed as a result of thinning the fruit in July. Thinning of a regular bearing tree may have some slight influence, tending to keep the tree regular.

Cost of Thinning

Any definite cost of thinning under commercial conditions cannot be given. It varies greatly, particularly with the character of the trees thinned. Obviously a heavily loaded tree will be more expensive to thin. One grower finds that it runs him less than four cents per bushel of harvested fruit. From the work that the writer has done he feels that ordinary help should be able to thin six heavily loaded trees a day per person. Estimating ten bushels to the tree, this would make a cost of about five cents a bushel.

It is hoped that some ideas may have been given which will help each grower to decide if he should thin or not. After all is said and done the only satisfactory way to find the cost and reward of anything is to try it. For those who feel after reading what has been said that their conditions warrant giving thining a trial, the following points are given:

1. Thin soon after the June drop. In Wisconsin this brings the thinning season sometime in July, depending on latitude and location.
2. Thin heavily loaded trees first—it is more important that they be thinned.
3. Thin the clusters to single fruits.
4. Space single fruits five to eight inches apart.

HORTICULTURE BEING PUSHED BY COUNTY AGENTS

By C. L. KUEHNER

Milwaukee County—R. B. Pallett reports that:

Twenty-nine Milwaukee farm orchardists, mostly spray ring members, used from 25 to 700 pounds of commercial nitrate fertilizer on their fruit trees. The number of trees fertilized in each of these orchards varies. Those who used some of this fertilizer in 1927 applied it on most of their trees this year, while those who had not used it before applied it on 5 to 20 trees at the rate of 5 to 7 pounds per tree in their mature orchards. It pays to fertilize generously.

Two farmers are also carrying on some commercial fertilizer demonstrations on their raspberry and strawberry plantations.

New Spray Rings Organized this Spring

The co-operative spray ring idea is growing among Wisconsin farmers. County Agents report spray rings as follows:

		New Rings	Total
Ozaukee Co.	G. S. Hales	6	10
Rock Co.	R. T. Glassco	3	28
Waukesha Co.	J. F. Thomas	1	10
Milwaukee Co.	R. B. Pallett	2	5
Outagamie Co.	Robt. Amundson	1	1
Racine Co.	H. G. Klumb	2	7
Green Co.	E. L. Divan	1	1
Kewaunee Co.			

H. R. Lathrope 1 and 9 new power sprayers

A few spray rings and commercial orchardists failed to get the first spray on their trees because they neglected to clean the spray machine at the time it was stored away for the winter. They repaired their machine while others sprayed their orchards. Scab will be scarce in the orchards which were sprayed at the right time.

Where to Put Manure

Many of our spray ring orchardists have learned that manure should be spread under and between the trees instead of being stacked around the trunks. They know that the feeding roots of the tree are under and beyond the spread of the branches, hence, this is the logical place for the fertilizer and mulch.

Plants Which Feed Upon Animals

By HURON H. SMITH,
Curator of Botany, Milwaukee Public Museum

"What's this I hear
About the new Carnivora?
Can little plants
Eat bugs and ants
And gnats and flies?"

CONSIDERABLE speculation has ever been rife when folks hear the statement that plants eat animals. Of course, plants do not really eat animals, but do entice and entrap them, deriving necessary nourishment from them. We are constantly reading wierd tales about monstrosities in plants. A favorite place to find these stories is in Sunday-school story papers.

Some of the tales remind one of "Little Orphant Annie,—And the goblins 'll get you, if you don't watch out". Only this week a man asked me if it was true that there is a plant that eats men. You will notice when you read about these wonderful plants, that they are usually located in some very inaccessible place,—like a deep swamp in Nicaragua, where the natives are afraid to venture, or in some fetid, tropical swamp in Java, where you are unlikely to journey to check up on the story. The light of science dispels these fearsome fogs of superstition. The deadly Upas tree is planted in botanical gardens now and fails to live up to its reputation.

Yet, there are plenty of strange plant food habits, without making any attempt to exaggerate. Truth is often stranger than fiction. Even in Wisconsin, we have plenty of plants that have very interesting life histories.

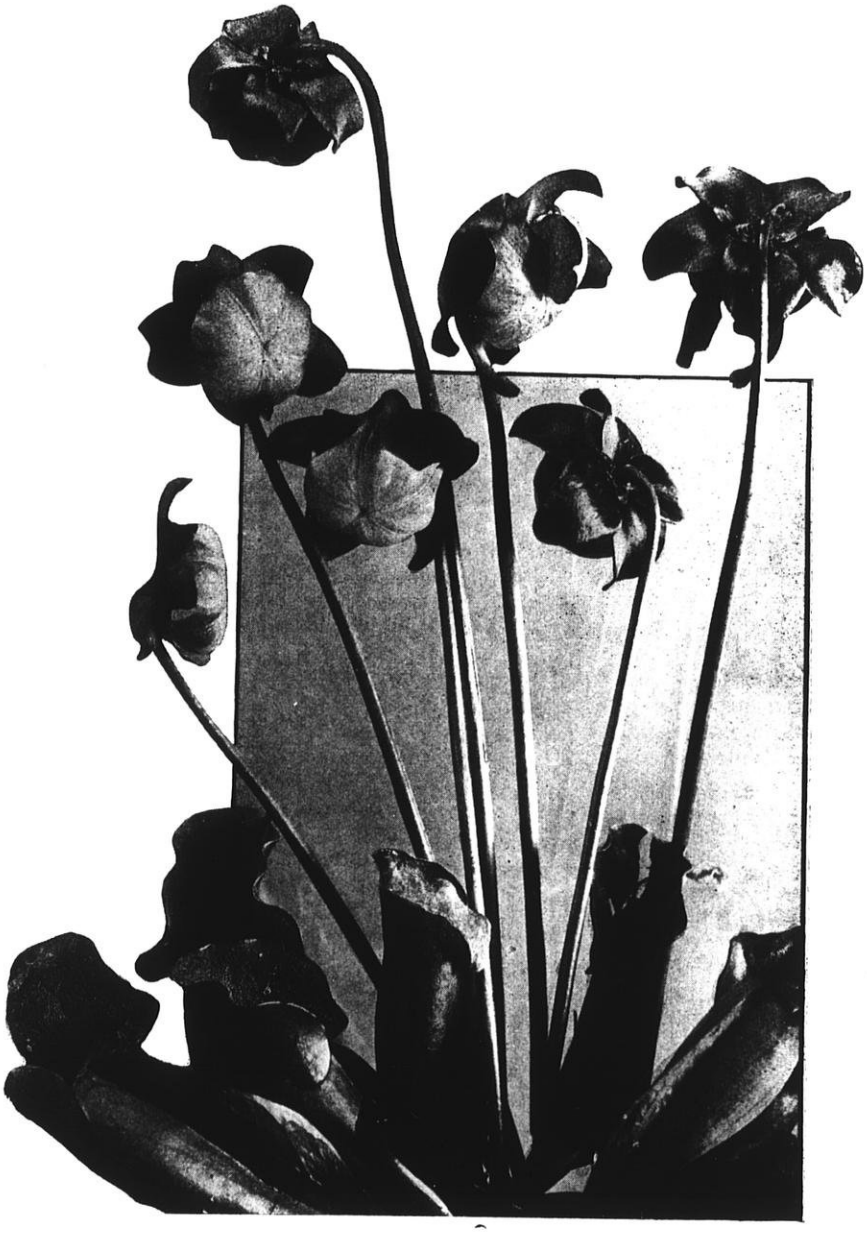
Most everyone understands how ordinary leafy plants live, by absorbtion of carbon dioxide and mineral nutrients through the roots. Besides these there is a great host of plants that live parasitic lives on other plants, while another large group like the fungi, live upon decaying vegetable matter.

This is the second of a series of articles by Mr. Smith given over W. T. M. J. The unusual action of the plants described here will be of interest to all our readers.

Another article "Plants That Attract Birds" will be given in the near future.

Why Plants Feed on Animals

The plants we wish to describe here have developed a method of obtaining a portion of their food from some other source than that of soil and atmosphere. They grow upon soil poor in plant foods, or in a situation where the roots cannot absorb the food because of an



The Leaves of the Pitcher Plant are traps for insects.

acid environment, like swamp water. They must have nitrogen, so they have evolved modifications that enable them to attract and capture, insects, small invertebrates and even young fish. They have evolved special absorbant tissue that enables them to take the nitrogenous parts of their prey. There are approximately 500 such plants, and they depend upon three methods of obtaining their food, —first, by chambers, which permit entrance but block escape; second, by definite movements of parts to capture; and third, by exuding sticky substances, which ensnare.

In the first group, we will explain three kinds, — bladderworts, pitcher plants and scale-leaved plants. The bladderworts are quite common hereabouts, some within twenty miles of the City Hall. They have a beautiful yellow flower rising from the submersed leaves in the swamp. The bladders upon the submersed stems perform a triple purpose of floating, aerating, and capturing food. Each pear-shaped bladder has an orifice, shielded by bristles, and closed by a valve which only works inward. A very slight pressure permits ingress, but there is no escape for the tiny water bugs that flea there from the minnow that chases it. Inside the bladder, there are digesting cells in sets of four, rod-like, and 24 to one bladder. In from one to six days, the insects die and are digested.

How the Pitcher Plant Feeds

Pitcher plants are equally well known and common to our region. Here the leaves are the traps,—the hollowed out leaf-stalk for the pit, and the brightly-colored blade for the attracting device. Did you ever notice that the little leaf-blade is the color of honey? Honey catches more flies than vinegar. Within the petiole or cup of the leaf, the hairs all point downward and it is a slippery and easy descent. Once there, the insect drowns, decomposes and absorbtion cells gather in the nitrogen.

That takes care of the flying insects, and the broad ridge along the petiole, delineated with nectar-like lines, invites the wingless ones like ants. Strange to relate, a moth and the grubs of a blow-fly live in the pitchers. But they are equipped for the job,—they have a special foot structure with a long claw and a sole-like attachment lobe that fits in between the hairs of the pitcherplant. They might be said to have spurs like a telephone lineman. When they finally emerge, they cut a hole in the pitcher and let all the water out.

Our native pitcher plant is not so voracious a feeder as some of the tropical Nepenthes varieties, such as we see in Mitchell Park Conservatory. I have seen them with 20 inch cups and four inch openings, sufficient in size to hide a pigeon. At the greenhouses of the botany department of the University of Pennsylvania, I have watched them put large rats and mice in the pitchers, to feed them.

Those plants with scale-like leaves, which fold over and entrap such miscroscopic organisms as amoeba and infusoria, need no secretions, as their prey takes refuge there naturally.

The Butterwort "Catches" Insects

Perhaps the most interesting plants in this discussion are those that perform definite movements. The butterworts are not found here but are native to Michigan. There are 40 species. Their leaves curl inward and hold the insects in a trough lined with mucilage. The digestive glands average 62,000 to a square inch. Sand upon the leaves brings no response. Nitrogenous organic bodies only ring the bell as it were. The absorbtive juice is much like the gastric juise of the stomach. It is also similar to rennet from a calf's stomach. 150 years ago in Scandanavia, Linnaeus explained how the Laplanders used butterwort to curd their milk. Two centuries ago, the Alpine shepherds used butterwort to cure the sores upon the udders of their cattle.

You Can't Fool the Sundew

Two species of the Sundew are found within easy reach of Milwaukee and forty species are found in this country. These tiny plants have a round or an oblong leaf, beset with tentacles and covered with glistening drops which look like, but are not, honey. These tentacles move clockwise, assuming an angle of 45 degrees in two minutes and 90 degrees in 10 minutes. You can't fool the sundew upon food. A lead pencil touch causes no movement, but put a piece of hair .2 m.m. long and weighing one-two millionth of an ounce upon the leaf and it will cause movement, because that has nitrogen in it. The tongue is the most sensitive part of the human body, but such a piece of hair is entirely unperceived upon it. Less liquids by weight than this piece of hair will cause movement in a sundew.

Another example of definite movement is found in the Venus Fly Trap, existing only in a narrow strip of country from Long Island to Florida, near peat bogs. It has an expanded leaf-stalk and a rounded blade, with 12 to 20 teeth upon both blades, but no glands upon the teeth. It does not respond to rain nor shock. The upper surface of the blade is the only sensitive portion. An insect can walk safely over the teeth, but let it but touch a part of the glandular blade, and in 10 to 30 seconds, the Fly Trap is on the job with teeth all set and folded in with a death grip. Then a slimy, colorless, highly acid juice containing pepsin, proceeds to digest the body in from 8 to 20 days. Here we see a division of labor, with mechanical teeth for capture only, as they carry no glands.

(Continued on page 310)

History and Species of the Iris

By I. J. SCHULTE,
Milwaukee

"A sword for its leaf and a lily for its heart."

Interest in the Iris is increasing and it promises to be one of our most important flowers.

The large number of new creations and beautiful colors of the Iris make it one of our most interesting flowers for study.

Among our garden club members it ranks at the top in favor. In this article Mr. Schulte ably describes the different species and classes of this beautiful flower.

Thou art the Iris, fair among the fairest,
Who, armed with goldenrod
And winged with the celestial azure, bearest
The message of some God.
—*Longfellow.*

THE word Iris is derived from the Latin and the Greek, the Latin word meaning goddess and the Greek word rainbow. So the Iris is the goddess of the rainbow. It has also been called a messenger of the gods, for Shakespeare in Henry IV says "Let me hear from thee; for whereso'er thou art in this world's globe, I'll have an Iris that shall find thee out." The word was given to this group of plants by the ancients.

The written history of the Iris covers a period of thirty-five centuries. Appreciation of the superb coloring and evanescent beauty of the flower is not confined to our day.

The fleur-de-lys, adopted as the royal French emblem in the days of Louis VII in the twelfth century, was suggested by the Iris. Ruskin said that the fleur-de-lys was the flower of chivalry because it has a sword for its leaf and a lily for its heart.

Iris Used for Freckles

Commercially, orris root has been made for centuries from the rhizomes of the wild iris of the hills around Florence, and various perfumes and drugs were made from other irises in different parts of the world. The seeds of the wild iris of France were at one time used as a substitute for coffee by the English. It was written in the sixth century in the Codex of Dioscorides that the iris was a source of a drug to remove freckles, and a thousand years later the physicians to the Duke of Somerset recommended a broth made of the Iris as a mouth wash.

Botanically, the iris family, Iridaceae, includes not only the Iris, but the gladiolus, the crocus, freesia, as well as such wild flowers as the blackberry lily, blue-eyed grass, and our native wild iris, Iris versicolor, which we call the blue flag. It is said that it is called a flag because it attracts the bee by waving its favorite color. Blue-eyed grass (sisyrinchium graminoides) is found in meadows and moist fields. It is the "little sister of the blue flag." Its flowers open for a day only. It closes its eyes as soon as picked and no coaxing but the sunshine will open them again in water. The blackberry lily (belamcanda punctata) is a native of China.

The modern Iris, sometimes more than four feet tall, with huge flowers and branching stems, is a product of the last twenty years. We are chiefly indebted for the improved types of Irises to Sir Michael Foster, who was professor of physiology at Cambridge University. Foster died in 1907, but other English and French and American plant breeders have continued the work that he inaugurated. Among the foremost breeders of the last decade are Vilmorin of France, William R. Dykes, A. J. Bliss, and George Yeld of England, and Bertrand H. Farr, Miss Grace Sturtevant, E. B. Williamson, and W. J. Fryer of the United States.

The Iris as a genus is confined to the Northern Hemisphere; it is not found south of the equa-

"The Goddess of the Rainbow."

tor, but it is found as far north as the edge of the Arctic Circle and as far south as the tropics. The centers of original location seem to have been central and southern Europe and the Orient, chiefly China. Because of this wide distribution there are many different forms of Irises, and there are probably several hundred species with thousands of varieties.

Classifying the Iris

In order to keep within reasonable bounds a classification must necessarily be limited. It is not necessary to go into the detailed refinements which distinguish certain types from other types.

The first distinction to be made therefore, is between bulbous and non-bulbous Irises. Each of these main divisions falls in its turn into several subdivisions, which themselves may be further subdivided into groups. The non-bulbous, or those which have rhizomes, are grouped by certain structural characteristics of the flowers and of the rhizomes. The bulbous are separated into two groups; those that have simple bulbs and those that have several thick tapering fleshy roots.

Of the bulbous, those with simple bulbs can be divided into two principal classes:

(1) The Xiphium Group.
(2) The Reticulata Group.

The Xiphium Group comprises the Spanish, English, and Dutch Irises. This species is characterized by slender plants. They are chiefly cultivated on the Pacific Coast and in the south, although we find our commercial florists growing Spanish Irises in their greenhouses.

The Reticulata Group has netted bulbs. They are practically not available to the average grower. In type they are somewhat similar to the Xiphium Group.

Of the bulbous Irises, those which have several thick tapering fleshy roots are rarely met in gardens in this country. They come from the shores of the Mediterranean and are not hardy in our climate. They are classified as the Juno Group. They are small, and to most gardeners are not worth the trouble necessary to keep them in health.

Dutch plant breeders are responsible for most of the garden varieties grown under the names of Spanish, English, and Dutch Iris, but there is now an embargo on the importation of such bulbs. Most of the bulbs produced in this country are sold to the florists for winter forcing.

The difficulties of classification of the rhizomatous or non-bulbous are very much greater than the classification of the bulbous. The divisions are not so easily defined as they are in the bulbous.

The rhizomatous irises may in a general way be separated into two classes:

(1) Pogoniris or Bearded Iris.
(2) Apogon or Beardless.

Some of the species which in other respects seem to belong to the Apogon Group have on the blade of the fall a pubescence which under the microscope becomes distinctly a beard.

Both the Bearded and the Beardless are easily distinguished from the Evansias, a small group in which the beard is replaced by a crest. The Crested Iris is a native of Asia. The principal species found in the United States are Iris cristata, a dwarf variety with creeping rhizome and broad leaves; Iris gracilipes, also a dwarf, with slender leaves; and Iris tectorum, which has a more conspicuous crest than the other two. The crested irises are semi-hardy and are suitable for rock gardens.

Another subdivision bears the mysterious name of Oncocyclus. This group is native to Asia Minor and Syria and is difficult of culture in the United States except in southern California. The Oncocyclus counts among its members some of the largest flowered of the Irises, as well as some of the most beautiful, with falls five or more inches across.

The Regelia Group is closely allied to the Oncocyclus and is easier to manage. It is named after Dr. Regel, who at one time was director of the St. Petersburg Botanical Garden and who introduced many plants into cultivation from Central Asia.

The Oncocyclus have been crossed with the Regelia to produce hybrids which are more vigorous and stronger than either parent and more amenable to ordinary cultivation. They have also been crossed with Bearded Irises. These hybrids are sold in this country as Oncocyclus.

Of the Pogoniris or Bearded type, the largest group is the Germanica, or German Irises. The name is not especially significant since very few irises are found wild in Germany, and those that are native of that country are not the parents of the plants now known as German Irises. The explanation lies in the fact that roughly speaking all the Irises comprised under this title resemble in growth and shape the common purple flag, of which the botanical name is Iris germanica.

The German Iris is a hybrid resulting from a cross between the wild iris of Italy, Iris pallida, and the wild iris of Hungary, Iris variegata. As early as 1823 a pioneer nurseryman of New York catalogued twenty distinct forms, since which time thousands of varieties of the same general type but of different colors have been named.

No scientific breeding was attempted until the time of Sir Michael Foster, from 1890 to 1907.

Classifying for Garden Purposes

For garden purposes German Irises are generally divided or grouped according as they most

resemble one or the other of certain supposed wild species. Or they are sometimes classified according to a system of color grouping. The following classification, which seems to have features of both of these systems, although it leans toward the color classification, is taken from W. R. Dykes:

1. *The Germanica Group.* These are of a medium height and are the earliest of the German Irises to bloom. They are of a purple tint.

2. *The Pallida Group.* This group takes its name from some south European plants, which, as compared with the Germanicas, are paler, both as regards flowers and foliage. Most of them have large flowers with tall flowering stems. The flowers are fragrant.

3. *The Variegata Group.* The wild iris variegata is found chiefly in Austria and has clear yellow standards and falls that are more or less completely covered with dark red-brown veins.

4. *The Amoena Group.* This name has been given to those irises of which the standards are pure white while the falls are of some shade of blue or violet.

5. *The Neglecta Group.* The characteristics of this group are standards and falls of some shade of blue, though the color of the standards is always lighter than the color of the falls.

6. *The Squalens Group.* This group comprises some of the most richly colored and also some of the most sombre of the German Irises. The standards seem always to have yellow and purple of various shades struggling for mastery. Falls are darker of some shade of purple or brown crimson.

7. *The Plicata Group.* This group has white flowers with a beautifully colored frill-like margin.

With the constantly increasing number of hybrids it is probable that this classification may not be adequate.

A simple color classification, to which can be assigned all of the known varieties, has been formulated by E. B. Williamson. There are six principal divisions representing the most obvious color of the flower: white; yellow; lavender; blue purple; pink; red purple. Each of these is subdivided based on the modifying or less prominent color of the flower.

In addition to the tall bearded iris the dwarfs and intermediates should be mentioned. The dwarfs are natives of the Alps and are the earliest of the bearded variety to bloom. The dwarf irises are represented freely in Iris pumila and Iris chamaeiris.

The intermediate iris represents a crossing of the tall with the dwarf bearded. These come into bloom after the dwarfs.

The Beardless Type

The bearded or Pogoniris occurs naturally over only a comparatively small portion of the world's area, whereas the beardless, or Apogon, is very widely distributed. The principal species of the beardless type are:

1. *The Sibirica Group.* This group is familiarly known as Siberian Iris. They have grass-like foliage and the flowers are borne on tall stems. The principal members of the group are Iris sibirica and Iris orientalis, which are similar in most respects except that Iris orientalis is stouter in all its parts and its flowers are borne on stems that scarcely top the foliage. There are a number of others in this group but they all resemble the sibirica in a general way.

2. *The Laevigata Group.* This group comprises the Japanese irises, the wild species of which is Iris Kaempferi. The Japanese Iris is a flat bloom, giant in size, and gorgeously colored. It delights in water when in bloom but not at other times.

3. *The Spuria Group.* These are tall and resemble somewhat the bulbous Spanish Iris. The flowers are much more open and delicate than the sibiricas. They are later bloomers and are slow to become established after transplanting.

4. *The California Group.* These are native to California and are dwarfs for the most part. They are somewhat difficult to manage in gardens and are not successful in any climate where winter cold destroys the evergreen foliage.

5. *The Water Irises.* These may belong to the Sibirica Group because of their water-loving propensities. They include Iris pseudacorus, the common yellow flag of Europe, and Iris versicolor, our native blue flag. Both of these are considered too coarse for garden purposes, but are excellent for landscape effects. They grow readily from seeds.

6. Two or three other groups of American beardless irises may be mentioned; the wild irises of the south and those of the Pacific Coast, which are classified, respectively, as the Hexagona Group and the Longipetala Group. Of lesser importance is the Tripetalous Group, the members of which have standards that are almost non-existent.

Aside from the main subdivisions there are various miscellaneous species that seem to belong to neither, that is, they have neither a bulb nor a rhizome for their rootstock but a mere bundle of roots attached to a growing point.

This does not by any means exhaust the classification of species. The wide distribution of the Iris has brought more and more species and more knowledge, but also more confusion and differences and mistakes in classification. Our interest as amateur gardeners is confined principally to the bearded type and one or two varieties of the beardless.

We have learned that there are some satisfactory Creeping Bent lawns at Dickinson, North Dakota. This should settle the matter of hardiness provided there is sufficient water.

The National Iris Show

By HURON H. SMITH,

Editor Florists Department

THE American Iris Society held their national Iris Show and Annual meeting, Wednesday and Thursday June 6th and 7th, in the Odd Fellows Temple at Freeport, Ill. Freeport, the historic place of the Lincoln–Douglas debate, is one of the oldest cities in Illinois, as the huge old trees there will attest. It is the center of iris enthusiasts and the home of the Quality Iris Gardens, of Mrs. Douglas Pattison. These gardens were one of the attractions of the show as well as the garden pilgrimages offered members, to local gardens, to the iris gardens of A. G. Boehland, of Rockford, Illinois, and those of Mrs. Azro Fellows, in Belvidere.

The attendance was around eight thousand, with members from California, Oregon, Washington, Texas, Alabama, Pennsylvania, Washington, D. C., most of the other states and even two from Scotland.

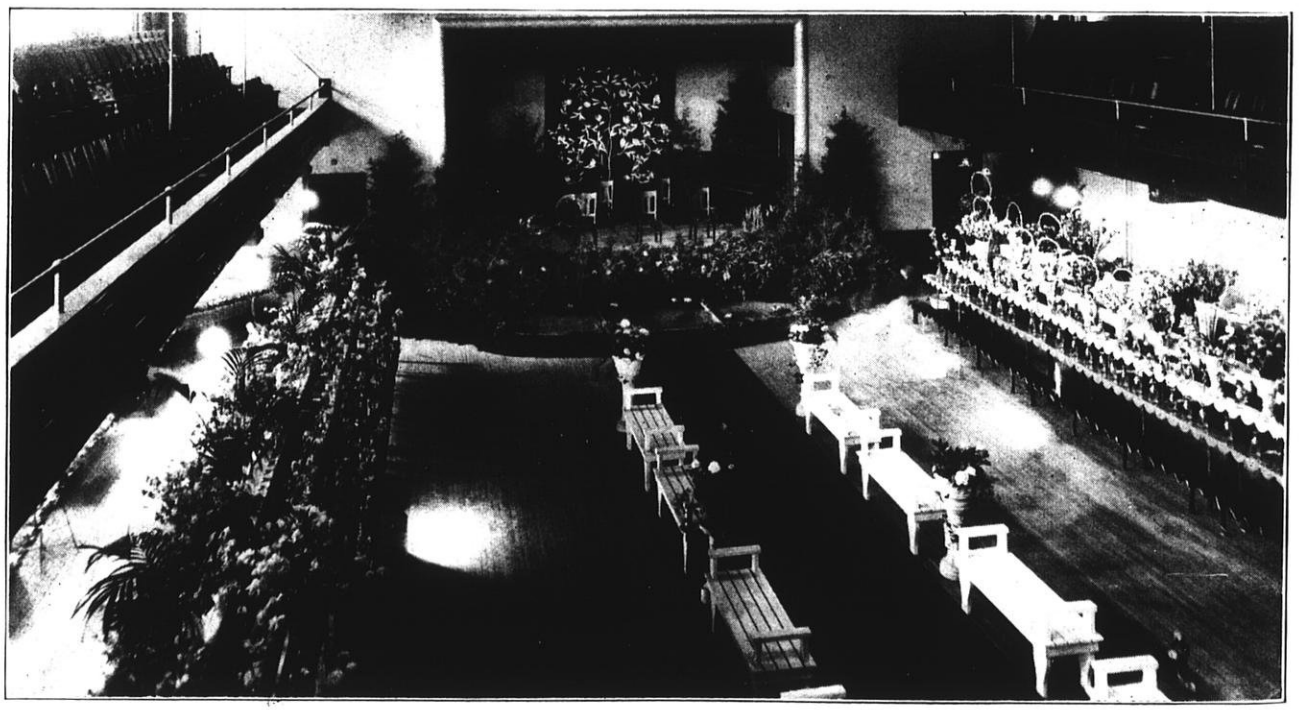
The officers of the Society are: John C. Wister, Germantown, Philadelphia, President; E. E. Williamson, Bluffton, Ind., Vice-president; John P. Wallace, Jr., of New Haven, Conn., secretary; Richardson Wright, of N. Y. City, treasurer, and R. S. Sturtevant, of Groton, Mass., Editor. Judges were: John C. Wister, Dr. H. S. Jackson, Purdue University, LaFayette, Ind.; C. P. Connell, Nashville, Tenn.; Mrs. A. S. Peckham, Rochelle, N. Y.; Mrs. J. Edgar Hires, Ardmore, Pa.; Mrs. G. W. Dumont, Des Moines, Ia., and Mrs. C. F. Harris, Chicago. W. A. Toole of Baraboo was one of the judges of exhibits other then Iris.

The I. O. O. F. Hall proved quite adequate for the National Show. The basement of the building was given over to rock and water gardens, with several pools and running water. Plenty of wild flowers in bloom were used in connection with the usual alpine plants. This type of exhibit was rather better done than similar exhibits we have seen at Louisville and Chicago. One could well believe that six months of thought had been expended upon them.

The iris exhibits were concentrated on the street floor in three tiers of shelves, making 36 shelves of exhibits. All of the rarest and finest iris were there. Two other exhibits were on this floor,—the "Perfect Bouquet" and the table arrangements. First prize in dining tables went to an arrangement of stocks and annual larkspurs in an ivory wedgewood bowl, with wedgewood service plates and crystal glasses.

The balcony on the stairways carried the window box contest entries, while the second floor housed the shadow boxes. These were especially interesting be-

(Continued on page 311)



Exhibition of the American Iris Society, at Freeport, Ill.
(Cut Courtesy Florists' Review)

Legion Beautifies Highways

By ESTHER FOSSHAGE
Mt. Horeb

American Legion Post at Mount Horeb on the job.

A NEW idea in landscaping has been pioneered by the Frank E. Malone Post No. 113 of the American Legion at Mt. Horeb, Wis.

Plans to beautify the small triangles of land cut off by rounding or relocating state and county highways, have been perfected and the work has begun on these plots.

Members of the legion have removed all rubbish, graded the soil, and seeded the plots with white Dutch clover mixed with the symbolic Flander's poppies. Three Lombardi poplars have been placed in the center, and each triangle will be bordered with low-growing shrubs. Natural stone markers with appropriate inscription will be placed within the triangle.

The two plots seeded by the Mt. Horeb Post are located very near the village, one on the junction of Highway 81 and temporary 18 north of town, and the other south of the village on Highway 92.

The project is an original one and is being worked out with but one intention—that of memorializing the ex-service men of the World's War, and rendering a creative service to the community and state. The idea for such a project probably came first from John S. Donald, of the University Agriculture Department, and Anton Ruste, a Mt. Horeb Legionaire and landscape gardener. Mr. Ruste, who is an alumnus of the University, drew the plans for the plots. The work, however, has been done by the entire Post, each man responding to do his bit in the undertaking.

The Post has received the cooperation and support of the State Highway Commission and the Friends of our Native Landscape. Letters are being received each week from other Posts in this state and other states, asking for suggestions and co-operation, in order that the work may be carried on by other Legion Posts.

ON, WISCONSIN!

The Legion Plants Trees

The American Legion posts at Mellen and Ashland will continue planting elm trees on Highway 13. They want to have a great double row of elms all across the state, from north to south. If they do, they will make Highway 13 one of the most beautiful and perhaps famous highways in America. For we have few tree-bordered roads left across any state.

Ashland county officials are co-operating by donating nut trees. These are given to farmers, who must plant them and care for them for two years. They are placed between the elms and give a bushy effect to the whole planting. Moreover, these nut trees will yield and prove worth having on any farm.

The nut tree plantings are especially interesting because they presumably are placed on the farmer's own property, beyond the highway line. That, probably, is the proper place to plant trees. Perhaps the elms ought to go there, too. For we have not yet regulated public utility companies sufficiently to be sure that a row of trees on the highways may not be slashed by the first crew of linemen that comes along to string new wires or change the old. Many a 50-year-old elm has been butchered in Wisconsin because some utility wanted to run a wire through the tree's crown.

Then, too, we do not yet know how wide our highways ultimately will be. It might be best to set the legion's trees back far enough to be sure that future highway widening will not destroy them.

The work of the Ashland and Mellen posts ought to be taken up by the other legion posts. What more effective work could they do for Wisconsin in the counties that Highway 13 crosses, than carry out this project? What better work for other roads in Wisconsin, than memorial elms or any other kind of elms, with nut trees in between, planted by the legion posts?

Some day Wisconsin will be heartily sick of barren highways. Her people will realize that there is more to a highway than a slab of concrete. When they do, they will thank men who planted trees; and they will go and do likewise, to cover over the desolation we have made on most of our roadsides.

—Milwaukee Journal.

Fruit Growers Visit Michigan Orchards

ON June 28 and 29 about seventy-five of our prominent cherry and apple growers made a tour of the northern Michigan fruit section. It was one of the most inspiring and instructive tours we have yet attended.

On landing at the Frankfort dock, a group of Michigan growers with autos greeted the party and conducted us to the Gus Rogers farm at Beulah. Mr. Rogers is one of eleven men awarded medals last year for his contribution to scientific farming. His orchard of 130 acres is considered one of the best in the country.

At noon the tour stopped at Benzonia Community Hall for dinner and a short program. The afternoon was spent visiting orchards near Traverse City where a banquet and excellent program was given in the evening.

The second day was spent in the Hart section where a number of fine orchards and experiments were inspected. Time and space will not permit a detailed account of the interesting experiments and demonstrations being conducted by the Michigan Experiment Station and Horticultural Society which our growers saw. More will be given in the August issue. Briefly, the outstanding features were:

1. The results obtained by Mr. Hootman, Secretary of the Michigan Horticultural Society, in the pollination of apples and cherries. By caging trees they have proven that bees and insects are required for pollination, there being almost no fruit on the caged trees. Where bees were introduced into large blocks of trees a marked increase of fruit setting was noticed.

Where the grower had a large block of a single variety of apples it was found necessary to introduce bouquets of flowers from other varieties in addition to the bees.

Mr. Hootman has promised an article with photographs for Wisconsin Horticulture on this subject in the near future.

2. The application of nitrate fertilizer and humus in addition to bees was held as the reason for the very heavy setting of fruit found in the best orchards. Heavy production requires heavy feeding if the tree is to be kept in bearing condition.

3. Professor Gardner stated that cherry pruning reduces the total yield of fruit and consequently the profit. An orchard in which every other tree in certain rows had been pruned was inspected. Each unpruned tree had from one to two dollars worth of cherries more than the pruned trees. Professor Gardner emphasized, however, that under Wisconsin conditions, pruning might be necessary to prevent winter injury of the fruit buds due to cold weather in winter. Apple trees must be pruned, however, or quality fruit cannot be produced.

4. Cherry trees are being planted one rod apart. This means more trees and more fruit per acre without any evident bad effects.

5. Winter killing due to poor locations, leaf spot due to poor spraying, and tree injury from lack of care and plant food were given as the reason for cherry trees being short lived. The result is that the increase in fruit production is not as great as the increase in planting of young trees would indicate.

Mention WISCONSIN HORTICULTURE when writing our advertisers.

MILWAUKEE HORTICULTURAL SOCIETY PLANS FLOWER SHOWS

THE June meeting of the Milwaukee County Horticultural Society was held Tuesday evening, June 26th, at 7:30 P. M., in the Trustee's Room of the Public Museum of this City.

Mrs. Malish opened the Program by reciting, James Whitcomb Riley's Poem, "Knee Deep in June."

This was followed by a talk on the kind of Programs for the meetings to be held during the coming winter months, and after an open discussion it was decided that the majority of the meetings would be devoted to Symposiums such as were held a year ago in which one or two flowers were discussed in detail by members of the Society.

It was then decided by the members to hold a Flower Show on July 8th, to be held in the Trustee's Room, Public Library, and to ask the Milwaukee Rosarians to join us in our display. Owing to the vast amount of rain it was decided that this be a general Flower Show instead of a Peony Show and a Rose Show which were held separately last year.

The Hales Corners Horticultural Society invited the members of the Milwaukee Society to display their flowers and compete for prizes in a Show to be held in the Bank Building at Hales Corners, June 28th and 29th.

Our President, Mr. Huron Smith, gave an interesting talk on the National Iris Show which was held at Freeport recently.

A formal discussion was then held on garden problems in general, and as usual the members spent an enjoyable evening.

Our next meeting will be held July 24th to which the Public is cordially invited.

Frank P. Giloth.

Thinning Eliminates Culls

By C. L. KUEHNER

Dutchess apple tree in Winnebago County Sprayring orchard. Received some thinning, still too loaded.

OUR Sprayring members have found that apple thinning pays. It pays because it results in larger fruit of more uniform grade, improves the color and quality, eliminates culls, reduces packing and grading costs, helps to prevent limb breakage, and increases the total yield of marketable fruit per tree.

There is a place for some thinning in most of our sprayring orchards. Those who have given the practice a fair trial are satisfied that it pays. Mr. Walter Yahr of the Waubeka sprayring, Ozaukee County, tried it last year. He says, "I thinned my McIntosh and secured fine results. I shall do more next year because it pays to do it on trees of good varieties which are heavily loaded."

The work of thinning is not expensive for there is practically *no cull fruit to pick and handle at harvest time.* This offsets most of the cost of thinning. Nearly all of the fruit on thinned trees will be either Fancy or No. 1 grade and every grower knows that this kind of fruit sells more readily and at a better price than low grade fruit.

Wisconsin Sprayring members have found that thinning pays. Not only are they spraying to improve the appearance of the fruit, but thinning to improve the size and color.

How To Thin

1. Shake the tree to remove "June drop" apples which have not yet fallen.
2. Remove all wormy, scabby and injured fruits, leaving only the largest sound fruit on the spurs.
3. Thin clusters to a few of the best fruits.
4. Remove the apples with fingers and thumb. Learn to use both hands.

Precaution: Avoid injury to spurs and fruit which is left.

When To Thin

1. Thin immediately after the "June drop" when apples are about the size of walnuts.

What To Thin

1. Trees of best marked varieties with a heavy set of fruit. Try it on a few trees of the Wealthy variety.

"Planting the Roadside" is the title of a very helpful bulletin on the subject of planting trees along our Highways. It gives a summary of the laws of different states relative to the subject, with many illustrations and suggestions.

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Postage stamps not accepted

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Our cover picture shows the Manitowish River flowing out of Boulder Lake, Vilas County, Wisconsin.

SOCIETY GIVES BOOKS AS PREMIUMS

SECRETARIES of Local Clubs have been notified of our plan to give either books or silver trophies as premiums to flower, fruit or vegetable shows.

So far the call has been entirely for books. We have prepared a list of good books which may be obtained on request. A suitable inscription will be written in each book, so all requests should state the prize for which it is being offered.

Convention of Wisconsin Garden Clubs

Auspices State Horticultural Society and Lake Geneva Garden Clubs

July 19–20, 1928

THURSDAY, JULY 19, 9:30 A. M.

Address of Welcome—Mr. William Pelouze, Lake Geneva.
Response—Mr. Jas. Livingston, Milwaukee, Member Executive Committee Horticultural Society.
Wild Flowers—Mrs. Chas. L. Hutchinson, Lake Geneva.
Garden Clubs of Illinois—Mrs. Frederic Fisher, Lake Bluff, Illinois, President Illinois Federation of Garden Clubs.
Dinner.

1:30 P. M.

Tour of Outstanding Gardens and Wild Flower Sanctuary near Lake Geneva, under auspices of the Lake Geneva Garden Club and the Gardeners Association. Demonstrations and discussions will be given at each place.
Professor R. E. Vaughan, College of Agriculture, will discuss plant diseases and troubles.

8:00 P. M.

Illustrated talk on Landscaping by a widely known landscape architect.
Illustrated talk on California Gardens by Mrs. Edwin Frost.

FRIDAY, JUNE 20, 9:00 A. M.

Some Soil Problems of Gardeners—Professor J. G. Moore, Wisconsin College of Agriculture.
How Our Garden Club Operates, 10 minute discussion—Huron H. Smith, President Milwaukee Garden Club. N. A. Rasmussen, President Oshkosh Garden Club. Mark Troxell, President Madison Garden Club.
In Union There is Strength—Mrs. C. E. Strong, West Allis.
A New Venture by The Horticultural Society—H. J. Rahmlow, Secretary of Wisconsin State Horticultural Society.
Demonstration on Arrangement of Flowers—West Allis 4H Demonstration Team.
Dinner.

1:30 P. M.

Boat ride around Lake Geneva inspecting the gardens and estates from the lake. The crowning feature of the meeting.

THE GARDEN CLUB MEETING

WE EXPECT this to be the best attended summer meeting of the year. We also expect that the future benefits of this meeting will be worth a great deal to the state.

You will be interested in what the garden clubs of Illinois are doing. Perhaps we can organize in Wisconsin along similar lines.

Arrangements for rooms in private homes or hotels can be made in advance by writing Mr. H. West, Secretary Lake Geneva Gardeners Association, Lake Geneva.

OFFICIAL SUMMER MEETING

La Crosse–August 10–11

AN INTERESTING meeting has been arranged at La Crosse. The first day, August 10th, will be devoted to the business meeting of the Executive Committee. The Minnesota society has its meeting on August 7 and 8, and we expect some of their members and officers to meet with us to discuss plans for the promotion of horticulture in both states.

On Saturday, August 11th, we hope to have with us members of local societies, especially from western and northwestern Wisconsin. The tour will be of unusual interest, taking in farms on which a landscaping contest is being conducted. The following is the program:

Friday, August 10

1:30 P. M. Executive Committee Meeting. Discussion of the welfare of the Society. Reports. Plans for Annual Convention.
Talks by Delegates from Minnesota.
4:30 P. M. Tour of City.
6:15 P. M. Picnic Lunch.

Saturday, August 11, 9:30 A. M.

Chamber of Commerce Building

9:30 A. M. Welcome by the Mayor.
Response—M. B. Goff, Sturgeon Bay.
10:00 A. M. Results with Strawberries—J. E. Leverich, Chairman.
10:15 A. M. Discussion—N. A. Rasmussen, Oshkosh.
10:30 A. M. Horticulture in Minnesota by member Minnesota Society.
11:00 A. M. Perennials—V. E. Brubaker, Washburn.
11:15 A. M. Pointers About Vegetables—H. C. Christensen, Oshkosh.
11:30 A. M. Horticulture in Western Wisconsin—Geo. Moseman, Menomonie.
11:45 A. M. What the Society is Doing—H. J. Rahmlow, Madison.
12:00 M. Dinner.
1:30 P. M. Tour—Auspices W. E. Spreiter, County Agent.
Visit Rural Planning Contestants on Farms near La Crosse.
Discussion of Rural Landscaping and the contest by Professor J. G. Moore and Franz Aust.

SUMMER MEETING MINNESOTA HORTICUTURAI SOCIETY

Duluth—Aug. 7–8

WE HAVE been invited by Professor R. S. Mackintosh, Secretary of the Minnesota State Horticultural Society to attend the summer meeting of the organization at Duluth. In turn we have invited them to meet with us at La Crosse, as our meeting closely follows theirs. We urge as many of our members as possible to attend.

The following from Professor Mackintosh tells about the meeting:

"The Minnesota Horticultural Society has been invited to hold its summer meeting at Duluth, Tuesday and Wednesday, August 7 and 8, 1928. This is the first time a Society meeting has been scheduled for Duluth. Thousands of our people go to Duluth each season to enjoy the iron mines, the lakes, the pines, and the north shore drive.

At the present time it is planned to start from Duluth at 8:30 Tuesday morning to visit farms, orchards, and greenhouses north of the city and to have dinner at Meadowlands. In the afternoon to see some of the truck farms on the return to Duluth. Wednesday morning we are to go to the Northeast Experiment Station and then turn toward the Forest Experiment Station at Cloquet where Professor Hansen says there are many things to see in the forest nurseries of the wood-using industries in Cloquet."

BOYS AND GIRLS CLUBS

SEVERAL Smith Hughes Agriculture instructors have stated that one of the best types of boys and girls clubs they have yet organized is the "Home Beautification Club."

A number of boys and girls who do not live on farms take the Agricultural course in High Schools. The Home Beautification project fills the need.

It also means an opportunity for Horticulturists to help.

VERY interesting to Horticulturists are the items which appear every month in the news letter sent out by Professor A. F. Yeager, Secretary of the North Dakota State Horticultural Society.

The following are a few that apply to Wisconsin conditions:

A new bulletin of interest to rose lovers is Farmers Bulletin No. 1547, entitled "Rose Diseases, Their Causes and Control."

"Are parsnips left in the ground over winter good to eat," asks a member. Yes indeed. In fact they are much better now than they were in the fall. While parsnips that have made considerable growth are popularly supposed to be poisonous, I have no personal knowledge of anyone having been injured by them.

What can be done with the tiny bulblets which form round the base of hyacinth bulbs? In Holland or in the bulb producing regions these little bulblets would develop within a few years to blooming sized bulbs. However, people growing hyacinths in pots had best just forget about these.

About the Home and Garden

MRS. C. E. STRONG, Editor 80th and George St., West Allis

FLOWER DEMONSTRATION

Outline for Boys and Girls Demonstration Team on Picking and Arranging Flowers

An outline for 4 H Demonstration teams.

A Flower Arrangement Demonstration is one of the most popular types for Club Members.

ALONG about this time of the year, the Boys and Girls Clubs are thinking about demonstrations. I wonder if they would be interested in this one:

"How to pick, care for and arrange flowers."

This demonstration is to be given by a boy, whom we will call Jimmie, and a girl, to whom will be given the name of Mary.

They have a garden and enjoy cutting flowers for the home, school and church.

In giving this demonstration, which is a very simple one, they are standing behind a table on which are the flowers to be used, vases in variety, with different insets to hold flowers in position.

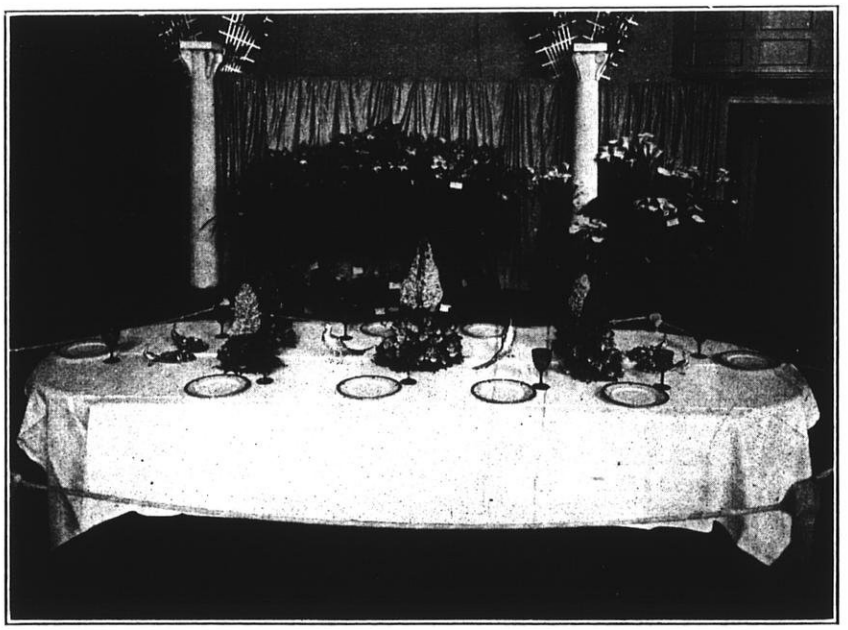
Jimmie will tell how and when to cut the flowers, how he cared for them so they would be fresh when they were wanted to fill the vases.

Mary will arrange them and give some of her favorite color combinations.

Jimmie: "Mary and I have a nice flower garden in which we enjoy working. One of the reasons why we grow flowers is that we may cut them and make our living rooms beautiful, also decorate the school room and the church. We give flowers to our friends as well, but they usually arrange them as they like best.

Early this morning before the sun was up, I went to the garden, taking with me a sharp knife, a pail nearly full of water and a pan also filled with water. Just as soon as I cut a handfull of flowers, I put them in water, the short stemmed ones in the pan, and the long stemmed ones in the pail.

By having the water right there in the garden I could take as long a time as I wished for cutting, with no danger of any of them wilting.



Most of us like flowers on the table. They must not be obtrusive.

After I had all the flowers I wanted, excepting the Poppies, I took them to the basement where I left them standing up to their necks in cool water, while I went back to the garden for Poppy buds—all ready to open as soon as the sun came out. I cut enough for a vase, but did not put them in water right away, for we have learned that all Poppies will keep for several days if their stems are plunged in boiling water for an inch or two, or singed over the flame of a gas or oil stove—or even with a match like this,—(He holds the stem of the Poppies closely together and lights a match—allowing the flame to sear the lower stems).

Then I put them in water with the rest of the flowers; I treat Dahlias in the same way, carefully cutting before the sun reaches them, searing the stems and keeping in water in a cool place until ready to arrange.

Then I bring in the vases and water, —and sort the flowers for Mary to arrange."

Mary speaking: "This is one of the nicest things about having a flower garden. I love to arrange the flowers in vases that suit them and place them in

our living rooms, in the school room or our church.

Mother loves a Rose or two on her desk. Roses have such beautiful stems it would be a shame to hide them, so we will put these two beauties in a tall slim glass vase. Father says he likes flowers on the table, but does not want them to be obtrusive, so I arrange table flowers in low bowls, like this grey pottery one for instance. But first I take this little piece of wire netting, (holds up netting) and press it in the top of the bowl (holds up bowl). You see it fits tightly in the top. This is the nicest thing to hold flowers in their places, without being stiff at all. I have pieces to fit all the other vases and jars. Where they are deep I use two and sometimes three pieces, especially when the flowers are heavy like Peonies, Dahlias and Gladiolus.

But to go back to our table bouquet, after filling the bowl with water we will try a combination of blue bachelor buttons with pink Poppies and a bit of meadow rue for green. Now really would'nt your breakfast taste better if you saw this while you were eating? Sometimes we fill a similar bowl with Pansies, like this—or For-get-me-nots with tiny yellow Iceland Poppies—or a glass bowl like this with Love-in-mist (blue Nigella) and the midget rose Zinnias.—There are so many pretty combinations, you can suit all tastes. When one friend visits us I use pink Phlox drummondi with a bit of green. Another's favorite is midget scarlet Zinnias with baby's breath. It is a real compliment to your guest you know to have their favorite flowers and color combinations.

Sister likes pale blue Delphiniums with creamy white Spirea in a pale green glass vase before a mirror. She says that is "perfect".

Jimmie likes Dahlias, pink, bronze and yellow, in a big brown jar. That's the sort of a bouquet he likes to bring his favorite teacher.

Grandmother likes the real old fashioned flowers arranged loosely in a big blue or brown jar. She sniffs at the idea of one or two flowers "stuck", as she expresses it, in a flat bowl. But you just bring her a big jar of larkspur, calliopsis, mourning bride, feverfew and some sprays of Amaranthus (kiss-me-over-the-garden-gate), and

Club members enjoy arranging flowers.

put it on the table beside her. She will look so pleased and say "Now, that's what I call a bouquet; reminds me of my first garden in 'York State' ", I suppose these Japanese bouquet admirers would call this "crude", but it suits my taste."

Aunt Julia likes Tiger lilies and Veronica in a big copper bowl.

While Uncle Harry says: "Me for color". He likes scarlet Lychnis with baby's breath, a big green vase, with plenty of the Lychnis.

The bouquet the minister and nearly every one else liked best, was, tall spikes of Delphiniums, with sprays of Madonna lilies, in Grandmother's old stone churn.

We all like Peonies arranged in big jars, also Iris. We never put any other flowers with these two, just their own foliage.

White Elm Nursery Co.
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General Line of
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But siberian Iris and Lemon lilies with Ribbon grass in a tall green pottery vase, or one of green glass, is a royal combination.

If you wish to place a vase or jar of flowers in a window, be sure to arrange loosely, so every blossom shows against the light.

There really is no secret about arranging flowers. Just the kind of flowers you like, arranged loosely in suitable vases with plenty of foliage just as they grow, always remembering not to crowd.

We thank you.

LETTERS FROM OUR READERS

Trouble With House Plants

Dear Mrs. Strong: Referring to your recent article in Horticulture, "When dreams come true", I wish to say that it actually has happened, and, at least so far, without any unpleasant after effects, in my case.

Now it is up to me to prolong this reality of long dreaming, and to this end I wish to enlist your kind assistance and perhaps that of some of our like-minded nature loving friends.

Last year in building a new home, I have come in possession of a nice 7–27 sun parlor with southern exposure. Now I would like to make the best use of it for my wife and myself, and wonder if you could give us

a list of plants that would do for indoors the year round.

I have Geraniums, Fuchias, Jap, Jade and Asparagus Sprengeri. I would very much like the plant for a hanging basket, which I find in a book under the name of Saxafraga Sarmentosa. I know the plant from the old country but have not been able to find it here.

I have tried several times to raise Cinerarias from seed, but while transplanted they gradually died off.

My wife would very much like to have some Foxgloves. I raised a nice lot of plants from seed last summer, but did not have a plant left in the spring. What is the care of them in the winter?

I read the list of those fancy plants you gave us, but most of them I could not get at our local green-houses.

Now for something different. —I noticed in one of the issues that the Editor is not always over-stocked with material and would like some help. For such occasions I would suggest procuring a list of things we use daily, but know little of how they are made or where they are produced.

I for one could describe how linen was produced from seed fifty years ago in the old country.

AUGUST GUSCHAUSKY,
Zion, Illinois.

We are glad to welcome our neighbor from Illinois and to know they read Wisconsin Horticulture. We will be very pleased to have you write and tell us all about producing linen from the seed to the finished product.

Cinerarias need to be grown cool, as the florists say; this is quite difficult sometimes during the warm weather. When I see all the troubles the florists have with aphis, spiders and heat, I am perfectly willing to let them grow Cinerarias for me.

Foxgloves are a rather uncertain plant in my own garden, I grew them for a number of years without any trouble, felt rather puffed up over it too. Then they froze out over winter, —and they have continued to do this. I am quite positive now that I do not know one thing about keeping Foxgloves.

Won't someone who has been successful in keeping them tell us what to do?

I think you will find that list of "fancy" plants very good indeed, if you try them out. I am sending some addresses to you by mail. If you send for the catalogs, you will be able to get the plant asked for, as well as many others that I named.

I would like some of our readers who grow house plants to give the names of plants that have done well for them.

Michigan Agricultural College reports that the principal pruning which red raspberries should receive is the thinning out of the canes. They found that the 5th to 10th buds on raspberry canes are the most productive and that beyond the 15th bud the yield produced was very small. Heading back is principally beneficial in preventing canes from becoming top heavy. Heading would also tend to increase drought resistance.

Changing a Lawn Into a Rock Garden

Dear Mrs. Strong: This is a picture of our "rock garden". We were tired of mowing the rather steep slope of lawn and we also had a rather strong desire for more flower space, so we decided to use the entire west slope.

Stones and some small shrubs keep the earth from slipping, while Iris and many other perennial plants make this corner a joy to ourselves and neighbors, as well as to the passer by.

Lawn changed into rock garden. Home of Mrs. J. F. Schipper, Milwaukee.

We have found that Iris do exceptionally well on the slope, so are gradually replacing some of the commoner less beautiful varieties with the newer lovlier sorts.

MRS. J. F. SHIPPER,
Milwaukee, Wis.

This garden is indeed a "joy" to passers by. After seeing this transformation, one wonders why more of these steep, hard to mow places are not made into gardens.

"A Score of Easily Propagated Lilies" is the name of circular No. 23 of the United States Department of Agriculture.

THIRD ANNUAL FLOWER SHOW

West Allis School Garden Clubs

Held at the First National Bank, Greenfield at 62nd Avenue, Friday and Saturday, August 17–18, 1928.

The Judge—Mrs. C. E. Strong.

Ribbons to be furnished by the Woman's Club.

One dozen tulip bulbs will be given with each blue ribbon and one-half dozen tulip bulbs with each red ribbon winner.

The tulips will be given out the last of September for fall planting. A tulip show will be held in the spring of 1929.

Premium List

CLASS I—MIXED BOUQUETS

1. 2 or more varieties of flowers.
2. Special. The women of the West Allis Garden Club will give prizes of valuable perennial plants to the six most artistic bouquets in this class.

CLASS II

1. 4 or more stalks of the following flowers is an exhibit:

1. Asters	9. Delphinium
2. Larkspurs	10. Nasturtiums
3. Pinks	11. Cockscomb
4. Roses	12. Daisies
5. Calendulas	13. Pansies
6. Marigolds	14. Pinks
7. Celosia	15. Mignonette
8. Petunias	16. Other varieties

CLASS III—SPECIAL FLOWERS

4 to 8 stalks of the following:

1. Gladiolas	4. Snapdragon
2. Verbenas	5. Annual Phlox
3. Zinnias	6. Dahlias

Class III in order to encourage the growing of these 6 varieties of flowers the First National Bank will give cash premiums of 75¢ for 1st, 50¢ for 2nd and 25¢ for 3rd place. This is in addition to the tulip prizes.

Mr. Coon will supply gladiola and dahlia bulbs at wholesale prices. Giant Snapdragon and Giant Zinnia plants will be furnished at 10¢ a dozen.

Wisconsin Horticulture quotes Professor Gardner of Michigan as stating that raspberries are often seriously damaged by deep cultivation in summer which cuts the roots. In one case the yield was reduced from 61 to 31 crates per acre by disking just before ripening season. N. Dakota.

3 points to question

Increased Yield

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2. Will your crop be of the high quality demanded in discriminating markets?
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Results PROVE the quick availability of the nitrogen in

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Sulphate of Ammonia

The Barrett Company (address nearest office) G-4-28 NJ

Please send me sample package of Arcadian Sulphate of Ammonia. I am especially interested in.....
(*Write names of crops on line above*)
and wish you to send me bulletins on these subjects.

Name_____

Address_____

Potato Growers Department

J. G. MILWARD, Editor
Secretary of the State Potato Growers Association

WISCONSIN POTATO TOUR

Aug. 13–18, 1928

THE program of the Wisconsin Potato Tour promises to be one of unusual interest to all potato growers. The following is the program:

Monday, August 13

Assemble at Spooner Branch Station for inspection of crops and experimental work and also a *Station Day program on potatoes.* Leave Monday evening for Rice Lake.

Evening Program — Smoker and conference with State Potato Show committee.

Tuesday, August 14

In the forenoon, a tour of northern Barron County. Picnic at noon with program.

Depart at 3:00 P. M. for Phillips, Price County, via Ladysmith.

Evening program at Phillips.

Wednesday, August 15

Forenoon, tour near Phillips inspecting some large Triumph fields.

Noon, picnic dinner on potato farm near Ogema with a field program.

3:00 P. M., depart for Tomahawk. Evening, program on the scenic location on the banks of the Wisconsin River, 200 acre field adjoining.

Thursday, August 16

Leave Tomahawk for Rhinelander.

Field meet at noon in Green Mountain and Irish Cobbler center near Harshaw.

P. M., at Stark. Stop at Rhinelander Thursday night.

Friday, August 17

Depart for Three Lakes and Eagle River section. Inspection of a large field, and program.

Saturday, August 18

Leave Rhinelander for Antigo. Tour of Langlade and western Forest County with field meeting and program in Langlade County.

Tour closes at Antigo Saturday P. M. Special recreation features at the close of the tour. Additional information on the program will be given in the next issue.

The Wisconsin Potato tour is one of the outstanding projects of the Potato Growers Association.

Wisconsin Certified Seed proves its merit by actual tests in the south.

POTATO SHIPPING TAGS REVISED

"BADGER State Brand" shipping tags for certified seed potato shipments have been revised by the Horticultural Department and the Wisconsin Department of Markets.

The new tag is registered by the Department of State. It will provide space for the growers number. It will be stamped with the years 1928–29 for the current season crop.

A reproduction of the tag will be submitted in the next issue of Wisconsin Horticulture.

WISCONSIN SEED POTATOES LEAD IN THE SOUTH

THIS last season, February to May, 1928, the county agent of San Benito, Texas tried out 70 different samples of Triumphs from growers in Nebraska, Montana, Wyoming, Colorado, Idaho and Wisconsin.

He has just sent out a detailed report of the yield from these different plots. The results show that the Wisconsin seed leads.

The average yield obtained from all Wisconsin plots was 214 bushels per acre.

The average on all other certified plots, all states, was 174.8 bushels per acre .

In addition, seed from Wisconsin grower No. 1, gave the second highest yield of any plot, and seed from grower number four the third highest yield of any plot.

The following are the yields per acre from Wisconsin seed:

Grower No.	1	258 bu.	Per A
"	2	158 bu.	per A
"	3	229 bu.	per A
"	4	249 bu.	per A
"	5	214 bu.	per A
"	6	182 bu.	per A

All seed furnished by Wisconsin growers and the Spooner Branch Station was Triumph stock,—improved through tuber indexing. The results show the high quality of Wisconsin seed in the South. Tests carried on in previous years gave much the same results.

For next year the Department of Horticulture is considering testing Wisconsin seed on a car lot basis.

Certain centers in Wisconsin specializing on Irish Cobbler, Green Mountain and Rural New Yorker Stock are planning on an intensive certification campaign for 1928. Increased attention will be given particularly to improved grading, shipping and marketing arrangements.

POTATO INSPECTION NOTES

A LARGE number of early applications are being received at the Horticultural Department indicating an unusually active season in certification.

The number of applications and acreage of certified seed will possibly exceed the average for any previous year.

The Inspection Service will make a preliminary inspection and survey in important producing sections prior to the first inspection which will begin about July 15.

Send in your applications early.

SPRAYING AND DUSTING POTATOES

By C. L. FLUKE

THE arrival of the 4th of July is always a signal to Wisconsin potato growers that it is time to check up on the insects present and be prepared to spray or dust.

If you have spraying equipment, *spray;* if you have dusting machinery, *dust!* The important points to keep in mind are promptness and thoroughness of application.

For the first application, when plants are only 3 or 4 inches above ground, it is usually necessary to use only an arsenical such as *calcium arsenate.* At this time, usually only bugs are present. Use at rate of 5 pounds to 100 gallons of water or 20 pounds to the acre if dusted. The dust, of course, is a mixture containing only 25% calcium arsenate.

For the later applications, and these should come at about ten day intervals, use a Bordeaux with the arsenate. The Bordeaux dust can be purchased with or without the presence of the poison.

If the tiny black flea-beetles are present when the first application is made, Bordeaux should also be used. These beetles sometimes become very numerous on the early varieties.

The more the material is applied to the under-sides of the leaves, the better the results, especially for control of the leafhopper. For an average year, four applications are needed; although some years three are sufficient.

NEW GARDEN TOOL

The I. G. Brunner Mfg. Co., Ferndale, Michigan, are manufacturers of a variety of garden tools that will be of interest to any large grower of vegetables or other plants. We have tried their weeder, designed for taking out weeds between plants in the row. Under favorable conditions the machine will actually remove the weeds in a row of onions or crops of similar type. If interested, we suggest that you write for their catalog.

SOUTH DAKOTA PLANTS MORE CERTIFIED POTATOES

A letter from the South Dakota Agricultural Department indicates an increase in the acreage of certified seed potatoes planted there this year. The report says that approximately 400 acres were grown last year and the total this season is expected to reach about 600 acres.

Their last year's crop of Irish Cobbler seed was marketed in Virginia and the Triumphs in Texas. Price on Cobblers averaged about 1.10 while the price on Triumphs was about $1.00 per bushel.

WHEN FAR OFF FIELDS ARE NOT SO GREEN

IN THE Press Bulletin of the State Department of Agriculture Mr. Gunderson, in charge of the Immigration Department, writes the following, which may improve the feelings of those who are sorry they haven't gone south:

"Evidently our short article in our last issue on Rio Grande fruit raising attracted some attention. Our office had a letter from a prominent member of the Legislature of Wisconsin in which he calls attention to the fact that in his town one man invested $35,000 in Rio Grande land and another bought 52 acres at $400 an acre. Both consider their investment a dead loss. He says, 'They get the suckers so excited on the trains going there that they actually telegraph orders for land from the trains.

When they get there they are herded up in a tent and get no chance to investigate. If they did, they would learn that they could buy improved land with buildings and tools for actually one-fourth what they pay for wild land'.

"Better follow Wisconsin with her safe and sane diversified farming and dairying than the will-o-the-wisp beckoning in the South. Better be safe than sorry."

HARDY PERENNIALS

New & Standard Varieties

300 Kinds

Strawflowers—All Varieties

J. F. HAUSER
Bayfield, Wisconsin

Send for Price List

PEONIES, IRIS, PHLOX

Other Hardy Perennials
Gladiolus and Dahlia
Bulbs

Catalog Free

Edw. J. Gardner Nursery

West De Pere, Wisconsin

Local Society News

MINUTES OF JUNE MEETING OF OSHKOSH SOCIETY

THE June meeting held on the evening of the 4th, took place at the home of Miss Flora Morgan, at Sandy Beach, south of Oshkosh.

The members assembled at 6:30 at the cottage near the Lake, where a picnic supper was served. There were a large number in attendance.

After supper, all went up to the home of Miss Morgan, near the cottage, for the business meeting, which was opened with the singing of several well known songs, including the Horticultural song.

Minutes of previous meeting were read and approved. Miss Merle Rasmussen read the list of prizes which had so far been offered for the flower show to be held the latter part of June. Request was made for additional prizes, and several were offered at the meeting.

Master Richard Hansen rendered several vocal selections which were greatly enjoyed by all, after which Dr. E. F. Bickel gave us a talk on food values of the various vegetables and fruits. I am sure everyone present, after hearing this talk, will realize more than ever the great value of a vegetable and fruit diet.

The next meeting will be the strawberry festival, which will be held at the home of the President, Mr. N. A. Rasmussen. The date will be announced later, as it will be governed by the strawberry season.

MISS A. PHILLIPSON,
Secretary.

Mention WISCONSIN HORTICULTURE when writing our advertisers.

MILWAUKEE COUNTY ROSARIANS PLAN PILGRIMAGE

WE ARE planning a number of pilgrimages to the rose gardens of our city and country members during June, July and August so that we may study their roses and how they are cared for at first hand.

Furthermore, anyone who joins our Society is assured of definite help in getting started with roses, for we will do the actual planting for them and pay frequent visits to their gardens to see that proper care is given.

Our membership is growing and we feel that before long we shall have a real aggregation of "rose bugs" in Milwaukee. I shall tell you about our first pilgrimage shortly.

I. J. SCHULTE,
Secretary.

WISCONSIN STATE CRANBERRY GROWERS ASSOCIATION MEET

THE Wisconsin State Cranberry Growers Association will hold their summer meeting at the Pavilion near Nekoosa on Tuesday, August 14th.

The program is not yet complete but we hope to have such prominent speakers as State Entomologist, E. L. Chambers, Dr. Neil E. Stevens of Washington, D. C., our field man H. F. Bain and his assistant D. McClain, also our county agent R. A. Peterson. There will be discussions of problems peculiar to the cranberry industry in Wisconsin.

CLARE S. SMITH,
Secretary.

Mention WISCONSIN HORTICULTURE when writing our advertisers.

MADISON GARDEN CLUB HAS OUTDOOR MEETING AND PEONY SHOW

THE June meeting of the Madison Garden Club was held on the farm of C. F. Felton near Madison on June 12. After the picnic supper, Mrs. Felton took the members on a tour of inspection through her gardens. Eighty varieties of Iris, mostly in bloom, proved of much interest.

Reports were given by Mrs. Felton, Mrs. McLean and Geo. Morris on the National Iris Show at Freeport. Plans for the Peony Show were perfected.

PEONY SHOW FILLS CAPITOL ROTUNDA

A SPLENDID exhibit of peonies, iris, columbine and roses filled the Capitol Rotunda at the Peony show held June 16–17.

Practically all classes were filled and the display was considered one of the best ever put on in the city.

The next meeting of the club will be held July 10 at the cottage of H. R. Briggs at West Point, on Lake Mendota.

A number of members will attend the garden club meeting at Lake Geneva.

A fall flower show is being planned for some time in August.

HALES CORNERS CLUB MEETS

Will All Attend Lake Geneva Meeting

THE June meeting of the Hales Corners garden club was held at the home of Mrs. Earl Miller. Mrs. J. Sherwood and Mrs. C. Staub of Milwaukee were guests.

Communications from several children who wished to enter the flower garden contest but were above age limit, were discussed and the ages for entering were raised from 8 to 12 to 8 to 15 years.

The club agreed to hold a flower show Thursday, June 28th in the lobby of the local bank. Four first prizes of one dollar each, and four second prizes of fifty cents each are to be given respectively for roses, peonies, delphiniums and mixed bouquets.

Mrs. John H. Paul, a member of the Hales Corners Garden Club, won first prize at the Iris show of the Milwaukee County Horticultural Society on June 10th. The variety was "Lent A. Williamson".

An order for ten each of thirteen different varieties of highly rated iris was placed.

A communication from the State Horticultural Society was read regarding the meeting at Lake Geneva in July and all members of the club will go for at least one day.

The meeting adjourned. Lunch was then served and an inspection of the garden followed. A very beautiful yellow rose in full bloom attracted general attention.

MRS. A. W. JOHNSON,
Secretary.

SUM-MER-DEL CLUB HAS INTERESTING MEETING

THE June meeting of the Sum-Mer-Del Garden Club was held at the home of Mrs. Roy F. Farrant of Delafield, who is our president. Mrs. Nixon acted as chairman of the meeting.

Features of the meeting were: the correct pronunciation of Botanical names of flowers by Mrs. M. M. Day and Miss Lowerre.

Mrs. Hassenplug and Mrs. Hitz gave resumes of trips the club had taken to the lovely protected woods on the Martin farms at Big Bend, Waukesha County; to the gardens of Mrs. A. J. Rogers at Oconomowoc Health Resort with its tulips, lilacs, narcissi, etc., in full bloom; to the lovely rock gardens, pools at the Hutchinson Sanctuary for the Native Plants and Birds of Wisconsin at Lake Geneva; to the Crane Estate gardens and glass houses; to the Ehlein Estate at Williams Bay. They also reported the meeting of "The Friends of Our Native Landscape Association" near Madison.

This meeting was largely attended as it was on the 97th anniversary of the rescue of the two white girls from savage Indians. A portion of this program was a delightful mask just at the twilight hour presented by Madison talent, an unforgetable bit of realism. The meeting then resolved into a social gathering and a visit to Victory Chapel on St. John's Military Academy Campus, a memorial to the former students who participated in the recent war. Chatting and refreshments completed the afternoon.

The club was made acquainted with the generous offer of the State Horticultural Society to help in any exhibits or shows it might give by its donations of premiums in form of garden books or silver trophies.

MRS. C. S. HASSENPLUG,
Secretary.

FIFTH ANNUAL GARDEN EXHIBIT

West Allis School Garden Clubs

Exhibit held in High School Gymnasium.

A program in the High School Auditorium.

Thursday and Friday, Sept. 13–14, 1928

The 1st and 2nd prize exhibits will be shown in the First National Bank, Saturday, Sept. 15.

Premiums, blue ribbon 1st, red 2nd, white 3rd, pink 4th.

Ribbons given by West Allis Woman's Club.

CLASS I—FLOWERS

Mrs. C. E. Strong, Judge

4 or more stalks of the following flowers is an exhibit:

1. Asters
2. Larkspurs
3. Pinks
4. Roses
5. Calendulas
6. Marigolds
7. Celosia
8. Petunias
9. Delphinium
10. Nasturtiums
11. Cockscomb
12. Daisies
13. Pansies
14. Pinks
15. Mignonettes
16. Other varieties

CLASS II—MIXED BOUQUETS

2 or more varieties of flowers. Special. The women of the West Allis Garden Club will give prizes of valuable perennial plants to the six most artistic bouquets in this class.

(Continued on page 309)

Have You A Flower Garden?

Why Not More Perennials?

Our Northern Grown Plants

Are Always Good

Write for Catalogue

Chequamegon Flower Gardens
V. E. Brubaker, Mgr.
Washburn, Wis.

Overcoming Horticultural Troubles

E. L. Chambers, State Entomologist, Editor

NEW NURSERY INSPECTION FEES

AT A hearing held at the office of the Commissioner of Agriculture, Mr. W. A. Duffy, early this spring, attended by nurserymen from many sections of the state a fee was decided upon, and adopted, for nursery inspection such as has been charged for other similar types of service in the department since the department was established.

The cost of inspecting some five hundred nurseries in Wisconsin during the past year was approximately five thousand dollars. Since the budget allowed by those in charge of the state's finance for this work was only twenty-five hundred, it was necessary to meet the deficit by requiring those who directly benefit from the inspection service to stand half of the expense and the state the other half. This service affords the state indirect service by protecting its public against the spread of dangerous insect pests and plant diseases.

In order to provide this protection intended by the statutes, and charge it to those who were deriving the benefit, the following schedule of inspection fees was adopted.

Permits

Permits for the local distribution of plants by growers who are not nurserymen and who do not advertise the plants in any publication may be issued provided the plants are free from dangerous insect pests and plant diseases. Application for such permits should be made before the first of June of each year and the inspection will be made at the convenience of the inspector. The fee for such inspections will be based on the actual cost but shall not exceed $2.50 for the first acre or fraction and 50 cents per acre for each additional acre or fraction. Such growers will not be issued nursery certificates but tags will be issued to them as they are needed. A reasonable number of these permit tags will be furnished gratis where a fee has been paid otherwise a charge of ten cents will be made for each tag issued. No postage stamps can be accepted.

The charge for special inspections at the request of the grower may be an amount sufficient to cover the actual traveling expenses of the inspector.

No fee will be charged for the inspection of nursery stock forwarded, prepaid, to the office of the State Entomologist. Postal authorities and express agents will accept nursery stock without a certificate when so addressed. Before attempting any interstate shipment of nursery stock, write to the State Entomologist for information regarding the specific shipment contemplated. An inspection in the field is required for raspberries and certain other plants. These cannot be inspected in transit.

Fees for Nursery Certificate

The minimum fee for all nurseries applying for a certificate is five dollars ($5.00). This fee covers the inspection of one acre or less of nursery stock and it must accompany the application which the regulations require to be filed before June 1 of each year. The remainder of the fee, if any, must be paid by October 1 at which date the certificates are issued, or as soon thereafter as the amount due has been determined. No certificate will be issued until the full amount of the fee has been paid. In case the nursery fails to pass the inspection the minimum fee filed with the application will not be refunded but no additional charges will be made. The fee for additional acreage of actual nursery stock shall be as follows:

A. Strawberries only, fifty cents per acre or fraction thereof.

B. All other nursery stock, or other nursery stock and strawberries, $1.00 per acre or fraction thereof for the next ten acres, and 50 cents per acre for all additional acres.

C. Scattered nursery stock such as native trees in woodlots, aquatic plants, etc., may be charged for at the rate of $1.00 for each ten acres inspected.

Transportation between different plots of a nursery, separated by one mile or more if not furnished by the nurseryman may be charged for at the rate of 10c for each mile actually traveled. This shall be in addition to the regular fee.

The charge for special inspections at the request of the nurseryman may be an amount sufficient to cover the actual traveling expenses of the inspector in addition to the regular fee.

No fee will be charged for second inspections, packing house inspections, etc., made at the convenience of the inspector, unless made necessary by the negligence of the nurseryman in carrying out the instructions of the inspector.

We have learned that there are some satisfactory Creeping Bent lawns at Dickinson, North Dakota. This should settle the matter of hardiness provided there is sufficient water. N. D.

STRAWBERRY DAY

(Continued from page 284)

At the close of this talk a motion was passed that the Society hold a meeting at Warrens sometime next summer.

Mr. Kern emphasized the necessity of getting berries into the car in good condition for shipment. He said that probably the growers would find difficulty in grading their strawberries this year because pickers are hard to get and hard to train. He expects, however, that good results will be obtained in the near future.

The Secretary explained how growers can join the State Horticultural Society by affiliating their local organizations with the State Organization at a reduced rate. A large number of those present availed themselves of this opportunity.

Mr. Chambers, State Entomologist, told about the work of the Department of Entomology. He outlined the fees being charged nurserymen and plant growers for inspection. The initial fee is $5.00 with a small fee per acre. Growers who wish to sell only a few plants and do not advertise, may have their inspection done at a reduced rate.

It is unlawful to transport plants of any kind from one place to another in Wisconsin. Growers who wish to sell plants or even give them away should apply for inspection. This law is necessary to prevent the spread of disease in the state.

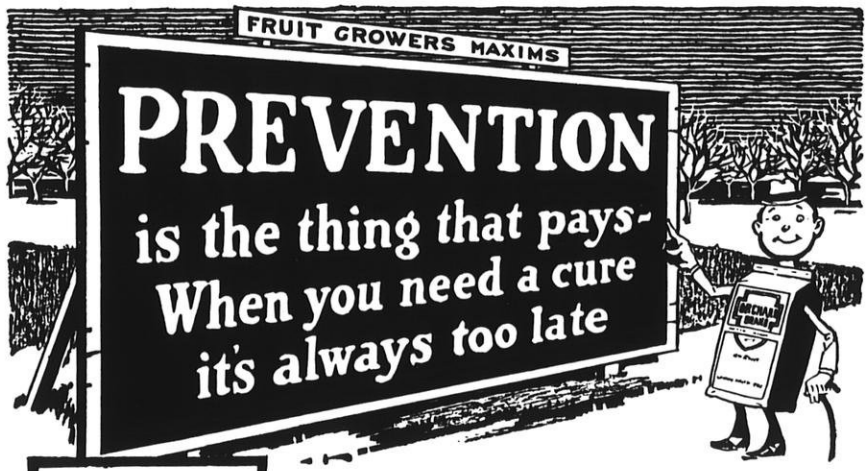
At noon the ladies of the Methodist church at Sparta served a very fine luncheon including strawberry shortcake, the berries having been furnished by the Sparta Fruit Growers Association.

Fine Fields Seen on Tour

County Agent L. G. Kuenning was in charge of the tour. The first stop was at the farm of Mr. Kohler near Sparta. Mr. Kohler has a fine field of Beaver strawberries on soil that has been limed. His opinion was that liming has been of some benefit though the field several years ago produced an excellent crop when it was in acid condition. He likes the Beavers, but prefers Premiers.

The next stop was on the farm of Mr. Will Huddelson where Beaver and Premier strawberries were seen on a heavy soil. The crop was very good. 3–12–6 fertilizer at the rate of 500 lbs. per acre had been top dressed on the old bed this spring but no results could be seen. The season has been very dry so far and one would not expect commercial fertilizer to show any results this early. It was emphasized on the tour that it is best as a rule to apply the fertilizer on the crop the year preceding bearing so the plants will get the most benefit. Fertilizer should always be harrowed in.

On the farm of Mr. M. M. Haney, winter killing on Latham



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YOU are investing material plus labor. You must have results or you will lose not only your money spent but crop profits, too! Play it safe and buy "**Orchard Brand**" Materials. They are the standard of dependability.

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SPRAY & DUST MATERIALS

raspberries was noticed, probably because they had not been covered correctly. Several of the growers said that raspberries and blackberries should be layed down lengthwise in the row and not crosswise with the row. In this way they are better protected and will hold the snow.

Dr. Seidel of Warrens likes the "Hill System". He lays the canes down toward the east, and mulches with hay.

On the farm of Mr. M. Powell a large number of different varieties of raspberries and strawberries were observed. The crop was in excellent condition. All varieties did well. Mr. Powell's preference in raspberries seemed to be Marlboro and Cuthbert. He stated that he had never pruned his plants and they were very tall, being well over five feet. Some of the growers were of the opinion that larger and better quality berries and stronger canes would result from pruning them down several feet. Mr. Powell is very careful about covering all of his strawberries in the winter time which probably accounts for a good deal of his success.

On the farm of Mr. Sonday, the next stop, a good crop of Latham raspberries was seen which had been carefully rogued for mosaic. They were quite free from disease and in excellent condition.

The next stop was on the farm of Mr. Will Hanchett who has Latham raspberries and Beaver strawberries. He had applied 0–10–10 fertilizer at the rate of 400 lbs. per acre on the raspberry patch two years ago and 200 lbs. last year in addition to some manure. His Beaver strawberries, which variety he said was the best he has tried, were grown on limed soil. On his new bed he is applying 2–12–4 fertilizer at the rate of 250 lbs. per acre which was harrowed in.

Leverich Tries New Variety "Oshkosh"

The last stop was on the farm of our president Mr. J. E. Leverich. He had a large number of varieties and we observed the Warfield, Dunlap, Pocomoke, Beaver, Premier and Oshkosh side by side. Mr. Leverich said that in his opinion the Pocomoke had given excellent results being a heavy yielder and fairly hardy. A row of the Oshkosh variety was also seen. This variety was originated by Mr. H. C. Christensen of Oshkosh and is strongly recommended by Mr. Rasmussen. The plants looked exceptionally strong and vigorous and had a splendid set. Mr. Rasmussen stated that they had wintered over better than any other variety on his field at Oshkosh.

GRASSELLI

Grasselli TRADE MARK REG. U.S. PAT. OFFICE SPRAY PRODUCTS

HEADQUARTERS for Spray Products

Grasselli Lime Sulphur
Grasselli Arsenate of Lead
Grasselli Nicotine

The leading Wisconsin growers prefer *Grasselli Grade* because they know from experience that brand name means *certainty* of protection and the largest yield of first grade fruit.

And while protecting your orchard, don't forget your truck crops and small fruit—they also need spraying at this time.

THE GRASSELLI CHEMICAL COMPANY,
MILWAUKEE, WIS.
Canal St. and 16th St. Viaduct
Founded in 1839

GRASSELLI GRADE
A Standard Held High for 89 Years

INDEX TO ADVERTISERS

	Page
Bahr Nursery	310
Barilani, F. W.	310
The Barrett Co.	301
Bush, D. F.	310
Chequamegon Flower Gardens	305
Cumberland Fruit Package Co.	309
Fitchett Dahlia Gardens	282
Edw. J. Gardner Nursery	303
Gelbke, C. A. & Sons	310
General Chemical Company	307
F. R. Gifford Co.	311
Gilson Mfg. Co.	294
Grasselli Chemical Co.	308
J. F. Hauser	303
Kellogg's Nursery	310
Macmillan Co.	311
Niagara Sprayer Co., Jas. Dance	312
North Star Nurseries	311
Phillips Garden Co.	310
Rasmussen's Fruit Farm & Nurseries	312
Reynolds, C. W.	310
Sisson's Peonies	312
Stonecrest Gardens	310
The Swartz Nurseries	295
W. A. Toole	309
Western Stoneware Co.	282
White Elm Nursery	299

Mr. H. H. Harris of Warrens had brought over a box containing four different varieties of strawberry plants among them the Oshkosh. In his opinion, the latter variety was the best of any of them.

The Beaver variety seems to be especially favored by the canners which accounts for the large acreage put in around Sparta.

The Premier is a very fine berry and a good yielder. However, the question was brought up as to whether it would stand up in hot weather and under shady conditions. It seems to be especially adapted for a cool climate but gets soft if shaded too much or if the weather is too hot.

Control of Diseases and Insects

On the tour, Mr. E. L. Chambers and Doctor A. J. Riker of the Plant Pathology Department, demonstrated the different diseases we encountered. Of these raspberry mosaic was probably the most important. Dr. Riker stated that plants effected with mosaic usually became smaller each year until finally they were dwarfed and did not yield a crop.

The leaf roller and the leaf spot of strawberries was also observed. Growers were instructed to carefully mow off all the old strawberry leaves as soon as the picking season was over and burn them as the mosaic can only be controlled by planting healthy plants and cutting out the diseased canes.

Mr. Riker found spur blight on canes growing in a dense row. He recommended open pruning and removal of diseased canes as good air circulation help to control the disease.

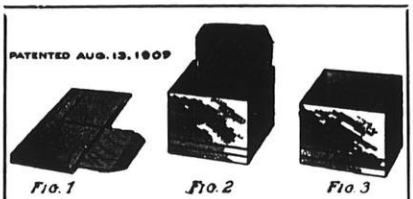

Fig. 1 Fig. 2 Fig. 3

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 material 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.

WEST ALLIS GARDEN EXHIBIT

(Continued from page 305)

CLASS III—SPECIAL FLOWERS

4 to 8 stalks of the following:

1. Gladiolas
2. Verbenas
3. Zinnias
4. Snapdragon
5. Annual Phlox
6. Dahlias

TOOLE'S COLLECTION PERENNIAL SEEDS $1.65 WORTH OF SEEDS FOR $1.00, POSTPAID

For those wishing to try growing a perennial garden from seed, I have selected a DOZEN VARIETIES THAT ARE NOT HARD TO GROW, AT THE LOW PRICE OF ONE DOLLAR FOR TWELVE PACKAGES OF SELECTED SEED. No change may be made in this collection at the price quoted. The collection contains ONE PACKAGE EACH OF ANTHEMIS TINCTORIA KELWAYI; CANTERBURY BELLS, mixed; FOXGLOVE, mixed; SWEET WILLIAM, mixed; HOLLYHOCKS, mixed; SHASTA DAISY ALASKA; DELPHINIUM GARRY-NEE-DULE MIXED HYBRIDS; COREOPSIS LANCEOLATA GRANDIFLORA; GAILLARDIA; BABY'S BREATH; PERSIAN DAISY; ROCKY MOUNTAIN SALVIA; ORIENTAL POPPY. VALUE $1.65 — FOR $1.00 POSTPAID TO YOUR DOOR.

Toole's Seed Collection For The Rockery

A Dollar Value for 75 Cents

The following ten varieties, not difficult to grow from seed, will give a wonderful start for the Rockery. $1.00 VALUE FOR 75 CENTS. One regular packet of each of:

Alyssum Compactum.
Campanula carpatica.
Cerastium Tormentosum.
Dianthus deltoides.
Linum perenne.
Papaver nudicaule.
Arabis Alpina.
Platycodon grandiflorum.
Saponaria ocymoides.
Tunica saxifraga.

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STRAWBERRY PLANTS—BEAVERS, Dr. Burrill, Coopers, Champion, Progressive. Blackberry Plants, Ancient Britton, Snyder, Eldorado, Cumberland. No. 1 Plants. Write for prices. F. W. Barilani, Genoa, Wis.

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One dozen tulip bulbs will be given with each blue ribbon and ½ dozen tulip bulbs with each red ribbon winner. The tulips will be given out the last of September for fall planting. A tulip show will be held in the spring of 1929.

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½ dozen gladiola bulbs for each blue ribbon:
3 Tomatoes, green
3 Potatoes
3 Carrots
3 Winter radishes
3 Cucumbers, green
3 Cucumbers, pickling size
1 Pepper, ripe
1 Exhibit of some other variety
1 Squash
3 Tomatoes, ripe
3 Beets
3 Onions
3 Cucumbers, ripe
3 Ears corn
3 Rutabagas, turnips or parsnips
1 Pepper, green
1 Cabbage

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PLANTS WHICH FEED UPON ANIMALS

(Continued from page 288)

Nature Produces Flypaper

In our last group,—plants with adhesive apparatus,—we find the fly-catcher. It is native to Portugal and Morocco. It has glands like the butterwort and secretes an acid. It is very viscid, but the glands do not hold the insect fast. The insect drags about but cannot escape and is finally digested, just the same. At Oporto, the residents hang up the plants for flypaper, and tanglefoot is not in it, with them. Sir Francis Darwin made an interesting experiment upon "fed" plants and found that insectivorous plants deprived of insects produced 100 seeds while the "fed" ones produced 250. Isn't Nature GRAND?

What can be done with the tiny bulblets which form round the base of hyacinth bulbs? In Holland or in the bulb producing regions these little bulblets would develop within a few years to blooming sized bulbs. However, people growing hyacinths in pots had best just forget about these. N. Dakota.

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Send for Our Peony List

IRIS ASSORTED COLORS

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Kellogg's Nursery

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NATIONAL IRISH SHOW

(Continued from page 292)

cause different. Heretofore all entries had been replicas of pictures with the original mounted alongside, but this year all were original compositions, divided into three types,—Old Masters, Japanese and Modern.

On the third floor was the wild flower exhibit and commercial exhibitors. One interesting exhibit was that of Toole's rock garden plants from Garrynee-Dule, Baraboo, Wis. The many native orchids, pitcher plants and other regular rock garden stock was new to most visitors.

A large delegation of Wisconsin people attended the show.

REGAL LILLIES RESENT RICH SOIL

MANY people have had trouble getting Regal Lillies to bloom. Mr. Longland exhibits a bed at Wychwood about 7 years old that blooms every year.

The bulbs were planted 6 inches deep on a gravely spot where the soil is unfertile. They are never dug up and seem to be very hardy. Mr. Longland expressed the opinion that on fertile soil they make a soft growth and do not mature well enough in the fall to be fully hardy.

WHEN DAHLIAS FAIL TO BLOOM

OUR readers may have had this trouble. The U. S. Department of Agriculture lists the following:

This is often the result of disease, but sometimes it is due to cultural conditions. Mrs. Harding lists the following as contributory to shy blooming; (1) roots reaching the end of useful existence after previously having bloomed; (2) transplanting large roots without dividing them—this applies only to 3-year roots or older; (3) recent transplantation, especially of certain varieties, or of divisions from roots that are too old or too small; (4) too deep planting; (5) excessive shade, especially in the dry soil under large trees, or soil that is water-soaked; (6) late frosts; (7) diseased plants or infested soil.

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Dr. H. P. Traub, of the University of Minnesota, sent in the following recipe for the use of the purple ground cherry. Accompanying his letter is a sample of the marmalade, the quality of which we vouch for. His recipe is: 4 lbs. berries, 1 lb. raisins, 2 lbs. sugar. Chop the raisins and cook a few minutes in enough water to keep from burning. Cook berries in their own juice for fifteen minutes. Add sugar and raisins and cook until thick and rich.

For Potato Bugs Blight and Leaf Hoppers

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WISCONSIN HORTICULTURE

AUGUST 1928

DATES TO REMEMBER

Summer Meeting—La Crosse—Aug. 11
Wisconsin Potato Tour—Aug. 13–18
State Fair—Aug. 27–Sept. 1

Vol. XVIII No. 12

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TABLE OF CONTENTS

	Page
Garden Clubs Meet at Lake Geneva	315
Cherry Prospects in Door County	318
Michigan Orchardists Entertain Our Growers	319
Small Fruit Trials at the Experiment Station	321
Potato Tour Arrangements Complete	322
Potato Shipping Tags Revised	323
Garden Club Problems	324
Directory Flower Societies	325
Selecting Fruit For the Fair	326
Spray Rings Advertise	326
Apple Crop Prospects	327
Increase In Crop Acreage	327
Editorials	328
About The Home and Garden	330
Production of Linen	331
News From Our Local Clubs	334
Florists Department	336
Clothes Moths and Stalk Borers	338

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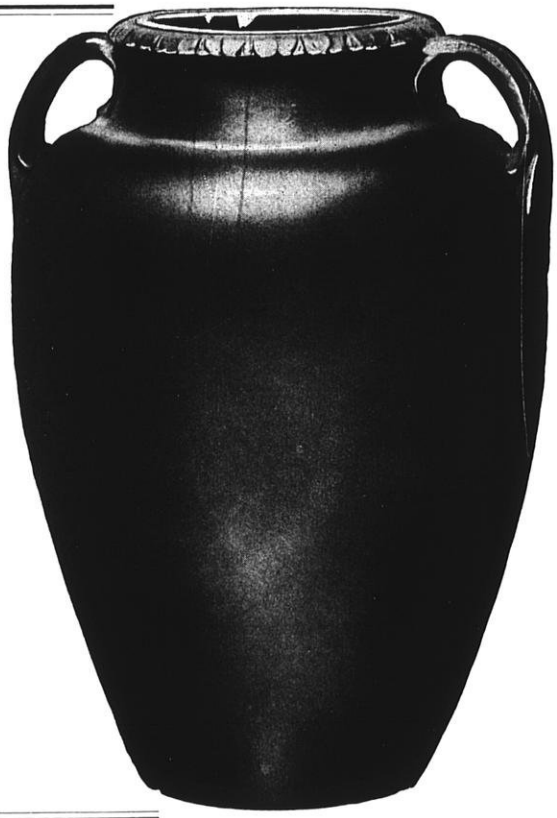

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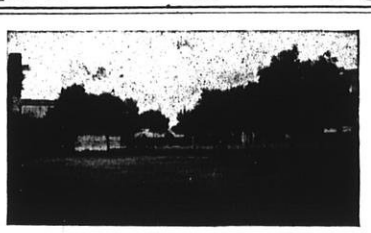

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Garden Clubs Meet at Lake Geneva

Members Enjoy Good Program, Interesting Tour and Boatride

"THIS is a day I shall never forget."

"Wasn't it a wonderful trip." These were a few of the expressions heard at the Lake Geneva Garden Club Convention under the auspices of the State Horticultural Society and the Lake Geneva Gardeners Association, on July 19th and 20th. And indeed, we believe the remarks were justified.

Club members present at first morning program, Horticulture Hall, Lake Geneva

The talks during the forenoon program were fine, the auto tour to the estates on Thursday afternoon was a success, not only in the number in attendance but also in the interest shown, and the boat ride was a real treat.

The meeting was opened on Thursday, July 19th at 10:00 A. M. by Secretary H. J. Rahmlow introducing Mr. Axel Johnson president of the Lake Geneva Gardeners Association who acted as chairman. Mrs. C. L. Hutchinson of Wychwood was the first speaker. She gave a fine talk on wild flowers and beautification of highways. She emphasized the need of preserving our woodland by protecting the ferns and wild flowers and wherever possible planting wild flowers in wooded places and surrounding them with brambles. Signs should be put up asking the public to preserve them. Wild flowers should be taught in our public schools so that our children would learn to love them and have a desire to preserve them. A list of the wild flowers of the State should be put in every school and wherever possible colored pictures also.

She also mentioned the practice of mutilating trees by Power companies and it was brought out that the farmer has control of the roadside adjoining his farm and should not allow any mutilation on his property.

Investigations are being carried on in four of our great Universities to find out how to grow wild flowers from seed. There is considerable enthusiasm in this work and it is hoped that in a short time our nurserymen may be able to grow plants or furnish seed.

What Illinois Garden Clubs Are Doing

Mrs. Frederic Fisher, Lake Bluff, Illinois, president of the Illinois Garden Club Federation was the second speaker and told what the garden clubs of Illinois have been doing.

They have fifty-eight clubs—with 3000 members in their organization at the present time with sixteen more coming in. They expect to have one hundred clubs before Christmas.

The demonstration team and coaches. Left to right—Mrs. C. E. Strong, Frances Mellonig, Esther Herrick, Mr. F. B. Coon

Mrs. Fisher emphasized that one of the requirements of their organization was that each garden club must be a *real* garden club—discussing garden problems and *doing things.*

The Federation has an annual flower show at Chicago. Two years ago there were only twelve clubs that took part. The women have learned to work together and the show has taught them how to accept defeat and stand back of their judges.

At their last flower show 510 women were working on the floor at the same time, being directed through a megaphone. Every club has had a local flower show.

A garden contest is one of the big features of the summer work of the organization. Last year there were 2889 gardens in the contest divided into seven districts. In some cases whole neighborhoods have been uplifted by this contest, stimulated to take better care of their home grounds.

The Oak Park Garden Club put on a contest to clean up the back yards. During the summer a parade is put on consisting of floats representing gardens. This parade travels down the alleys of the city. Wherever they come to a back yard that has not been cleaned up, the parade stops and the band plays "Hot Time" and other live tunes.

In Chicago there is a garden club consisting of 1,000 men who meet during the noon hour at definite intervals. There is also a young girls club. Both the children and young girls club have done considerable in teaching others to preserve wild flowers.

Mrs. Fisher urged the Wisconsin garden clubs to federate and do things in an organized way. As a result of her suggestion a special meeting of a representative of each of the garden clubs was called for Friday morning, at which plans for such an organization were discussed.

It is felt that because of the service which the State Horticultural Society can render such clubs, it would be desirable to organize in such a way as to affiliate with the State organization. The officers are now working on the details of such a plan.

Tour Brings Out Large Crowd

The auto tour on Thursday afternoon proved to be larger than expected. Over sixty autos were counted in the procession but were handled skillfully by attendants at the estates visited. The first stop was Wychwood, the home of Mrs. C. L. Hutchinson, which is a wild life preserve. Space would not permit a discussion of all of the beautiful flowers and plants seen along the paths on this wonderful estate. Mr. Longland, the gardener, did his best to answer the questions of the visitors as to varietal names etc. One could easily spend a full day here with profit.

Considerable interest was shown in the Illinois rose which was in full bloom, and also a wonderful lot of regal lilies. The tour then drove on to the Crane estate where a fine grapery with large bunches of different varieties of grapes, as well as several sections of greenhouse devoted to plant and flower growing brought many exclamations of admiration. Mr. Axel Johnson, the gardener then led the way to the lake shore so that the beautiful lawn and landscaping could be seen and from there to the flower garden where about fifteen minutes were spent by the members trying to name the many varieties, almost overwhelming Mr. Johnson with questions. It was with great reluctance that the crowd finally broke away and proceeded to the next stop.

At Yerkes Observatory the entire group of about 180 people went up to the Observatory tower where the large telescope is located. Dr. Frost, in charge, gave a short talk on the operation of the instrument and equipment. Perhaps the best view of Lake Geneva was obtained from the balcony on the outside of the Observatory tower.

The fourth stop was on the estate of Mr. Bartholamay and Mr. Schmidt. Mr. Bartholamay led the way through the flower garden and then along the paths leading through some very wonderful evergreen plantings consisting of spruce and pine. Mrs. Bartholamay and Mrs. Schmidt then served some delicious refreshments on the veranda of their spacious summer home. They were given a rousing vote of thanks and the

crowd then went on to the last stop, the Mitchell estate.

Here Mr. A. L. Smith, vice-president of the Gardeners Association who is the gardener in charge told about the plantings of the estate and that the home had been brought from the Chicago Worlds Fair. It contains many valuable woods and is a very beautiful structure.

It was well after 6:00 P. M. when the line of autos started back to Lake Geneva for supper and the evening meeting.

History of Lake Geneva

The evening meeting was opened at 8:00 P. M. by Professor J. G. Moore, who expressed his appreciation of the things seen on the tour. A fine set of colored lantern slides belonging to Mrs. Edwin Frost, Williams Bay, on "California Gardens" were then shown on the screen.

The big feature of the evening program was an illustrated talk by Dr. P. W. Jenkins, Williams Bay, on the early history of the Lake Geneva country. Dr. Jenkins has spent considerable time investigating the Indian lore of Lake Geneva and the surrounding territory, and he said it has been inhabited by whites less than one hundred years.

He described the settlement of the Potawatomi Indians on the shores of Lake Geneva and how they finally sold the land to the United States Government and were transported to Lawrence, Kansas. They were so dissatisfied there that they returned in straggling groups, many dying. On their return they found the entire country settled up by the white man and so were taken north and are now in a reservation in Forest County.

Last year Dr. Jenkins visited the tribe and found some of the grandsons of the original Lake Geneva Indians among them. He was adopted by the tribe and is now a full fledged Potawatomi. His description of the life and suffering of the early white settlers was very well brought out.

Professor Moore Discusses Soil Problems

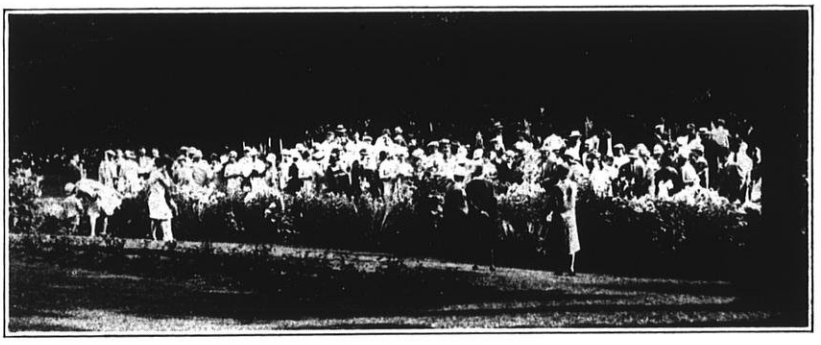
The Friday morning session opened at 10:00 o'clock. Professor Moore gave some very helpful information on the handling of soil for gardeners. Gardeners have four distinct problems to contend with—drainage, acidity, tilth, fertility or plant food. Drainage is an important problem as plants cannot stand wet feet, but it is a difficult one for the city gardener to solve.

Very little is known about acidity and we are likely to over-emphasize this problem because we have heard so much about clover and alfalfa not doing well on an acid soil. Many garden plants, however, will do well as illustrated by the fact that they do well in nature where many soils are mildly acid. Some plants require a slightly acid soil and many others do not object to it. Some, however, need a neutral soil to do best. The soil department of the College of Agriculture will test soil for gardeners.

In Professor Moore's opinion soil type may also be over-emphasized. Certain plants may do best on certain soils but the type can be considerably changed by the addition of organic matter. The heavier the soil, the more careful the gardener should be in handling it. It should not be worked when wet. Supplying organic matter constitutes one of the big problems in gardening. The addition of commercial fertilizer will not help and the organic matter must be applied in some other way. Humus is necessary for the conservation of moisture and for good plant growth. There is very little danger of having too much organic matter except that too much raw manure should not be applied.

On a small garden the refuse from the kitchen which is not diseased, refuse of plants taken from the garden, lawn clippings, leaves of trees and other forms of organic matter may be composted and then added to the garden soil. Leaves of trees actually contain more nitrogen than manure. Peat is rapidly gaining favor as a mulch or humus.

The plant food problem is the easiest one to solve as commercial fertilizer can be obtained and should be applied. Fertilizer is an investment and where needed will give results. Where manure cannot be obtained, it will sooner or later become necessary.



Inspecting the perennial garden on Bartholamay Estate, Lake Geneva

The next number on the program were ten minute discus-

(Continued on page 339)

CHERRY PROSPECTS IN DOOR COUNTY

M. B. GOFF, Sturgeon Bay

THE cherry crop in Door County is very good this season although not so good as to disturb the market. The sales have been heavy and the demand continues good.

The consumption of cherries throughout the country is increasing due to the more wide spread use of "cold pack" cherries. The demand for fresh fruit is declining as a result. People prefer to use the canned fruit or the frozen product.

Prices to growers will approximate those of last year. The weather has been ideal, rains frequent but not excessive. The temperature has not been excessively warm and growers were able to control diseases. The foliage and the growth of the trees has been excellent this season.

Cherry Pickers Plentiful

There are several large camps of outside pickers and a plentiful supply of local farmers available so that there are plenty of pickers to harvest the crop. We are now shipping 40 to 75 carloads daily and this promises to last well into August.

Visitors are always welcome so do not fail to visit the orchards, local canneries and cold storage plant.

The apple crop is short of what it was last year but the quality is much better. Wealthys and early apples are fairly good but the crop of Mackintosh is light.

8,000 CHERRY PICKERS CAMPED IN DOOR CO.

Sturgeon Bay, Wis., July 16.—An army of 8,000 persons is camped in the orchards of Door county, ready to begin harvesting the cherry crop, estimated at between 13,000,000 and 15,000,000 pounds.

Pickers have been drifting in since the Fourth, despite the fact that harvesting operations will not begin until the middle of this week. Recruits for the harvest come from all parts of Wisconsin, Illinois, and Minnesota, while growers also have received applications from persons in southern states who desired to earn money while spending their vacations in the cool north.

The largest camp in the county is on the property of the Martin Orchard company, which employs 1,200 pickers, including the Oneida Indians.

—Milwaukee Journal.

STRAWBERRY REPORT FROM WARRENS SECTION

Strawberry prices were fair but their yield very light due to winter damage. Exact figures as to net prices to growers are not yet available.

Strawberry grades were used this year and growers were apparently better satisfied than ever before.

We consider that the Beaver was about our best shipping berry. There was about 15% increase in the acreage for next year. Our raspberries are very fine and expect good results from them.

REX EBERDT,
Manager Warrens Fruit
Growers Association,
Warrens, Wisconsin.

A good set of cherries

Michigan Orchardists Entertain Our Growers

Fertilizer, Pollination, Spraying and Pruning Experiments are Inspected

IT WAS a somewhat tired but nevertheless wideawake group of Wisconsin fruit growers who landed at Frankfort, Michigan on the morning of June 28 for a tour of the upper Michigan fruit section.

The two boats on which seventy-five of the Wisconsin growers came across the lake, left the Wisconsin ports, Manitowoc and Sturgeon Bay rather late in the evening and made the trip in about five hours, so that most of the group did not get very much sleep. The Manitowoc boat arrived first and was met by a large delegation of Michigan growers, led by Gus Rodgers, well known fruit grower of Beulah, and Mr. Hootman, secretary of the Michigan Horticultural Society. Enough cars were available so that all of our people were well taken care of. Some had taken their own cars across on the boats.

The first stop was Mr. Rodger's farm at Beulah. The road led around Crystal Lake which is a very beautiful drive, the shore line being lined with wild flowers. Crystal Lake is well named as the water is clear as crystal.

Unfortunately upon arriving at Mr. Rodgers' orchard it started to rain. We were so anxious to see the cherry and apple trees that most of the crowd ventured out with what umbrellas and raincoats they could muster. We were also taken through Mr. Rodgers' packing shed which was very interesting. He grows a great many sweet cherries which are sold much as Western fruit is sold in fancy boxes of different sizes. Most of the crop is handled by a large wholesale concern in Chicago, though a great many cases are sent directly by mail to the consumer.

Montmorency and Early Richmond cherries are the principal sour cherry trees grown. However, the Early Richmond is losing favor because it is less productive and suffers more from winter injury. The orchards are all cultivated and it was a pleasant sight to see the soil in such fine condition—no weeds to be seen. On the Rodgers' place a harrow used for spring toothing was seen that was ingeniously equipped with old auto tires to prevent injury to the trees.

Sec. Hootman holding 3 foot branch with 220 cherries

Sweet cherries are sent by truck to Chicago entirely around lower Lake Michigan. The distance is about 350 miles. In order to sell the sweet cherries grading is done with great care, the best grade being composed of cherries one inch in diameter. All cracked cherries are taken out as they would spoil the entire case.

At noon the first day we were entertained at the Benzonia Community Hall. The High School Band gave a short concert preceding the dinner which was done exceptionally well for high school students. During the dinner, Mr. Rodgers, who was toastmaster, called on several of the leading men with the tour for short talks. It developed that there were representatives on the tour from Nebraska, Minnesota, Ohio, Michigan, and Wisconsin. Mr. Hoppert formerly of the University of Wisconsin and now secretary of the Nebraska Horticultural society, was present and told about the progress of the fruit industry in that state. He mentioned the exceedingly deep fertile loess soils along the river banks on which they are growing very fine cherries.

Among those who spoke at the dinner were: Herman Ullsperger, M. B. Goff, Sturgeon Bay, H. J. Rahmlow of Madison, Mr. Hootman of the Michigan Horticultural Society, Prof. Gardner, director of the Michigan Experiment Station, and several Michigan growers.

The afternoon tour was in the vicinity of Traverse City. Among the outstanding features noted on the trip were the sprayers equipped with electric lights so that spraying could be done by night. Two crews are used and it was claimed that 125 acres can be covered by one machine. This seems a little large.

One Michigan grower was very enthusiastic about the possibility of a duster for protection against diseases and insects. In his orchard he had used a duster for a number of years, evidently with success.

London a Market for Cherries

A banquet was served the growers at Traverse City in the evening, donated by the canners of Traverse City. Following the banquet a number of interesting and instructive talks

were given. Mr. Kinnard of Sturgeon Bay told of his trip to England in the interest of cherry marketing. He says that "the apex of salesmanship" is trying to sell a Scotchman cherries at a profit. London with thirteen million people offers a very good market for our American cherries. They produce less than three per cent of what they consume, and our canned cherries can be shipped there netting practically the same price that they bring here. Sturgeon Bay cherries are being shipped to England now. Mr. Kinnard says that Scotland is not a good market for cherries because the attitude of the Scotch merchant was, "We didn't buy them before, why should we buy them now?"

Mr. Ullsperger said that the big problem before the producer is to get a fair price. In his opinion the grower is entitled to a fair profit and should organize to stabilize prices. They should ask for a fair price but a price not too high, so that consumers would stop buying the fruit.

Mr. Gardner of the Michigan Agricultural College spoke on the future of the cherry industry. He said that many thousands of young cherry trees have been set out during the past few years because of the profit made in the cherry business with good prices and good crops. This has led many growers to fear over production. However the cherry trees are not long lived. Many old cherry trees are now on the "skids". Winter killing, leaf spots, and poor orchard care were given as reasons why trees did not live long. The results are that the increase in production in the next few years will not be as great as the increase in acreage would indicate.

The market for cherries is also increasing because people are changing their eating habits. Prof. Gardner mentioned as an example that there has been very little increase in the consumption of parsnips or crops of that type but a very great increase in head lettuce and spinach. Cherries are much like the latter crops. This included also oranges and grapefruit of which there has been a great increase in consumption.

The function of the Horticultural Dept., he said, is not to encourage the increase in acreage but to make cherry growing more profitable to the grower. The control of insects and leaf spot is one of the most important problems of the orchardist.

Bees Increase Set of Fruit

Mr. Hootman, secretary of the Michigan Agricultural College, spoke briefly on the experiment being conducted in Michigan on the pollination of apples and cherries by honey bees. There is considerable interest throughout Michigan in this experiment. Both cherry and apple trees have been covered with netting and were exhibited to the Wisconsin growers on the second day of the tour showing that where insects and bees are not allowed to reach the blossoms a very poor fruit crop results. The introduction of a large number of bouquets of blossoms of other varieties into a McIntosh orchard gave a large increase in setting of fruit—the first time the orchard had ever produced a real crop.

Michigan orchardists are paying bee keepers two to three dollars per colony to bring their bees into the orchard and take them out as soon as the trees are through blooming. The reason this is necessary is that there are very few flowers in the orchard after the trees are through blooming and consequently it would not be possible to keep them in this location. Mr. Hootman also exhibited to the growers apples which were deformed or "lop-sided", one side being undeveloped. This he said was due to poor pollination. On cutting these apples open, it was seen that the side which was well developed contained seeds while the side that was undeveloped had no seeds. Imperfect pollination resulting in such apples is more likely to be due to wind pollination than to insect pollination.

The second day of the tour was spent in the Hart section about one hundred miles southwest of Traverse City. Some very fine orchards were seen in this section. An interesting demonstration was seen proving that the grower must be continually on the alert to get lime-sulphur spray on the trees in time. About one-half of a large cherry orchard had been sprayed on a Saturday. No work was done on Sunday but a slow rain set in on Saturday night and Sunday. Monday morning spraying was resumed on the balance of the orchard. This part was badly infested with cherry leaf spot, or shot hole fungus. The portion that was sprayed on Saturday before the rain, was free from these spots. Inasmuch as the cherry trees usually lose their leaves after a bad infestation of shot hole fungus, this emphasizes the necessity of keeping the leaves covered with lime-sulphur spray all the time during the critical period.

Fertilizer Necessary

The set of cherries on some of the trees was remarkable. A three-foot branch was cut from one tree and it contained 220 cherries. Under such a load, Professor Gardner emphasized that good fertilization is absolutely necessary. In one orchard in which the foliage was not very heavy on the trees but the cherry crop very heavy, he recommended that the grower apply about three pounds of nitrate fertilizer at once. Also under such heavy cropping about five pounds should be applied every spring. This is uniformly done by the successful

(Continued on page 325)

Small Fruit Trials at the Experiment Station

By PROF. J. G. MOORE
Horticulture Department, College of Agriculture

Professor Moore presents a problem. At the "Strawberry Day" meeting at Sparta June 9, a resolution was adopted by the growers asking the Horticultural Department to carry on small fruit ferilizer and variety tests.

Cooperation between the Department and the Society will overcome the problem. There is more work than both can do.

WHAT is the Horticultural Department doing along the line of testing small fruits? This question is brought to the fore because of the resolution passed by the small fruit growers during the recent "small fruit tour", at Sparta requesting that small fruit tests be undertaken by the Department of Horticulture both on the Station grounds and at other locations. Now and then the question has been asked as to why the Department has not been doing this sort of work which constitutes so large a part of the activities of the Departments of Horticulture of some of the other Experiment Stations. Both the resolution and the questions asked doubtless have their rise in the failure to recognize the limitations placed upon the Horticultural Department, or unfamiliarity as regards what is being done along these lines.

History is likely to be tedious but there are times when one must acquaint himself with history to understand a given situation. Something over twenty-five years ago, when the Horticultural Department, then under the direction of Professor E. S. Goff, was finding it difficult to carry on variety tests away from the Station, an understanding was reached whereby the Horticultural Society was to assume the responsibility of this line of work. As a result, the Society established its trial orchards and later on small fruit plantations and vineyards.

About 1906 or 1907 the Experiment Station established a variety orchard at Old Mission on Madeline Island, and at Salmo just south of Bayfield. This was done in connection with the establishment of a Branch Station at Ashland Junction. As soil and other conditions were very different at Ashland Junction than in the Bayfield Peninsula, it was deemed best to establish the orchard work of the Station in the section seemingly adapted to commercial fruit culture.

Mr. Cranefield, then Secretary of the Horticultural Society, protested that the Experiment Station was entering a field which had been set aside for the activities of the Society. He maintained that the Wisconsin Horticultural Society should occupy a larger field in horticultural work than did many of the societies of other states, and was, therefore, very solicitous that the Experiment Station refrain from entering this field. A conference was held at which it was agreed that the Experiment Station would not establish orchard or fruit plantations for the testing of varieties except in connection with Branch Stations, it being agreed, however, that the orchards established at Old Mission and Salmo were to be considered a part of the Ashland Junction Branch Station.

The Experiment Station has adhered rigidly to this agreement, and, therefore, is not in a position to undertake such trials until its agreement with the Horticultural Society is properly modified.

Although the Department of Horticulture has been operating under the limitations imposed upon it by this agreement, it has not failed to carry on variety tests of all types of Wisconsin fruits on its own grounds. There has not been a time during the past twenty-three years, during which the writer has been connected with the Experiment Station, that there have not been trial plots on the Station grounds not only of strawberries but other small fruits and tree fruits as well.

At the present time there are sixty varieties of strawberries under comparative tests. During the past nine years, sixty-eight different varieties have been tested. Not all new varieties coming out are planted on the Station grounds. Whenever a new variety makes its appearance, we secure all the data we can concerning it. In many cases this information is such that it seems immediately evident that the variety possesses characteristics which preclude its ever becoming a valuable variety for the Wisconsin grower. Eighty-five new varieties which have been thus studied, during the past few years, have not been given a place in the plantings.

Perhaps the fact that the Department does not issue at frequent intervals a pamphlet describing all the varieties being tested has led some to believe that there is no testing of varieties being done by the Department. How data resulting from investigation shall best find its way to the public is a matter of policy and opinion. Perhaps the policy of not publishing long lists of descriptions of varieties which have proved worthless is not the right policy. However, limited funds and a policy of trying to make those funds do as much constructive work as possible, seems to justify the plan adopted by the Department of making recommendations of varieties through bulletins on culture, such as "Strawberry Culture", "Bush Fruits", and

(Continued on page 341)

Potato Growers Department

J. G. MILWARD, Editor
Secretary of the State Potato Growers Association

POTATO TOUR ARRANGEMENTS NOW COMPLETE

Preliminary Survey Over The Tour Route

THE 1928 Potato Tour will surpass any field event of the kind ever conducted in Wisconsin. The management bases this prediction largely on a recent survey of conditions over the proposed Tour Route.

Unless some unexpected unfavorable condition should develop prior to the start of the Tour at Spooner on August 13, the out-of-state visitors will see the finest outlay of fields ever offered for inspection on a Wisconsin Potato Tour.

Those familiar with the territory will note from the map and schedule that the Tour will move rapidly from one County or Community Center to another, featuring successively heavy producing centers of the Rural New Yorker, Triumph, Green Mountain, Irish Cobbler and Spaulding Rose varieties.

Obviously, in the period of one week only, a limited number of counties can be covered, but the schedule has been arranged on a district basis and many excursions of growers have been planned within a one-hundred-mile radius of scheduled stops.

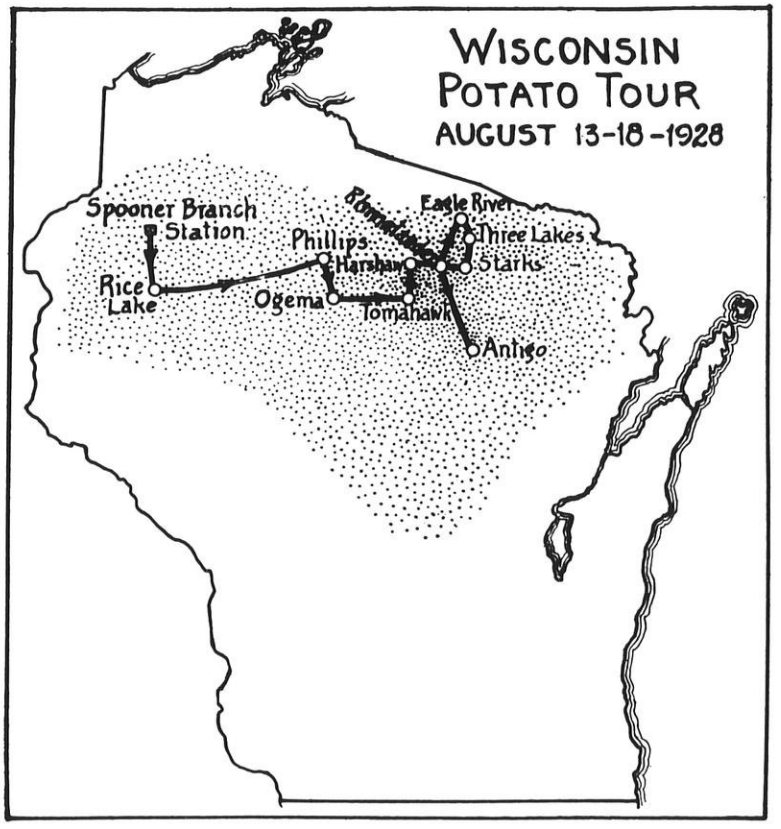
At each Annual Wisconsin Potato Tour, the attendance of all representative interests affiliated with the potato industry has been secured. Registrations received to date indicate unusual interest on the part of manufacturers of machinery equipment and supplies. On my recent trip over the territory I found many interesting, practical field demonstrations, relating to the application of fertilizers, disease and insect control, seed potato treatment, the use of improved machinery and equipment.

In addition, the organized work on Seed Potato improvement never showed to better advantage. Many comparisons between various strains of seed stock will be offered on the Tour, including certain car lots of seed shipped into Wisconsin from western sources.

Final reports on the Seed Potato Inspection applications indicate an increase in acreage of over 30%. In one county alone, the number of applications increased from 25 in 1927 to approximately 100 in 1928. These figures represent both an increase in the smaller or average sized fields around community centers and also in several large blocks ranging between 100 to 250 acres.

The Tour management especially calls this condition to the attention of representatives of various seed potato markets outside the state.

The attendance of these out-of-state representatives insures a most lively discussion on problems affecting certification standards and Wisconsin's interstate seed potato trade.



Mention WISCONSIN HORTICULTURE when writing our advertisers.

Potato digging crew has lunch on the Donaldson farm, Ogema, Wis.

The tour will picnic here, on beautiful Stone Lake, Aug. 15.

POTATO TOUR PROGRAM

Revised Outline

MONDAY, AUGUST 13

"Potato Day" on the Spooner Branch Station.

MONDAY EVENING, AUGUST 13

Smoker and informal meeting with Rice Lake Potato Show Committees and Barron County growers.

TUESDAY, AUGUST 14

Inspection of fields in Barron County.

TUESDAY EVENING, AUGUST 14

Dinner and Program under direction of Phillips Business men and Price County growers.

WEDNESDAY, AUGUST 15

Inspection of fields in Price County, near Phillips and Ogema. Noon program and Farmers' Picnic on Blomberg and Donaldson Farm at Ogema. Special Entertainment Features.

WEDNESDAY EVENING, AUGUST 15

Inspection of Large Commercial Fields near Tomahawk. Program on Wisconsin River Front. Music and Entertainment Features.

THURSDAY FORENOON, AUGUST 16

Inspection of fields at Harshaw. Farmers' Picnic at noon at Lake Park, located on "Oneida Farms."

THURSDAY AFTERNOON, AUGUST 16

Inspection of Large Triumph Fields near Starks, Oneida County. Thursday evening at Rhinelander.

FRIDAY, AUGUST 17

Depart Rhinelander for Clearwater Lake and Eagle River for inspection of Large Commercial Fields of Triumph and Irish Cobbler. Field demonstrations scheduled.

FRIDAY EVENING, AUGUST 17

At 6:30 P. M. a joint Banquet and Entertainment, Oneida Hotel, at Rhinelander. Feature address program of music and entertainment.

SATURDAY FORENOON, AUGUST 18

Depart Rhinelander for Antigo and western Forest County. Inspection of extensive Irish Cobbler and Triumph acreage. Inspecion of Fertilizer Plots at Antigo. Special Field Demonstrations.

Revised Shipping Tags

"Badger State Brand"

The Wisconsin Seed Potato Inspection Service publishes, herewith, an exact reproduction in size and form of the revised Tag—authorized for use on Certified Seed Potato Shipments, exclusively.

The Horticultural Department has received letters from several Seed Potato Markets making inquiry as to grade regulations and tags. These letters have included certain recommendations on the tag and the revised tag as here shown embodies such of these recommendations as the department considered practical.

Requirements of the grade are published in circular form by the Wisconsin Department of Markets, State Capitol, Madison, Wisconsin. Copies will be mailed upon application.

(Continued on page 332)

Garden Club Problems

By MARK TROXELL

ONE of the oldest and most loyal members of the Madison Garden Club recently came to me and said, "We have had some wonderful lectures this year from learned men. But I think we might get more enjoyment and practical advice if we should occasionally meet as common gardeners to discuss the flowers and vegetables which we ourselves grow, and tell each other how to get the most flowers from our small gardens."

This old member's suggestion is worth considering. I intend to apply his idea to this discussion of Garden Club organization, and to tell you, as officers and active members of local clubs in Wisconsin, a few of my opinions formed after a half-year's experience as president of the Madison Garden Club.

A one-man organization becomes filled with obvious weaknesses as soon as the work in hand becomes too large or too diffused for the personal attention of that one man who aspires to be his entire organization. The one-man idea is particularly dangerous when public relations are strongly involved, since the strength and continuity of his organization then become dependent upon that one man's acquaintance and character and ability.

Translating this principle into the problems of a local Garden Club, no president or secretary or other officer should seek to be "the whole works." There should be occasions when he ought to say to an inquiring reporter or city councilman or merchant, "You must see Mr. (or Mrs.) So-and-So about such a question. He (or she) has final authority in that matter."

Happy is the Club officer who can say as much with full knowledge that Mr. So-and-So will be ready with adequate information and a positive answer.

Mr. Troxell is President of the Madison Garden Club. This address was given at the Garden Club meeting at Lake Geneva.

Before any Club officer can direct inquiries to some associate, he must have an organization which comprises some capable people who know what duties they are expected to perform, and who have promised to do their duty.

The constitution of our Madison club provides for an Executive Committee which includes the four elected officers and six chairmen of permanent committees. These six chairmen are fully as important and active as the Club officers; they cast equal votes with the officers on vital matters, and by virtue of closer contacts and greater information on program speakers, flower-show accommodations, publicity channels, financial resources, prospective members, and civic planting, they wield greater power than any single officer. They insure a "decimal system" which distributes the club's work and responsibility.

As president I take pleasure in contemplating the success of our deliberate plan to diffuse authority. We have, for example, a capable flower-show committee of five members which selects the place and dates of any flower show practically without suggestion from officers or members in mass. But I must point out that, if that committee was composed of unreliable people, we officers could not trust such important decisions to these five persons. The plan will fail if competent and interested men and women are not secured for positions of responsibility. The Club must contain a fair proportion of cheerful workers.

My general experience with organizations, from permanent groups such as churches and university fraternities down to ephemeral Christmastide caroling parties, convinces me that little is gained by persuading anyone to join a group in whose fundamental proposition he has little faith or interest.

Applying this idea to a Garden Club, I want to say that, if a man doesn't like to grow flowers and to have flowers around him, the chances are remote that he will be of any value to a Garden Club, or that the Club will accomplish any good for him. In rare cases the Club may be the agency to effect in him a love for flowers, but mainly the people who join our club are fond of gardening, proud of their gardens, and eager to learn more, and also to help other gardeners. Such folks are the salt of the earth, and of them we must compose our clubs.

There are three very important standards of a Garden Club:

1. Sound finances. Every club should make a serious effort *before* each growing season to provide funds to meet the bills which inevitably follow flower shows and expensive programs. If no funds are available, more simple recreations should be sought.

2. Publicity is the spice of life. The easiest and soundest way to command the respect of old members and the attention of new ones is to have local newspapers tell with careful detail what your club has just accomplished. And obviously the easiest and soundest way to secure newspaper space is to do something which merits a news story. An attractive illustrated program, a well-staged flower show, a picnic to some spot of historic or social interest—newspapers are glad to tell their readers about such affairs.

3. New blood is needed in Garden Clubs as much as it is needed in families and businesses and political parties. I hope that every man and woman who has been a member of any Wisconsin garden club for one year can truthfully say, "I have secured one new member for my club—a member who was glad to join us and whom our club was happy to accept."

This is more than a matter of getting one more member for an organization or one more dollar for the treasury.

We gardeners are in a sense the Gideon's Band which stand unashamed and unafraid before the millions of autoists, golfers, baseball enthusiasts, hunters, and other Americans whose recreations compel them to destroy our natural beauty and material resources without supplying any adequate new growth. The oily subterranean riches of California and Oklahoma, the rubber fruits of the Far East, our Wisconsin wild life, are ruthlessly wasted by practically all pleasure-hunters except that honorable band known as gardeners.

The tragedy of Hamlet is lightened, in Act V, by some repartee between two laborers digging Ophelia's grave.

"There is no ancient gentlemen but gardeners, ditchers, and grave-diggers," the first clown assures the second. His remark was born of no desire to include men of his own vocation in some mysterious aristocracy of labor, but to remind his fellow-worker that gardening is first among the three means of securing good health and a long life.

Today many of us, like the sanguine Ponce de Leon, are hunting the fount of eternal youth in distant places, or in new sports and radiated foods. We shall fare better if we take the advice conveyed by the grave-digger's remark and convert into practice that excellent precept, "There are no ancient gentlemen but gardeners."

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IDEAS FROM NORTH DAKOTA

Secretary A. F. Yeager, of the North Dakota State Horticultural Society, has a number of interesting notations in his latest news letter:

A friend at Lidgerwood asks why 500 geraniums intended to be in bloom on Decoration Day failed to produce blossoms. We suggest three possible reasons. First, too large a pot; second, too little light; third, too high temperature. A temperature of 65 degrees or less is recommended for plants grown indoors. Handled properly, geraniums are practically continuous bloomers.

Our Haralson apple trees show indications of considerable hardiness, though we have none of bearing age yet. Anoka showed some killing back of the tops this last winter. However, most of our trees are well loaded with fruit despite this fact. We have ten-year old trees which have bloomed for the eighth time this year, while Whitney crabs planted at the same time have not borne a crop.

If the strawberry bed is not too old and matted with plants we suggest the following treatment to put them in shape for next year's fruiting. Mow off all the leaves as close to the ground as possible at once. Rake them off and burn, then with a hoe chop out the oldest plants so as to leave the younger ones to produce runners and to fruit next year. Of course it is understood that weeds must be kept out and the ground well cultivated.

MICHIGAN ORCHARDISTS ENTERTAIN

(Continued from page 320)

cherry growers of Michigan. Some are using barnyard manure in addition.

Altogether, the trip was very instructive, and brought about a better feeling of cooperation between Wisconsin and Michigan growers. It gave to our growers a number of pointers and a great deal of new enthusiasm. When we see the other fellow making a success and making money by taking good care of his business it is an incentive to do likewise.

WANT ANY SWEET CIDER

THE Kickapoo Valley Orchard Company has on hand some very good sweet cider. Some of our readers may be interested. The price in case lots of six one gallon glass jugs is $3.50 per case FOB Madison. Can be shipped by freight. Address Dr. S. R. Boyce, 210 State Street, Madison, Wisconsin.

LAKE GENEVA FLOWER SHOW AUG. 10–11

One of the outstanding local flower shows in the state is that put on by the Lake Geneva Garden Club and Gardeners Association annually in Horticulture Hall. Our members are invited to attend.

Selecting Fruit For The County Fair

By CONRAD L. KUEHNER

MUCH enjoyment can be obtained by active participation in showing fruit and other farm products at the local county fair. It entails a little work, but after it is over you will feel that it was worth the effort.

In judging fruit at fairs a good judge keeps in mind the following points. In the order of their importance and perfect score they are:

1. *Blemishes.* This is the most serious defect of show fruit. Select only specimens free from all spots, punctures, worms, and bruises. Pick with stems. Select several times as many specimens as required for your plate or tray, then make your final selection from these. 30 points.

2. *Uniformity.* All specimens should be as nearly alike as possible, in color, size, and shape; uniformity of color, and size being most important. 25 points.

3. *Color.* Select as highly colored specimens of red varieties as possible. Red color on normally green varieties like Northwestern Greening, scores neither for nor against specimens unless it interferes with the uniformity of the display. 20 points.

4. *Size.* Choose specimens slightly larger than the average for the variety. Avoid the biggest and the smallest ones. 15 points.

5. *Shape or Form.* Keep in mind the characteristic shape of the variety and select accordingly. 10 points.

Total 100 points.

Packing of Show Fruit

Frequently, show fruit is properly selected but becomes bruised and disfigured on the way from the orchard to the fair grounds by rough and improper handling. Handle each fruit with the greatest of care from the time it is picked up to the time it is placed on exhibition. Avoid unnecessary handling.

1. Use a strong box, can, or basket with stiff sides and bottom. Place a thick layer of crushed paper into the bottom of the box and between the fruit and the sides of the box. (Paper bags and grain sacks are bad containers for show fruit.)

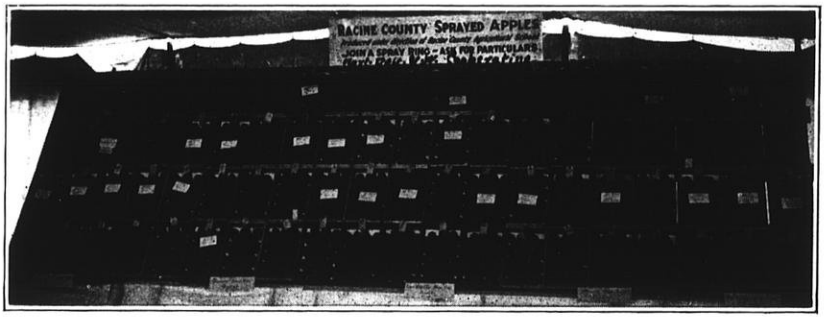
2. Wrap each fruit separately in double thickness of soft paper and pack closely into the box.

3. Fill the upper 2 or 3 inches of the box with crushed paper. Fruit packed in this way will remain in good condition while on the way from the farm to the fair grounds.

Tray Displays of Apples

Inside Dimensions of apple tray. Length 18 inches; width 11½ inches; depth 2¾ inches.

Tray displays of standard varieties of apples are becoming popular at a number of our county fairs. This is fine as these tray displays acquaint the buying public with the farmers' surplus of the more desirable varieties. Exhibitors should remember that it requires about one peck of apples to fill a tray. A few extra apples should always be brought to the fair grounds to take care of possible accidents to some of the show specimens.



Racine County spray ring display at the 1927 Racine County Fair. 24 spray ring members of the 5 spray rings in this County contributed apples for this 80 tray exhibit. The orchard spray gun offered by the F. R. Gifford Company, Madison, for the best spray ring display was awarded to the Thrifty Five Spray Ring. This display was arranged by H. G. Klumb, Racine County Agricultural School, in co-operation with the Horticultural Department of the University of Wisconsin.

HOW SPRAY RINGS ADVERTISE THEIR SURPLUS APPLES

The marketing problem will confront the sprayring members. Here is a suggestion for advertising the high quality of sprayed fruit which has brought results.

THE accompanying picture shows how Racine County spray rings advertised their surplus apple crop at the 1927 Racine County Fair. Each one of the five spray rings contributed to the display showing the varieties of apples of which they had more than they needed for their own home supply. After the apples had been judged, each member's portion of the display was tagged with his name, address and telephone number, so that visitors might know where these apples could be purchased.

This form of advertising has

proved very effective, not only in Racine County, but also in Ozaukee, Jefferson, Kenosha, Kewaunee, Brown, Winnebago, Walworth and Washington Counties.

County fair associations have realized the value of this kind of exhibit and have given unstinted support by allowing liberal premiums for the best displays.

Outagamie and Monroe counties are planning their first spray ring display at their county fairs in August. Each of these two counties organized their first co-operative spray rings early this spring.

APPLE CROP PROSPECT

A REPORT from Pennsylvania states that a rather heavy drop of apples leaves the crop prospect but little more than last year.

A report from the New York Horticultural Society states that their crop will be only about 25% larger than last year. Baldwins comprise about 50% of their acreage. They blossomed light and set poorly. Greenings, McIntosh, Spy, 20-oz and Pippins did not set over 50%. Wealthy, Kings, Duchess, and a few others are a full crop.

In New England and Northern Michigan the apple crop is somewhat similar to New York State. Unfavorable weather following a spotted bloom resulted in a rather light set on the more important varieties.

SPRAYING IS ONLY THE BEGINNING

PETER Swartz of Waukesha says that sprayring members are not going to be entirely satisfied with results from spraying their fruit trees.

A number of sprayring members have complained that the second or third year they get less fruit than they formerly had and blame this fact to the spraying of the trees.

The trouble is that the trees have not been taken care of and consequently probably have borne too heavy the year they were first sprayed. Insects and disease have in former years probably caused a heavy June drop of small fruit but when they were sprayed the crop stayed on and was a setback to the tree.

It will now be necessary for sprayring members to take an added interest in their trees and prune them during the fall and winter months and add some nitrate fertilizer in the early spring. By doing this they will have the same results as successful orchardists all over the country are having, namely good sized, well colored fruit free from disease in profitable quantities.

Take care of your trees and they will take care of you.

SODIUM CHLORATE is recommended as an excellent weed killer by the Cream City Chemical Works of Milwaukee. Interested readers should address them for more information. It sells at 15¢ a pound FOB Milwaukee.

INCREASE IN CROP ACREAGE

Potato acreage for Wisconsin is estimated at a 5% increase over last year or a total of 273,000 acres, according to latest estimates.

For the United States the increase is estimated 9%. A large portion of it occurring in States producing early potatoes.

The acreage of canning peas shows an increase of 20% after a drop of 25% last year.

Wages of farm labor are slightly lower than a year ago according to Wisconsin reporters. The average wage of hired man labor by the month with board is $48.50 this year compared to $49.75 last year. Without board is $66.75 compared to $67.60 a year ago.

Day labor is about the same as last year. With board the average is $2.45 per day, without board, $3.10.

The "Manual of Vegetable and Garden" insects by Crosby and Leonard is a valuable book for the gardener. Can be obtained from the Macmillan Company. See their ad in this issue.

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Remit by Personal Check, Postal or Express Money Order. A dollar bill may be sent safely if wrapped or attached to a card.

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Our cover picture is a cherry picking scene in the Bingham Orchards, Door County. Courtesy of C. L. Kuehner.

Traveling through the state, notice the large number of cherry trees losing their leaves at this time of year. The cause is leaf spot, or shot hole fungus. Eventually the tree dies and "winter killing" may be given as the reason. Good fruit growers have learned to spray with lime sulphur to keep the leaves on.

MEET US AT LA CROSSE AUGUST 11

THE La Crosse program, especially the tour to the farms entered in the Farm Home Grounds Contest, should attract a large number of our members.

The Executive Committee and Board of Managers will meet on Friday at 1:30 P. M. for the business meeting. The general program will start at 9:30 A. M. on Saturday, August 11. During the forenoon several good speakers will discuss small fruits, vegetable growing, flower growing and the home grounds. Dinner will be served by a Horticultural club from La Crosse County.

The tour to the farms entered in the Home Grounds contest will begin at 1:30. Professor Aust of the Horticultural Department of the University will explain the plantings and give ideas that will be of value to everyone.

PROFESSOR J. G. Moore calls our attention to an agreement made between the Horticulture department of the University and the State Horticultural Society many years ago whereby the Department agreed not to establish trial orchards or fruit plantations, as the Society was taking up this field.

There may have been good reason for this action at that time, but surely not now. The best results can only be obtained by the two working together.

Results are obtained by doing things. Keeping the other fellow from trying won't help.

Now is the time to order peonies and iris for fall planting. In this issue are a number of advertisers it will pay you to patronize.

WISCONSIN STATE FAIR

August 27–September 1

THE seventy-eighth annual Wisconsin State Fair will open at West Allis on August 27 and will continue until September 1.

We have always felt that the exhibits in the horticulture building were the most beautiful and best of all the exhibits. Mr. N. A. Rasmussen of Oshkosh, superintendent of the horticulture department, gives the opinion that the exhibits will be better than ever this year.

Fruit in northern Wisconsin however is rather late this year and fruit growers in that section of the state do not feel that they can exhibit as early as August 27. It is therefore, up to our Southern Wisconsin fruit growers to make an unusual effort to bring their best fruit.

The State Horticultural Society will have a large booth in the horticulture building which will be used as headquarters for members.

On July 12th the Secretary accompanied Mr. Rasmussen to West Allis to look over the Horticulture Building and make plans for the coming fair.

Addition to Building Needed

Mr. Rasmussen made arrangements to have the entire interior of the building painted. Measurements were taken for an addition to be built on the rear of the building to accommodate the overflow which must be taken care of each year with a tent. There are no funds available, however, for this project and it will be up to the members of this Society to help get an appropriation from the next Legislature for this purpose.

Such an addition has been needed for about ten years and it is about time that we get it. The display in the tent does not make much of a showing.

Change in the Rules

The exhibitors in the fruit department, especially apples, should notice a change in the rules governing the time of closing entries. All entries will close on Aug. 24th at 6:00 P. M. Entries in the fifty tray exhibit, however, will close on Wednesday, August the 22nd and all fruit must be in the Horticulture Building not later than 12:00 o'clock noon on Sunday August the 26th.

PREMIUMS FOR FLOWER SHOWS

We have heard of several garden clubs getting into financial difficulties by offering cash prizes at their flower shows.

But why offer cash premiums at flower shows? Most of our best summer shows put on by local garden clubs are very successful and do not offer any cash premiums whatever. Premium ribbons are given, also liberal minded merchants may give some merchandise prizes or nurserymen or florists may offer plant premiums. Also the State Horticultural Society is offering books as special premiums to affiliated clubs.

A true flower lover will get sufficient satisfaction in winning the blue ribbon on his favorite blossoms and does not require the cash prize.

SHOULD THE GARDEN CLUBS FEDERATE?

AT THE Lake Geneva meeting of Garden Clubs, held July 19–20, Mrs. Frederic Fisher of Lake Bluff told of the work being done in Illinois by the Garden Club Federation. It brought up the question—shall we organize in Wisconsin?

Opinions at the special meeting called to discuss the matter varied. The majority held that affiliation with the State Horticultural Society should be continued because of the benefits to be derived. Three plans were mentioned: 1. Formation of a new and separate organization, or federation of garden clubs; 2. Continuing as we are at present, without a federation, but affiliation with the Horticultural Society; 3. Organizing a Federation and connecting it closely with the Horticultural Society in such a way that it would receive the help of a full time officer, a magazine etc.

The last plan has many advantages and perhaps some obstacles. It would mean a Federation of clubs with officers and a Board of Directors to work with the Secretary of the Horticultural Society. That would be an advantage. These officers could plan meetings, programs and exhibits. The section of the magazine would be devoted to their interests. A more uniform system of premiums for shows, rules, etc., could be adopted, and a clearing house for speakers established.

As the Horticultural Society maintains a full-time Secretary, stenographer and has a permanent office, close connection with such a system should place the new Federation on a solid foundation.

The success of an entirely separate organization would depend upon the amount of time its officers could devote to it. Since the fees must be small no salaries could be paid. The advantage of having a full time worker directly connected with the organization can therefore be seen.

Just how to form such an organization is the question. It would be desirable to have the by-laws provide that the Federation could sever its connection with the Horticultural Society should they desire to do so. The question of fees must be solved as it actually costs from 60 to 80¢ per member for the magazine and annual report, while the charge is now only 40¢ per year, which amount could not be reduced.

A Federation should not obligate the garden clubs in any way and should be formed only to be of help to them. Meetings such as we held at Lake Geneva, winter convention programs, and state wide contests should be put on. These are now impossible because of the lack of organized help.

A meeting will be called within the next month at some central point to which all garden clubs should send a representative. Notice of the meeting will be sent by letter.

THREE MORE ORGANIZATIONS AFFILIATE DURING THE MONTH

WE ARE pleased to state that during the month of July the Milwaukee Florists' Club with 117 members again affiliated with the Society after having discontinued for six months.

The Pierce County Horticultural Society, a newly organized body, with Mrs. Alvin Hurtgen, Spring Valley as president and J. H. Graslie, Spring Valley, Secretary and Treasurer also affiliated. H. G. Seyforth County Agent of Pierce County cooperated with them in the organization.

The Dunn County Co-op Fruit Growers' Ass'n. was the third organization to join. Mr. Orville Hendrickson is manager of the association.

In the Michigan raspberry sections growers seem to be doing quite well. We don't understand why this crop is not more popular in Wisconsin, especially in the Bayfield section. The average yield and price in Bayfield is far above what the Michigan farmers get.

Mention WISCONSIN HORTICULTURE when writing our advertisers.

About the Home and Garden

MRS. C. E. STRONG, Editor 80th and George St., West Allis

CONVENTION OF WISCONSIN GARDEN CLUBS

THE first Convention of Wisconsin Garden Clubs, held at Lake Geneva, July 19–20, was a real success. The weather man did his best to provide us with perfect weather—and the Lake Geneva Garden Clubs with the help of our Secretary did the rest.

When we reached Horticultural Hall on Thursday morning, we knew we were welcome, for Lake Geneva Gardeners "Said it with Flowers", with the beauty of Hydrangeas, Delphiniums, Holly hocks, Salpiglossis, the sweetness of Lillies.

The program was especially for the garden lover and dealt with his problems as well as his joys.

The tour of outstanding gardens was a joy to all, it certainly was to the visitors and could not help but be to our hosts—because of the outspoken admiration and appreciation expressed by all for the beauty of garden and forest.

At every place there was something different, wonderful displays of trees, flowers and fruits. Every one was busily engaged in taking notes, backs of programs, stray bits of paper and the handy note book was used to take down the names of new varieties of plants as well as some of the plant combinations.

Those of us who saw Wychwood for the first time were filled with delight at the thought of this wonderful gift to the people. We are indeed fortunate —and should do all in our power to show our appreciation.

One might write a book on "What can be done in twenty-five years" towards making Wisconsin beautiful, after seeing the lovely evergreens growing on the slopes and rough ground. It was a real treat to meet and talk with a man who loved to plant trees instead of cutting them down.

Among her Delphiniums. Mrs. C. E. Strong has some wonderful French Hybrids in her garden.

May his tribe increase.

This meeting was somewhat in the nature of an experiment. Would the Garden Club members be interested in this kind of a meeting? Long before the first half of the day was over, our genial Secretary was positive we were very much interested and that we had only needed the inspiration given by Mrs. Fisher, President of the Illinois Federation of Garden Clubs as she told us of the many interesting and worthwhile things the Illinois Garden Clubs were doing since they had federated. Things they as single Clubs had dreamed of doing they find they CAN do united. They stage a Flower Show that is attracting national attention, give real help in the organization of Garden Clubs throughout the state by sending out speakers, programs, etc., without charge. They have Home beautifying contests in every town where there is a Garden Club, using the "Movies" as a medium of education in how to plant and cultivate. The films are used in connection with lectures by the best plant authorities that can be procured.

As we listened to the speaker telling of things really being done, we felt that the road was open to the garden lovers of Wisconsin; that instead of loitering along listlessly, we should be up and doing.

We really have an advantage over the Illinois Garden Clubs, we already have an organization to help us if we just say "How".

Almost were we persuaded to start right then and there. But we felt every interested person that could be reached should have a chance to help; every Garden Club have a say so in the organizing of a Wisconsin Federation.

So the Secretary of the State Horticultural Society will write the Secretary of every Garden Club he knows about, and tell them some of these things, asking them to talk over in the Club this idea of a union, also to prepare to send a delegate or delegates to a meeting to be held in the near future, where it is hoped we may work out a plan that will enable Wisconsin Garden Clubs to do things as interesting and helpful as our friends in Illinois are doing.

As I said before, we in Wisconsin have an advantage over the Garden Clubs of most other states. The Wisconsin Horticultural Society has ever been interested in our work, helping us willingly in every way possible.

Wisconsin Horticulture has been and will be of untold value to any such organization as we contemplate.

We need not feel that this Federation of Garden Clubs will be one more Club to take up our time. It will be simply a getting together of those people with harmonious interests; just as the tree fruit men are banded together, the small fruits associations, the florists, the market gardeners, and yet they are all members of the State Society.

Instead of asking some one else who is busy and perhaps interested in some other phase of horticulture to get up a program for us at the Annual Meetings, we will do this ourselves. We will help at times instead of always asking for help. We will be more interested in these meetings because of this; we will be trying to interest others in these meetings because we know how helpful they will be.

We should want some of the members of the Executive Committee to be interested in our work, we should be willing to do some of it ourselves.

In union there is strength, if we were united we might do even greater things than Illinois has done. Think of the opportunity we have to help in the Boy's and Girl's Club movement, training the youth of our State to love our forests and gardens. There is much that could be done at the State Fair, a whole week of opportunity, where young as well as older folks would gladly be taught the right and best way of planting and caring for the plants. The screen could be of untold value here, supplemented with talks by some one who knows and is interested in the work.

Because of the exhibits this would be extremely interesting; here are the flowers and fruits shown on the screen; this is the way they are raised, planted, cared for. All who looked and listened would be helped even though they never had a garden.

With a better understanding on the part of the average person, there would be more real interest in the preservation of our forests, our flowers, and the roadside plantings.

I could go on and on telling of the things we might do, they still would not be done. Can we not get together and work out a plan whereby we might really DO.

Please think about it, talk about it, then everybody, every garden club, come and help work.

FLOWER SHOW PREMIUM LIST

A Suggestive List for Clubs

By PROF. J. G. MOORE

Prize No. 16—Best and most artistically arranged basket of cut flowers.

Prize No. 17—Best and most artistically arranged bouquet of cut flowers in vase.

Prize No. 18—Best display of annuals, each kind in separate receptacle.

Prize No. 19—Best display of asters.

Prize No. 20—Best display of celosea (all kinds).

Prize No. 21—Best display of dahlia.

Prize No. 22—Best display of everlastings.

Prize No. 23—Best display of gladoli.

Prize No. 24—Best display of snapdragons.

Prize No. 25—Best display of zinnia.

Prize No. 26—Best bouquet cosmos.

Prize No. 27—Best bouquet centaurea cyanus (cornflower).

Prize No. 28—Best bouquet phlox (annual).

Prize No. 29—Sweepstakes — flowers—awarded on display and prize winnings in prize numbers 19 to 28 inclusive.

Prize No. 30—Best display of vegetables, not less than 6 kinds, 3 each.

Prize No. 31—Best display of canned goods in glass jars, not less than 10 kinds. (Uniformity and appearance of containers will be considered in making the awards under this prize number as well as the num-

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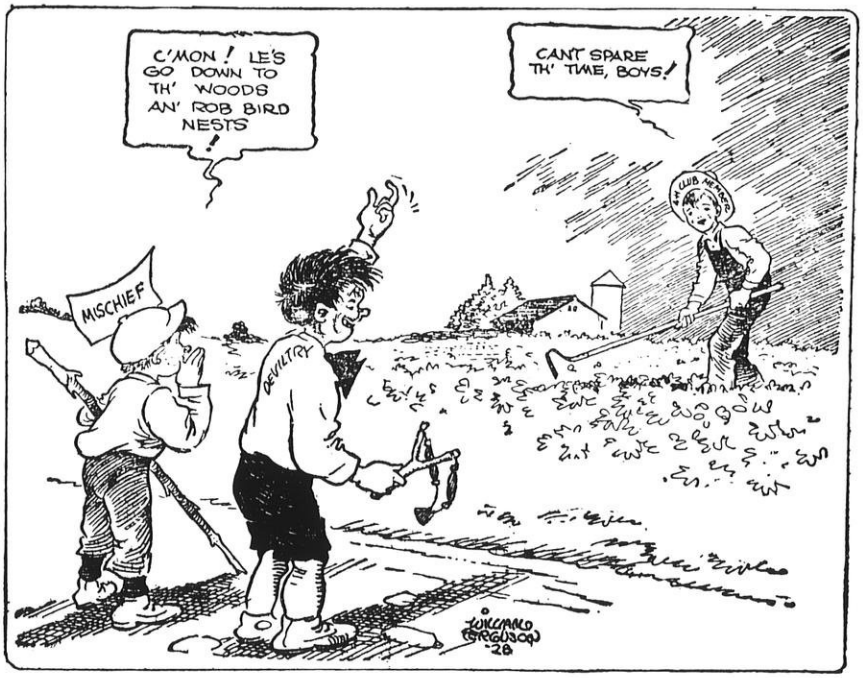

We have an opportunity

ber of kinds and the quality of the product.)

Prize No. 32 — Sweepstakes — best display of flowers, vegetables and canned goods. All entries under prize numbers 18–30 and 31 will be considered for this award. Separate entries need not be made, but all the items entered under the above three prize numbers should be shown together.

ANNUAL GARDEN AND FLOWER SHOW

Hartland, August 10th, 2:00 P. M.

THE members of the Sum-Mer-Del Garden Club of Waukesha County will hold their Annual Garden and Flower Show August 10th, at 2:00 o'clock, on the spacious lawns of the home of the President, Mrs. H. G. B. Nixon, Hartland. Gardeners from all parts of the county are invited to compete in this show. There will be a sale of cut flowers, perennial plants, bulbs, etc., for fall planting, also garden accessories.

RULES GOVERNING THE EXHIBITION

Eligibility:

A) The Exhibition will be open to Flowers and Vegetables grown in Waukesha County by amateurs in Classes 1, 2, 3, 4, 5, 6, 7, 8, 9; and by professionals in Class 10 only.

(An Amateur is a person who does not grow for profit. This does not prevent his selling his surplus products, but if his income from his garden is greater than his expenses for it, he then becomes a professional grower.)

A Professional in this show shall be of two classes, namely: Class A Professional is a grower who sells his products for profit only, whose income from his garden is greater than his expenses. Class B Professional is a grower who employs trained gardeners to do his gardening for him. Professionals in either of these classes may not compete with amateurs.)

B) All products exhibited in this show must be from plants which have been the exclusive property of the exhibitor for at least six (6) weeks immediately preceding this exhibition.

Awards:

1st prize, Blue Ribbon. 2nd prize, Red Ribbon. 3rd prize, Yellow Ribbon. Honorable mention, White Ribbon.

Judges

Judges shall not reside in Waukesha County. Names will be announced later.

Exhibitors:

Exhibitors may exhibit in more than one class but in not more than three classes, and not more than once in a single class.

Class 1: Flower Arrangements, A Color Predominating.

Subclass:

A) Arrangement in any container, yellow flowers predominating.

B) Arrangement in any container, lavender flowers predominating.

C) Arrangement in any container, pink flowers predominating.

D) Arrangement in any container, blue flowers predominating.

E) Arrangement in any container, combination of colors.

Foliage may be used in this class to set off predominating colors. Number of stems unlimited.

Judging Points for this class:

Harmony of color combinations—40 points.

Arrangement of blooms—40 points.

Perfection of blooms—10 points.

Harmony of flowers with receptacle—10 points.

Class 2: Best Arrangement of Flowers. One variety only.

Subclass:

A) One variety only, In Bowl.

B) One variety only, In Vase.

C) One variety only, In Basket.

Number of flower stems in this class is unlimited.

Foliage may be used to set off colors.

Containers will be judged in this class.

Judging Points in this class:

Arrangement of blooms—80 points.

Perfection of blooms—10 points.

Harmony of flowers with receptacle—10 points.

Class 3: Best Arrangement of Mixed Flowers.

Subclass:

A) In Bowl.

B) In Vase.

C) In Basket.

Number of stems in this class is unlimited.

Foliage may be used.

Containers will be judged.

STATE POTATO TOUR PROGRAM

(Continued from page 323)

PRESIDENT OF ARMOUR FERTILIZER CO. TO SPEAK ON TOUR

Mr. H. MacDowell, president of the Armour Fertilizer Company will address the Wisconsin Potato Tour on fertilizers and soil improvement for potatoes. He has travelled extensively in Europe and has made a close study of economic questions relating to food requirements of plants. He will address the banquet arranged at the Oneida Hotel on Friday evening, August 17th, by Oneida County farming and business organizations.

Potato Tour Committees

In case growers or out-of-state visitors may wish to confer with local committees at stop-over points, the management announces, herewith, the following local Potato Tour Committees cooperating:

Registrations for the Tour should be sent to J. G. Milward, Wisconsin Experiment Station, Madison, Wis.

Committee at Spooner—R. H. Rasmussen, John Putz.

Barron County Committee—C. A. Beggs, Rice Lake; G. W. Vergeront, Barron; James Hansen, Rice Lake.

Price County Committee—A. M. Jacobson, Karl Mess, Phillips; Arvid Blomberg, Ogema.

Lincoln County Committee—Art Searl and Frank Clark, Tomahawk.

Oneida County Committee—L. G. Sorden, Rhinelander; Ed Ferris, Harshaw; Jay French, Starks; Willard Wagner, Clearwater Lake.

Vilas County Committee—J. W. Heal, and Amos Radcliffe, Eagle River.

Langlade County Committee—John Omernik, P. W. Krier and James Prosser, Antigo.

Forest County Committee—Reed Austin, Crandon; L. S. Jacobson, Mole Lake.

SCORE CARD FOR JUDGING BOUQUETS AND TABLE DECORATIONS

The following score card was sent us by Mrs. Frederic Fisher of Lake Bluff, Illinois, president of the Illinois Garden Club. It is used in Illinois for judging flowers.

Relation of bloom to container	20
Individuality	20
Measure Balance	20
Color Harmony	20
Point of interest or emphasis	20
	100

Wisconsin Wild Flowers

If you are interested in introducing some of our beautiful Wisconsin Wild Flowers into your garden, send for my catalog which describes three kinds of Lady Slippers, the dainty Mertensia, the closed Gentian, Hepatica, Hardy Cacti as well as many other possible additions to your garden. Here also you will find 14 kinds of hardy ferns described as well as dozens of Hardy Perennials that are hardy in Wisconsin.

I'll gladly send the catalog free on request.

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Garry-Nee-Dule
BARABOO, WISCONSIN

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Riverside Cemetery, Oshkosh

News From Our Local Clubs

ROSARIANS STAGE FINE EXHIBIT

Pilgrimage Made to Outstanding Rose Gardens

THE Milwaukee County Rosarians held their first rose show of the season in conjunction with the flower show of the Milwaukee County Horticultural Society in the Trustees' Room of the Public Museum on Sunday, July 8.

Roses of every description in endless array, including the ever-blooming hybrid teas and pernetianas, polyanthas, hybrid perpetuals, hardy climbers, and rugosas were on display and filled the room with their fragrance.

Some of the latest novelties in hybrid teas, such as Mrs. A. R. Barraclough, Dame Edith Helen, Roselandia, and Angele Pernet, vied with the older sturdy Madame Butterfly, Los Angeles, Lady Alice Stanley, Edel, Red Radiance, and Souvenir de Claudius Pernet.

The display was convincing evidence that amateur rose growers of Milwaukee are having particular success, not only in growing the older tried "favorite dozen" but the very late introductions as well.

First prize for the best individual rose was won by Mrs. William Hopkinson with a gorgeous showing of Mrs. Lovell Swisher, an introduction of 1926. Its color is a deep coppery salmon, passing in the exterior of the petals to delicate salmon pink and flesh at the edges. It is an exquisite rose.

Second prize in this class went to August C. O. Peter for a beautiful specimen of Clio, a hybrid perpetual; a big double globular flower of pale pink with flesh tones in the center. Its fine foliage and thorny canes add to its attractiveness.

Third prize was given to Louis R. Potter for a vase of Betty Uprichard. This beautiful rose is semi-double with petals of brilliant orange on the outer surface and light salmon on the reflexes. It is the only rose of this kind and has a spicy fragrance.

Prizes for the best group of roses were awarded as follows: first, Louis R. Potter; second, E. J. Schulte; third, Mrs. William Hopkinson.

On Sunday, July 15, sixteen or eighteen members made a pilgrimage to the gardens of Mr. Peter, Mr. Isenring, and Mr. Koch in Wauwatosa, and Mrs. Gilman and Miss Morawetz in Elm Grove.

What a blessing it is to live in the country where one has ample space, lots of sunshine, air, and good soil to grow one's favorite flowers! And what a disadvantage it is to be hemmed in by a thirty or forty foot lot cluttered up with that modern nuisance—a garage. The city gardener is out of luck compared to the country gardener.

Mr. Peter has an acre in the city of Wauwatosa with a number of rose beds, including nearly one hundred tree roses, a large number of hardy climbers, which were still a mass of bloom, two large beds of dahlias, beds of perennials and annuals, and a number of beautiful spruce and other evergreen trees. Mr. Peter feels that he must fuss with flowers and plants all the year around, so he is planning on building a greenhouse on his place.

Mr. Isenring is a neighbor and an understudy of Mr. Peter's, and he has made a good start with over one hundred fine hybrid tea roses in his garden, as well as a goodly number of dahlias and a variety of perennials. He is like the rest of us city lot gardeners who crowd our plants in every bit of available space in an effort to satisfy our desires.

The attraction at Mr. Koch's was a brilliant display of the climbing rose Hiawatha, which literally covered the whole south side of the garage. It was a rare sight, and two of the members were seen layering canes, which they hope will soon be found growing in their own gardens. Mr. Koch also has a pool in the shape of a clover leaf, with a number of water lilies and surrounded by red geraniums and ageratum. The pool also seems to serve as a breeding place for toads from the large number of tadpoles we saw wiggling in it. When these grow up they ought to help keep down the insect pests of Mr. Koch's garden.

Mrs. Gilman's garden and grounds at Elm Grove, consisting of sixteen acres, of which ten are wooded, is one of the show places of this vicinity. Mrs. Gilman has been an interior decorator for twenty-five years, and her studies and work in this field have found expression in her own home and its surroundings. In addition to many rose beds, there is a large perennial border as well as beds of annuals, and a bed containing some two hundred and fifty chrysanthemums, which are wintered in the conservatory attached to the Gilman home. The central walk through the garden is punctuated by a number of arbors covered with climbing roses. The Japanese iris were particularly beautiful. A large artificial pool with a

bevy of wild ducks adds to the attractiveness of the place.

Miss Morawetz is a neighbor of Mrs. Gilman, and her home looked like a bower of roses. She has a fine bed of hybrid teas, including some of the recent introductions. We noticed that her second choice seemed to be sweet peas.

Our time was entirely too short for so many visits.

I. J. SCHULTE.

KENOSHA CLUB PLANS FLOWER SHOW FOR AUGUST

MR. and Mrs. John Swartz and sons of the Swartz Nurseries were hosts July 5 to the members of the Kenosha Horticultural Society.

The early part of the evening was spent in a tour of inspection of Mr. Swartz's beautifully landscaped estate. Much interest was shown in the rock garden, a newly laid out formal perennial garden, in the several acres of evergreens and in the propagating flats filled with choice seedlings.

Following the tour there was a short business meeting. Plans for an August flower show were discussed. Arrangements for a meeting on August 8th were made. A speaker will be engaged for this meeting. The aim of the club is to have the membership increased to include many county residents who are interested in any branch of horticulture.

By MRS. F. BRADY.

OSHKOSH HORTICULTURAL SOCIETY

Tuesday evening July 3rd found about 175 members, friends and guests of the Society happily engaged in 'canning' strawberries together with rich Guernsey cream and other delectable dishes, the occasion being the annual strawberry festival. This event has been held at the N. A. Rasmussen home almost every year since the Society was organized over twenty years ago.

No formal program was held but instead the visitors inspected the gardens, orchard and nursery asking questions at random which were ably answered by professional growers. Much valuable information was gained especially by amateurs as each subject was concretely demonstrated.

Other outdoor meetings will be held the first Mondays in August and September with some rural members of the Society.

AGNES PHILLIPSON,
Sec'y.

SUM-MER-DEL CLUB MEETING

THE July meeting of Sum-Mer-Del Garden Club of Waukesha County held on the 20th of July at the home of Mrs. F. W. Menso, Delafield.

Members met at the president's home in Hartland at two o'clock and visited the gardens of the following members: Mrs. H. G. B. Nixon, Mrs. H. E. Salsich, Mrs. E. A. Bergwall, Mrs. E. F. Chapman, Mrs. W. W. Parker, Mrs. Ben Schneider, Mr. John Parker, Mrs. W. O. Wills and Rev. Hartwig. They then toured to Delafield and visited the gardens of Misses Moore and Lowerre and Miss Amy Hahn and Mrs. F. W. Menso.

The club then adjourned to the home and the president called the meeting to order. The time was devoted to reports of committees plans for exhibit of August 10th. Mrs. Henze, general chairman, Miss Lowerre, Mrs. Bergwall, Miss Moore and Mrs. Hassal gave details of their departments of the exhibits and the meeting informally adjourned.

MRS. C. S. HASSENPLUG,
Sec'y.

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FLOWER ARRANGEMENT DEMONSTRATION GIVEN AT MADISON GARDEN CLUB MEETING

THE regular meeting of the Madison Garden Club was held at the Briggs' summer home on Lake Mendota Thursday evening, July 10. About 40 people were in attendance and enjoyed their supper on the beautiful shore of Lake Mendota.

President Troxell read a resolution of condolence which was unanimously adopted by the club on the death of Mr. A. J. Anderson nurseryman and flower grower of Madison.

Professor J. G. Moore of the horticulture department of the College of Agriculture gave a splendid talk on the arrangement of flowers in the home. He illustrated his talk with different varieties of flowers in vases showing general mistakes in arrangement as often practised. Crowding was given as one of the most common faults. Some of the other undesirable arrangements are "stepping, sandwiching, and crossing."

CRANBERRY GROWERS MEETING

The Wisconsin State Cranberry Growers Association meeting will be held in the Pavilion near Nekoosa, on Aug. 14, 1928.

Clare S. Smith, Wisconsin Rapids, is secretary.

Florists Department

HURON H. SMITH, Editor

WIS.-UPPER MICHIGAN SUMMER CONVENTION

AND was it hot? Not only the summer meeting atmosphere, but the spirits seemed to soar with the thermometer, despite all they said to the contrary. Ever notice how much more peppy a baseball game is in sizzling weather than on a frosty day? The convention was set for July 17th and 18th, Tuesday and Wednesday but by Monday night there were a hundred waiting around for the convention to open. Of course, the tradesmen were on dock earlier and some of them worked all day Sunday to get ready for the big show, which they well know is one of the best in the country. The early arrivals already found that Chairman J. H. Boelter of the Riverside Greenhouses, and chairman of the local florists had been decorating the hotel lobby. Many fine flower baskets, palms and foliage plants apprised them that something was going to be doing.

The F. T. D. meeting started at 9 A. M. Tuesday. While this meeting was in progress there was plenty to engage the attention of the non-member visitors. A traction demonstration was in progress out at the city limits on the nursery grounds of the Riverside Greenhouses. Oscar Layman, of Port Washington, was demonstrating the Bolens Tractor for the Gilson Manufacturing Company, but he had only a fair start when the sales-manager back in Port Washington called him back to the factory to get ready for a demonstration in Green Bay the following day. Several prospects were disappointed and turned their attention to the Red-E demonstration managed by Rudy Haasch of Milwaukee. Rudy had two machines there, one for cultivating and one with a mower attachment and mowed Mr. Boelter's oats for him.

While over three hundred registered, as usual a good many failed to register. The registering members were bringing in their floral pieces for the flower show in the morning, and they were being arranged by Aug. F. Kellner, of Milwaukee and Ray G. Meidam, of Appleton. The local newspaper, the Post–Crescent, gave much space to this show and thus assured a good local attendance. The show was also much appreciated by the florists themselves, as it is well known that no one appreciates flowers like a florist. Among those showing were:

J. E. Stapleton, Duluth—New table decoration.
Pres. A. F. T. Lauritzen, Eau Claire—Valentine window display.
Morrow Flowers, Sheboygan—Basket arrangement.
W. C. Zimmerman, Milwaukee—Centerpiece.
Meier–Schroeder, Green Bay—Basket, colonial and corsage.
Welke's House of Roses, Milwaukee—Table centerpiece.
Bell Flower Shop, Milwaukee—Basket, shoulder bouquet.
Matthewson, Sheboygan — Wedding shower bouquet.
Floral, Center—Menasha—Basket arrangement.
Garland Flower Shop, Cudahy—Brides bouquet.
Junction Greenhouse, Appleton—Bridesmaid's Bouquet.
George Vatter, Marinette—Assorted flowers in vase.
Riverside greenhouses, Appleton—All decorations, accessories, cedar, etc.
Mary J. Skinner, Milwaukee—Centerpiece for table.
Ebsen Floral, Wisconsin Rapids—Basket arrangement.
Mueller Flower Shop, Milwaukee—Corsage bouquet.
Waupaca Floral, Waupaca, Wis.—Basket arrangement.
Gust. Rusch Co., Milwaukee—Vase of flowers.
North Side Floral, Milwaukee—Corsage Bouquet.
East Side Floral, Milwaukee—Corsage bouquet.
Christ Hansen, Two Rivers—Table bouquet.
Sparta Floral, Sparta—Colonial bouquet.
Fred Rhodes, Hartford—Vase of larkspurs.
Dettmann Flowers, Milwaukee—large basket flowers.
De Clerc Floral, Green Bay—Wedding shower.
The Flower Shop—Racine—Bridal shower bouquet.
DePere Greenhouses, West De Pere—Basket arrangement.
Douglas Flower Shop, Racine—Vase of gladiolus.
John Dramm, Manitowoc—Vase of flowers.
New London Floral—Floral Spray.
Holton & Hunkel Co., Milwaukee—Vase 50 Premier Supreme.
Beaver Dam Floral—Beaver Dam—Floral spray.

The first act of the convention before the address of welcome was to express pleasure at the presence of Pres. and Mrs. Coolidge in Wisconsin and to send greetings in a fine basket of flowers through the Superior, Wis., florist. President A. F. T. Lauritzen, of Eau Claire, introduced vice president J. H. Boelter, of Appleton, who introduced Mayor Albert C. Rule. Mayor Rule confessed that Appleton was a beautiful city and they were glad to have the florists look it over, being assured that all of the bad spots had been hidden. The convention rose in silent tribute to past president Fred Rentschler, of Madison, who had passed away since the fall meeting.

The first talk of the afternoon was by Dr. H. B. Siems, of Chicago, for Swift and Co. upon "The Chemistry of Plant Feeding". This was intensely interesting to the florists, to learn the reason for reactions. By aid of a complete chemical laboratory, Dr. Siems showed what effect different chemicals have on each other.

The association voted to send a telegram to former secretary Alfred Locker, who entered the hospital Monday for a further operation for tumor. A reply of thanks and best wishes were

received the same day by the convention. Greetings also came from another sick man, Walter H. Demmler of Eau Claire, and from a former member, Frederic Cranefield, of Madison, as well as a telegram of invitation from Racine for the next summer convention. This seemed the signal for invitations, and Wisconsin Rapids, Oconomowoc and others wanted to invite. A show of wishes demonstrated that most members favored going to the Copper Country to see Jas. H. Dale next summer.

Prof. Arno H. Nehrling, of the Hill Floral, Products Co., Richmond, Indiana, spoke next upon "Roses". It is seldom that the association has a chance to listen to such an expert upon theory and practice, as Prof. Nehrling. Prof. Nehrling is Milwaukee born to a florist dad who was then Director of the Milwaukee Public Museum. He told how to be successful in growing roses, from the manetti to the marketing of the crop. His talk was illustrated by over a hundred lantern slides. He refuted the old idea that roses can only be grown in the right kind of soil with the best light. He showed that it was a matter of treatment, whether the soil be heavy clay or the lightest sandy loam. Prof. Nehrling recommended separate unit types of houses, which are best 40 to 50 feet wide, and from 300 to 500 feet long. The reason for this was that the ventilation could be most quickly changed in such a house. While benches are the best for growing, he said that ground beds were even preferable when light sandy soil was used, providing that the drainage was perfect. By this he meant three courses of tile and plenty of cinders and gravel in the bottom of the bed. He recommended ridge ventilation for summer roses.

The evening banquet at the Hotel Conway was attended by 300 members and brevity was the rule. Only a few speakers were heard, the main speaker, Mr. H. L. Bowlby, being furnished by the Appleton florists. Visitors heard briefly were: Wm. J. Smyth, of Chicago, Albert Pochelon, of Detroit, J. H. Boelter of Appleton and Secretary H. H. Smith of Milwaukee.

The morning demonstration Wednesday took the form of a surprise entitled "A Morning in a Flower Shop". And such a morning! There was plenty of fun, with lots of comedy and rough stuff. Everything in the category of complaints was well aired and handled. The front of the hall was made into a shop, and plenty of flowers were donated by wholesale florists in Milwaukee and Chicago. The C. C. Pollworth Co., Gust. Rusch Co. and Holton and Hunkel Co., of Milwaukee furnished flowers for make-up demonstration while the Chicago market was represented by Eric Johnson, Bassett & Washburn, Chicago Flower Growers and the A. L. Randall Company. Henry J. Benz, of the Racine Flower Shop was the harassed proprietor, and his chief clerk was Archie H. MacDonald, of Gimbel Flowers, Milwaukee. Clerks or demonstrators were: Hilda Hendrix, the telephone girl, from Gimbel's, Arnold Preuss, Milwaukee, Mrs. Edna Tomberg, of Beth's Flower Shop, Minneapolis, J. Ernie Stapleton, of Duluth; Miss Krause, of the La Crosse Floral Co.; Miss Vera Aul and Miss Helen Voss, of the Riverside greenhouses, Appleton. Jimmie Dale, of Hancock, Mich., was the errand boy until he lost his job to "Billy Greenhouse" Schaefer of Reedsburg, Wis. Customers and telephone calls kept the shop in an uproar all morning, with Edwin Matthewson, of Sheboygan, acting as chief instigator. Although not rehearsed previously, it was thoroughly enjoyed by the audience and some worth while demonstration was done on nearly every kind and price of a florists make-up work that could be mentioned. Some specially interesting demonstrations was the making of a casket blanket by Archie MacDonald, a wedding shower by Ernie Stapleton and a special table decoration by Mr. Stapleton. The last telephone call finished the store. It was from the local bank that they were overdrawn $750. Everyone enjoyed it, and departed in good humor to the Terrace Gardens, three miles in the country for a final luncheon on the banks of the Fox River.

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Overcoming Horticultural Troubles

E. L. Chambers, State Entomologist, Editor

CLOTHES MOTHS AND STALK BORERS

FROM our correspondence during July it appears that two pests are creating much concern among our readers. They are the *clothes moth,* and the *common stalk borer.*

Nearly all of us, I suppose, have had the sensation of digging out our last winter's overcoat to get it ready for another year's service only to find that a perfectly good garment has been made valueless by the work of a few hungry clothes moths during the summer. Now is the time to take inventory and provide treatment to protect them against these pests as it may mean a considerable saving in money.

There are two species of genuine clothes moths found at work in this State which show preference for woolen goods, furs and feathers; and like most other household pests, prefer to feed and develop in dark rooms, sunlight being obnoxious to them.

Before storing away winter woolen clothing or feathers, such materials should be thoroughly brushed and hung out in the sun for three or four hours and then turned inside out and allowed to remain the rest of the day, so that all parts of the clothing will be exposed. As the luster of furs may be injured by sunlight they should be exposed for only a very short time. If the clothing is freed from eggs and larvae it can then be safely wrapped in two or three thicknesses of newspaper, tied up tightly and laid away for the summer without fear of damage. Exposed woolen clothing should be frequently brushed and aired during summer months, and if kept in steam heated apartments during winter.

Moth balls, red cedar chests, etc., are worthless for controlling clothes moths in infested clothing, although they may act as a deterrent but will not drive away or kill larvae in the clothing. These materials, however, have considerable value in discouraging moths since they will not lay their eggs in fabrics giving off these odors.

Fumigation with Carbon Bisulfide

There are likewise many patent compounds offered on the market for the repelling and killing of this pest, many of which have considerable value, but once infested the safest way to completely rid clothing of these moths is by fumigation. This can be done by the use of boxes or trunks made air-tight at the bottom by pasting strips of paper over all the cracks. Place materials for storage within and evaporate an ounce of carbon bisulfide in a flat dish set in the trunk, closing the lid as tightly as possible for forty-eight hours. This treatment kills moths or other insects in all stages and no further danger need be feared.

Stalk Borers

With the knowledge that the dreaded corn borer is spreading westward, we receive many specimens of corn-borers natural to Wisconsin which appears to be doing characteristic injury to the corn and other thick stem plants as done by this notorious pest, which has not yet been reported closer than one hundred miles from our State line. We welcome such material to examine since we may expect to pick up the European species at any time and desire to prevent its getting a foothold as long as possible.

The borer most frequently received for determination and one that has been doing most serious damage to corn, dahlias, hollyhocks, beans and other garden crops, is the common stalk borer, Papaipema nitela. The young larvae are brown to purplish brown in color marked with fine white stripes and about one inch in length. These stripes on the sides are interrupted, being absent on the first four abdominal segments. This insect is a rather indiscriminate feeder and attacks a large number of field crops, garden vegetable, ornamental flowers and weeds. Corn growing along fence rows and occasionally farther out in the field is often severely injured in June and July. The young caterpillars also tunnel the stems of wheat, oats, timothy, tomatoes, potatoes and dahlias. In grain they cause the heads to turn white prematurely and the kernels fail to develop. Infested potato and tomato plants and garden flowers can be detected by the presence of wilted leaves.

The eggs may be found in the winter on leaves and stems of weeds, particularly the giant ragweed. These hatch during the latter part of May and early June into larvae which feed for a short time on the foliage and then enter the nearest suitable host plant and begin feeding as a borer in the stem. During the latter part of July and during the early part of August when these worms become fully developed, they become inactive, change to a pupa and later emerge as moths. The moths begin laying their eggs upon leaves and stems of ragweed and other suitable plants in

which stage the insect spends the winter.

Plowing under crop refuse and weeds in late autumn or early spring, coupled with the burning of weeds and grass along fence rows, will destroy most of these over-wintering eggs. In case of garden or flower plants the infestation can be checked by cutting out the infested parts and burning them or in case the plant is sufficiently valuable to warrant it, the stems may be slit open lengthwise and the borer destroyed. Dusting the foliage with calcium arsenate will destroy all of the worms feeding upon the foliage.

GARDEN CLUBS MEET AT LAKE GENEVA

(Continued from page 317)

sions by representatives of local garden clubs. Mr. N. A. Rasmussen president of the Oshkosh club was the first. He stated that the Oshkosh club was twenty-five years old and had belonged to the State Horticultural Society during the entire time. They have held twelve meetings a year ever since they were organized. They do considerable work putting on exhibits at the State and County Fair. The Society has charge of the Horticulture exhibit at the Winnebago County Fair. They hold a meeting once a month and always have a cafeteria style lunch served at 6:30 P. M. In this way, the ladies of the club do not have to get supper which means that both husband and wife will go to the club meeting. This accounts in some measure for their good attendance. The club is offering premiums to Gasoline Stations for plantings on their grounds.

Mr. Mark Troxell president of the Madison Garden club was the second speaker. Since he had a copy of his talk, it was obtained and will be found in another part of this issue. It is well worth reading.

Mrs. C. E. Strong of the West Allis Garden club, who has been very active in garden club work emphasized the need of organization. She said that more garden clubs should be organized throughout the state and believes that the garden clubs should federate into a state organization under the auspices of the State Horticultural Society, because of the assistance they can obtain from that organization. She stated that Boys and Girls work should be pushed by the club and that they should help those who do not know much about gardening in getting started.

Mr. H. J. Rahmlow, Secretary of the State Horticultural Society, then spoke briefly on what the State Society is doing along the lines of Boys and Girls Club work and the garden club movement. He introduced Mr. Fay Coon of the West Allis High School who together with Mrs. Strong had trained a demonstration team on the arrangement of flowers. Mr. Coon told of his work with the Garden Clubs of West Allis and the interest shown along that line.

Flower Arrangement Demonstration

The two girls Mr. Coon brought with him constituting the flower arrangement demonstration team consisted of Miss Esther Herrick and Miss Frances Mellonig. They gave a splendid demonstration on the Japanese method of flower arrangement. The entire audience was delighted with the talk and surprised that the girls could give such detailed information on this difficult subject. They told how the Japanese had been studying the arrangement of flowers for several thousands of years and it fills a great part of their lives. Flowers represent God, the earth and man and in their general arrangement God is always uppermost and represented by the tallest flower. The earth is next and man the smallest.

In Japan, flower arrangement fills an important part in the lives of the people. The host of a Japanese party usually arranges flowers in vases for the pleasure of his guests. His guests admire the flowers and comment upon the arrangement. The host then provides other flowers and asks his guests to also arrange some. Being a very polite people, they usually arrange them so that the host's vase will be a little better than theirs.

This pleases the hosts very much and the party then is a big success.

This demonstration presented the possibilities of organizing demonstration teams to garden club members. Our readers will remember that the State Horticultural Society will give prizes of $10.00 and $5.00 to the two best boys and girls demonstration teams on a horticultural subject in each County that makes application. Two or more teams must compete in one County for the prizes.

A demonstration team on flower arrangement can give such demonstrations at club meetings. They will be found very interesting and instructive.

Boat Ride Pleases Gardeners

Promptly at 1:30 P. M. about seventy-five garden club members left the Lake Geneva dock on one of the boats for a tour of the lake. The boat traveled along the shore line and the guide gave the name of each estate and residence passed. A splendid view was obtained of the plantings, landscaping and gardens of the residences along the shore.

At 4:00 P. M. the boat docked and the members bade each other good bye and expressed the hope that a similar meeting would be held next year.

BEWARE POISON IN MUSHROOMS

First of Deadly Species Appears; Museum Offers Help

"Beware of poisonous mushrooms." That is the warning which the botany department of the public museum issued Tuesday morning when the first deadly variety of mushroom made its appearance in Milwaukee county.

From now on mushroom pickers should exercise the utmost caution, A. M. Fuller, assistant botanist, says. The warm, moist weather of the last few weeks has caused both the poisonous and edible mushrooms to sprout in large quantities. They grow side by side.

Wouldn't Take a Chance

On Tuesday the first identification of the fatal fly amanita was made. The woman who brought it in said she thought she wouldn't take a chance.

Popular tests for mushrooms are the bunk, Mr. Fuller says. Knives, silver dimes, onions and all the rest of the superstitious tests should go to the scrap heap. He advises that there is one sure way—know your mushrooms.

Office Open Every Day

Poisonous varieties have "collars" on the stem and another collar just below the surface of the ground. The amanita is yellow and has something like a white wart on the cap. The botany department will be open daily so that persons may bring mushrooms for identification.

The deadly season for mushrooms will last until Oct. 1.

—Milwaukee Journal.

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SMALL FRUIT TRIALS AT EXPERIMENT STATION

(Continued from page 321)

"The Home Vineyard", and through the public press and by correspondence with interested individuals.

The Horticultural Department recognizes the fact that one of its functions is to help the grower of fruits as much as possible and that finding out what varieties are likely to prove most satisfactory is one way of giving assistance. The Department operates, however, under certain limitations, limitations sometimes imposed because of an attempt to work in harmony with other organizations; sometimes by physical conditions; sometimes because the Legislature fails to provide sufficient funds to effectively carry on the work which the grower would like to have done and which the horticulturist would like to do. As a result it is not always possible to undertake a line of work—although it might be highly desirable—or to have immediately available the exact data which might be requested.

Frequently a grower who has not seen anything published on a particular subject on which he desires information, can secure the data by writing to the Experiment Station. He may feel assured that the members of the Station Staff are always glad to furnish such information whenever it is possible to do so.

INDEX TO ADVERTISERS

	Page
Bahr Nursery	342
Barilani, F. W.	342
Berg, John	342
Bush, D. F.	342
Chequamegon Flower Gardens	337
Cumberland Fruit Package Co.	341
Egelberg, L. F.	333
Fitchett Dahlia Gardens	314
Gelbke, C. A. & Sons	342
F. R. Gifford Co.	333
Grasselli Chemical Co.	339
J. F. Hauser	335
Kellogg's Nursery	340
Macmillan Co.	341
McKenzie Mfg. Co.	342
McLaughlin Gormley King Co.	343
Niagara Sprayer Co., Jas. Dance	343
North Star Nurseries	341
Phillips Garden Co.	342
Rasmussen's Fruit Farm & Nurseries	333
Sisson's Peonies	333
Stonecrest Gardens	342
The Swartz Nurseries	327
W. A. Toole	333
Wisconsin State Fair	344
Western Stoneware Co.	314
White Elm Nursery	331

Fig. 1 Fig. 2 Fig. 3

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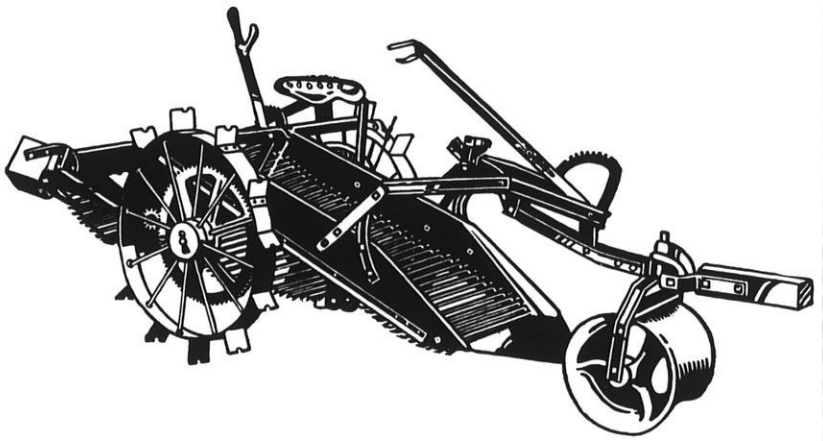

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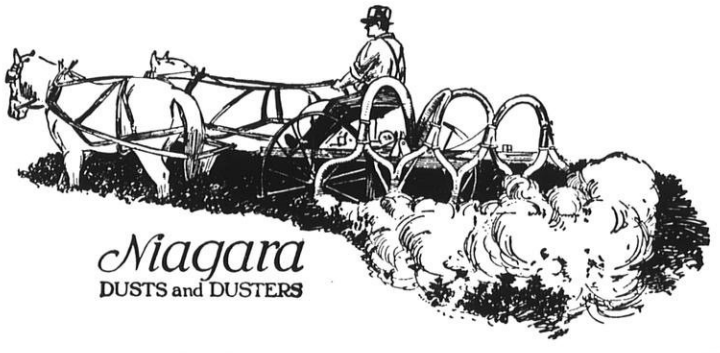

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A
About the Home and Garden, XIX, 18-50-82-114-146-178-210-242-274-306-370, XX, 18-50-114-154-178-242-360.
Ageratum, XIX, 331
Alpine Flowers and Rock Gardens-Book, XIX, 275
Alyssum, XIX, 331
Amaryllis, XIX, 114
American Elm, XX, 152
Annuals
How to Use, XIX, 302
The New Annuals, XIX, 5
When and How to Plant, XIX, 242
Apples
Advertising of, XIX, 108
Apple Candy, XIX, 15
Apple Cider, XIX, 37
Apple Maggot or Railroad Worm, XIX, 298, XX, 143
Apple Scab-Control of, XIX, 236
Spray Program for, XX, 135
Crop Short, XX, 86
Exhibited at Milwaukee Show, XX, 76
Good Apples in Winter, XIX, 47
Grades and Grading, XX, 22
Growers Harvest Good Crop, XX, 75
Growing in Western Wisconsin, XIX, 204
History of Wisconsin Apples, XX, 124-137
Little Green Apple, XIX, 61
McIntosh, XIX, 177, XX, 145
History of, XIX, 140
Problems Discussed at Meeting, XIX, 355
Pruning, XX, 239
Pays Large Dividends, XX, 234
Success with, XIX, 142
The Apple-Tree-Poem, Edgar A. Guest, XIX, 51
Too Many Varieties, XX, 132
What Varieties Shall We Grow, XIX, 172
Wormy Apples Barred From England, XX, 74
Apple Trees-Decreased, XX, 301
Open Subsoil, XX, 298
Apricots, XIX, 109
Aquilegia, XIX, 380
Arbor Day, XIX, 240, XX, 240
Artichokes-Jerusalem, XIX, 201
Asparagus, XIX, 40
Transplanting, XIX, 21

B

Baraboo-Marketing Problems, XIX, 68
Barberry Bushes, XX, 89
Barberry Eradication, XIX, 376
Beautifiers for American Girls, XIX, 199
Beautifying the Country, XX, 75
Beekeepers Join Marketing Association, XX, 134
Beloit Garden Club, XX, 120-362
Berries-Big Berries Found in Arctic Regions, X, 75

B

Better Homes Contest, XIX, 250
Birds, XIX, 307
Bird Killing Not Popular. XIX, 145
Birds' Retreat, XIX, 34
Bob-White Checks Potato Beetle, XIX, 92
Cardinal-New Home of, XIX, 245
Don't Kill, XIX, 109
Homes For, XX, 331
How to Attract to Garden, XX, 231
Plants to Attract Them, XIX, 7
Shall We Kill Birds, XIX, 63
Bitter Sweet-Poem, XX, 50
Black Currant, XIX, 90
Boston Ferns, XX, 115-152
Box Elder, XIX, 167
Brubaker-Opens New Flower Store, XX, 132
Bulbs, XX, 50-51-361
Book on, XX, 89
Bulbs for American Gardens, XX, 294
Dutch Bulbs, XIX, 141
For Early Spring Flowers, XIX, 41-125
For Fall Planting, XX, 42
Preparing Soil for, XX, 44
Winter Protection for, XIX, 141
Bulletins for Fruit Growers, XX, 237
Cabbage, XIX, 177-278
Cabbage Crop, XX, 89
Club Root, XIX, 209-375
Dusting of, XIX, 21
Wisconsin Crop Good, XIX, 93

C

Canna Indica or Indian Shot, XIX, 156
Cannas-Storing of, XIX, 13
Cantaloupe, XIX, 339
Carrots, XIX, 40
Celery-Storing of, XIX, 109
Central States Garden and Flower Show, XX, 218
Chambers Elected President Plant Board, XX, 241
Cherries
Bulletin on, XX, 298
Case Bearer, XX, 168
Cherry Culture-Book on, XX, 267
Cherry Setting - Report on, XX, 5
Delivered to President Coolidge, XIX, 20
Increase in Acreage, XX, 267
Leaf Spot-Control of, XIX, 200
Oil Spray for, XX, 267
Problems Discussed at Meeting XIX, 355
Root Killing, XX, 354
Success with, XIX, 142
Trees Need Fertilizer, XX, 218
Yields Increased by Honey-Bees, XIX, 264

C

Cherry Growers Elect Officers, XX, 173
Chicago Garden Flower Show, XIX, 180-195, XX, 148-213-283
Childhood Recollections, XX, 238
Chinese Elm, XX, 79-103
Chrysanthemums, bulletin on, XX, 71
Cider-How to Make, XX, 60
Cleveland Show, XX, 275
Club Officers, Duty of, XX, 276
College of Agriculture Honors Leaders, XX, 177
Co-operative Marketing, XX, 25
Cornflower, XIX, 5-6
County Agents in Horticultural Work in Wisconsin, XIX, 252-301-313
County Fruit Exhibit, XIX, 49
Cranberries, XX, 90
    Cranberry Recipes, XX, 51
    Crop Light, XIX, 57
    Good for Lunch, XIX, 118
Cranefield, Mrs. Frederic, Obituary, XX, 113
Crocus, XIX, 141
Crop Prospects Good, XIX, 62
Cultivation Not Always Good, XX, 177

D

Dahlias, XX, 13-20-29-30-41-251
    Diseases and Insect Control, XIX, 330
    Growing of, XX, 261-349
    History and Culture, XIX, 295
    Pruning, XIX, 331
Daisies, XIX, 19-30
Daphne, XX, 294
Delphiniums from Seed, XIX, 19
Des Moines Garden Club, XX, 311
Diseases
    Apple Scab-Control of, XIX, 238
    Cherry Leaf Spot, XIX, 200
    Crowngall, XIX, 139
    Fire Blight, XX, 239
    Leaf Spot, XX, 314
    Root-Knot, XIX, 139
    Rusts-Control of, XX, 314
    White Pine Blister Rust, XIX, 58
Door County
    Among Our Fruit Growers, XX, 299-330-353
    Cherry Festival, XIX, 268-272, XX, 304
    Cherry Pack Total Almost 2 Million Dollars, XIX, 36
    Cherry Pickers Wanted, XX, 315
    Cherry Picking in, XX, 357
    Door County Apples, XX, 43
    Fruit Growers Union, XIX, 291-334, XX, 81

Door County (Continued)

Million Pounds Cherries Daily Record, XIX, 6
Orchard, Program for, XX, 140
Pickers Set New Record, XIX, 27-31
Ullsperger On Board of Regents, XX, 209

E

Eau Claire Garden Club, XIX, 309-341-372-, XX, 84-215-338
Editorials, XIX, 48-80-112-144-176-208-240-272-304-336-368, XX, 16-48-80-112-144-176-208-240-272-304-332-356
Elkhorn Garden Club, XIX, 275-311-374, XX, 54-55-84-118-186-215-246-281-358-363
Endive, XIX, 263
Evergreens, XX, 239
Bushy Evergreens, XX, 239
Keeping Foliage Green, XX, 210
Keeping Healthy, XX, 262
Plantin of, XIX, 212

F

Fall Gardens, Poem, XX, 18
Farmers Meeting at Marshfield, XX, 47
Farm Folks Week
Special Fruit and Potato Growers Meeting, XIX, 158
Horticultural Program, XIX, 209
Federal Farm Board Aids Cherry Growers, XX, 140-230
Federated Clubs of Cincinnati, XX, 359
Federation of Fruit Growers Organized, XX, 266
Fertilizer, XX, 267
Autumn Leaves in Demand for Fertilizer, XX, 77
Fertilizers for Garden Flowers, XX, 264
For Berries, XX, 39
For Fruit, XIX, 279
How Much Does Orchard Need, XIX, 235
Leaves Used as Fertilizer, XIX, 115
Fish Worms--How to Kill in Soil, XIX, 265
Flower Garden
Planning of, XX, 229
When and How to Dust, XX, 295
Flower Patch Neighbors, XX, 171
Flowers
Arrangement, XX, 239-317
Books on, XIX, 207
Delivered by Aeroplane, XX, 77
Early Spring Flowers, XIX, 287
Flowers at Chicago World's Fair, XIX, 318
Flowers at Mitchell Park, XX, 156
Flowers by Air, XX, 36

Flowers in Shakespearean Garden, XX, 207
Flowers That Bloom in the Snow, XX, 44
How Japanese Arrange, XIX, 359
Meeting on, XX, 15
New Flowers, XX, 360
Flower Show Association, XIX, 53-54
Flower Shows, XIX, 18-22-114, XX, 18-274-
Charging Admission, XIX, 118
Flower Show Question, XX, 213
Improving, XIX, 146
In 1872, XX, 177
Judging Points for, XX, 244
Suggestions for Exhibitors, XIX, 273
What Standards for, XIX, 246
Forest Rangers, XIX, 35
Fort Atkinson Garden Club, XX, 54-216-247-338
Foxglove, XX, 118
Freesias as House Plants, XX, 59
Frost Damage, XX, 317
Frozen Fruits, XX, 89
Fruit
Books on, XIX, 207
By Their Fruit Ye Shall Know Them, XX, 6
Fruit Juice, XX, 17
New Fruits in Minnesota, XX, 35
News Items from Fruit Growers, XIX, 67-364
Oddities in, XX, 87
Shall We Cover Small Fruit, XX, 38
Standard Containers for, XX, 26
Fruit Growers Convention, XIX, 304
Fruit Growers Exchange Organized, XX, 303
Fruit Growers in 5 Counties Organize, XX, 234
Fruit Juice Pop Must Contain Fruit Juice, XX, 333
Fruit Shows in 1872, XX, 177
Fruit Trees-Need Nitrate Fertilizer, XX, 207
Ornamental Dwarf, XX, 152
Rabbit Injury to, XIX, 208

G

Garden Books, XIX, 178-179-336, XX, 120
Notes From, XIX, 242
Garden Clubs, XIX, 82-210
Champion, XIX, 207
Federations, XIX, 84
Free Bulletins for Members, XX, 248
Garden Club Movement, XIX, 214-247-275
In Wisconsin, XIX, 215
Organization of, XX, 85
Program Suggestions, XIX, 84-182, XX, 182-213
Rise of, XX, 358
Starting Club, XIX, 340
What Kind Shall We Have, XX, 214

Garden Glories, XX, 82
Gardening-Hints on, XIX, 83
Radio Talks on, XX, 214
Gardens
Can the Children Have one, XIX, 75
Design in the Garden, XI, 197
Garden Book Catalog, XX, 266
Gardeners' Vision, (The) XX, 86
Gardening Hints, XIX, 83
Labor Savers, XX, 181
Plan For, XX, 236
Pool Construction, XX, 263
The Garden of My Dreams, Poem, XIX, 146
Visiting Gardens, XIX, 306
Garden Notes, XX, 181
Gays Mills-Apples at, XX, 58
Apple Festival, XX, 53
Gentian (The), Poem, XX, 360
Ginseng, XX, 252
Gladiolus, XIX, 167, XX, 137-303
Best Soils and Fertilizers, XIX, 377
Care of Blooms, XIX, 363
Cultivating and Cutting, XX, 339
Diseases and Pests, XIX, 363
Foreign Varieties, XX, 141
"Glads" Sell, XIX, 271
How Many Varieties, XIX, 115
New Red Glad, XX, 239
Varieties and Types, XIX, 362
Goff, E.S.-Honorary Recognition, XIX, 106
Golden-Rod, XX, 29
Golden Seal, XX, 252
Grafting
Bridge Grafting for Rabbit Injury, XIX, 241
Grafting Wax, XX, 68
Using Paraffine for, XIX, 238, XX, 46
Granovsky, Dr. A. A., - Goes to Minnesota, XX, 357
Grape Growing, XX, 248
Greenhouses, XX, 137
Fighting Bugs in, XIX, 381
Glass Substitutes not practical, XX, 170
Mosaic Control, XX, 61
Green Tree Garden Club of Milwaukee, XX, 280-362

H

Hales Corners Garden Club, XIX, 22-52-84-117
Hartland Garden Club, XIX, 250
Hawthorne Garden Club, XIX, 275, XX, 53-185-309
Hay Fever Misnomer, XIX, 347
Heliotrope, XX, 29-30
Hillcrest Garden Club, XIX, 215-216-250, XX, 83-119-182-218
Home Beautification, XX, 240
At Spring Valley, XIX, 278

Planning Country Home, XX, 174
Project for Club Members, XIX, 165
Short Course in, XX, 141-204
Home Grounds-Beautify, XX, 107
Home Grounds Contest, XIX, 39
In La Crosse County, XIX, 349
Home Improvement-Award For, XIX, 241
Honey Bees-Value,of, XIX, 238
Horticulture
Among Indians, XX, 3
Books on, XX, 142
Horticultural Calendar, XX, 296-332
New Discoveries in, XIX, 209
Teaching in Schools, XX, 108
Our Changing Horticulture, XIX, 135
Outstanding Contribution in 1929, XX, 133
Hottes, Prof. Alfred C. Introduction, XX, 80
Household Insects and Their Control, XX, 243
House Plants, XIX, 45-71-103, XX, 125-144
Hyacinths, XIX, 141

I

Insects
Ants-Control of in Lawn, XX, 284
Black Aster Beetle-New Control for, XIX, 26
Buffalo Tree Hopper, XIX, 59
Corn Borer, XIX, 58
Mediterranean Fruit Fly, XX, 28
Onion Maggot, Control of, XIX, 282
Plant Lice, XIX, 333
Root Maggots, XIX, 297
Illinois Garden Club, XX, 313
Inspectors-Do We need Them, XIX, 220
Iowa Garden Clubs, XX, 241
Iris, XIX, 6, XX, 304-359
Best Iris, XIX, 336
German Iris, XX, 293
How to Plant, XIX, 270-378
Iris Borer, XIX, 283-382
Irises from Bulbs, XX, 45
Varieties and Culture, XIX, 232-293-294

J

Japanese Flower Arrangement, XX, 165
Jefferson Co. Fruit Growers Assn., XX, 203-235-354
Jefferson Garden Club, XX, 184-217-281

K

Kansas Gardens, XIX, 196
Kenosha Horticultural Society XIX, 24, XX, 21-54-84-148-184-217-246-281-310-362
Kiwanians Plan Tree Nursery, XX, 313

L

La Crosse County Societies Hold Meetings, XIX, 273
Lake Geneva Show, XX, 20-362
Landscape Gardeners Elect Officers, XX, 176
Landscaping-Book on, XX, 212
Suggestions for, XX, 91
Landscaping An English Home, XX, 205
Language Gone Wrong, XX, 359
Lawnitis, Poem, XX, 271
Lawns, XX, 20
Treating for White Grubs, XX, 346
Learning by Observation, XIX, 367
Lettuce-Acreage, XIX, 51
Lilacs-French, XIX, 284
Lilies, XIX, 116, XX, 59-242-243-303
Growing Gold Banded Lily, XIX, 107
Regal Lilies, XX, 301
Yellow Day, XIX, 201
Lime, XIX, 177
Lime for Flowers, XIX, 271
Linen, From Flax to Linen, XIX, 28
Little Gardens, XX, 335-336

M

Madison Garden Club, XIX, 52-54-117-185-216-217-310, XX, 121-150-182-246-280-338-359-362
Flower Show, XIX, 22
Madison Rosarians, XIX, 276-311-343-374, XX, 215-361
Making Satisfied Customers, XIX, 94
Mamma Cat's Strategy, XX, 87
Manitowoc County Harvest Festival, XIX, 113
Maples are Worth Saving, XIX, 122
Marketing Requirements, XIX, 14
Massachusetts Horticultural Society, XX, 177
Menasha Garden Club, XX, 215-280
Mice and Rabbits in Orchard, XIX, 69
Mid-West Horticultural Exposition, XIX, 57-100, XX, 230-351
Milwaukee Art Institute Garden Club, XX, 215-248-280-313-362
Milwaukee County Horticultural Society, XIX, 30-53-120-149-218-248-276-341-375, XX, 24-30-85-117-150-216-247-279-338-363
Milwaukee Florist Club-Past and Present, XIX, 188
Flower Show, XIX, 252
Milwaukee Florists Study Problems, XX, 330
Milwaukee Flower Show, XX, 211-250

Milwaukee Fruit Growers Organize, XX, 267
Milwaukee Home Show, XX, 209
Amateur Exhibits, XX, 348
Milwaukee Rosarian Club, XIX, 126-249-276
Miniature Garden-First Prize, XX, 522
Miniature Garden Models, construction of, XX, 153
Minnesota Horticultural Society
Annual convention, XIX, 48, XX, 106
Meeting in Duluth, XIX, 15
Minnesota Raspberry Field Day, XX, 332
Model Subdivision, XX, 340
Moths-Why Feed Clothes to Moths, XX, 342
Motorist Fined for Picking Wild Fruit, XX, 71
Mouse Control in Orchards, XX, 109
Mulch Paper, XIX, 21
Mushrooms and Toadstools, XX, 141
Mushrooms, Safe and Poisonous, XX, 47
Myself-poem, XIX, 178

N

Narcissus Bulb Labeling Requirements, XIX, 58
National Chrysanthemum Show, XIX, 51
National Flower, XIX, 209-251
National Flower Show, XIX, 60, XX, 152-203
National Garden Club Council Meeting, XX, 282
National Gladiolus Show, XIX, 366
National Horticultural Council, XIX, 152, XX, 212
National Peony and Iris Growers Meet, XIX, 147
National Peony Show, XX, 333
National Potato Conference, XIX, 151
Nature Fair, XIX, 89
Nitrogen Benefits Fruits, XX, 177
Northern Garden in Florida, XX, 173
Northern Nut Growers' Meeting, XX, 354
Nursery Stock-Why Use Certified, XX, 122

O

Oaks Defoliated by Worm, XX, 341
Oconomowoc Garden Club, XX, 214
Onions, XX, 76
On, Wisconsin, XIX, 277, XX, 156
Orchards
Control of Mice in the Orchard, XX, 69-109
Labor Savers, XIX, 285
Musings of an Orchardist, XX, 67
Orchard Ladder, XIX, 348, XX, 145
Orchard Tour, XIX, 82
Orchards Gain Farmer Favor, XIX, 153
Orchard Spraying, XX, 365
Pruning and Fertilizing, XX, 263
Spring Work in, XX, 237
Oriental Poppy-Propagation of, XX, 8
Ornamental Shrubs-Pruning of, XX, 327

Oskosh Horticultural Society, XIX, 54-85-212-248-277-309-342, XX, 21-83-119-186-216-246-280-310-338-362
Flower Show, XIX, 24
Ozaukee County Fruit Growers, XX, 203

P

Paint on Pruning Cuts, XIX, 112
Pansies, XX, 87
Paper Mulch, XIX, 265-313-338
Paper Mulch Trials - Circular, XIX, 333
Paris Green Kills Mosquitoes, XIX, 109
Parsley Jelly, XIX, 51
Pasque Flower, XIX, 229
Peas-Production, XIX, 177
Peat Moss, XX, 125
Book on, XIX, 115
Peonies, XIX, 333, XX, 9-19-339-297-304
Hubbard Peony Farm XX, 312
Varieties and Prices, XIX, 110
Perennials, XX, 40
New, XX, 269
New Hardy, XIX, 234
Perennial Border, XX, 199
Pests-Fighting Next Seasons's, XX, 88
Petunias, XIX, 6
Pewaukee Garden Club, XIX, 218, XX, 280
Pierce County Horticultural Society, XIX, 55-85-116-176-184-217-310-373- XX, 55-118-186-216-279
Flower Show, XIX, 25
Pine Cones, XIX, 167
Plant Clinic, XX, 332-333
Plant Doctor Notes, XX, 19
Planting-How Deep, XX, 276
Plant Market, XX, 245
Plant Name Pronunciation, XX, 86
Plant Registration Proposed, XIX, 106
Plants
Gas Harms Plants, XX, 60
Not all Killed by Gas, XIX, 89
That Attract Birds, XIX, 7
Watering, XIX, 333
Plant Quarantine, XX, 56
Plant Varieties Patented, XX, 330
Plums-Seedling Plum Wins Prize, XX, 235
Plum Trees Need Fertilizer, XX, 218
Poison-Distributing Unlawful, XIX, 102
May be Used in Orchard, XIX, 145
Poison Bait, XX, 69
For Mice in the Orchard, XX, 145
Use of Poison Bait Not Illegal, XIX, 154

Poison Ivy-How to Kill on Camp Grounds, XIX, 265
Preventative for, XX, 342
What It is, and How to Destroy it, XIX, 361-
Pollination by Bees, XIX, 373
Potatoes, XX, 80-81, XIX, 297
Clearing House to Aid Potato Market, XIX, 333
Crop Large, XIX, 57
Grading, XX, 45
Growers Organize, XIX, 270-307
Growers Tour, XIX, 366
Lesson for Growers, XIX, 233
Outlook for '29, XIX, 314-235
Potato Tour, XIX, 11
Triumphs, XIX, 339
Potato Shows
Langlade County Wins, XIX, 73
Premium List, XIX, 43
Price, County Wins, XX, 106
Show for 1928, XIX, 20
Wisconsin Rapids, XIX, 205
P.Q.C.A-What is It, XIX, 186
Prune Crop, XX, 43
Pruning, XIX, 311

R

Racine County Fruit Growers Ass'n., XX, 203
Racine Garden Club, XIX, 117-181-216-275-310, XX, 53-120-215-246
Raspberries, XIX, 145, XX, 81-201
Bees Help Set of, XX, 74
Beetle or Fruit Worm, XIX, 338
Black Cap, XX, 55
Bulletin on, XX, 243
Cover Crop for Field, XX, 8
Effect of Height of Pruning on Yield, XIX, 373
Everbearing, XIX, 63
Fertilizer for, XX, 167
Fertilizer Tests on, XX, 10
Growing of Red Raspberries, XIX, 168
Latham, XIX, 231
Name Wanted for new Raspberry, XX, 176
New Raspberries, XX, 352
New Raspberry Named, XX, 301
Pays to Cover, XIX, 240, XX, 37
Purple Raspberry, XX, 353
Results with Fertilizers, XIX, 299
Spraying, XIX, 241, XX, 303
Reforestation-Progress in, XX, 70
Refrigeration Methods for Handling Fruit, XIX, 201
Rhododendrons, XIX, 60-83, XX, 204

Rhubarb, XX, 142
Roadside Sales, XIX, 60
Rock Gardens
Color Harmony in, XX, 316
In September, XX, 7
Making of, XIX, 138-341
Plants for, XIX, 373
Plants for Beginner, XX, 14
Plants from Seed, XIX, 170
Rock Garden Primer, XX, 151
The Rock Garden-Poem, XIX, 242
Rock of Gibraltar, XIX, 350
Roses, XIX, 109, XX, 92
Book on, XX, 144-145
Disease Control, XIX, 332
Diseases and Treatment, XX, 312
Liming, XX, 362
Polyanthus Roses, XIX, 375
Prune Climbing Roses, XIX, 378
Rose Test Garden of Virginia, XX, 187-249
Varieties and Culture, XIX, 312
Wintering, XX, 124
Russian,Elm, XIX, 333

S

School Beautification Project, XIX, 165
School Grounds-Beautifying of, XX, 73
Seeds, XX, 178-179
Shadow Box Arrangement, XX, 198
Shall We Take Down the Bars, XX, 56-57-58
Shipping Regulations, XIX, 26
Shrubs-Book of, XX, 276
Need Right Climate, XIX, 371
Small Fruit Meeting
At Bayfield, XIX, 329
At Menomonie, XIX, 329
Snapdragons, XIX, 380
Snowdrops, XIX, 141
Spray Charts, XIX-177-208, XX, 235
Spray Hints, XX, 299
Spraying at Night, XIX, 241
Spraying in 91,XX, 131
Spray Rings, XX, 110
Operation of, XIX, 300
Save Kewaunee Fruit Crop, XIX, 59
Spring's Palette, -Poem, XIX, 308
Spruce Insects, XX, 302
Squash-Growing of, XIX, 203
Starling May Ruin Cherry Crop, XX, 210
State Fair, XIX, 369-371-382, XX, 304
Addition to Horticulture Bldg., XIX, 208
Ammon Appointed Chief of Fairs, XX, 207
Chambers Appointed Superintendent Horticulture Bldg.,XX,176
Horticultural Exhibits at, XIX, 3, XX, 11
Horticulture at, XX, 357

Pointers for Fruit Exhibitors, XX, 355
Special Premiums for Garden Clubs, XX, 359
State Flower Show, XIX, 240
State Garden and Flower Show, XIX, 759-272-274-308-323, XX, 116-117-146-209-306-332-334
Classes, XIX, 261
Committees, XIX, 263, XX, 308
Exhibitors, XIX, 263
Exhibits, XIX, 343
Feature Exhibits, XX, 325
Garden Clubs to Exhibit, XIX, 277
Judges, XX, 307
Patrons and Patronesses, XX, 308
Premium List, XX, 306
Prizes, XX, 116-117
Projects, XX, 277-278-279
Resolutions on Roadside Signs, XX, 117
Rules, XX, 212
Will Another Show be Held, XX, 335
Winners, XIX, 344-345
State Gladiolus Show, XX, 275-333
Strawberries, XIX, 177, XX, 201-202
Acreage Looks Good, XIX, 252
Beaver Good Shipper, XIX, 366
Best Varieties for Wisconsin, XIX, 202
Crop Put in Storage, XX, 139
Fertilizer for, XX, 138
Fertilizer Results, XIX, 299
Fertilizer Tests, XX, 353
Grading, XIX, 339
Growing at Warrens, XIX, 282, XX, 36
Growing of, XX, 233-354
Handling of, XX, 264
Nitrate Top-Dressing Increases Yield, XX, 301
Progressive, XIX, 201
Senator Dunlap, XIX, 201
Spring Work, XX, 234
Strawberry Mosaic, XIX, 314, XX, 268
Testing New Varieties, XX, 111
Variety Test, XIX, 358
Winter Covering for, XX, 37-39
400 Crates per Acre, XX, 10
Strawberry Day, XIX, 304-305
At Alma Center, XX, 329
At Warrens, XIX, 327
For Northern Wisconsin, XIX, 273, XX, 262, 300-329-352
Sum-Mer-Del Garden Club, XIX, 23-52-86-117-149-216-249-277-341-372, XX, 21-53-119-149-151-216-247-281-285-362
Flower Show, XX, 310-337-338
Superior Garden Club, XIX, 148-372, XX, 119-184-215-280-309-363
Flower Show, XIX, 23-24
Superlative Degree Plants, XX, 103
Sweet Corn, XX, 239

T

Table Decoration-Pointers on, XX, 182
Tariff on Bananas, XIX, 839-273
Tariff on Lumber, XIX, 237
Texas Land, XX, 143-144
The Joy of Being The Editor, Poem, XX, 357
Thrifty Farmer-Story of, XIX,69
Tomatoes-Pruning, XIX, 333
    Raising in City Garden, XX, 275
Trailing Arbutus, XIX, 272
Trees, XIX, 50
    Book on, XIX, 201
    Cultivation, XIX, 25
    Planting Sets Record, XIX, 350
    Trees Fed Nitrogen Hold Fruit, XX, 235
    Whitewash Young Trees, XX, 72-137
Tree Wound Dressings, XIX, 269
Tulips, XIX,141-365, XX, 19-42-43-179
    Find Tulip Robbers, XIX, 380

U

Upper Wisconsin and Michigan Florists
    Convention, XIX, 119
    Elect Officers, XX, 100
    News From, XIX,87

V.

Vegetables
    Books on, XIX, 207
    Bulletin, XIX, 272
    Growers Program Planned, XX, 234
    Oddities in, XX, 87
    Stock Vegetables for Wisconsin, XIX, 203
    Value of, XIX, 277

Varieties, SXIX, 297
Varieties Tried out, XX, 238
Vegetable Hash, XIX, 51
Ways to Serve, XIX, 175
Viburnums, XX, 285
Cultivation and Care of, XIX, 317
Violas, XX, 18-87-361

W

Warrens Fruit Growers, XX, 206
Washington County Fruit Growers Assn., XX, 203
Water Gardens, XIX, 309
Plants for, XX, 152
Water Lilies, XX, 113
Watermelons, XX, 303
Watertown Garden Club, XX, 280
Waukesha Town Garden Club, XIX, 219-250, XX, 246-309
Waupaca Garden Club, XX, 247-280
Wauwatosa Garden Club, XX, 148-310-339-363
West Allis Garden Club, XIX, 149, XX, 54-83-118-216-246-309
West Allis School Garden Club, XIX, 56
West Side Garden Club, XX, 85
White Pine, XIX, 90
Why breed New Varieties-W. H. Alderman, XIX, 230-266
Wild Flowers, XIX, 307
Don't Pick, XX, 279
New Law for Protection of, XX, 76
Suitable for Transplanting, XIX, 229
Wild Rose, XIX, 241
Window Gardening, XX, 126-154
Wisconsin Cranberries, XIX, 244
Wisconsin Cranberry Growers
Annual Convention,XIX, 151, XX, 24-134-243-330
Meeting of, XIX, 25-55-244-296
Suggestions for Growers, XX, 267
Wisconsin Fruit, XX, 176
Wisconsin Fruit Growers Federation, XX, 256
Wisconsin Garden Club Federation,XIX, 49-148, XX, 121
Annual Convention Program, XX, 82
Free Slides for Clubs, XX, 146
Letter From Secretary, XIX, 214
Notes by President, XIX, 214
P remiums, XX, 52
Program for Meeting,XX, 52-83
Summer Meeting, XX, 334
Wisconsin Gladiolus Society, XX, 175
Meeting of Executive Committee, XIX, 180
Summer Meeting, XIX, 248
Wisconsin Horticulture
Buyers Guide, XX, 209
Cover Picture, XIX, 304, XX, 79
Index to, XIX, 80

Wisconsin Rapids Garden Club, XX, 246-310-338
Wisconsin's Family Tree, XIX, 61
Wisconsin State Horticultural Society
Aims of Paper by J. E. Leverich, XIX, 197
Coming Events, XIX, 240
Convention, XIX, 132-178-368, XX, 17-50-81-98-103-304
Awards, XIX, 113-134-150
Convention Notes, XX, 112
Dates for 1928, XIX, 16
Exhibits at, XX, 101
Premium List, XIX, 48-79, XX, 14
Program, XIX, 48-77, XX, 48-49-78-100-114
Report, XIX, 208
Resolution Adopted at, XX, 102
Honorary Recognition, XIX, 368, XX, 48-78-104-332
Meeting at La Crosse, XIX, 9
Nominating Committee, XIX, 368
Plant Premiums, XIX, 163-177-206, XX, 136-146-188-208-219
Premium List for 1928, XIX, 16
Rural Planning Committee, XIX, 17
Show Judges Honest, XIX, 337
Wisconsin Strawberry Day, XIX, 272, XX, 268-300
Wychwood, XX, 305
Yard and Garden Contests, XX, 241